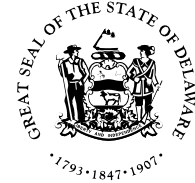
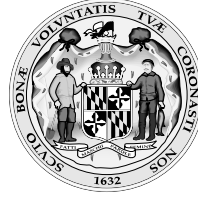
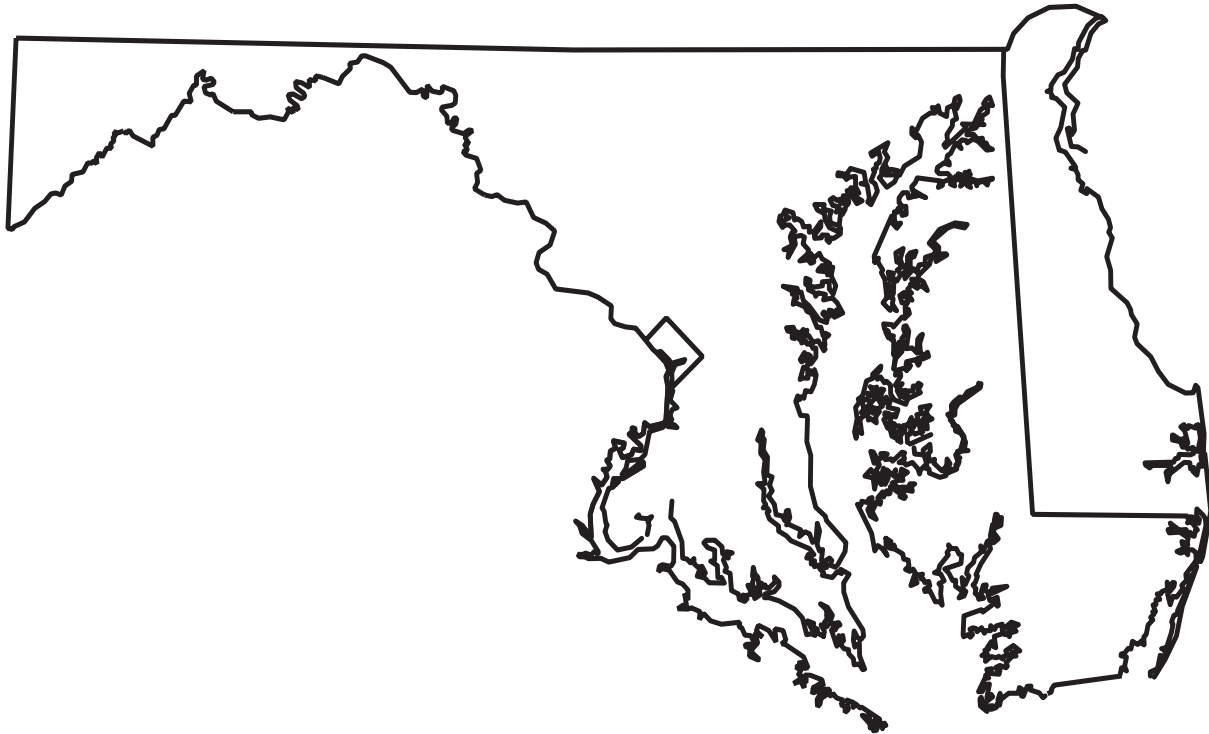


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Water Resources Data Maryland, Delaware, and Washington, D.C. Water Year 2005

Volume 1
Surface-Water Data



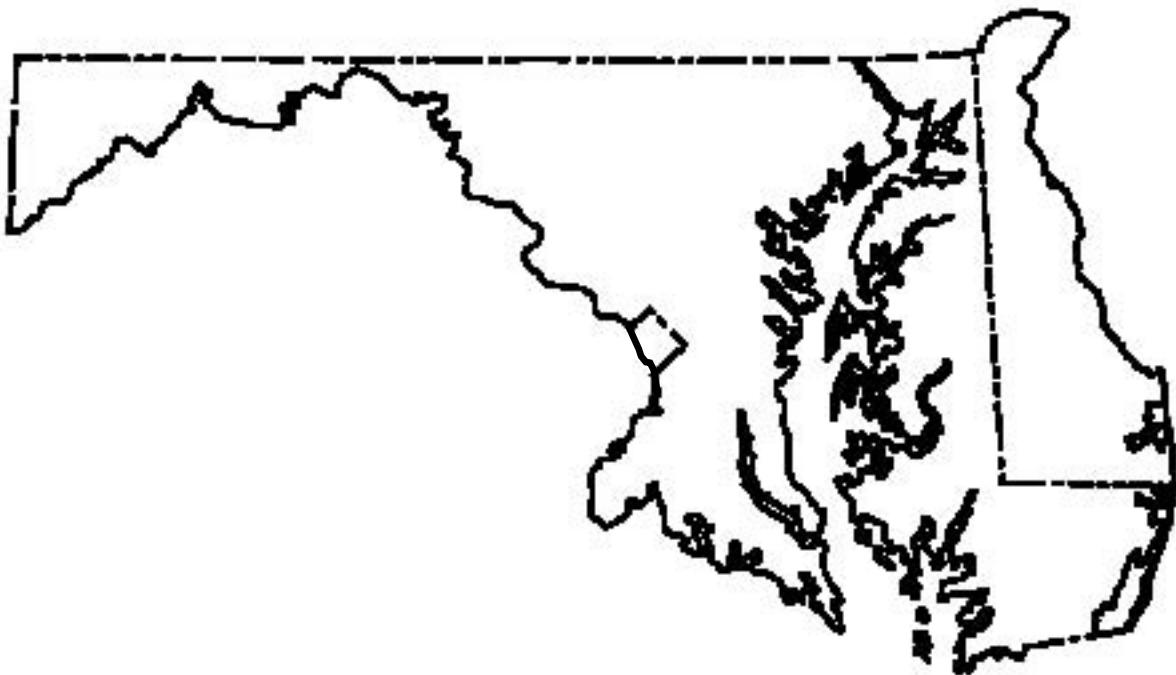
Water-Data Report MD-DE-DC-05-1

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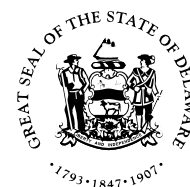
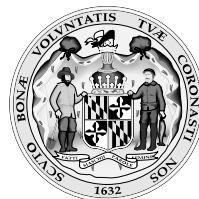
Volume 1. Surface-Water Data

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

Water-Data Report MD-DE-DC-05-1



Prepared in cooperation with the
States of Maryland and Delaware,
Washington, D.C. and with other agencies



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P. Patrick Leahy, Acting Director

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U.S. Geological Survey
8987 Yellow Brick Road
Baltimore, MD 21237
410-238-4200

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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:

S. M. Baker	E. J. Doheny	J. J. Manning
J. E. Beman	J. M. Fisher	R. H. Pentz
D. A. Bringman	J. L. Griffith	R. W. Saffer
J. E. Broadwater	R. W. James Jr.	R. J. Starsoneck
D. P. Brower	J. R. Jeffries	C. J. Strain
F. A. Danner	C. A. Klohe	A. J. Tallman
J. J. A. Dillow	J. J. Kvech	G. L. Zynjuk
J. R. Dine	B. F. Majedi	

Valerie M. Gainne 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.

This report was prepared under the general supervision of J. M. Gerhart, Director, MD-DE-DC Water Science Center, William Guertal Deputy Director, MD-DE-DC Water Science Center, Delaware Office 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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6. AUTHOR(S) Richard W. Saffer, Robert H. Pentz and Anthony J. Tallman	
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13. ABSTRACT <i>(Maximum 200 words)</i> Water resources data for the 2005 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 145 gaging stations; stage and contents of 1 reservoir; stage only for 2 tidal gaging station; and water quality at 19 gaging stations. Also included are stage only for 11 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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[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]

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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]

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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]

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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]

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DISCONTINUED SURFACE-WATER DISCHARGE STATIONS, LISTED IN DOWNSTREAM ORDER

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.

	Station number	Drainage area (mi ²)	Period of record
<u>NORTH ATLANTIC SLOPE BASINS</u>			
<u>DELAWARE RIVER BASIN</u>			
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
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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
Noxontown Lake Outlet near Middletown, DE	01483153	8.85	1993-94 2000-04
Spring Mill Branch near Armstrong, DE	01483165	1.79	2001-04
Dove Nest Branch near Odessa, DE	01483170	4.68	1978-80 2004
<u>LEIPSIC RIVER BASIN</u>			
Leipsic River near Cheswold, DE	01483500	9.35	1931-33 1943-57
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<u>BROADKILL RIVER BASIN</u>			
Broadkill River:			
Sowbridge Branch (head of Primehook Creek) near Milton, DE	01484300	7.08	1957-78
<u>INDIAN RIVER BASIN</u>			
Cow Bridge Branch (head of Indian River):			
Stockley Branch at Stockley, DE	01484500	5.24	1944-2004
Swan Creek near Millsboro, DE	01484534	5.20	1998-2000
Vines Creek at Omar, DE	01484548	13.6	1985-88
Blackwater Creek near Clarksville, 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
<u>POCOMOKE RIVER BASIN</u>			
Pocomoke River near Willards, MD	01485000	60.5	1950-2004
<u>NANTICOKE RIVER BASIN</u>			
Nanticoke River:			
Mifflin Ditch near Georgetown, DE	01487060	1.25	2001-04
Herring Run Tributary at Seaford, DE	01487195	0.25	2001-04
Trap Pond Outlet (head of Hitch Pond Branch) near Laurel, DE	01487500	16.7	1952-71 2001-04
James Branch (head of Broad Creek):			
Dukes and Jobs Ditch near Laurel, DE	01487698	3.23	2001-04
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
<u>CHOPTANK RIVER BASIN</u>			
Tappahanna Ditch (head of Choptank River):			
Tidy Island Creek (continuation of Tappahanna Ditch):			
Culbreth Marsh Ditch near Chapelstown, DE	01490500	11.6	1951-56
Choptank River:			
Kings Creek:			
Beaverdam Branch at Matthews, MD	01492000	5.85	1950-81
<u>CHESTER RIVER BASIN</u>			
Chester River:			
Chesterville Branch near Crumpton, MD.....	01493112	6.12	1996-2002
Southeast Creek at Church Hill, MD	01494000	12.5	1951-56

NORTH ATLANTIC SLOPE BASINS--Continued	Station number	Drainage area (mi ²)	Period of record
<u>SASSAFRAS RIVER BASIN</u>			
Sassafras River:			
Jacobs Creek near Sassafras, MD	01494500	5.39	1951-56
<u>ELK RIVER BASIN</u>			
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
<u>NORTHEAST RIVER BASIN</u>			
Northeast Creek (head of Northeast River) at Leslie, MD	01496000	24.3	1949-84
<u>PRINCIPIO CREEK BASIN</u>			
Principio Creek near Principio Furnace, MD	01496200	9.03	1967-92
<u>SUSQUEHANNA RIVER BASIN</u>			
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
<u>BUSH RIVER BASIN</u>			
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
<u>GUNPOWDER RIVER BASIN</u>			
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
<u>BACK RIVER BASIN</u>			
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
<u>PATAPSCO RIVER BASIN</u>			
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
Patapsco River at Hollofield, MD	01589000		1944-92 1994-95 2000-04
Gwynns Falls near Owings Mills, MD	01589200	4.90	1958-75
Jones Falls at Maryland Avenue at Baltimore, MD	01589478	54.9	1981-82 1999-04
Jones Falls near mouth at Baltimore, MD	01589480	60.4	1981-82
Curtis Creek:			
Sawmill Creek tributary at BWI near Ferndale, MD	01589501	0.58	1994-95 1996-2004
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
<u>SOUTH RIVER BASIN</u>			
North River (head of South River) near Annapolis, MD			
Bacon Ridge Branch at Chesterfield, MD	01590000	8.50	1932-74
	01590500	6.92	1943-52 1975-90
<u>RHODE RIVER BASIN</u>			
Rhode River:			
Muddy Creek:			
North Fork Muddy Creek at South River, MD	01590700	0.88	1972-76

	Station number	Drainage area (mi ²)	Period of record
<u>NORTH ATLANTIC SLOPE BASINS--Continued</u>			
<u>PATUXENT RIVER BASIN</u>			
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
<u>POTOMAC RIVER BASIN</u>			
North Branch Potomac River:			
Laurel Run at Dobbin Road near Wilson, MD	01594930	8.23	1980-04
Sand Run:			
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
Town Creek near Oldtown, MD	01609000	148	1928-35 1967-81 2001-04
Sawpit Run near Oldtown, MD	01609500	5.08	1948-58
Little Tonoloway Creek near Hancock, MD	01612500	16.9	1947-63
Potomac River at Shepherdstown, WV (d).....	01618000	5,929	1928-53 1964-93 2001-04
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	(b)1978-80
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
<u>POTOMAC RIVER BASIN--Continued</u>			
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
 <u>OHIO RIVER BASIN</u>			
<u>MONONGAHELA RIVER BASIN</u>			
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.

	Station number	Drainage area (mi ²)	Period of record
<u>NORTH ATLANTIC SLOPE BASINS</u>			
<u>DELAWARE RIVER BASIN</u>			
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	a4.19	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	b1.2	1966-75
<u>SMYRNA RIVER BASIN</u>			
Providence Creek (head of Smyrna River):			
Paw Paw Branch:			
Paw Paw Branch tributary near Clayton, DE.....	01483290	b1.3	1966-75
Smyrna River:			
Sawmill Branch:			
Sawmill Branch tributary near Blackbird, DE.....	01483400	b0.6	1966-75
<u>LEIPSIC RIVER BASIN</u>			
Leipsic River near Cheswold, DE.....	01483500	9.35	1958-75
<u>ST. JONES RIVER BASIN</u>			
St. Jones River:			
Puncheon Branch at Dover, DE.....	01483720	b2.3	1966-75
<u>MURDERKILL RIVER BASIN</u>			
Murderkill River:			
Murderkill River tributary near Felton, DE.....	01484002	b1.0	1966-75
Hudson Branch (head of Spring Creek):			
Pratt Branch near Felton, DE.....	01484050	3.29	1966-75
<u>BROADKILL RIVER BASIN</u>			
Broadkill River:			
Beaverdam Creek near Milton, DE.....	01484270	6.10	1966-75
<u>INDIAN RIVER BASIN</u>			
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
<u>WICOMICO RIVER BASIN</u>			
Andrews Branch (head of Wicomico River) near Delmar, MD.....	01486100	b4.1	1966-76
<u>NANTICOKE RIVER BASIN</u>			
Nanticoke River:			
Bridgeville Branch:			
Bridgeville Branch tributary at Bridgeville, DE.....	01486900	b0.8	1966-68
Gum Branch:			
Toms Dam Branch near Greenwood, DE.....	01486980	b6.4	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	b3.9	1967-75
Holly Ditch near Laurel, DE.....	01488000	2.19	1959-75
<u>CHOPTANK RIVER BASIN</u>			
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	b2.3	1966-75
Culbreth Marsh Ditch (Shades Branch) near Chapelstown, DE.....	c01490500	11.6	1957-68
Cow Marsh:			
Meredith Branch near Sandtown, DE.....	01490600	b8.4	1966-75
Broadway Branch:			
Oldtown Branch at Goldsboro, MD.....	01490800	3.9	1967-76
Gravelly Branch:			
Sangston Prong near Whiteleysburg, DE.....	01491010	b1.9	1966-75
Spring Branch near Greensboro, MD.....	01491050	b3.8	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
<u>WYE RIVER BASIN</u>			
Wye River:			
Wye East River:			
Sallie Harris Creek near Carmichael, MD.....	01492500	8.09	1957-81
Skipton Creek:			
Mill Creek near Skipton, MD.....	01492550	b4.6	1966-76
<u>CHESTER RIVER BASIN</u>			
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	b1.7	1971-78
<u>NORTHEAST RIVER BASIN</u>			
Northeast Creek (head of Northeast River):			
Northeast River tributary near Charlestown, MD.....	01496080	b1.7	1967-76
<u>SUSQUEHANNA RIVER BASIN</u>			
Susquehanna River:			
Broad Creek:			
Broad Creek tributary at Whiteford, MD.....	01577940	0.77	1971-86
Octoraro Creek:			
Basin Run at West Nottinham, MD.....	01578800	b1.3	1967-76
Basin Run at Liberty Grove, MD.....	01579000	5.31	1965-76
<u>Bush River Basin</u>			
Bynum Run (head of Bush River) at Bel Air, MD.....	01581500	8.52	1971-72
<u>GUNPOWDER RIVER BASIN</u>			
Gunpowder Falls (head of Gunpowder River):			
Piney Creek near Hereford, MD.....	01582510	b1.5	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
<u>PATAPSCO RIVER BASIN</u>			
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
<u>PATUXENT RIVER BASIN</u>			
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	b1.1	1967-76
<u>POTOMAC RIVER BASIN</u>			
North Branch Potomac River:			
Savage River near Frostburg, MD.....	01596005	b1.5	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	b4.8	1965-86
Potomac River tributary near Hancock, MD.....	01613160	b1.2	1965-76
Potomac River at Shepherdstown, WV	01618000	5,929	1954-64
Antietam Creek:			
Little Antietam Creek:			
Dog Creek:			
Dog Creek tributary near Locust Grove, MD.....	01619475	0.10	1966-76

b Approximately.

<u>NORTH ATLANTIC SLOPE BASINS--Continued</u>	Station number	Drainage area (mi ²)	Period of record
<u>POTOMAC RIVER BASIN --Continued</u>			
Catoclin Creek:			
Little Catoclin 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	b1.2	1967-77
Linganore Creek:			
Dollyhyde Creek at Libertytown, MD.....	01642400	b2.7	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	b4.1	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	b2.3	1966-80
Clark Run near Bel Alton, MD.....	01660930	10.4	1966-76
Herring Creek:			
Glebe Branch at Valley Lee, MD.....	01661430	b0.3	1968-78
<u>OHIO RIVER BASIN</u>			
<u>MONONGAHELA RIVER BASIN</u>			
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	b1.0	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.

<u>NORTH ATLANTIC SLOPE BASINS</u>	Station number	Drainage area (mi ²)	Type of record	Period of record
<u>DELAWARE RIVER BASIN</u>				
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
<u>BASSETT CREEK BASIN</u>				
Bassett Creek near Ironshire, MD	01484719		SC, pH, T, DO	2002-04
<u>CHOPTANK RIVER BASIN</u>				
Choptank River near Greensboro, MD	01491000	113	SC, T	1975-91
			SED	1981-91
<u>ELK RIVER BASIN</u>				
Elk River near Town Point, MD	01495900		SC, T	1982-98
<u>SUSQUEHANNA RIVER BASIN</u>				
Susquehanna River at Conowingo, MD.....	01578310	27,100	SC, T	1979-81
				1984-92
			SED	1980-81
				1984-92
<u>RHODE RIVER BASIN</u>				
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
<u>PATUXENT RIVER BASIN</u>				
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
<u>POTOMAC RIVER BASIN</u>				
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
				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
Waites Run near Wardensville, WV	01610400	12.6	SC, T	2002-04
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
<u>NORTH ATLANTIC SLOPE BASINS</u>				
<u>POTOMAC RIVER BASIN--Continued</u>				
Potomac River at Chain Bridge at Washington, DC.....	01646580	11,570	SC, pH, T, DO SED	1978-81 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
<u>OHIO RIVER BASIN</u>				
<u>MONONGAHELA RIVER BASIN</u>				
Monongahela River:				
Youghiogheny River at Friendsville, MD.....	03076500	295	T	1963-75

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, Delaware and Washington, D.C. 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 145 gaging stations; stage and contents at 1 reservoir; stage only for 2 tidal gaging station; and water quality at 19 gaging stations. Also included are stage only for 11 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 1975 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-05-1**". 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, 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

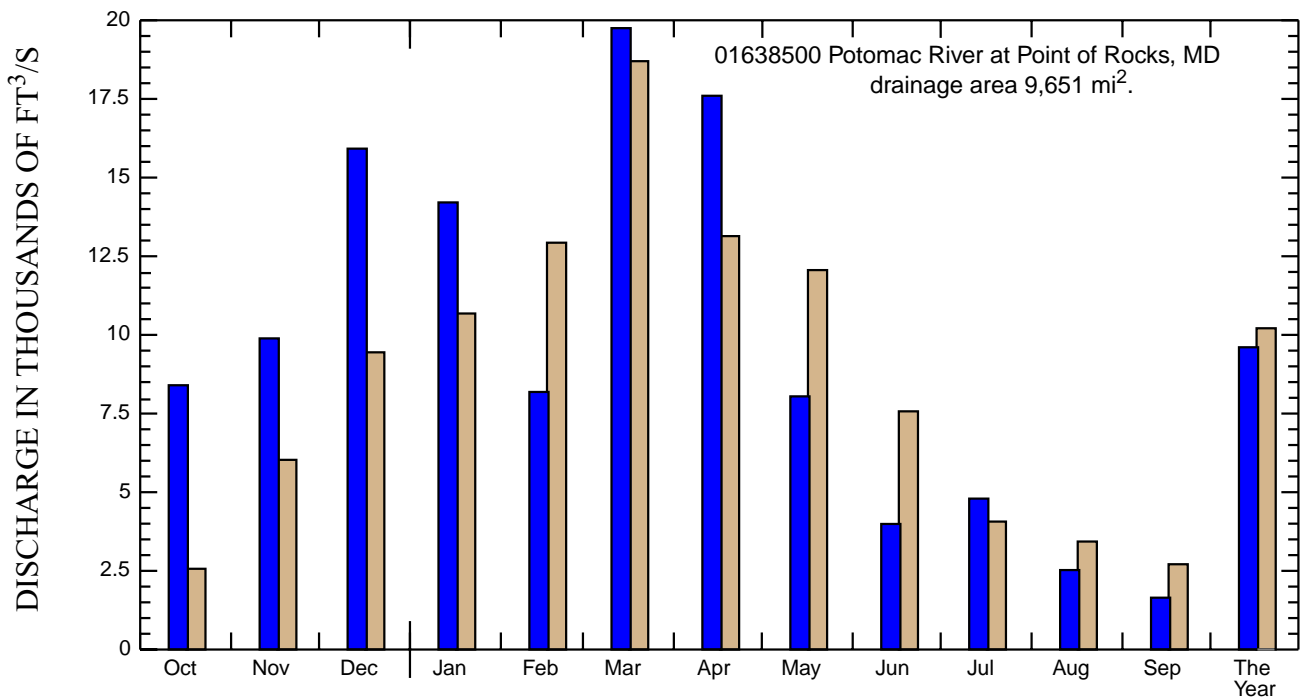
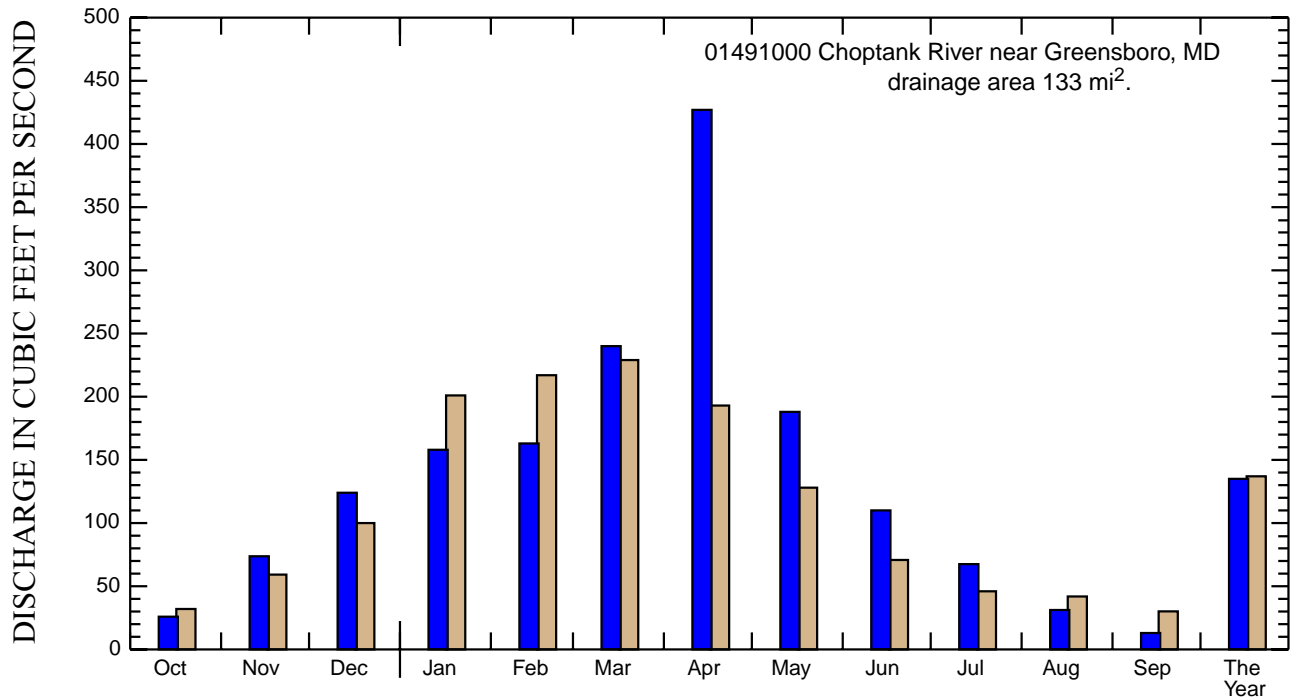
Streamflow at the beginning of the 2005 water year was in the above-normal range throughout Maryland, Delaware, and Washington, D.C. except on the Eastern Shore, where rainfalls were in the deficit range during the month of September. Although rainfall fell into the below-normal range throughout Western and Central Maryland in October, flows into the Chesapeake Bay remained in the above-normal range. In Eastern Maryland, rainfall amounts and streamflows were in the normal range. November rainfall was 1.5" above normal for the Maryland and D.C. area, and in northern Delaware flows in several rivers reached flood stage. Flows increased to above-normal throughout the region except on the Delmarva Peninsula where flows remained normal. During the month of December, rainfalls averaged slightly less than normal throughout the Maryland and Delaware region and normal in D.C. Streamflows remained in the normal to above-normal range and flows into the bay averaged above normal. Rainfalls remained in the normal to above-normal range throughout Maryland during the month of January except for the lower Eastern Shore, where rainfalls fell to below normal. Flows remained in the normal to above-normal range. During February, rainfalls fell to below average through the entire region. Streamflows also fell to normal and below-normal flows were reported into the bay. Water levels were near normal in the region during the month of March. Rainfalls were normal throughout the region except for the lower Eastern Shore, where rainfall was slightly below normal. In April rainfall returned to slightly above average in Maryland and Delaware except for Western Maryland and the lower Eastern Shore which was in the deficit range. Streamflows remained in the normal range except for the Eastern Shore where flows fell below normal. During the month of May, flows remained consistent with those in April, while rainfalls remained slightly below normal for the Central and Western region and normal to above normal in Southern Maryland and the Eastern Shore. Streamflows fell to slightly below normal in the Western and Eastern region and remained normal in the Central region in June. Rainfalls were normal to below normal throughout Maryland, except in Delaware and Southern Maryland, where rainfalls were normal to slightly above normal. July rainfalls increased through the Central region (3" to 6"), while rainfall in Western Maryland fell to below normal and remained at near average in Delaware and Southern Maryland. Streamflows also were above normal throughout Central Maryland and D.C. and fell to below normal in Western Maryland and the Eastern Shore. Precipitation dropped to below normal in the month of August throughout the entire region except for Southern Maryland and the lower Eastern Shore, where rainfall remained normal. Flows were normal except for Western Maryland and the Eastern Shore, where flows remained below normal. Rainfalls fell into the deficit range throughout the entire Maryland/DC/Delaware region in September. Flows generally dropped during the month of September but remained relatively the same as the previous month.

During the 2005 water year, flows were in the normal range at all five of the index stations: Potomac River at Paw Paw, West Virginia, 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. No record flows were set at any of the five index stations during the 2005 water year.

A comparison of annual-mean discharges for water year 2005 and long-term averages (reference period 1971-2000) for two representative streamflow-gaging stations is shown 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 mi² (square mile) area, of which 21.6 mi² is located in Delaware in the central part of the Delmarva Peninsula.

Average freshwater inflow to the Chesapeake Bay was estimated to be 85,800 ft³/s (cubic feet per second), on the basis of flows for the James, Potomac, and Susquehanna Rivers. Flows for October averaged 61 percent above normal. During November, flows averaged 32 percent above normal. December flows averaged 90 percent above normal. For January, flows averaged 80 percent above normal. Flows in February averaged 17 percent below normal. Flows in March were 8 percent below normal, while flows in April were 30 percent above normal. Flows for May were 43 percent below normal. June flows were 52 percent below normal. During July, flows were 2 percent below normal. August flows were 53 percent below normal. September flows were 59 percent below normal. No new flow records were set during the 2005 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]) was at 97 percent of capacity on September 30, 2004 and remained at 97 percent of capacity on September 30, 2005.



■ Monthly and yearly mean discharge for 2005 water year
■ Median of monthly and yearly mean discharge for 30-Year period, 1971 to 2000

FIGURE 1. COMPARISON OF DISCHARGE AT TWO LONG-TERM REPRESENTATIVE GAGING STATIONS DURING THE 2005 WATER YEAR WITH MEDIAN DISCHARGE FOR INDICATED PERIOD.

6 WATER RESOURCES DATA—MARYLAND, DELAWARE, AND WASHINGTON, D.C., 2005
Downstream order and station number

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

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

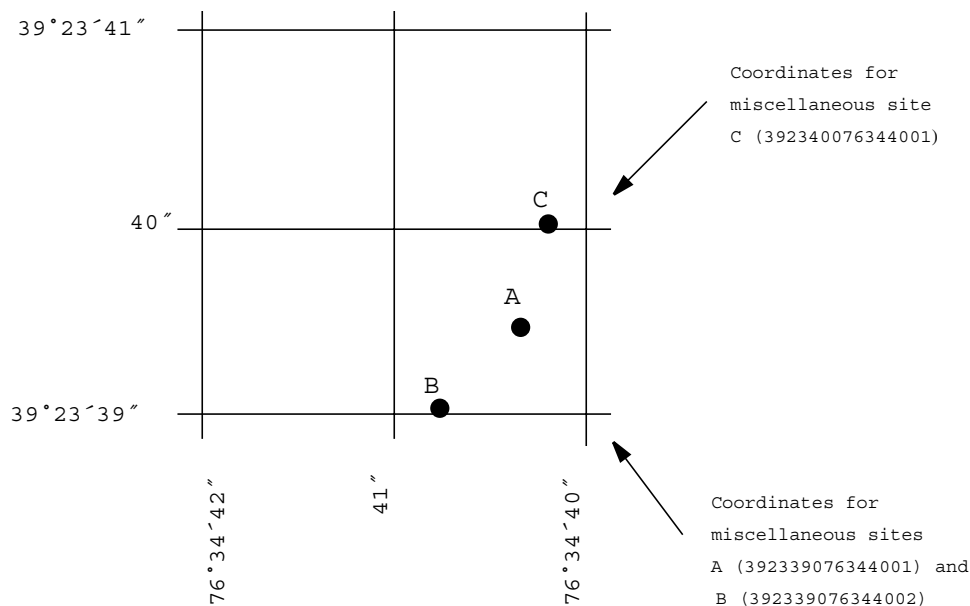


Figure 2. --System for numbering miscellaneous sites (latitude and longitude)

SPECIAL NETWORKS AND PROGRAMS

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

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

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

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

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

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

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

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

EXPLANATION OF STAGE- AND WATER-DISCHARGE RECORDS

Data Collection and Computation

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

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

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

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

At some stations, 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.

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

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

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

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

Data Presentation

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

Station Manuscript

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

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

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

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

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

GAGE.—The type of gage in current use, the datum of the current gage referred to a standard datum, and a condensed history of the types, locations, and datums of previous gages are given under this heading.

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

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

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

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

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

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

Peak Discharge Greater than Base Discharge

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

Data Table of Daily Mean Values

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

Statistics of Monthly Mean Data

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

Summary Statistics

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Identifying Estimated Daily Discharge

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

Accuracy of Field Data and Computed Results

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

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

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

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

Other Data Records Available

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

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

EXPLANATION OF WATER-QUALITY RECORDS

Collection and Examination of Data

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

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

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

Water Analysis

Most of the methods used for collecting and analyzing water samples are described in the TWRIIs, which may be accessed from <http://water.usgs.gov/pubs/twri/>.

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

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

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

SURFACE-WATER-QUALITY RECORDS

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

Classification of Records

Water-quality data for surface-water sites are grouped into one of three classifications. A *continuous-record station* is a site where data are collected on a regularly scheduled basis. Frequency may be one or

more times daily, weekly, monthly, or quarterly. A *partial-record station* is a site where limited water-quality data are collected systematically over a period of years. Frequency of sampling is usually less than quarterly. A *miscellaneous sampling site* is a location other than a continuous- or partial-record station, where samples are collected to give better areal coverage to define water-quality conditions in the river basin.

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

Accuracy of the Records

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

Rating the accuracy of continuous water-quality records

[\leq , less than or equal to; \pm , plus or minus value shown; $^{\circ}\text{C}$, degree Celsius; $>$, greater than; %, percent; mg/L, milligram per liter; pH unit, standard pH unit]

Measured field parameter	Ratings of accuracy (Based on combined fouling and calibration drift corrections applied to the record)			
	Excellent	Good	Fair	Poor
Water temperature	$\leq \pm 0.2$ $^{\circ}\text{C}$	$> \pm 0.2 - 0.5$ $^{\circ}\text{C}$	$> \pm 0.5 - 0.8$ $^{\circ}\text{C}$	$> \pm 0.8$ $^{\circ}\text{C}$
Specific conductance	$\leq \pm 3\%$	$> \pm 3 - 10\%$	$> \pm 10 - 15\%$	$> \pm 15\%$
Dissolved oxygen	$\leq \pm 0.3$ mg/L or $\leq \pm 5\%$, whichever is greater	$> \pm 0.3 - 0.5$ mg/L or $> \pm 5 - 10\%$, whichever is greater	$> \pm 0.5 - 0.8$ mg/L or $> \pm 10 - 15\%$, whichever is greater	$> \pm 0.8$ mg/L or $> \pm 15\%$, whichever is greater
pH	$\leq \pm 0.2$ units	$> \pm 0.2 - 0.5$ units	$> \pm 0.5 - 0.8$ units	$> \pm 0.8$ units
Turbidity	$\leq \pm 0.5$ turbidity units or $\leq \pm 5\%$, whichever is greater	$> \pm 0.5 - 1.0$ turbidity units or $> \pm 5 - 10\%$, whichever is greater	$> \pm 1.0 - 1.5$ turbidity units or $> \pm 10 - 15\%$, whichever is greater	$> \pm 1.5$ turbidity units or $> \pm 15\%$, whichever is greater

Arrangement of Records

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

Onsite Measurements and Sample Collection

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

Water Temperature

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

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

Sediment

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

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

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

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

Laboratory Measurements

Samples for biochemical oxygen demand (BOD) and indicator bacteria are analyzed locally. All other samples are analyzed in the USGS laboratory in Lakewood, Colorado, unless otherwise noted. Methods used in analyzing sediment samples and computing sediment records are given in TWRI, Book 5, Chapter C1. Methods used by the USGS laboratories are given in the TWRI, Book 1, Chapter D2; Book 3, Chapter C2; and Book 5, Chapters A1, A3, and A4. The TWRI publications may be accessed from <http://water.usgs.gov/pubs/twri/>. These methods are consistent with ASTM standards and generally follow ISO standards.

Data Presentation

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

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

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

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

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

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

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

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

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

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

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

Remark Codes

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

Printed Output	Remark
E	Value is estimated.
>	Actual value is known to be greater than the value shown.
<	Actual value is known to be less than the value shown.
M	Presence of material verified, but not quantified.
N	Presumptive evidence of presence of material.
U	Material specifically analyzed for, but not detected.
A	Value is an average.
V	Analyte was detected in both the environmental sample and the associated blanks.
S	Most probable value.

Water-Quality Control Data

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

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

Accordingly, concentrations are reported as less than LRL for samples in which the analyte either was not detected or did not pass identification. Analytes detected at concentrations between the LT-MDL and the LRL and that pass identification criteria are estimated. Estimated concentrations will be noted with a

remark code of “E.” These data should be used with the understanding that their uncertainty is greater than that of data reported without the E remark code.

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

Blank Samples

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

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

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

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

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

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

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

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

Reference Samples

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

the known properties of the reference material. Generally, the selected reference material properties are similar to the environmental sample properties.

Replicate Samples

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

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

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

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

Spike Samples

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

ACCESS TO USGS WATER DATA

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

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

DEFINITION OF TERMS

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

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

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

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

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

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

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

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

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

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

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

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

Ash mass is the mass or amount of residue present after the residue from a dry-mass determination has been ashed in a muffle furnace at a temperature of 500 °C for 1 hour. Ash mass of zooplankton and phytoplankton is expressed in grams per cubic meter (g/m³), and periphyton and benthic organisms in grams per square meter (g/m²). (See also “Biomass” and “Dry mass”)

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

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

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

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

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

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

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

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

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

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

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

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

Blue-green algae (*Cyanophyta*) are a group of phytoplankton and periphyton organisms with a blue pigment in addition to a green pigment called chlorophyll. Blue-green algae can cause nuisance water-quality conditions in lakes and slow-flowing rivers; however, they are found com-

monly in streams throughout the year. The abundance of blue-green algae in phytoplankton samples is expressed as the number of cells per milliliter (cells/mL) or biovolume in cubic micrometers per milliliter ($\mu\text{m}^3/\text{mL}$). The abundance of blue-green algae in periphyton samples is given in cells per square centimeter (cells/cm²) or biovolume per square centimeter ($\mu\text{m}^3/\text{cm}^2$). (See also “Phytoplankton” and “Periphyton”)

Bottom material (See “Bed material”)

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

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

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

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

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

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

Cells/volume refers to the number of cells of any organism that is counted by using a microscope and grid or counting cell. Many planktonic organisms are multicelled and are counted according to the number of contained cells per sample volume, and generally are reported as cells or units per milliliter (mL) or liter (L).

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

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

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

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

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

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

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

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

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

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

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

Cubic foot per second (CFS, ft³/s) is the rate of discharge representing a volume of 1 cubic foot passing a given point in 1 second. It is equivalent to approximately 7.48 gallons per second or approximately 449 gallons per minute, or

0.02832 cubic meters per second. The term “second-foot” sometimes is used synonymously with “cubic foot per second” but is now obsolete.

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

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

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

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

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

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

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

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

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

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

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

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

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

Dissolved-solids concentration in water is the quantity of dissolved material in a sample of water. It is determined either analytically by the “residue-on-evaporation” method, or mathematically by totaling the concentrations of individual constituents reported in a comprehensive chemical analysis. During the analytical determination, the bicarbonate (generally a major dissolved component of water) is converted to carbonate. In the mathematical calculation, the bicarbonate value, in milligrams per liter, is multiplied by 0.4917 to convert it to carbonate. Alternately,

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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 exceeded. For example, the 90th percentile of river flow is the streamflow exceeded 90 percent of the time in the period of interest.

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 ($\mu\text{m}^3/\text{mL}$). The abundance of green algae in periphyton samples is given in cells per square centimeter (cells/cm²) or biovolume per square centimeter ($\mu\text{m}^3/\text{cm}^2$). (See also “Phytoplankton” and “Periphyton”)

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

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

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

High tide is the maximum height reached by each rising tide. The high-high and low-high tides are the higher and lower of the two high tides, respectively, of each tidal day. See NOAA Web site:

<http://www.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:

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

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

Horizontal datum (See “Datum”)

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

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

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

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

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

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

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

control data and, therefore, may change. The LRL replaces the term ‘non-detection value’ (NDV).

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

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

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

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

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

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

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

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

Low tide is the minimum height reached by each falling tide. The high-low and low-low tides are the higher and lower of the two low tides, respectively, of each tidal day. See NOAA Website: <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, $\mu\text{g/g}$) is a unit expressing the concentration of a chemical constituent as the mass (micrograms) of the element per unit mass (gram) of material analyzed.

Micrograms per kilogram (UG/KG, $\mu\text{g/kg}$) is a unit expressing the concentration of a chemical constituent as the mass (micrograms) of the constituent per unit mass (kilogram) of the material analyzed. One microgram per kilogram is equivalent to 1 part per billion.

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

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

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

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

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

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

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

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

National Geodetic Vertical Datum of 1929 (NGVD 29) is a fixed reference adopted as a standard geodetic datum for elevations determined by leveling. It formerly was called "Sea Level Datum of 1929" or "mean sea level." Although the datum was derived from the mean sea level at 26 tide stations, it does not necessarily represent local mean sea level at any particular place. *See NOAA Web site: <http://www.ngs.noaa.gov/faq.shtml#WhatVD29VD88>* (See "North American Vertical Datum of 1988")

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

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

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 (m²), acre, or hectare. Periphyton, benthic organisms, and macrophytes are expressed in these terms.

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

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

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

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

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

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

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

The particle-size distributions given in this report are not necessarily representative of all particles in transport in the stream. For the sedimentation method, most of the organic matter is removed, and the sample is subjected to 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 photosynthetic and chemosynthetic activity of producer organisms (chiefly, green plants). The rate of primary production is estimated by measuring the amount of oxygen released (oxygen method) or the amount of carbon assimilated (carbon method) by the plants.

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

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

Radioisotopes are isotopic forms of elements that exhibit radioactivity. Isotopes are varieties of a chemical element that differ in atomic weight but are very nearly alike in chemical properties. The difference arises because the atoms of the isotopic forms of an element differ in the number of neutrons in the nucleus; for example, ordinary chlorine is a mixture of isotopes having atomic weights of 35 and 37, and the natural mixture has an atomic weight of

about 35.453. Many of the elements similarly exist as mixtures of isotopes, and a great many new isotopes have been produced in the operation of nuclear devices such as the cyclotron. There are 275 isotopes of the 81 stable elements, in addition to more than 800 radioactive isotopes.

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

Recoverable 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 75 percent of the specific conductance (in microsiemens). This relation is not constant from stream to stream, and it may vary in the same source with changes in the composition of the water.

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

Stage (See “Gage height”)

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

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

Substrate is the physical surface upon which an organism lives.

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

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

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

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

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

Suspended 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 labo-

ratories 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 (ft³/s) x 0.0027. (See also “Sediment,” “Suspended sediment,” and “Suspended-sediment concentration”)

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

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

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

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

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

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

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

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

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

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

Tons per acre-foot (T/acre-ft) is the dry mass (tons) of a constituent per unit volume (acre-foot) of water. It is com-

puted 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”)

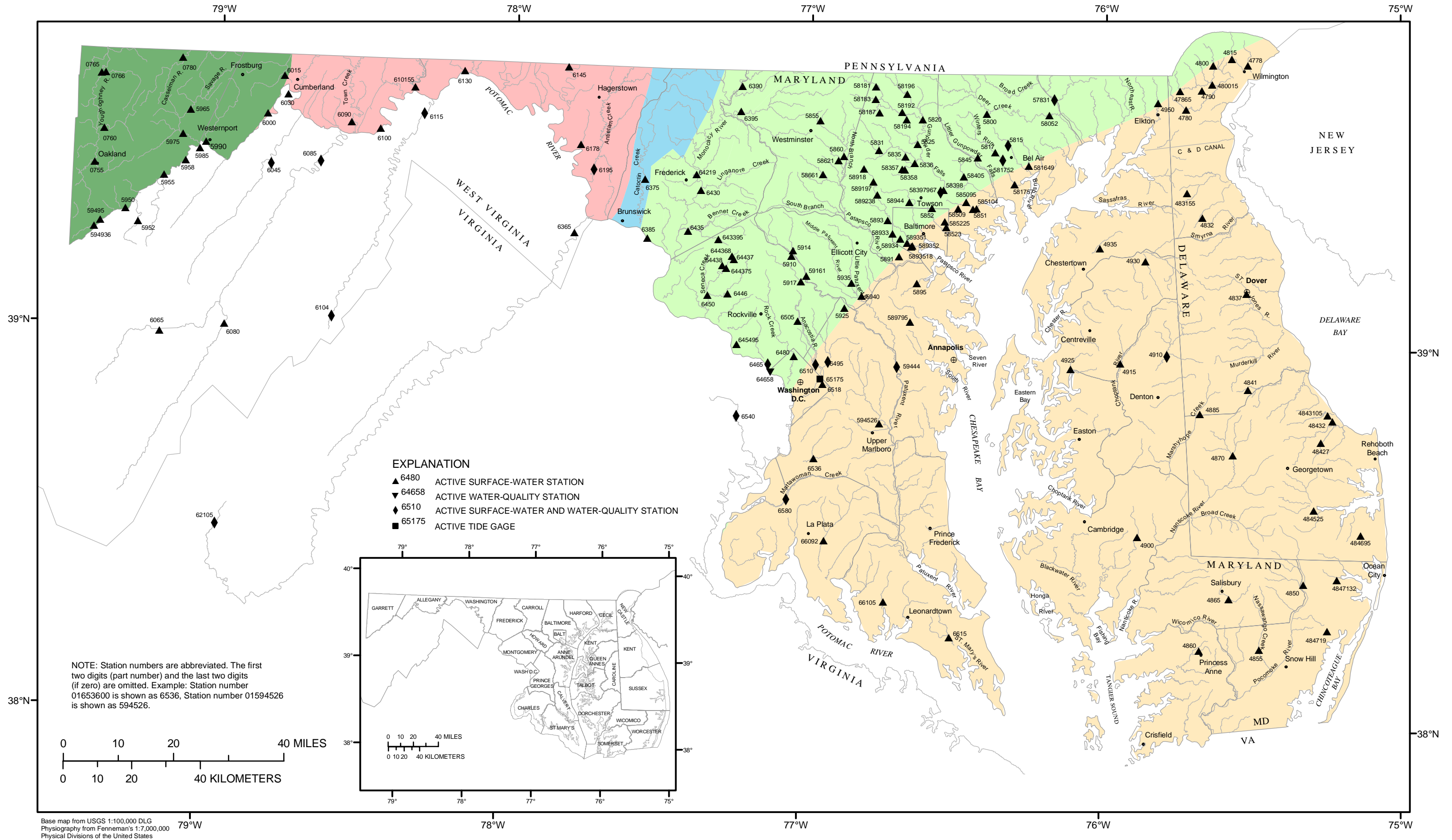


Figure 3. Map of Maryland, Delaware, and Washington D.C. showing location of surface-water, water-quality stations and tide gages.

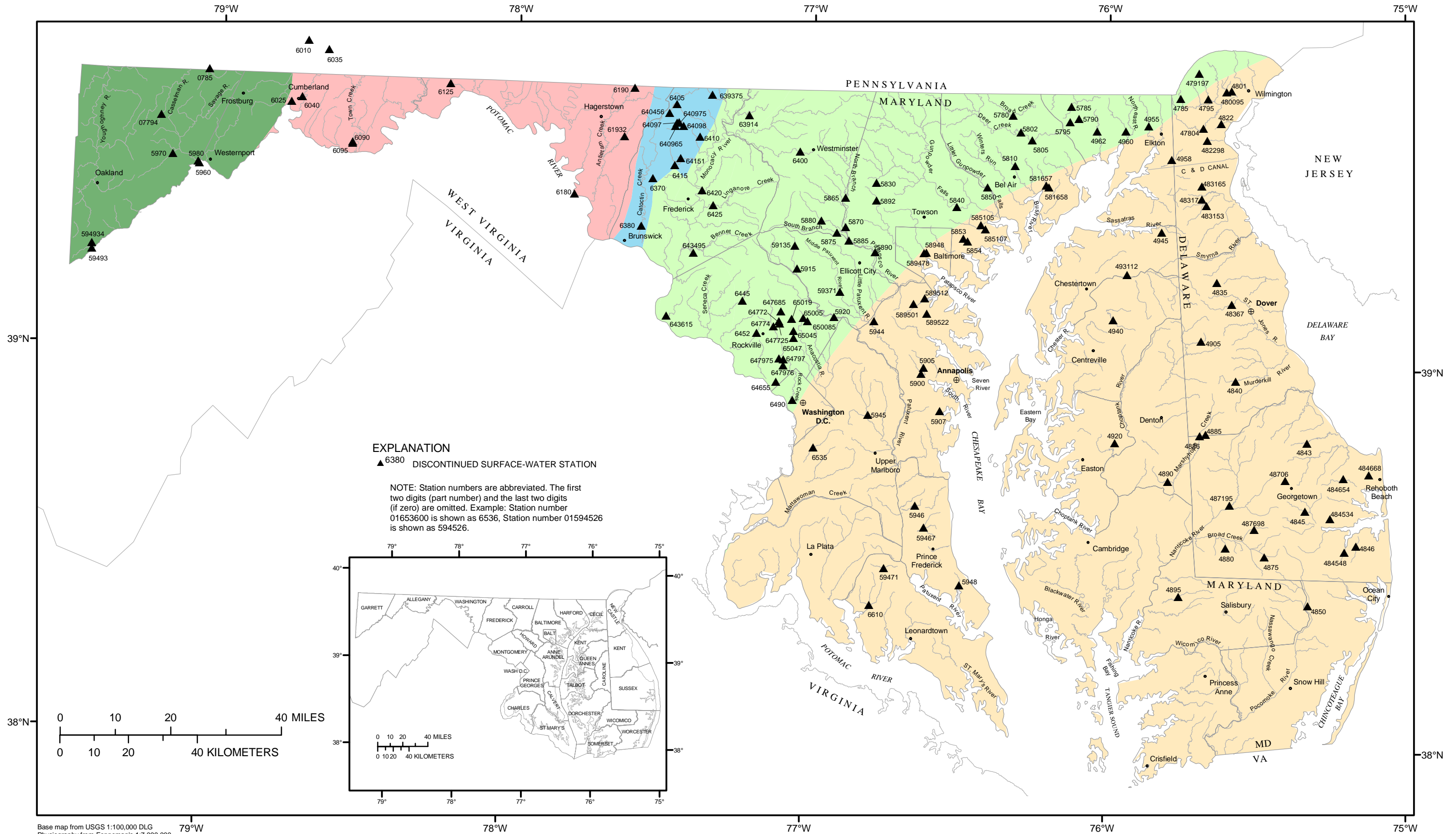


Figure 4. Map of Maryland, Delaware, and Washington D.C. showing location of discontinued surface-water stations.

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

HYDROLOGIC-DATA STATION RECORDS

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 mi².

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 ft³/s, which are fair and those for estimated daily discharges (plugged intakes, ice effect and missing record), 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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov 28	0620	1,190	4.67	Mar 28	1845	1,360	5.00
Jan 14	0900	1,100	4.51	Apr 2	1650	*2,120	*6.17
Mar 28	1520	1,440	5.13				

Minimum discharge, 0.31 ft³/s, Sept. 22-26.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.1	3.2	e140	e2.7	e3.4	e12	8.1	22	1.5	0.97	0.56	0.49
2	5.1	3.3	e10	e2.7	e3.4	8.1	533	e6.0	1.5	0.84	0.53	0.45
3	3.4	4.4	e8.8	e2.7	e4.0	6.2	96	e5.0	24	0.67	0.49	0.44
4	2.3	87	e6.6	3.2	e5.0	5.4	13	e4.0	6.5	0.60	0.46	0.41
5	2.2	16	e4.6	23	e10	5.5	8.1	e3.4	2.6	18	0.47	0.41
6	1.8	6.0	e3.4	23	e14	7.0	6.5	e3.0	7.3	12	0.45	0.41
7	1.7	4.1	19	8.6	e13	13	5.9	e2.6	6.0	1.3	1.1	0.41
8	1.5	3.3	26	e19	e12	20	31	e2.4	1.8	113	26	0.45
9	1.4	3.1	20	6.3	e16	6.8	7.0	e2.2	1.4	3.7	2.9	0.55
10	1.4	3.1	47	4.6	e20	5.5	5.7	2.1	1.6	1.7	0.99	0.45
11	1.4	3.3	17	5.1	e5.0	5.6	e5.4	2.1	1.7	1.2	0.67	0.44
12	1.4	51	8.2	12	3.8	9.5	e5.0	2.0	1.2	1.1	0.55	0.42
13	1.4	47	6.3	5.1	3.3	5.7	e4.6	1.9	1.1	1.1	0.50	0.42
14	40	8.7	5.0	298	90	5.3	e4.4	1.9	1.2	1.2	0.46	0.72
15	8.5	6.7	4.1	13	41	4.6	e4.2	2.1	1.1	1.4	0.45	8.0
16	6.8	5.0	3.8	7.3	12	4.9	e4.0	1.9	0.99	3.5	6.6	0.95
17	4.1	3.8	e3.6	5.7	7.6	4.3	e3.8	1.8	1.0	2.5	8.2	3.0
18	2.0	3.1	3.4	5.1	5.3	4.1	e3.6	2.0	0.88	1.3	0.74	0.67
19	63	2.8	e3.2	3.9	4.3	3.9	e3.2	2.0	0.89	0.97	1.1	0.42
20	7.2	3.7	e3.0	4.0	4.1	7.9	e3.0	36	0.88	0.83	1.1	0.38
21	7.3	6.0	2.9	e4.4	16	5.3	e2.8	4.2	0.88	0.76	0.63	0.38
22	3.4	2.8	3.1	e4.0	19	4.3	2.6	2.3	0.89	1.9	0.57	0.34
23	2.6	2.7	66	e6.0	9.5	140	43	2.1	0.89	0.65	0.64	0.34
24	2.3	4.4	11	e5.0	7.3	28	13	2.6	0.86	0.56	0.40	0.32
25	2.1	10	e5.0	e4.0	10	12	e5.0	4.2	0.81	3.9	0.39	0.31
26	2.1	3.9	e3.8	e4.0	10	10	e4.4	2.9	0.77	0.98	0.36	0.79
27	2.3	2.7	e3.2	e4.0	11	11	8.4	2.0	4.6	13	0.40	1.8
28	2.2	277	e3.0	e4.4	13	374	3.9	2.7	4.8	3.8	0.54	0.59
29	2.2	14	e3.0	e3.8	---	37	3.7	2.9	9.3	0.79	0.76	0.61
30	10	10	e2.8	e3.8	---	11	22	1.8	2.1	0.65	0.52	0.39
31	2.9	---	e2.8	e3.6	---	8.3	---	1.5	---	0.58	0.53	---
TOTAL	202.1	602.1	449.6	502.0	373.0	786.2	864.3	135.6	91.04	195.45	60.06	25.76
MEAN	6.52	20.1	14.5	16.2	13.3	25.4	28.8	4.37	3.03	6.30	1.94	0.86
MAX	63	277	140	298	90	374	533	36	24	113	26	8.0
MIN	1.4	2.7	2.8	2.7	3.3	3.9	2.6	1.5	0.77	0.56	0.36	0.31
CFSM	0.87	2.69	1.94	2.17	1.79	3.40	3.86	0.59	0.41	0.85	0.26	0.12
IN.	1.01	3.00	2.24	2.50	1.86	3.92	4.31	0.68	0.45	0.97	0.30	0.13

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1946 - 2005, BY WATER YEAR (WY)

MEAN	5.37	8.63	12.1	12.4	13.3	16.7	13.1	10.5	7.88	8.72	6.95	8.10
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	0.86
(WY)	(1964)	(1966)	(1956)	(1981)	(2002)	(1985)	(1985)	(1955)	(1966)	(1957)	(1966)	(2005)

NORTH ATLANTIC SLOPE BASINS—Continued

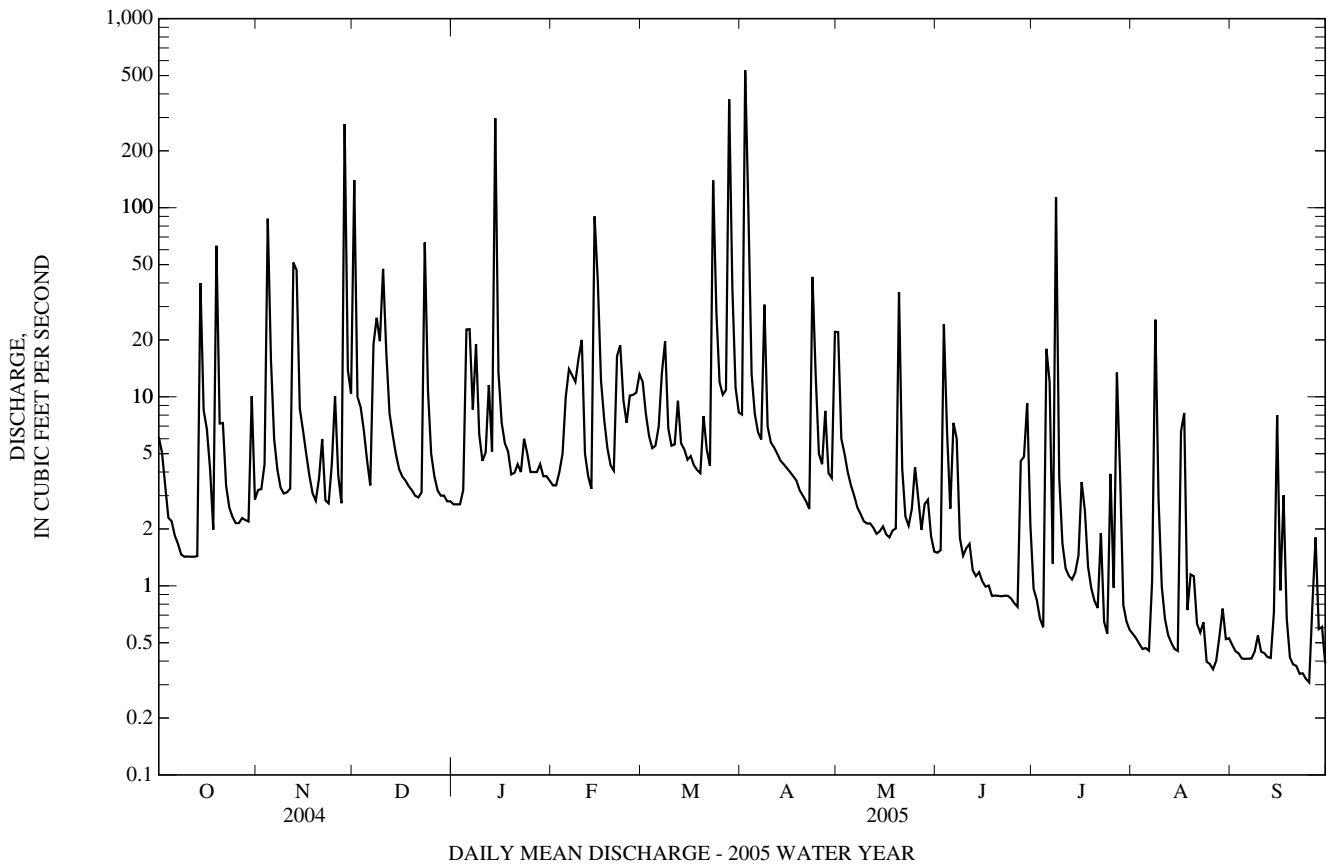
SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1946 - 2005	
ANNUAL TOTAL	6,123.02		4,287.21			
ANNUAL MEAN	16.7		11.7		10.3	
HIGHEST ANNUAL MEAN					19.6	2003
LOWEST ANNUAL MEAN					3.93	2002
HIGHEST DAILY MEAN	854	Jul 12	533	Apr 2	1,480	Sep 16, 1999
LOWEST DAILY MEAN	0.31	(a)	0.31	Sep 25	0.09	(b)
ANNUAL SEVEN-DAY MINIMUM	0.35	Sep 21	0.36	Sep 19	0.10	Aug 27, 1966
MAXIMUM PEAK FLOW			2,120	Apr 2	(c)8,040	Jul 5, 1989
MAXIMUM PEAK STAGE			6.17	Apr 2	13.76	Jul 5, 1989
INSTANTANEOUS LOW FLOW			0.31	(d)	0.09	Oct 2, 1968
ANNUAL RUNOFF (CFSM)	2.24		1.57		1.38	
ANNUAL RUNOFF (INCHES)	30.53		21.38		18.73	
10 PERCENT EXCEEDS	26		17		18	
50 PERCENT EXCEEDS	3.4		3.6		2.9	
90 PERCENT EXCEEDS	1.1		0.55		0.78	

a Sept. 23, 24.

a Oct. 2, 4, 1968.

c From rating curve extended above 200 ft³/s on basis of culvert and flow-over-road measurements at gage heights 9.10 and 11.91 ft.

d Sept. 22-26.



DELAWARE RIVER BASIN

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 mi².

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. 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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov 28	0830	1,650	11.67	Mar 28	1745	*1,910	*11.92
Jan 14	1145	1,470	11.47	Apr 2	1900	1,120	11.03

Minimum discharge, 3.4 ft³/s, Sept. 28-30.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	14	278	23	24	38	35	50	13	8.4	7.0	5.0
2	27	13	48	22	24	32	449	25	12	9.3	6.8	4.8
3	24	13	35	22	24	27	297	23	41	7.9	6.4	4.5
4	22	198	31	23	27	25	51	21	24	7.5	6.0	4.2
5	21	91	29	54	33	25	39	20	16	8.8	5.9	4.2
6	20	30	28	56	38	28	35	20	21	28	5.7	4.2
7	19	26	49	32	40	34	33	20	24	10	5.7	4.1
8	19	24	52	42	41	41	47	19	14	106	6.0	3.9
9	19	23	49	30	41	26	32	18	17	20	8.2	3.7
10	18	23	132	25	45	24	30	18	15	12	11	3.8
11	17	23	60	23	29	23	28	18	13	10	7.1	3.7
12	17	115	36	24	26	24	27	17	13	9.0	6.1	3.8
13	17	151	31	23	24	22	27	16	12	8.7	5.7	3.8
14	25	31	28	505	85	21	25	16	12	8.9	5.6	12
15	32	26	26	56	135	21	24	17	11	8.9	17	42
16	30	25	25	36	42	21	24	16	11	48	13	7.3
17	20	24	25	31	34	21	24	15	10	50	17	5.0
18	15	23	25	26	27	20	23	15	9.6	13	6.7	4.5
19	88	22	26	25	24	20	23	15	9.5	11	6.8	4.3
20	22	22	24	26	24	25	23	78	9.7	9.2	7.0	4.2
21	20	23	23	25	47	22	22	27	9.9	8.2	6.0	4.1
22	17	22	23	21	44	20	22	18	9.6	7.9	5.6	3.8
23	16	21	227	27	29	313	105	17	9.2	7.7	5.2	3.7
24	15	24	63	25	27	70	57	20	9.0	7.1	5.1	3.7
25	15	41	29	25	31	31	27	20	8.8	14	5.0	3.7
26	14	25	25	26	30	26	24	17	8.5	8.0	5.0	5.1
27	14	22	24	24	29	24	25	16	13	24	9.8	6.7
28	14	672	23	22	30	595	22	16	12	24	12	3.8
29	14	55	23	23	---	111	21	15	9.3	8.7	6.8	3.6
30	28	36	23	25	---	47	41	14	8.9	7.6	5.6	3.7
31	15	---	23	24	---	38	---	13	---	7.1	5.4	---
TOTAL	686	1,858	1,543	1,371	1,054	1,815	1,662	650	406.0	518.9	232.2	174.9
MEAN	22.1	61.9	49.8	44.2	37.6	58.5	55.4	21.0	13.5	16.7	7.49	5.83
MAX	88	672	278	505	135	595	449	78	41	106	17	42
MIN	14	13	23	21	24	20	21	13	8.5	7.1	5.0	3.6
CFSM	1.08	3.02	2.43	2.16	1.84	2.86	2.70	1.02	0.66	0.82	0.37	0.28
IN.	1.24	3.37	2.80	2.49	1.91	3.29	3.02	1.18	0.74	0.94	0.42	0.32

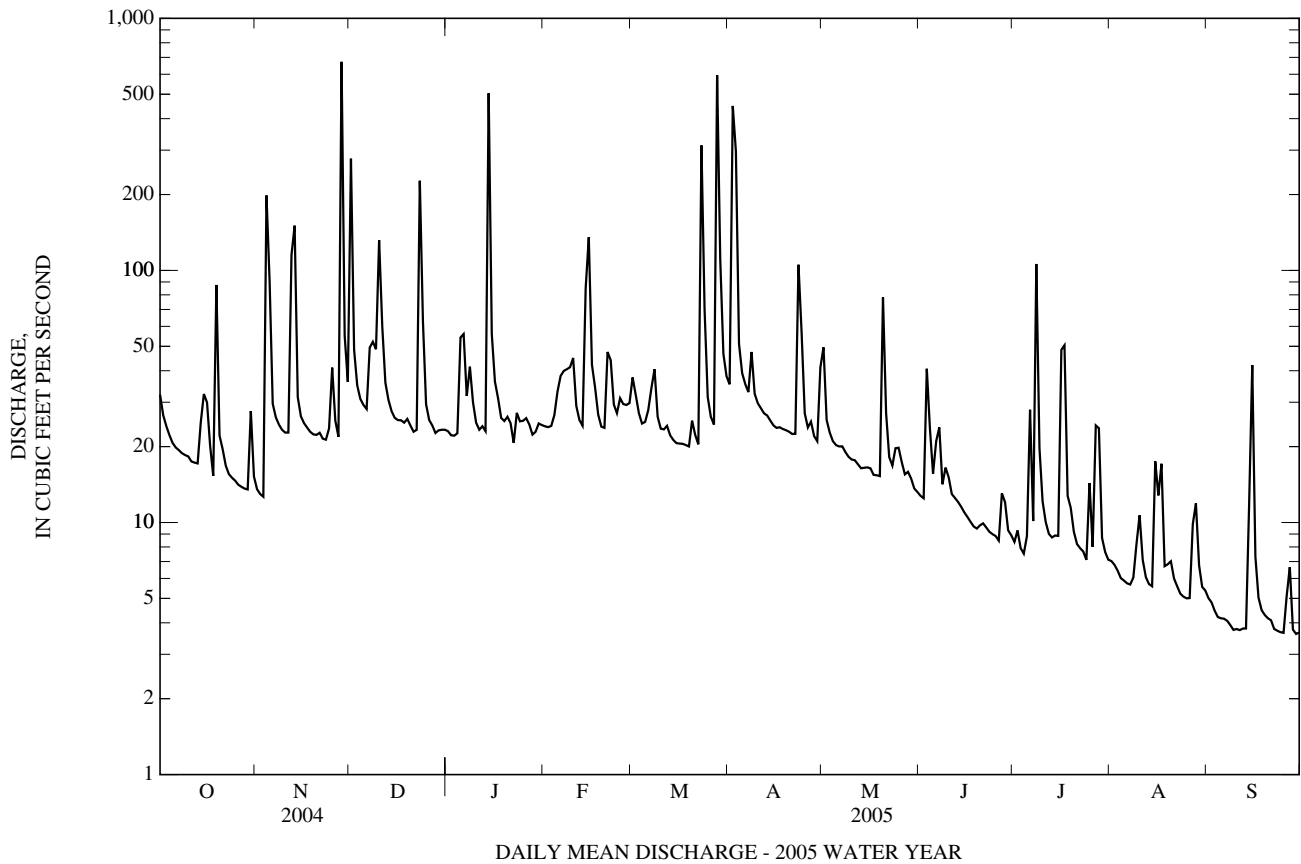
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1943 - 2005, BY WATER YEAR (WY)

MEAN	15.3	24.9	35.4	39.0	42.4	48.8	36.7	30.5	22.4	21.8	17.8	18.4
MAX	62.9	82.8	122	165	154	121	107	77.6	92.0	165	117	107
(WY)	(1972)	(1973)	(1977)	(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 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1943 - 2005	
ANNUAL TOTAL	19,471		11,971.0		29.4	
ANNUAL MEAN	53.2		32.8		56.6	
HIGHEST ANNUAL MEAN					10.4	
LOWEST ANNUAL MEAN					2002	
HIGHEST DAILY MEAN	1,240	Sep 28	672	Nov 28	2,650	Sep 16, 1999
LOWEST DAILY MEAN	12	(a)	3.6	Sep 29	0.20	(b)
ANNUAL SEVEN-DAY MINIMUM	13	Sep 11	3.8	Sep 7	0.50	Aug 25, 1966
MAXIMUM PEAK FLOW			1,910	Mar 28	(c)7,050	Sep 16, 1999
MAXIMUM PEAK STAGE			11.92	Mar 28	13.73	Sep 16, 1999
INSTANTANEOUS LOW FLOW			3.4	(d)	0.15	Aug 20, 1966
ANNUAL RUNOFF (CFSM)	2.60		1.60		1.43	
ANNUAL RUNOFF (INCHES)	35.33		21.72		19.47	
10 PERCENT EXCEEDS	93		47		49	
50 PERCENT EXCEEDS	22		22		13	
90 PERCENT EXCEEDS	14		5.7		4.3	

a May 29, 30, Sep. 14.
 b Aug. 7, 17, 18, 21, 27, 28, 1966.
 c From rating curve extended above 1,500 ft³/s.
 d Sep. 28-30.



DELAWARE RIVER BASIN

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 mi².

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 (ice effect, intake lag), 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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov 28	1000	*3,550	*9.96	Apr 2	2100	2,290	8.99
Jan 14	1215	2,770	9.36	Jul 8	1245	1,610	8.38
Mar 28	1945	3,300	9.77				

Minimum discharge, 17 ft³/s, Sept. 28.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	197	118	446	118	114	139	110	208	76	50	42	29
2	177	115	212	108	111	129	892	141	73	56	41	24
3	163	114	166	110	114	118	953	134	110	44	36	28
4	150	225	147	118	116	112	231	126	130	45	34	25
5	138	309	139	168	129	112	159	123	90	58	33	23
6	128	135	130	235	141	114	144	120	90	117	32	25
7	126	119	181	175	151	139	136	121	195	51	33	25
8	122	111	192	178	163	161	307	115	92	497	36	25
9	120	106	154	163	190	115	153	112	82	126	50	23
10	119	102	368	140	225	101	134	105	86	71	67	23
11	110	106	284	131	e140	102	126	106	75	58	45	25
12	110	195	177	153	e120	110	123	105	72	52	37	25
13	110	354	156	136	e110	99	125	101	70	50	35	23
14	153	153	136	1,110	e130	95	125	100	69	49	33	42
15	163	128	126	252	421	87	122	96	63	51	37	105
16	210	121	120	166	164	76	125	90	56	100	38	39
17	134	108	124	144	152	76	129	87	57	190	69	80
18	119	105	119	111	126	76	126	86	54	175	40	41
19	261	102	125	e100	112	76	121	84	54	74	37	31
20	163	100	111	e90	112	89	114	152	56	60	42	28
21	147	101	108	e80	137	92	109	126	55	52	36	28
22	134	93	114	76	181	82	109	94	52	49	31	27
23	127	90	376	129	150	434	166	91	49	47	29	27
24	122	93	287	122	132	315	208	96	47	43	27	25
25	119	144	145	136	130	117	135	94	47	52	26	23
26	118	103	120	135	125	98	133	96	45	47	27	27
27	118	91	110	e110	131	91	135	90	49	81	30	33
28	115	1,400	101	e90	130	997	127	88	56	106	40	25
29	115	244	109	e120	---	473	122	89	51	51	40	28
30	141	174	113	146	---	150	164	83	49	46	34	28
31	128	---	117	128	---	118	---	80	---	44	33	---
TOTAL	4,357	5,459	5,313	5,178	4,157	5,093	5,863	3,339	2,150	2,592	1,170	960
MEAN	141	182	171	167	148	164	195	108	71.7	83.6	37.7	32.0
MAX	261	1,400	446	1,110	421	997	953	208	195	497	69	105
MIN	110	90	101	76	110	76	109	80	45	43	26	23
CFSM	2.04	2.64	2.48	2.42	2.15	2.38	2.83	1.56	1.04	1.21	0.55	0.46
IN.	2.35	2.94	2.86	2.79	2.24	2.75	3.16	1.80	1.16	1.40	0.63	0.52

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1994 - 2005, BY WATER YEAR (WY)

MEAN	75.4	81.0	116	120	120	164	119	90.6	85.4	58.8	55.5	101
MAX	185	182	326	256	243	345	195	145	220	181	192	325
(WY)	(1997)	(2005)	(1997)	(1996)	(2004)	(1994)	(2005)	(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

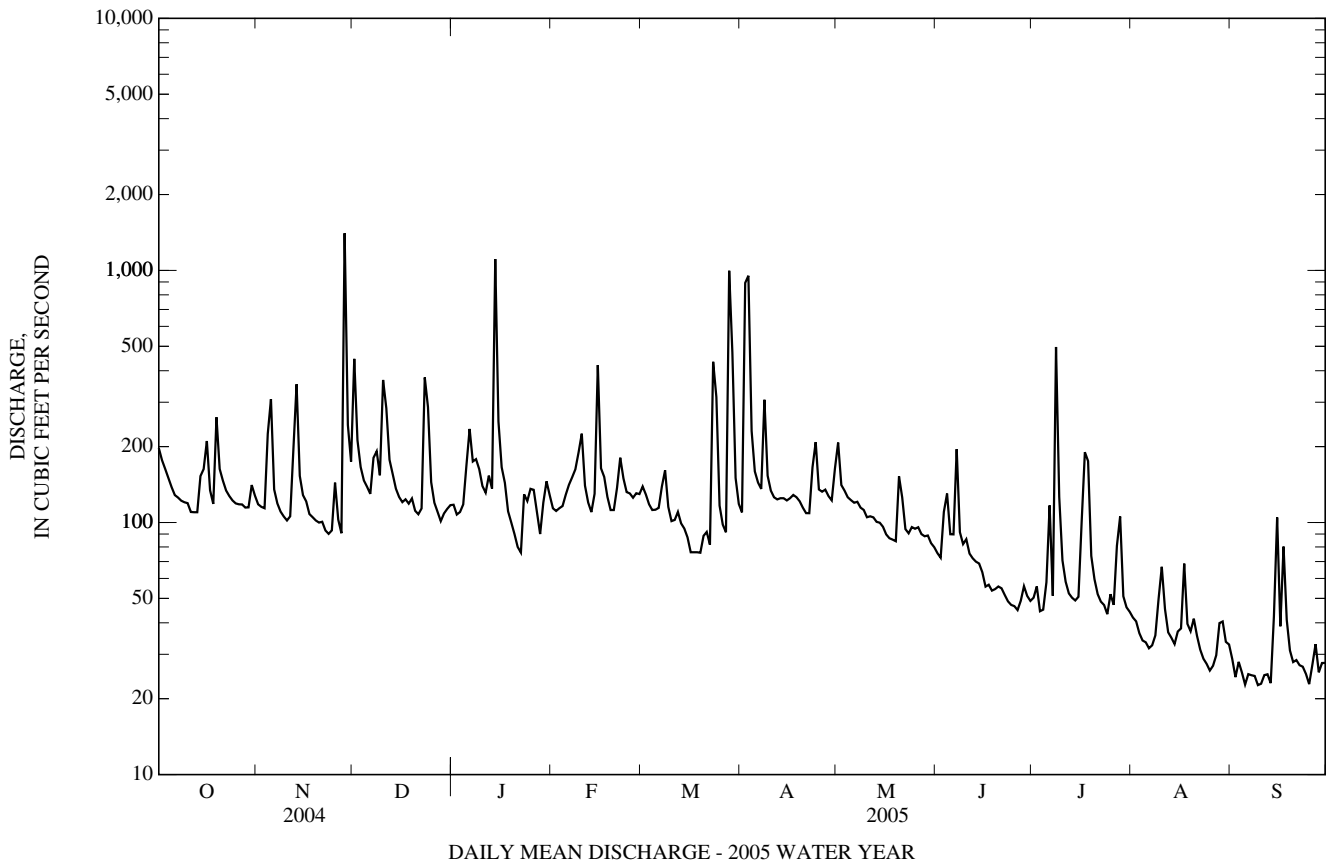
SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1994 - 2005	
ANNUAL TOTAL	67,089		45,631		98.4	
ANNUAL MEAN	183		125		32.9	
HIGHEST ANNUAL MEAN					193	2004
LOWEST ANNUAL MEAN					32.9	2002
HIGHEST DAILY MEAN	(e)3,100	Sep 29	1,400	Nov 28	5,750	Sep 16, 1999
LOWEST DAILY MEAN	73	Sep 27	23	(a)	3.8	Aug 17, 2002
ANNUAL SEVEN-DAY MINIMUM	81	Sep 11	24	Sep 4	5.4	Aug 11, 2002
MAXIMUM PEAK FLOW			3,550	Nov 28	(b)16,800	Sep 16, 1999
MAXIMUM PEAK STAGE			9.96	Nov 28	(c)17.13	Sep 16, 1999
INSTANTANEOUS LOW FLOW			17	Sep 28	2.6	Sep 13, 1995
ANNUAL RUNOFF (CFSM)	2.66		1.81		1.43	
ANNUAL RUNOFF (INCHES)	36.17		24.60		19.37	
10 PERCENT EXCEEDS	259		181		166	
50 PERCENT EXCEEDS	119		111		61	
90 PERCENT EXCEEDS	90		34		22	

e Estimated.

a Sept. 5, 9, 10, 13, 25.

b From rating curve extended above 2,500 ft³/s on basis of runoff comparison with White Clay Creek above Newark, DE (01478500).

c From high-water mark.



DELAWARE RIVER BASIN

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 mi².

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 (lagging intakes, ice effect, backwater), 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. 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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov 28	1115	*4,630	*14.42	Mar 28	2015	4,380	14.28
Jan 14	1315	3,030	13.14	Apr 2	2215	2,100	11.70

Minimum discharge, 21 ft³/s, Sept. 28.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	250	127	605	153	e140	163	217	253	90	56	61	38
2	214	124	277	146	e140	155	1,040	154	89	64	57	32
3	196	124	216	145	e140	141	1,100	144	167	50	54	32
4	179	341	191	151	144	134	347	135	155	46	47	31
5	167	416	182	228	151	132	268	130	104	62	44	28
6	155	149	174	296	161	135	245	127	121	143	42	28
7	153	132	228	216	167	159	233	127	217	62	42	29
8	151	125	258	209	171	207	367	123	103	594	45	28
9	148	120	213	202	192	167	240	120	92	147	60	26
10	148	118	461	162	227	144	e220	115	95	90	70	26
11	143	118	385	158	175	142	e210	114	88	78	58	26
12	140	258	e240	183	148	148	e200	112	84	72	46	28
13	140	497	e200	164	141	140	e195	107	82	69	43	26
14	190	164	e180	1,320	220	134	e190	107	80	69	42	59
15	195	139	e170	337	462	131	e180	108	73	70	62	298
16	271	132	e170	231	206	128	e170	104	68	135	59	54
17	165	126	e160	205	185	128	e170	101	67	201	88	83
18	142	123	162	177	155	127	e160	101	65	199	51	49
19	388	122	164	e170	139	125	e155	99	63	90	51	39
20	190	122	161	e160	134	132	e155	252	64	77	52	35
21	168	125	165	e150	173	138	e150	157	63	70	47	33
22	153	118	151	e140	201	126	e150	111	61	66	42	30
23	144	117	475	e160	171	587	315	105	59	65	38	29
24	137	123	396	e150	155	394	261	111	56	62	36	27
25	135	177	195	e160	157	210	163	113	55	77	34	25
26	131	133	e160	e160	150	173	149	108	53	66	34	31
27	130	118	e150	e140	150	156	154	102	63	111	53	38
28	128	2,030	e140	e120	146	1,370	142	102	66	140	55	28
29	126	329	150	e150	---	647	136	103	57	69	50	28
30	156	230	154	e160	---	271	204	96	55	63	43	29
31	135	---	154	e150	---	232	---	94	---	61	43	---
TOTAL	5,268	7,077	7,087	6,653	4,901	7,176	7,886	3,835	2,555	3,224	1,549	1,293
MEAN	170	236	229	215	175	231	263	124	85.2	104	50.0	43.1
MAX	388	2,030	605	1,320	462	1,370	1,100	253	217	594	88	298
MIN	126	117	140	120	134	125	136	94	53	46	34	25
CFMSM	1.91	2.65	2.57	2.41	1.96	2.60	2.95	1.39	0.96	1.17	0.56	0.48
IN.	2.20	2.95	2.96	2.78	2.05	3.00	3.29	1.60	1.07	1.35	0.65	0.54

e Estimated

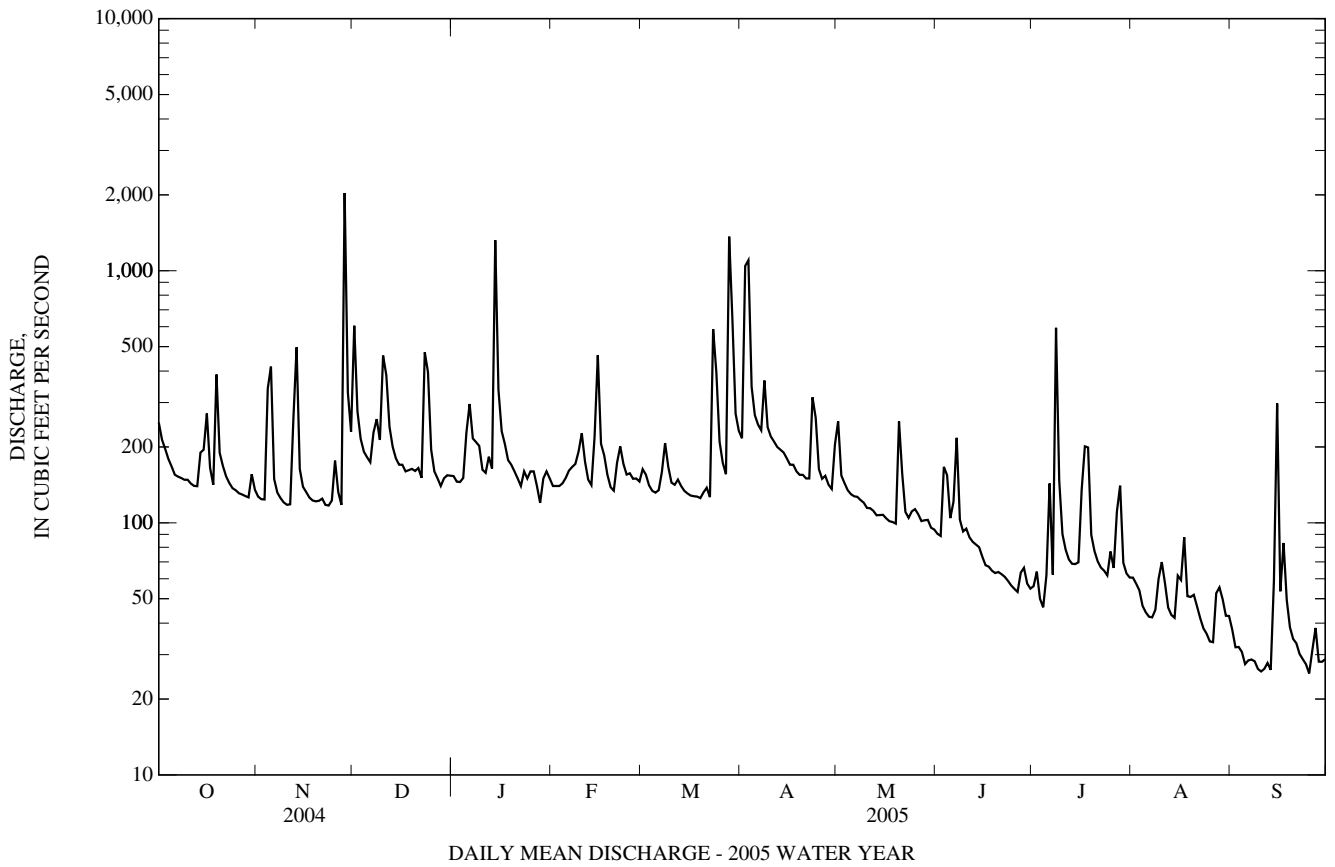
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1932 - 1939, 1943 - 1957, 1959 - 2005, BY WATER YEAR (WY)

MEAN	69.1	94.6	120	147	162	178	152	127	102	95.2	79.7	86.0
MAX	234	236	405	493	542	402	342	265	311	540	301	441
(WY)	(1997)	(2005)	(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 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1932 - 1936		1943 - 1957		1959 - 2005	
ANNUAL TOTAL	83,062		58,504							
ANNUAL MEAN	227		160				118			
HIGHEST ANNUAL MEAN							236			2004
LOWEST ANNUAL MEAN							47.6			2002
HIGHEST DAILY MEAN	3,600	Sep 29	2,030	Nov 28	8,220	Sep 16, 1999				
LOWEST DAILY MEAN	86	Sep 14	25	Sep 25	5.0	Sep 10, 1966				
ANNUAL SEVEN-DAY MINIMUM	92	Sep 11	27	Sep 7	5.7	Sep 7, 1966				
MAXIMUM PEAK FLOW			4,630	Nov 28	(a)19,500	Sep 16, 1999				
MAXIMUM PEAK STAGE			14.42	Nov 28	(b)17.74	Jun 22, 1972				
INSTANTANEOUS LOW FLOW			21	Sep 28	4.7	Sep 11, 1966				
ANNUAL RUNOFF (CFSM)	2.55		1.80		1.32					
ANNUAL RUNOFF (INCHES)	34.68		24.43		17.95					
10 PERCENT EXCEEDS	345		247		197					
50 PERCENT EXCEEDS	144		140		77					
90 PERCENT EXCEEDS	111		44		32					

- a From rating curve extended above 6,700 ft³/s on basis of contracted-opening and flow-over-road measurement at a gage height of 15.9 ft and on basis of runoff comparisons with nearby stations.
- b At previous site and datum.



DELAWARE RIVER BASIN

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 mi².

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). WDR MD-DE-DC-04-1: 2003 (P).

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), 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. Water from Red Clay Creek is used for municipal supply. No releases were observed during the 2005 water year. 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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov 28	1130	*3,470	*8.62	Mar 28	2000	3,300	8.42
Dec 23	1915	1,350	5.63	Apr 2	2000	2,140	6.87
Jan 14	1230	2,150	6.88	Apr 3	0545	1,340	5.61

Minimum discharge, 15 ft³/s, Sept. 11.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	124	63	355	83	81	93	105	147	51	34	34	21
2	108	62	145	80	80	86	842	94	50	35	28	19
3	100	61	115	80	80	80	686	87	84	30	26	18
4	93	199	104	82	82	77	188	82	88	29	25	17
5	87	192	98	122	87	78	149	79	61	46	24	17
6	83	81	94	160	93	81	137	78	66	63	23	17
7	81	73	137	111	98	102	128	77	103	37	23	17
8	79	69	131	132	103	122	268	73	59	334	31	17
9	78	65	110	110	114	88	138	70	53	75	32	17
10	76	63	272	92	131	79	120	69	51	45	32	17
11	72	62	182	88	93	80	113	68	48	38	28	16
12	72	141	118	105	83	85	108	66	46	35	25	16
13	71	226	106	90	80	76	105	63	45	34	23	16
14	117	89	98	839	150	73	101	63	44	34	22	36
15	100	79	92	184	270	70	97	62	41	34	23	98
16	119	75	90	127	111	69	94	62	40	45	26	27
17	80	72	88	110	101	69	94	60	42	58	48	43
18	73	69	86	93	88	68	92	59	39	47	26	25
19	202	69	87	e90	80	65	90	58	37	36	32	21
20	99	68	82	e86	79	75	90	107	38	33	30	20
21	91	70	76	e84	99	71	88	83	37	30	26	20
22	83	66	80	e80	120	66	88	68	36	29	23	19
23	77	66	335	e90	100	334	175	65	35	28	22	19
24	75	70	188	e84	88	181	173	65	34	26	21	17
25	73	112	101	e90	89	96	102	64	33	32	20	18
26	70	75	90	e84	86	85	93	64	32	29	20	19
27	69	67	86	e80	86	80	95	60	36	49	21	22
28	67	1,380	80	78	87	961	88	58	40	60	28	18
29	66	171	84	85	---	336	85	58	36	31	27	18
30	78	116	85	86	---	135	116	55	35	29	23	18
31	68	---	85	82	---	113	---	53	---	44	23	---
TOTAL	2,731	4,071	3,880	3,787	2,839	4,074	4,848	2,217	1,440	1,509	815	683
MEAN	88.1	136	125	122	101	131	162	71.5	48.0	48.7	26.3	22.8
MAX	202	1,380	355	839	270	961	842	147	103	334	48	98
MIN	66	61	76	78	79	65	85	53	32	26	20	16
CFSM	1.87	2.89	2.66	2.60	2.16	2.80	3.44	1.52	1.02	1.04	0.56	0.48
IN.	2.16	3.22	3.07	3.00	2.25	3.22	3.84	1.75	1.14	1.19	0.65	0.54

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1943 - 2005, BY WATER YEAR (WY)

	38.6	51.1	66.2	77.2	87.6	95.1	85.7	72.5	58.6	50.8	43.9	48.7
MEAN	38.6	51.1	66.2	77.2	87.6	95.1	85.7	72.5	58.6	50.8	43.9	48.7
MAX	134	136	212	232	237	209	167	156	193	279	180	327
(WY)	(2004)	(2005)	(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)

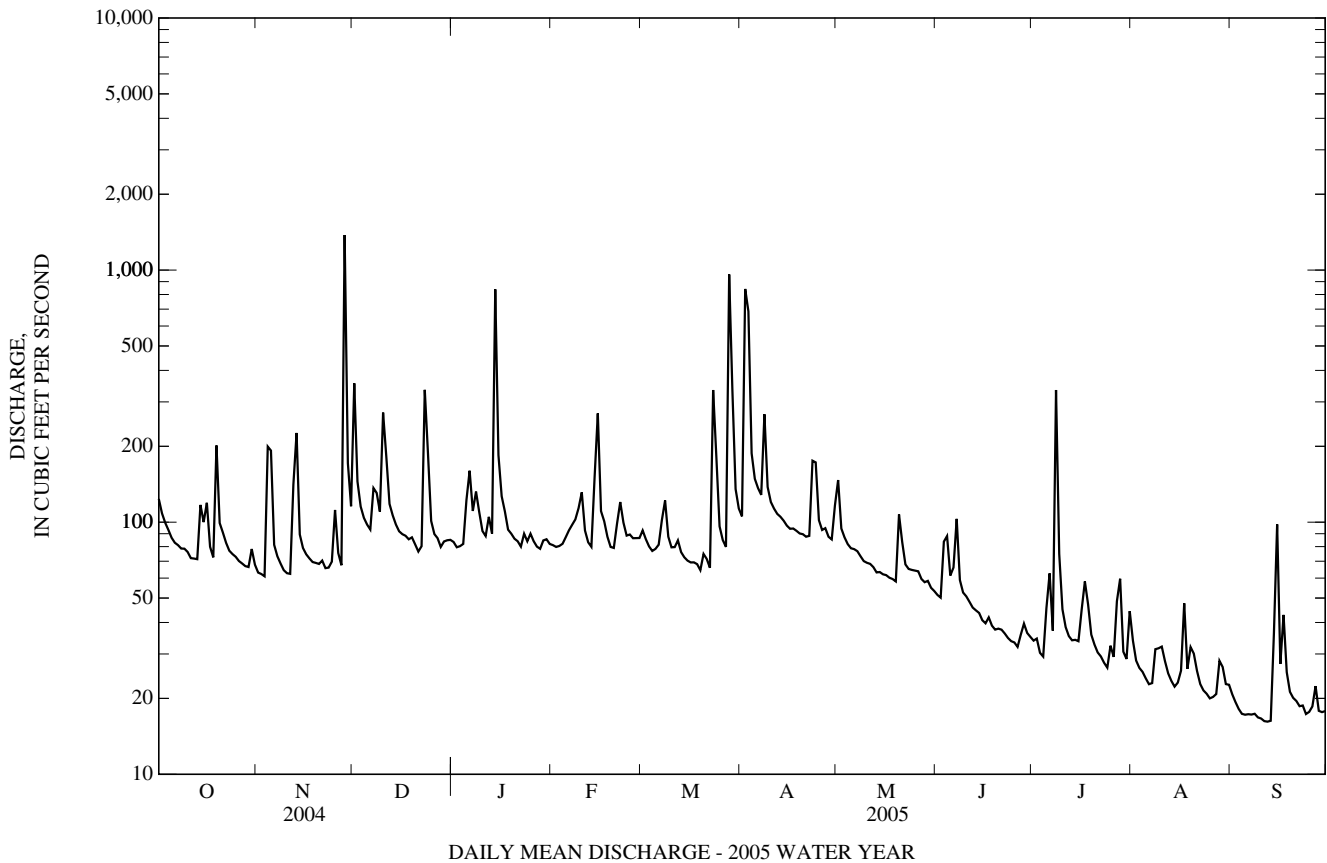
01480000 RED CLAY CREEK AT WOODDALE, DE—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1943 - 2005	
ANNUAL TOTAL	44,360		32,894			
ANNUAL MEAN	121		90.1		64.6	
ANNUAL MEAN‡	121		90.1		64.5	
HIGHEST ANNUAL MEAN					130	
LOWEST ANNUAL MEAN					27.0	
HIGHEST DAILY MEAN	2,140	Sep 28	1,380	Nov 28	5,980	Sep 15, 2003
LOWEST DAILY MEAN	40	Jul 5	16	(a)	4.5	Sep 4, 1966
ANNUAL SEVEN-DAY MINIMUM	45	Jun 30	17	Sep 7	4.9	Sep 7, 1966
MAXIMUM PEAK FLOW			3,470	Nov 28	(b)16,300	Sep 15, 2003
MAXIMUM PEAK STAGE			8.62	Nov 28	17.62	Sep 15, 2003
INSTANTANEOUS LOW FLOW			15	Sep 11	2.9	Sep 4, 1966
ANNUAL RUNOFF (CFSM)	2.58		1.92		1.37	
ANNUAL RUNOFF (CFSM)‡	2.58		1.92		1.37	
ANNUAL RUNOFF (INCHES)	35.11		26.04		18.67	
ANNUAL RUNOFF (INCHES)‡	35.11		26.04		18.63	
10 PERCENT EXCEEDS	178		131		109	
50 PERCENT EXCEEDS	80		77		44	
90 PERCENT EXCEEDS	55		23		19	

‡ Adjusted for inflow since June 1994.

a Sep. 11-13.

b From rating curve extended above 3,900 ft³/s on basis of contracted opening measurement of peak flow.



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 mi².

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

REVISED RECORDS.--WDR MD-DE-DC-04-1: 2003 (P).

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 (ice effect, missing record, backwater), 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. Water from Red Clay Creek is used for municipal supply. No releases were observed during the 2005 water year. 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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov 28	1145	2,840	16.17	Mar 28	2145	*3,780	*17.47
Jan 14	1245	1,770	14.24	Apr 2	2045	3,030	16.54

Minimum discharge, 17 ft³/s, Sept. 12.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	135	82	324	92	e86	99	132	220	60	37	41	22
2	118	81	155	88	e84	96	1,280	139	58	37	29	20
3	109	79	126	89	e86	94	1,070	127	113	33	27	19
4	100	197	114	90	92	92	214	112	131	31	26	19
5	96	240	110	129	99	92	169	111	78	54	25	18
6	93	101	105	163	105	94	155	110	77	88	23	19
7	91	89	145	121	110	126	147	108	149	39	23	19
8	94	83	157	132	114	156	289	102	73	384	29	19
9	98	77	125	117	117	104	160	95	60	94	33	19
10	96	75	261	100	132	88	141	94	57	44	30	18
11	92	74	199	96	98	85	132	94	54	37	28	18
12	90	154	128	112	87	93	122	91	49	34	25	18
13	89	263	116	98	83	81	111	82	47	33	24	18
14	138	110	107	730	139	77	110	84	46	33	23	20
15	111	93	103	172	253	74	110	82	43	e40	23	162
16	183	86	101	126	116	73	108	81	42	86	26	29
17	123	82	102	113	107	72	107	78	44	65	48	47
18	110	81	98	100	94	71	106	76	41	54	27	27
19	248	80	100	e96	86	69	114	75	40	36	29	23
20	127	80	96	e92	84	82	109	159	40	33	32	22
21	114	82	98	e90	e106	78	108	122	40	31	26	21
22	103	77	92	e88	125	71	108	87	38	29	24	20
23	95	75	279	e100	106	418	286	81	37	28	22	20
24	93	79	192	e90	94	e200	283	82	37	27	22	20
25	90	133	110	e98	96	e120	122	82	36	31	21	19
26	88	94	98	e92	91	e110	109	79	35	30	21	20
27	85	76	94	e88	93	e105	143	73	37	47	21	23
28	83	1,280	92	e84	92	1,260	136	71	44	82	25	20
29	82	183	91	e90	---	481	124	73	39	31	28	20
30	104	131	93	e92	---	152	173	66	37	29	24	20
31	89	---	93	e88	---	136	---	63	---	54	23	---
TOTAL	3,367	4,417	4,104	3,856	2,975	4,949	6,478	2,999	1,682	1,711	828	779
MEAN	109	147	132	124	106	160	216	96.7	56.1	55.2	26.7	26.0
MAX	248	1,280	324	730	253	1,260	1,280	220	149	384	48	162
MIN	82	74	91	84	83	69	106	63	35	27	21	18
CFSM	2.07	2.81	2.53	2.37	2.03	3.05	4.12	1.85	1.07	1.05	0.51	0.50
IN.	2.39	3.14	2.91	2.74	2.11	3.51	4.60	2.13	1.19	1.21	0.59	0.55

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 2005, BY WATER YEAR (WY)

	53.8	62.4	81.7	91.8	85.0	119	98.2	77.1	71.3	59.1	48.1	83.0
MEAN	147	147	240	220	188	229	216	138	220	246	141	354
(WY)	(2004)	(2005)	(1997)	(1996)	(2004)	(2000)	(2005)	(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 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1989 - 2005	
ANNUAL TOTAL	51,135		38,145			
ANNUAL MEAN	140		105		77.4	
ANNUAL MEAN‡	140		105		77.1	
HIGHEST ANNUAL MEAN					149	
LOWEST ANNUAL MEAN					29.3	
HIGHEST DAILY MEAN	2,640	Sep 29	1,280	Nov 28	(e)6,000	Sep 15, 2003
LOWEST DAILY MEAN	40	Jul 11	18	(a)	7.0	Sep 12, 1995
ANNUAL SEVEN-DAY MINIMUM	48	Jun 30	18	Sep 7	9.2	Sep 6, 2002
MAXIMUM PEAK FLOW			3,780	Mar 28	(b)17,400	Sep 15, 2003
MAXIMUM PEAK STAGE			17.47	Mar 28	(c)25.52	Sep 15, 2003
INSTANTANEOUS LOW FLOW			17	Sep 12	(d)6.8	Sep 12, 2002
ANNUAL RUNOFF (CFSM)	2.67		1.99		1.48	
ANNUAL RUNOFF (CFSM)‡	2.67		1.99		1.47	
ANNUAL RUNOFF (INCHES)	36.30		27.08		20.08	
ANNUAL RUNOFF (INCHES)‡	36.30		27.08		19.99	
10 PERCENT EXCEEDS	200		155		128	
50 PERCENT EXCEEDS	92		90		51	
90 PERCENT EXCEEDS	64		24		22	

‡ Adjusted for inflow since June 1994.

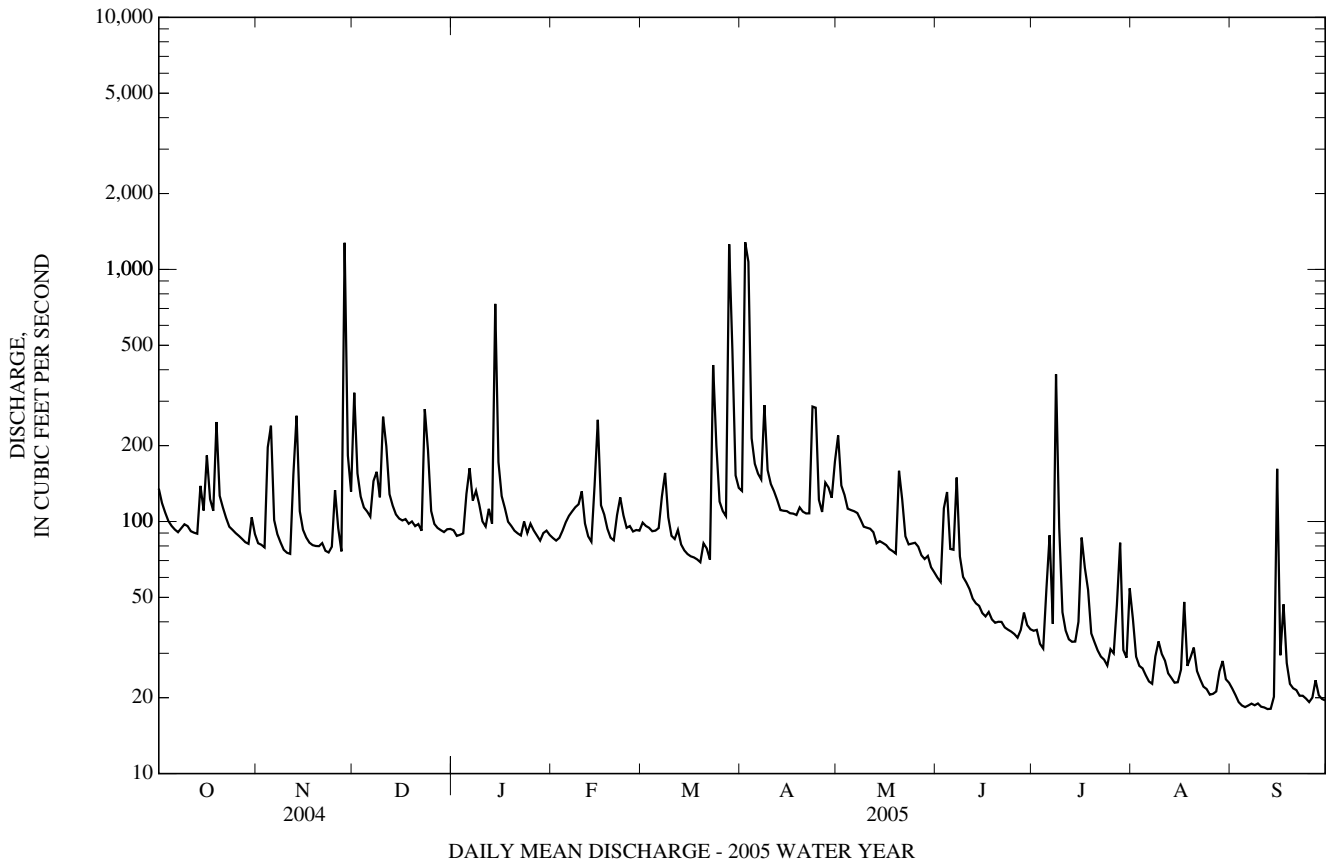
e Estimated.

a Sept. 5, 10-13.

b From rating curve extended above 5,000 ft³/s on basis of runoff comparison and drainage area ratios with Red Clay Creek at Wooddale, DE (01480000).

c From floodmarks.

d May have been lower during periods of missing gage-height record.



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 mi².

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 discharges (EDL malfunction), 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 13, 1960. 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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov 28	2045	*8,730	*9.49	Mar 29	0530	7,640	9.02
Dec 24	0345	4,270	7.21	Apr 3	1245	8,370	9.34
Jan 14	2115	6,970	8.71	Jul 8	1930	4,400	7.31

Minimum discharge, 86 ft³/s, Sept. 13.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	991	440	1,740	665	668	725	914	885	346	206	183	125
2	842	417	1,320	635	661	704	3,270	709	344	549	172	117
3	778	409	925	626	674	661	6,590	676	433	246	163	110
4	724	559	860	644	668	567	2,490	629	635	203	152	107
5	673	1,360	812	774	692	563	1,600	589	436	228	150	104
6	621	648	773	1,130	719	575	1,420	586	404	362	145	101
7	581	528	889	888	738	662	1,320	581	958	263	143	98
8	493	486	1,050	842	759	867	1,670	561	468	1,860	177	98
9	477	448	818	955	830	756	1,270	523	376	948	427	95
10	464	422	1,590	749	e1,100	639	1,090	497	369	402	230	94
11	436	420	1,590	716	810	608	1,010	489	358	315	193	96
12	423	e680	995	851	708	639	935	479	332	270	159	92
13	417	e1,500	869	849	678	582	894	453	317	250	147	90
14	660	e680	821	3,670	781	535	865	449	310	237	139	99
15	611	e600	773	2,770	1,810	501	840	451	294	250	185	379
16	890	e540	746	1,090	891	490	779	438	282	494	163	158
17	614	523	741	998	827	484	753	424	290	690	240	156
18	509	507	723	868	743	478	750	426	271	1,020	182	266
19	894	504	713	807	684	468	738	405	263	503	159	157
20	743	496	e700	837	673	513	735	546	270	336	157	123
21	622	548	e660	821	723	571	717	643	263	279	157	117
22	624	514	e680	721	786	507	712	463	249	248	140	112
23	568	483	e1,300	808	782	998	872	439	244	227	125	108
24	525	490	2,250	773	727	1,850	1,180	435	233	209	119	108
25	504	647	823	815	715	823	791	447	226	222	117	103
26	435	564	720	807	696	724	718	439	211	227	113	106
27	418	484	692	747	699	688	718	415	216	215	112	119
28	408	4,550	622	694	690	2,150	684	387	240	262	129	114
29	406	2,560	651	756	---	4,470	663	407	230	206	211	108
30	580	1,060	660	734	---	1,260	735	375	218	188	148	107
31	537	---	661	703	---	1,010	---	361	---	182	132	---
TOTAL	18,468	24,067	29,167	29,743	21,932	27,068	37,723	15,607	10,086	12,097	5,169	3,767
MEAN	596	802	941	959	783	873	1,257	503	336	390	167	126
MAX	991	4,550	2,250	3,670	1,810	4,470	6,590	885	958	1,860	427	379
MIN	406	409	622	626	661	468	663	361	211	182	112	90
(†)	-19.5	+15.1	-21.1	-1.6	-12.6	+34.2	-11.8	-3.3	-1.7	0.0	-1.6	-6.7
MEAN‡	576	817	920	957	770	907	1,245	500	334	390	165	119
CFSM‡	1.84	2.60	2.93	3.05	2.45	2.89	3.97	1.59	1.06	1.24	0.53	0.38
IN.‡	2.12	2.91	3.38	3.52	2.55	3.33	4.43	1.83	1.18	1.43	0.61	0.42

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.

01481500 BRANDYWINE CREEK AT WILMINGTON, DE—Continued

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 - 2005, BY WATER YEAR (WY)

MEAN	324	390	559	624	643	763	721	576	463	376	272	356
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 2004 CALENDAR YEAR

FOR 2005 WATER YEAR

WATER YEARS 1974 - 2005

ANNUAL TOTAL	260,980	234,894	
ANNUAL MEAN	713	644	505
HIGHEST ANNUAL MEAN			835 1984
LOWEST ANNUAL MEAN			168 2002
HIGHEST DAILY MEAN	13,200 Sep 29	6,590 Apr 3	14,200 Sep 17, 1999
LOWEST DAILY MEAN	204 Jul 11	90 Sep 13	35 Aug 22, 2002
ANNUAL SEVEN-DAY MINIMUM	232 Sep 11	95 Sep 7	37 Aug 17, 2002
MAXIMUM PEAK FLOW		8,730 Nov 28	(a)28,700 Sep 17, 1999
MAXIMUM PEAK STAGE		9.49 Nov 28	15.43 Sep 17, 1999
INSTANTANEOUS LOW FLOW		86 Sep 13	(c)32 Jul 27, 2002
ANNUAL RUNOFF (CFSM)	2.27	2.05	1.61
ANNUAL RUNOFF (CFSM)‡	2.27	2.04	1.61
ANNUAL RUNOFF (INCHES)	30.92	27.83	21.84
ANNUAL RUNOFF (INCHES)‡	30.90	27.69	21.85
10 PERCENT EXCEEDS	996	1,000	921
50 PERCENT EXCEEDS	550	567	355
90 PERCENT EXCEEDS	302	146	139

a From rating curve extended above 18,000 ft³/s.

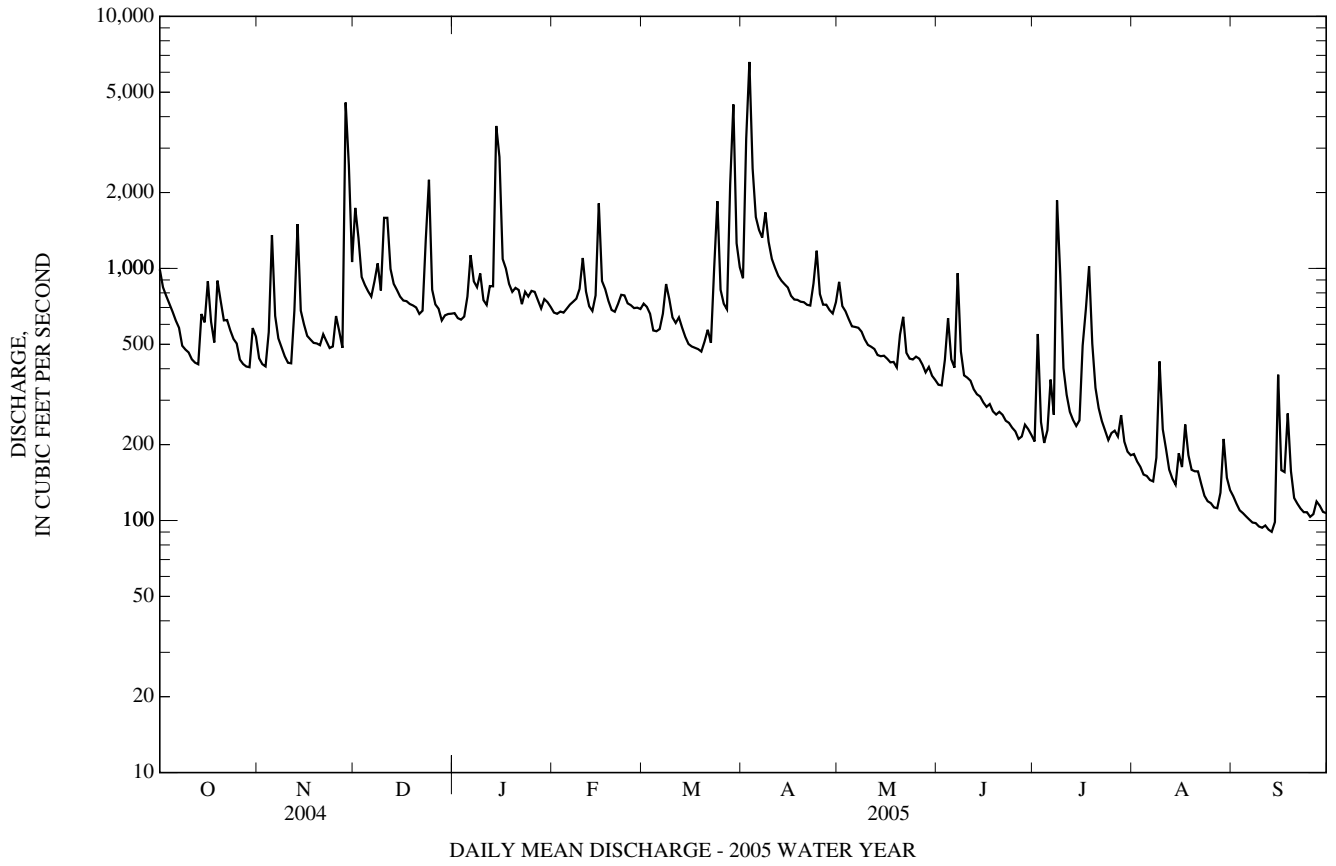
b During period of ice effect.

‡ Adjusted for change in reservoir contents since November 1973.

c Result of regulation from Hagley Museum and Library.

DELAWARE RIVER BASIN

01481500 BRANDYWINE CREEK AT WILMINGTON, DE—Continued



01481500 BRANDYWINE CREEK AT WILMINGTON, DE—Continued



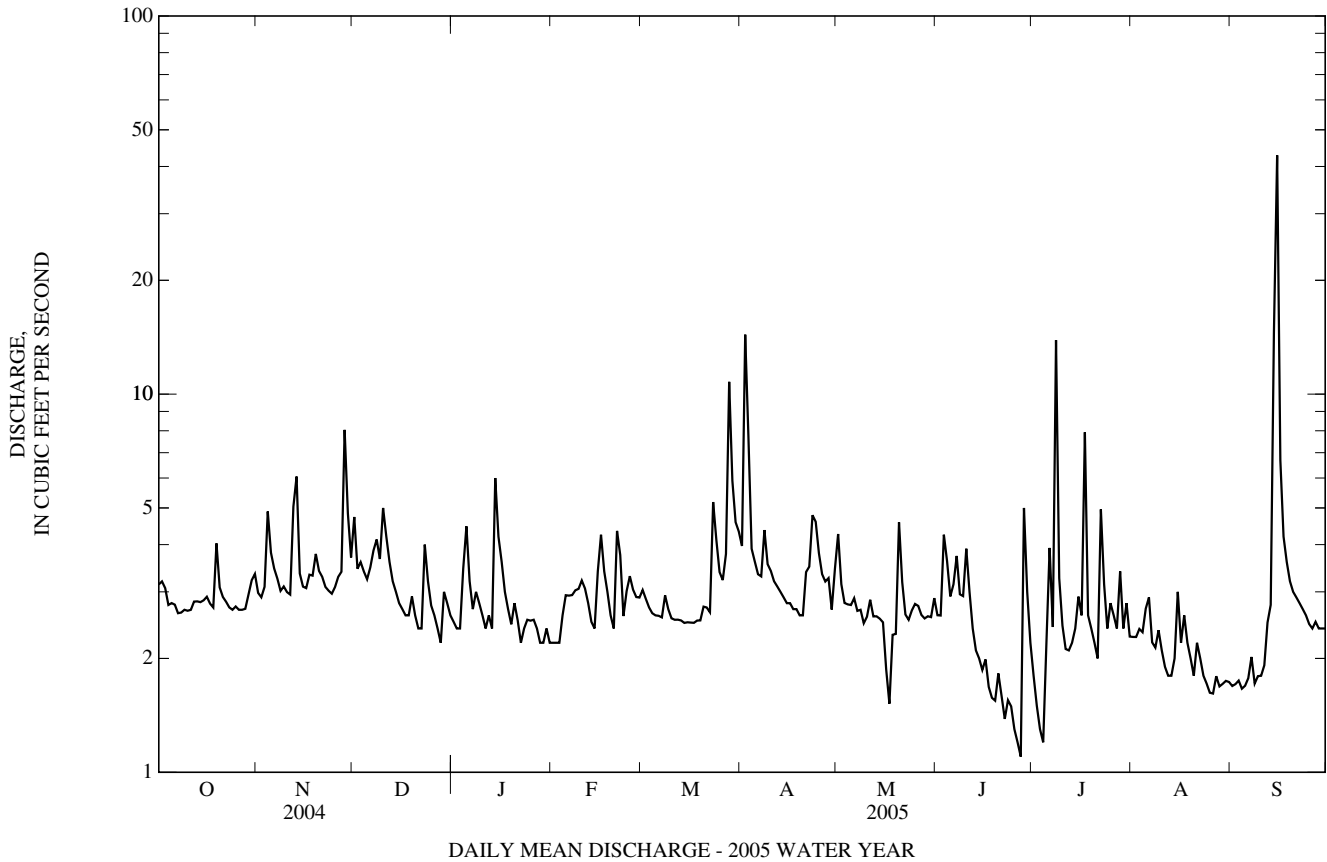
Photo by A.J. Tallman

Gage house at 01481500 Brandywine Creek at Wilmington, DE

01483155 SILVER LAKE TRIBUTARY AT MIDDLETOWN, DE—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 2001 - 2005	
ANNUAL TOTAL	1,415.8		1,133.2		2.97	
ANNUAL MEAN	3.87		3.10		1.21	
HIGHEST ANNUAL MEAN					3.81	2004
LOWEST ANNUAL MEAN					1.21	2002
HIGHEST DAILY MEAN	109	Jul 12	43	Sep 15	109	Jul 12, 2004
LOWEST DAILY MEAN	2.0	(a)	(e)1.1	Jun 27	0.63	Jun 30, 2002
ANNUAL SEVEN-DAY MINIMUM	2.0	Aug 6	1.4	Jun 21	0.65	Jun 29, 2002
MAXIMUM PEAK FLOW			136	Sep 15	(b)520	Jul 12, 2004
MAXIMUM PEAK STAGE			2.68	Sep 15	3.67	Jul 12, 2004
INSTANTANEOUS LOW FLOW			Unknown		0.52	Jul 3, 2002
ANNUAL RUNOFF (CFSM)	1.93		1.55		1.48	
ANNUAL RUNOFF (INCHES)	26.33		21.08		20.18	
10 PERCENT EXCEEDS	4.0		4.0		3.9	
50 PERCENT EXCEEDS	2.8		2.7		2.5	
90 PERCENT EXCEEDS	2.2		1.8		1.0	

a Aug. 9-12.
 e Estimated.
 b From rating curve extended above 20 ft³/s.



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 mi².

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.--Records good except those for estimated daily discharges (missing record), which are fair. 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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan 14	1815	77	2.56	Apr 2	2245	*151	*3.53
Mar 28	2200	87	2.71	Jul 8	1630	56	2.22

Minimum discharge, 0.34 ft³/s, Sept. 9, 13.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.9	2.7	11	e5.2	5.1	10	10	13	2.3	2.4	1.4	1.2
2	3.0	2.6	10	e5.0	5.0	11	62	7.0	2.4	1.9	1.2	0.86
3	3.0	2.7	6.3	e4.8	5.1	7.7	69	5.6	7.0	1.6	1.0	0.78
4	2.1	7.3	5.4	e6.0	5.6	6.7	21	5.2	6.8	1.4	0.96	0.74
5	2.1	14	5.7	8.5	6.8	6.8	15	4.8	3.8	2.4	3.5	0.61
6	2.1	5.6	4.6	8.0	7.9	7.5	14	4.7	3.5	9.0	10	0.65
7	1.9	3.5	6.3	5.9	8.9	8.6	13	4.6	7.3	2.9	2.6	0.48
8	2.0	3.2	8.1	6.5	9.6	13	25	4.1	3.5	37	5.6	0.44
9	2.1	3.0	7.4	6.3	10	12	16	3.8	3.6	16	11	0.42
10	2.1	3.0	14	5.3	9.4	7.4	12	3.7	4.6	4.0	3.4	0.52
11	1.7	3.6	11	5.0	6.6	7.3	11	3.8	3.6	2.7	2.1	0.59
12	2.0	9.9	8.7	6.2	5.6	7.7	9.4	3.6	3.0	2.1	1.6	0.51
13	2.3	26	6.6	5.6	5.3	6.6	8.8	3.3	2.5	2.0	1.4	0.43
14	2.1	11	5.7	40	10	6.2	7.9	3.4	2.1	2.2	1.3	1.0
15	2.6	5.2	5.3	23	22	6.1	6.9	3.4	1.6	3.0	4.9	2.6
16	3.6	4.3	5.2	11	12	6.0	6.7	3.1	1.5	2.6	2.7	1.5
17	3.1	4.0	5.2	8.1	9.3	5.8	6.7	2.8	1.5	7.6	4.0	1.0
18	2.4	4.0	5.1	5.9	6.9	5.6	6.6	2.7	1.4	3.1	2.0	0.98
19	8.9	4.0	5.5	5.1	5.8	5.4	6.3	2.8	1.4	2.1	1.7	0.78
20	5.2	4.0	5.3	6.0	5.8	7.3	6.2	17	1.9	1.7	1.9	0.65
21	4.0	5.1	4.1	6.0	11	6.4	5.8	12	1.8	1.5	1.6	0.56
22	3.2	4.5	4.9	4.7	11	5.5	5.7	4.5	2.0	2.9	1.3	0.55
23	2.9	4.4	8.7	5.2	7.5	23	8.2	4.0	2.7	1.7	1.1	0.53
24	2.7	5.4	e12	6.0	6.7	26	14	3.9	1.6	1.3	1.0	0.53
25	2.5	5.6	e9.0	6.0	7.3	12	6.7	4.8	1.4	1.6	0.88	0.51
26	2.7	4.0	e6.0	6.3	7.4	8.7	5.8	4.9	1.3	1.5	0.83	0.47
27	2.6	4.1	e5.0	6.0	8.3	7.5	5.6	3.6	1.8	1.4	1.4	0.53
28	2.6	27	e4.2	4.8	7.8	37	5.1	3.1	4.4	3.0	1.7	0.45
29	2.5	14	e5.0	4.7	---	35	4.9	3.0	12	1.5	1.2	0.45
30	5.3	6.4	e5.4	5.5	---	15	10	2.7	4.4	2.2	1.2	0.45
31	3.7	---	e5.4	5.5	---	11	---	2.4	---	1.8	1.6	---
TOTAL	91.9	204.1	212.1	238.1	229.7	341.8	405.3	151.3	98.7	128.1	78.07	21.77
MEAN	2.96	6.80	6.84	7.68	8.20	11.0	13.5	4.88	3.29	4.13	2.52	0.73
MAX	8.9	27	14	40	22	37	69	17	12	37	11	2.6
MIN	1.7	2.6	4.1	4.7	5.0	5.4	4.9	2.4	1.3	1.3	0.83	0.42
CFSM	0.77	1.77	1.78	1.99	2.13	2.86	3.51	1.27	0.85	1.07	0.65	0.19
IN.	0.89	1.97	2.05	2.30	2.22	3.30	3.92	1.46	0.95	1.24	0.75	0.21

e Estimated

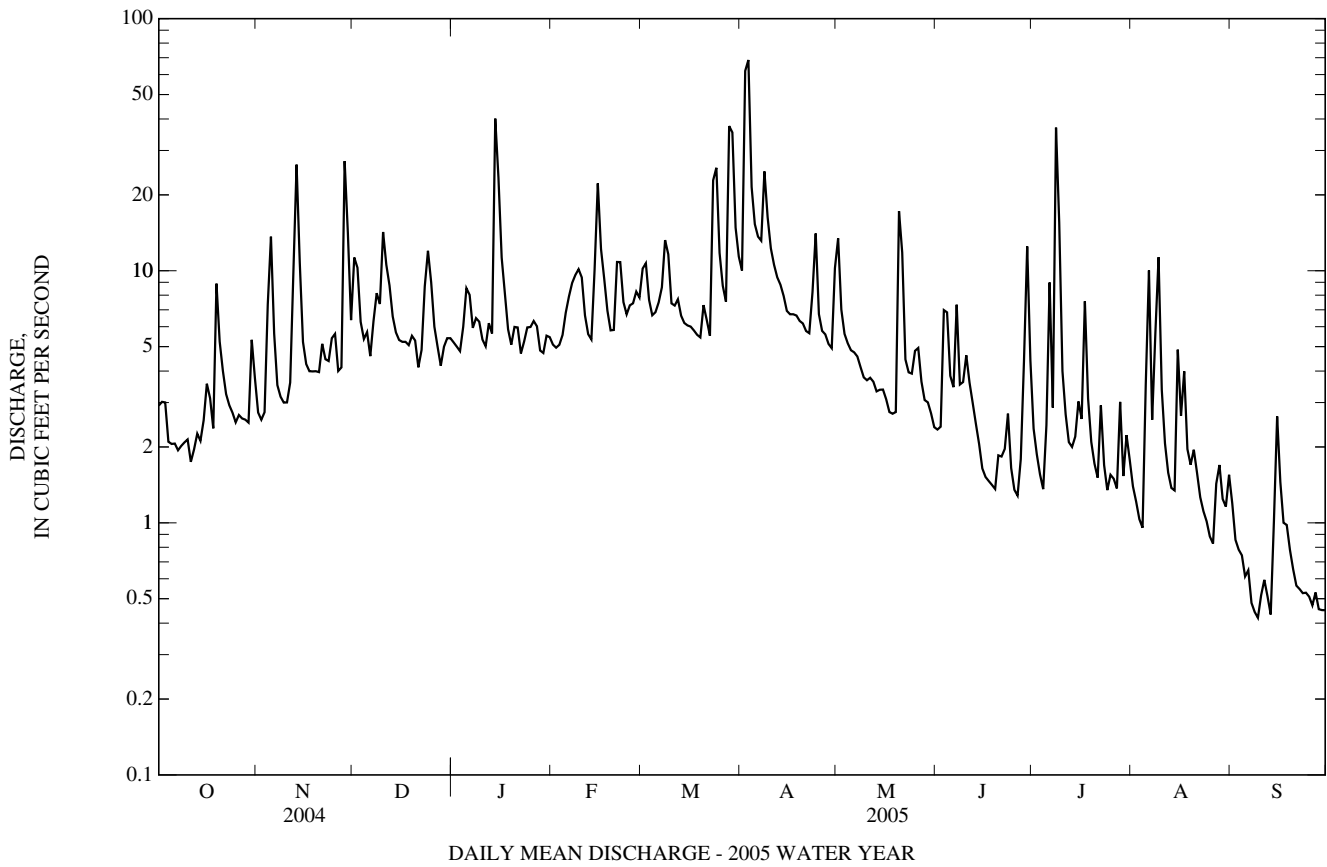
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1957 - 2005, BY WATER YEAR (WY)

MEAN	2.53	3.68	5.30	6.17	7.34	8.97	7.75	5.45	3.93	3.19	2.17	2.56
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 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1957 - 2005	
ANNUAL TOTAL	2,581.2		2,200.94		4.91	
ANNUAL MEAN	7.05		6.03		9.05	
HIGHEST ANNUAL MEAN					1.40	
LOWEST ANNUAL MEAN					1972	
HIGHEST DAILY MEAN	200	Jul 12	69	Apr 3	397	Sep 16, 1999
LOWEST DAILY MEAN	1.0	Jul 11	0.42	Sep 9	0.00	(a)
ANNUAL SEVEN-DAY MINIMUM	1.3	Sep 21	0.48	Sep 7	0.00	Jul 17, 1966
MAXIMUM PEAK FLOW			151	Apr 2	(b)789	Sep 16, 1999
MAXIMUM PEAK STAGE			3.53	Apr 2	6.47	Sep 16, 1999
INSTANTANEOUS LOW FLOW			0.34	(c)	0.00	(d)
ANNUAL RUNOFF (CFSM)	1.83		1.57		1.27	
ANNUAL RUNOFF (INCHES)	24.94		21.27		17.32	
10 PERCENT EXCEEDS	11		11		10	
50 PERCENT EXCEEDS	4.6		4.8		2.8	
90 PERCENT EXCEEDS	1.9		1.2		0.53	

- a Sept. 11, 1965; July 12-15, 17-31, Aug. 1-12, 14, 15, 18-31, Sept. 1-20, 1966.
- b From rating curve extended above 600 ft³/s.
- c Sept. 9, 13.
- d No flow at times during 1964-66.



ST. JONES RIVER BASIN

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 mi².

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.--No estimated daily discharges. Records good. 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, 505 ft³/s, Apr. 3, gage height, 5.33 ft; minimum discharge, 2.3 ft³/s, Sept. 28, 30.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	8.4	47	27	30	64	59	80	17	23	14	9.8
2	37	7.7	40	25	28	74	187	79	17	18	12	6.8
3	43	8.0	36	24	27	61	463	54	48	14	9.8	5.7
4	24	28	29	24	29	49	287	40	70	12	8.1	4.6
5	14	62	26	31	35	44	153	33	49	12	9.7	3.9
6	9.9	46	24	36	42	42	93	30	35	18	25	3.7
7	9.0	26	31	34	48	42	74	28	66	15	17	3.6
8	8.2	16	46	35	51	61	374	26	77	84	23	3.5
9	7.9	11	46	34	53	67	318	23	74	90	26	3.4
10	8.8	9.7	73	32	53	56	162	21	206	43	16	3.2
11	7.2	11	80	28	47	46	96	21	137	22	12	3.1
12	6.7	47	63	32	39	43	71	20	58	15	9.6	3.0
13	6.4	136	48	33	34	41	60	17	38	13	8.1	2.9
14	7.7	108	37	127	43	37	53	17	29	15	6.8	3.0
15	8.1	62	31	208	80	32	48	18	24	32	6.9	3.8
16	9.2	35	28	135	80	30	43	18	19	27	12	5.4
17	8.6	25	28	77	58	30	41	17	16	89	49	5.2
18	7.1	22	27	46	46	29	39	15	14	79	32	4.8
19	21	20	29	36	37	27	38	14	13	39	15	3.9
20	27	19	28	33	33	34	36	194	16	22	11	3.6
21	19	19	23	36	43	36	34	360	17	15	9.2	3.5
22	14	20	23	34	53	32	32	185	40	13	7.9	3.4
23	11	21	38	29	48	93	36	79	60	11	6.6	3.0
24	9.6	21	59	31	45	216	57	48	25	8.9	5.9	2.8
25	8.7	24	50	33	46	150	56	44	16	11	5.0	2.7
26	8.7	19	35	34	46	83	41	48	13	12	4.4	2.7
27	8.0	18	28	36	48	59	35	42	36	14	4.8	2.8
28	8.1	88	23	30	51	86	30	30	50	15	6.4	2.5
29	8.5	86	23	27	---	154	27	25	55	11	7.2	2.6
30	9.1	59	26	29	---	135	43	22	33	16	17	2.4
31	9.0	---	27	30	---	82	---	20	---	18	18	---
TOTAL	407.5	1,082.8	1,152	1,406	1,273	2,035	3,086	1,668	1,368	826.9	415.4	115.3
MEAN	13.1	36.1	37.2	45.4	45.5	65.6	103	53.8	45.6	26.7	13.4	3.84
MAX	43	136	80	208	80	216	463	360	206	90	49	9.8
MIN	6.4	7.7	23	24	27	27	27	14	13	8.9	4.4	2.4
CFSM	0.41	1.13	1.16	1.42	1.43	2.06	3.22	1.69	1.43	0.84	0.42	0.12
IN.	0.48	1.26	1.34	1.64	1.48	2.37	3.60	1.95	1.60	0.96	0.48	0.13

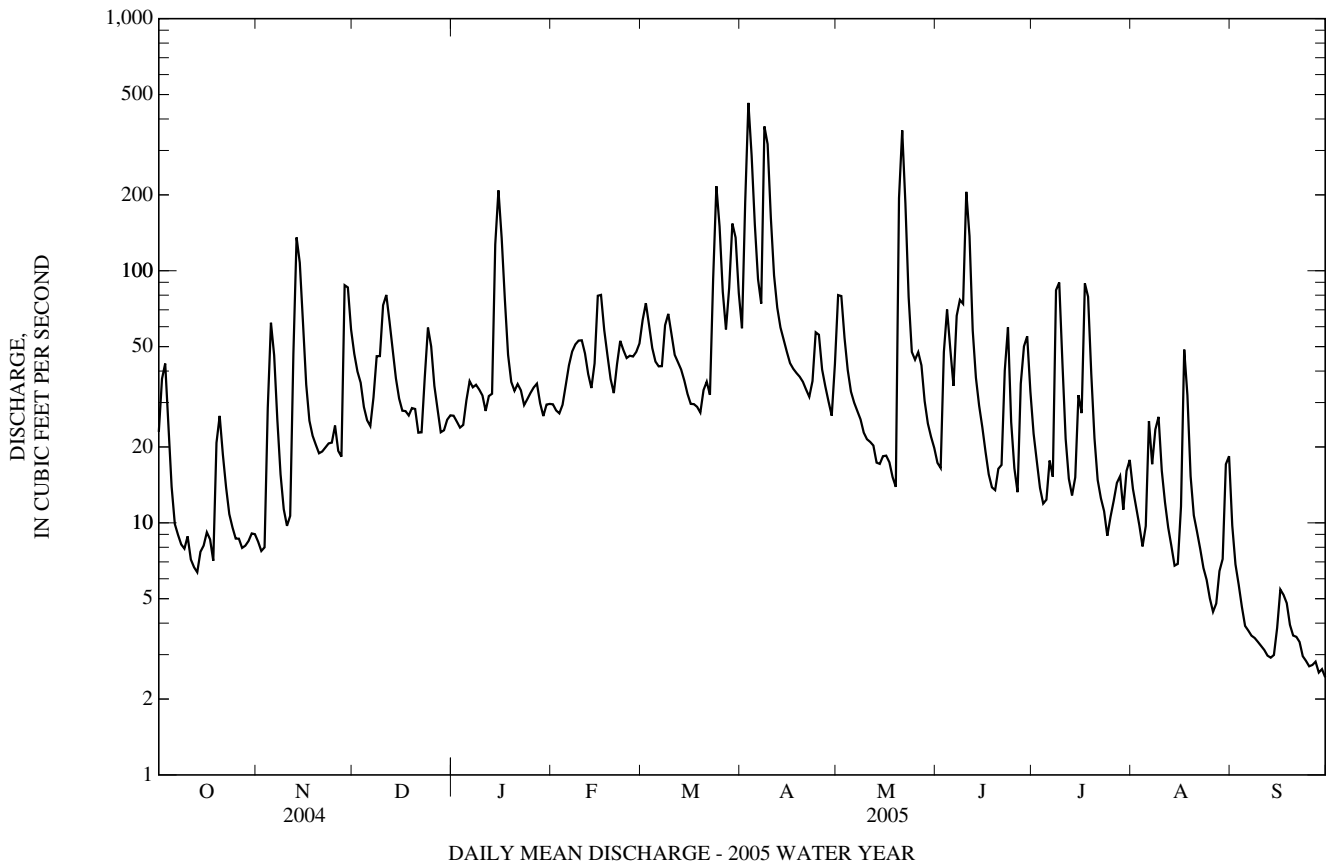
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1958 - 2005, BY WATER YEAR (WY)

	19.1	25.8	39.1	49.3	60.2	76.0	59.9	37.7	31.2	20.1	23.9	20.4
MEAN	19.1	25.8	39.1	49.3	60.2	76.0	59.9	37.7	31.2	20.1	23.9	20.4
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 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1958 - 2005	
ANNUAL TOTAL	14,909.0		14,835.9		37.8	
ANNUAL MEAN	40.7		40.6		6.14	
HIGHEST ANNUAL MEAN					79.9	2003
LOWEST ANNUAL MEAN					6.14	1966
HIGHEST DAILY MEAN	639	Jul 13	463	Apr 3	1,460	(a)
LOWEST DAILY MEAN	(b)2.2	Jul 9	2.4	Sep 30	0.00	Jul 9, 1959
ANNUAL SEVEN-DAY MINIMUM	4.8	Jul 5	2.6	Sep 24	0.34	Nov 1, 2001
MAXIMUM PEAK FLOW			505	Apr 3	1,900	Sep 13, 1960
MAXIMUM PEAK STAGE			5.33	Apr 3	(c)9.45	Sep 13, 1960
INSTANTANEOUS LOW FLOW			2.3	(d)	0.00	(f)
ANNUAL RUNOFF (CFSM)	1.28		1.27		1.19	
ANNUAL RUNOFF (INCHES)	17.39		17.30		16.11	
10 PERCENT EXCEEDS	72		79		85	
50 PERCENT EXCEEDS	27		28		21	
90 PERCENT EXCEEDS	7.8		6.8		3.7	

- a July 9, 1959, May 9, 10, 1961.
- b Regulation.
- c From floodmark.
- d Sept. 28, 30.
- f No flow at times in 1959, 1961, 1962.



MISPILLION RIVER BASIN

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 mi².

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 150 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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Apr 2	2215	44	3.59	May 20	1830	*62	*3.93

Minimum discharge, 0.76 ft³/s, on several days.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.0	0.91	2.5	2.6	3.1	6.4	5.4	5.0	4.0	2.7	2.6	1.4
2	1.1	0.84	2.4	2.6	3.1	5.3	16	4.0	4.1	2.6	2.4	1.4
3	1.1	0.84	2.3	2.6	3.1	4.7	20	3.6	6.0	2.4	2.3	1.3
4	0.98	1.4	2.2	2.6	3.1	4.6	7.5	3.4	5.5	2.3	2.1	1.2
5	0.88	1.5	2.2	2.7	3.2	4.5	6.2	3.3	4.7	2.4	2.0	1.2
6	0.86	1.1	2.2	2.6	3.7	4.4	5.8	3.3	4.3	2.5	2.0	1.2
7	0.85	1.1	2.5	2.5	4.1	4.4	5.5	3.4	6.0	2.4	2.5	1.2
8	0.86	1.1	2.5	3.0	4.1	8.5	6.5	3.2	4.3	4.5	2.3	1.2
9	0.87	1.0	2.5	2.8	4.1	6.0	5.9	3.1	3.9	2.9	2.3	1.2
10	0.84	1.0	4.1	2.6	4.3	5.3	5.5	3.1	3.9	2.6	2.2	1.1
11	0.81	1.1	3.4	2.6	3.8	5.1	5.2	3.0	3.7	2.4	2.1	1.1
12	0.85	2.5	3.3	2.9	3.7	5.0	5.0	2.9	3.5	2.3	1.9	1.1
13	0.84	4.5	2.9	2.7	3.5	4.7	4.9	2.8	3.4	2.3	1.9	1.1
14	0.92	1.9	2.7	11	4.4	4.5	4.8	2.9	3.3	7.6	1.8	1.2
15	0.99	1.7	2.6	5.5	5.7	4.4	4.4	2.8	3.1	5.1	1.8	1.2
16	0.97	1.6	2.7	4.4	4.4	4.4	4.4	2.8	3.1	3.9	1.8	1.1
17	0.88	1.6	2.7	4.1	4.1	4.4	4.4	2.6	3.0	6.4	2.0	1.0
18	0.85	1.6	2.6	3.8	3.7	4.2	4.3	2.6	2.8	4.1	1.8	0.97
19	1.1	1.6	2.6	3.8	3.5	4.1	4.1	2.5	2.7	3.7	1.8	0.93
20	2.3	1.6	2.5	3.9	3.5	4.3	3.9	32	2.6	3.4	1.8	0.97
21	1.3	1.6	2.4	3.8	4.0	4.1	3.8	15	2.6	3.3	1.7	0.94
22	1.1	1.7	2.4	3.9	5.3	4.0	3.9	7.4	2.9	3.1	1.6	0.90
23	1.1	1.8	3.7	3.8	4.3	13	4.0	6.5	3.2	3.0	1.6	0.91
24	1.1	1.8	4.0	3.4	4.1	8.7	3.9	6.0	2.8	2.8	1.5	0.87
25	1.1	2.2	3.0	3.5	4.1	6.3	3.6	5.9	2.7	2.9	1.5	0.87
26	1.0	1.9	2.8	3.5	4.3	5.8	3.4	5.8	2.6	2.6	1.5	0.87
27	1.0	1.8	2.6	3.2	4.3	5.5	3.9	5.2	3.5	2.4	1.6	0.90
28	0.99	4.8	2.6	3.1	4.8	7.1	3.4	4.8	3.0	2.3	1.6	0.86
29	1.0	2.7	2.7	3.1	---	6.8	3.3	4.5	3.1	2.6	1.5	0.86
30	0.98	2.3	2.6	3.3	---	5.8	3.8	4.3	2.9	3.0	1.6	0.81
31	0.90	---	2.6	3.1	---	5.5	---	4.3	---	2.7	1.5	---
TOTAL	31.42	53.09	84.8	109.0	111.4	171.8	166.7	162.0	107.2	99.2	58.6	31.86
MEAN	1.01	1.77	2.74	3.52	3.98	5.54	5.56	5.23	3.57	3.20	1.89	1.06
MAX	2.3	4.8	4.1	11	5.7	13	20	32	6.0	7.6	2.6	1.4
MIN	0.81	0.84	2.2	2.5	3.1	4.0	3.3	2.5	2.6	2.3	1.5	0.81
CFSM	0.36	0.63	0.97	1.24	1.41	1.96	1.96	1.85	1.26	1.13	0.67	0.38
IN.	0.41	0.70	1.11	1.43	1.46	2.26	2.19	2.13	1.41	1.30	0.77	0.42

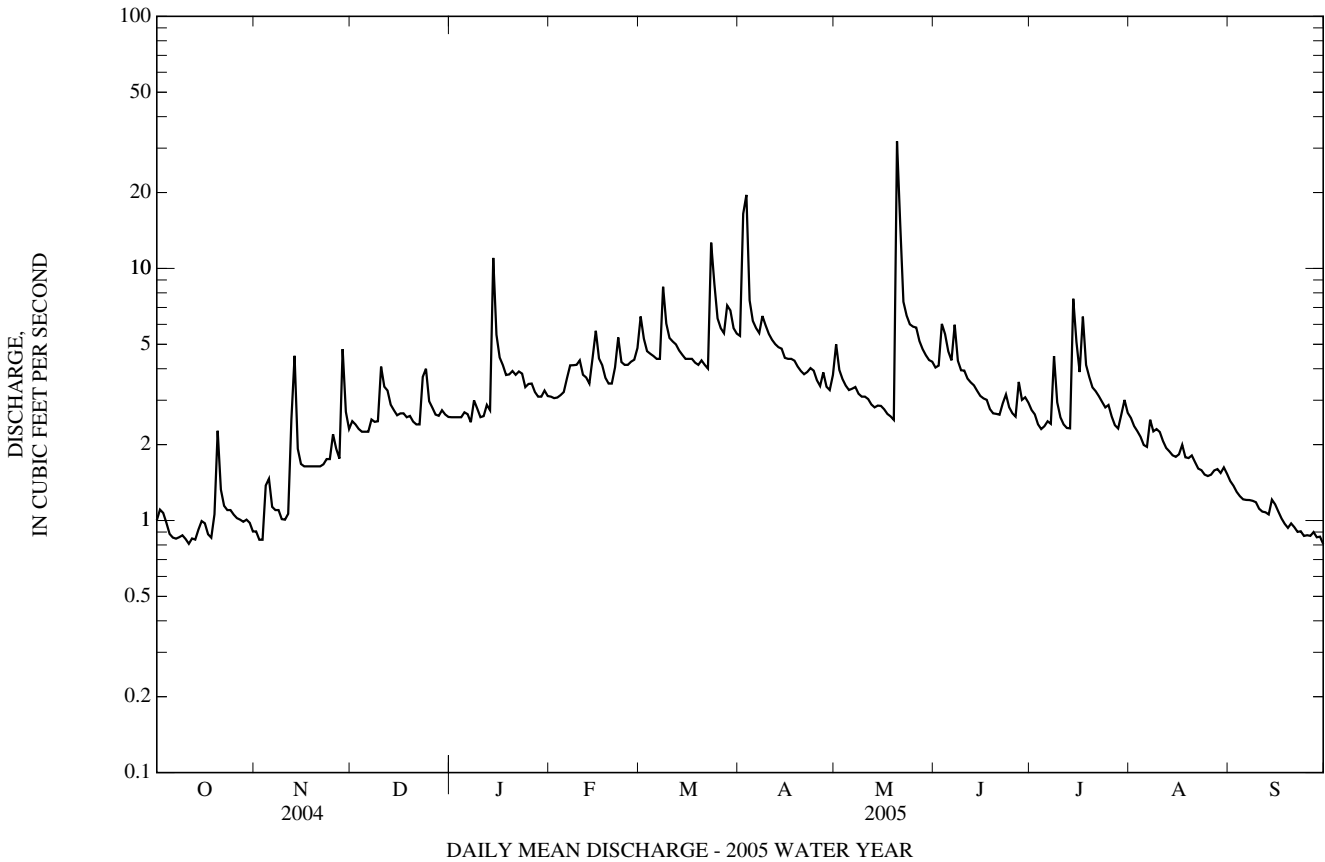
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1958 - 2005, BY WATER YEAR (WY)

MEAN	1.88	2.40	3.36	4.45	5.47	6.41	5.62	4.40	3.19	2.74	2.37	2.09
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 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1958 - 2005	
ANNUAL TOTAL	1,142.73		1,187.07			
ANNUAL MEAN	3.12		3.25		3.66	
HIGHEST ANNUAL MEAN					6.68	2003
LOWEST ANNUAL MEAN					1.20	1966
HIGHEST DAILY MEAN	27	Feb 7	32	May 20	98	May 30, 1984
LOWEST DAILY MEAN	0.81	Oct 11	0.81	Oct 11	(a)0.00	Jul 28, 1977
ANNUAL SEVEN-DAY MINIMUM	0.85	Oct 7	0.85	Oct 7	0.06	Jul 19, 1977
MAXIMUM PEAK FLOW			62	May 20	(b)176	Sep 12, 1960
MAXIMUM PEAK STAGE			3.93	May 20	5.55	Sep 12, 1960
INSTANTANEOUS LOW FLOW			0.76	(c)	(a)0.00	(d)
ANNUAL RUNOFF (CFSM)	1.10		1.15		1.29	
ANNUAL RUNOFF (INCHES)	15.02		15.60		17.57	
10 PERCENT EXCEEDS	5.3		5.4		6.6	
50 PERCENT EXCEEDS	2.6		2.8		2.8	
90 PERCENT EXCEEDS	1.0		1.0		0.84	

- a Result of pumpage for irrigation.
- b From rating curve extended above 75 ft³/s.
- c Oct. 10-12, Sep. 25-28, 30.
- d July 18-30, 1977.



BROADKILL RIVER BASIN

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 mi².

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 September 2005 (discontinued).

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 except those over 25 ft³/s, which are fair. 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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar 23	1300	43	4.09	Jun 8	2315	62	4.40
Apr 2	1700	54	4.41	Jul 8	1645	46	4.09
May 20	1400	*104	*4.89	Jul 16	0330	30	3.73
Jun 3	2245	42	4.05				

Minimum discharge, 6.4 ft³/s, Oct. 18, 19, Nov. 27.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.5	7.2	9.3	8.8	11	15	18	21	21	16	15	10
2	9.0	7.4	9.4	8.2	11	13	29	16	20	16	15	10
3	8.2	8.5	9.0	8.2	11	12	31	17	30	15	14	9.9
4	7.3	9.8	8.6	9.5	12	11	21	16	36	13	13	8.7
5	7.8	12	7.4	10	12	11	17	15	25	13	13	8.4
6	8.4	9.9	6.9	11	10	10	16	16	22	19	13	8.4
7	8.4	8.4	8.7	10	10	10	16	18	27	16	12	9.3
8	8.4	7.2	9.4	12	11	19	17	14	35	36	13	10
9	8.1	7.1	9.0	11	11	17	16	13	41	37	15	10
10	7.3	7.7	13	8.8	12	14	15	15	30	24	20	9.9
11	6.7	8.1	12	9.5	11	13	15	15	23	18	16	9.7
12	7.2	9.8	9.4	10	11	13	16	14	20	18	15	8.6
13	7.8	20	8.2	10	9.5	12	16	14	19	18	14	9.3
14	8.0	12	8.7	15	10	11	16	14	20	18	12	9.7
15	8.4	7.7	9.1	16	13	13	16	13	19	21	12	9.7
16	8.4	7.7	9.3	11	11	13	16	17	20	29	13	9.4
17	7.3	8.1	9.3	9.9	11	13	14	13	20	26	14	9.2
18	6.5	7.3	9.4	9.5	11	13	14	12	18	26	12	10
19	7.2	7.4	8.6	9.5	11	13	16	12	16	23	12	8.8
20	10	8.1	8.5	11	9.3	12	16	56	16	19	12	9.1
21	9.2	7.8	9.2	12	10	12	16	62	17	18	11	9.3
22	8.5	7.0	9.5	13	13	13	17	39	18	16	10	9.2
23	8.3	8.5	10	12	11	28	18	29	20	16	10	9.1
24	7.5	8.9	13	9.6	12	30	15	28	18	14	11	9.0
25	6.7	8.8	10	11	12	21	15	29	16	15	10	7.8
26	7.2	7.4	8.8	11	12	17	16	29	14	16	10	7.3
27	8.0	6.6	8.6	11	10	16	16	27	20	15	11	8.5
28	8.2	11	9.5	11	11	18	15	25	21	16	11	8.7
29	8.3	10	10	10	---	20	15	22	21	16	9.7	8.6
30	8.7	8.9	10	10	---	18	17	20	18	18	10	8.8
31	8.0	---	10	11	---	18	---	20	---	17	11	---
TOTAL	248.5	266.3	291.8	330.5	309.8	469	511	671	661	598	389.7	274.4
MEAN	8.02	8.88	9.41	10.7	11.1	15.1	17.0	21.6	22.0	19.3	12.6	9.15
MAX	10	20	13	16	13	30	31	62	41	37	20	10
MIN	6.5	6.6	6.9	8.2	9.3	10	14	12	14	13	9.7	7.3
CFSM	1.31	1.46	1.54	1.75	1.81	2.48	2.79	3.55	3.61	3.16	2.06	1.50
IN.	1.52	1.62	1.78	2.02	1.89	2.86	3.12	4.09	4.03	3.65	2.38	1.67

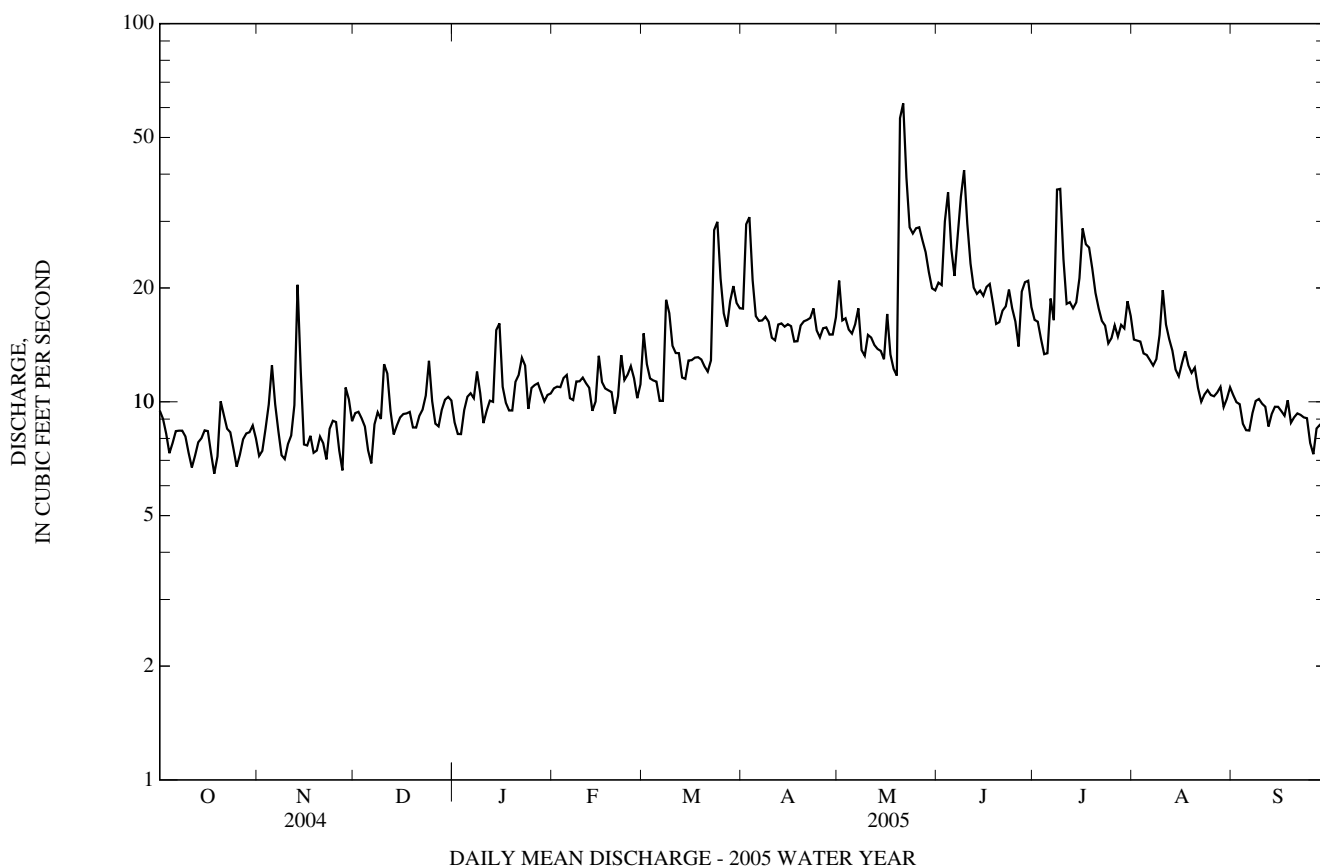
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 1980, 2002 - 2005, BY WATER YEAR (WY)

	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	2002	2003	2004	2005
MEAN	9.17	10.7	12.8	13.6	15.1	16.4	16.8	15.4	13.6	11.4	10.1	9.66		
MAX	12.2	18.7	28.9	22.1	21.1	28.9	26.5	21.6	22.0	19.3	15.2	13.5		
(WY)	(1980)	(2004)	(2004)	(2004)	(2004)	(1979)	(2003)	(2005)	(2005)	(2005)	(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 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1971 - 1980, 2002 - 2005	
	ANNUAL TOTAL	5,043.1		5,021.0		
ANNUAL MEAN	13.8		13.8		13.2	
HIGHEST ANNUAL MEAN					17.5	2003
LOWEST ANNUAL MEAN					8.28	1977
HIGHEST DAILY MEAN	47	Feb 7	62	May 21	77	Sep 1, 2002
LOWEST DAILY MEAN	6.5	Oct 18	6.5	Oct 18	3.2	(a)
ANNUAL SEVEN-DAY MINIMUM	7.6	Nov 16	7.6	Nov 16	3.4	Aug 18, 2002
MAXIMUM PEAK FLOW			104	May 20	(b)142	Sep 1, 2002
MAXIMUM PEAK STAGE			4.89	May 20	5.15	Sep 1, 2002
INSTANTANEOUS LOW FLOW			6.4	(c)	3.1	(d)
ANNUAL RUNOFF (CFSM)	2.26		2.26		2.16	
ANNUAL RUNOFF (INCHES)	30.75		30.62		29.34	
10 PERCENT EXCEEDS	21		21		20	
50 PERCENT EXCEEDS	12		12		12	
90 PERCENT EXCEEDS	8.0		8.2		7.2	

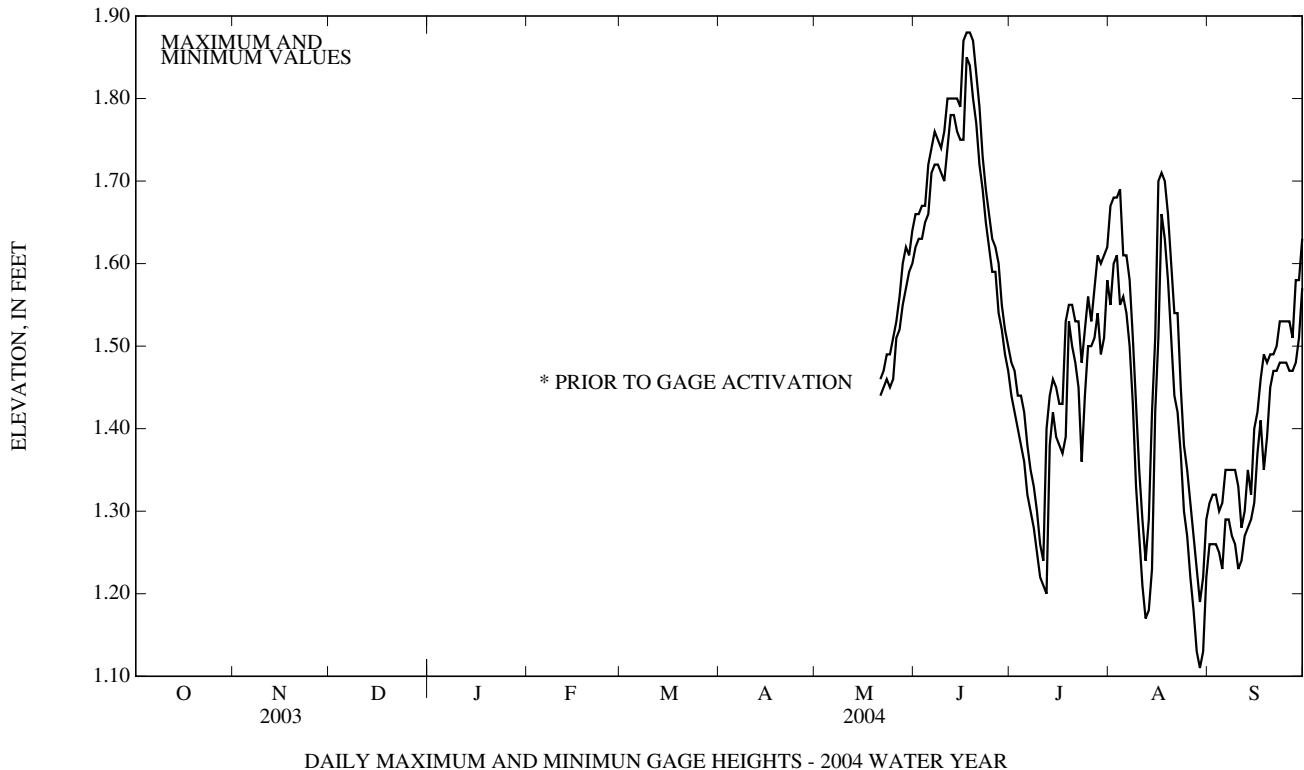
- a Aug. 19, 20, 27, 2002.
- b From rating curve extended above 23 ft³/s.
- c Oct. 18, 19, Nov. 27.
- d Aug. 23, 27, 2002.



0148431050 ROACH MARSH POND AT PRIMEHOOK BEACH, DE—Continued

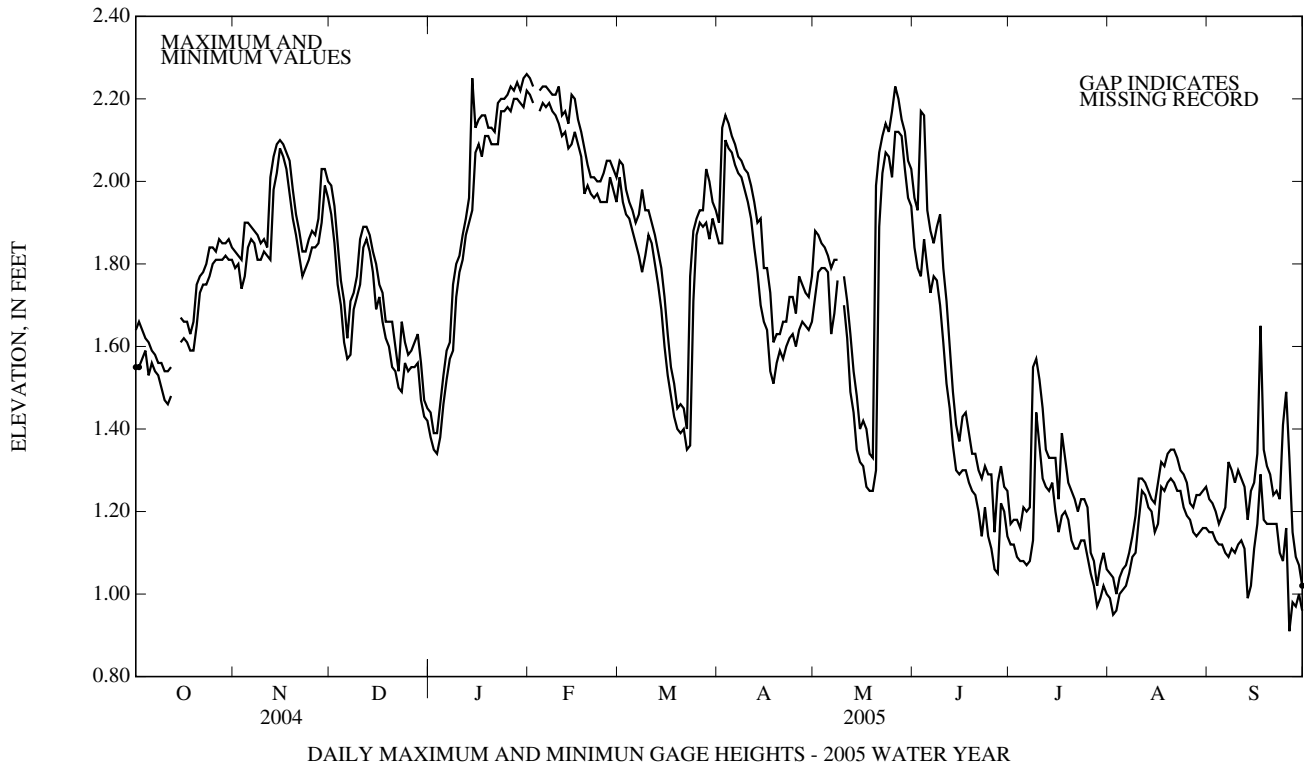
GAGE HEIGHT, FEET—CONTINUED
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	---	---	---	---	1.66	1.62	1.48	1.44	1.67	1.55	1.31	1.26
2	---	---	---	---	1.66	1.63	1.47	1.42	1.68	1.60	1.32	1.26
3	---	---	---	---	1.67	1.63	1.44	1.40	1.68	1.61	1.32	1.26
4	---	---	---	---	1.67	1.65	1.44	1.38	1.69	1.55	1.30	1.25
5	---	---	---	---	1.72	1.66	1.42	1.36	1.61	1.56	1.31	1.23
6	---	---	---	---	1.74	1.71	1.38	1.32	1.61	1.54	1.35	1.29
7	---	---	---	---	1.76	1.72	1.35	1.30	1.58	1.50	1.35	1.29
8	---	---	---	---	1.75	1.72	1.33	1.28	1.51	1.43	1.35	1.27
9	---	---	---	---	1.74	1.71	1.30	1.25	1.43	1.33	1.35	1.26
10	---	---	---	---	1.76	1.70	1.26	1.22	1.35	1.27	1.33	1.23
11	---	---	---	---	1.80	1.74	1.24	1.21	1.29	1.21	1.28	1.24
12	---	---	---	---	1.80	1.78	1.40	1.20	1.24	1.17	1.30	1.27
13	---	---	---	---	1.80	1.78	1.44	1.38	1.29	1.18	1.35	1.28
14	---	---	---	---	1.80	1.76	1.46	1.42	1.42	1.23	1.32	1.29
15	---	---	---	---	1.79	1.75	1.45	1.39	1.51	1.42	1.40	1.31
16	---	---	---	---	1.87	1.75	1.43	1.38	1.70	1.51	1.42	1.37
17	---	---	---	---	1.88	1.85	1.43	1.37	1.71	1.66	1.46	1.41
18	---	---	---	---	1.88	1.84	1.53	1.39	1.70	1.63	1.49	1.35
19	---	---	---	---	1.87	1.80	1.55	1.53	1.66	1.58	1.48	1.39
20	---	---	---	---	1.83	1.77	1.55	1.50	1.60	1.51	1.49	1.45
21	---	---	1.46	1.44	1.79	1.72	1.53	1.48	1.54	1.44	1.49	1.47
22	---	---	1.47	1.45	1.73	1.69	1.53	1.45	1.54	1.42	1.50	1.47
23	---	---	1.49	1.46	1.69	1.65	1.48	1.36	1.45	1.37	1.53	1.48
24	---	---	1.49	1.45	1.66	1.62	1.52	1.44	1.38	1.30	1.53	1.48
25	---	---	1.51	1.46	1.63	1.59	1.56	1.50	1.35	1.27	1.53	1.48
26	---	---	1.53	1.51	1.62	1.59	1.53	1.50	1.31	1.22	1.53	1.47
27	---	---	1.56	1.52	1.60	1.54	1.57	1.51	1.27	1.18	1.51	1.47
28	---	---	1.60	1.55	1.55	1.52	1.61	1.54	1.23	1.13	1.58	1.48
29	---	---	1.62	1.57	1.52	1.49	1.60	1.49	1.19	1.11	1.58	1.51
30	---	---	1.61	1.59	1.50	1.47	1.61	1.51	1.22	1.13	1.63	1.57
31	---	---	1.64	1.60	---	---	1.62	1.58	1.29	1.22	---	---
MONTH	---	---	1.64	1.44	1.88	1.47	1.62	1.20	1.71	1.11	1.63	1.23
YEAR	1.88	1.11										



0148431050 ROACH MARSH POND AT PRIMEHOOK BEACH, DE—Continued

e Estimated



BROADKILL RIVER BASIN

01484320 PETERSFIELD DITCH AT BROADKILL BEACH, DE

LOCATION.--Lat 38°49'15.5", long 75°13'41.5", Sussex County, Hydrologic Unit 02040207, on left bank, 0.5 mi upstream of small unnamed tributary, 0.7 mi upstream from confluence (mouth) with Broadkill River, and 1.0 mi southwest of Broadkill Beach.

DRAINAGE AREA.--1.79 mi².

PERIOD OF RECORD.--April 2004 to September 2005 (discontinued).

GAGE.--Water-stage recorder and acoustic velocity meter. Datum of gage is 5 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records fair except those for estimated daily discharges (erroneous or missing data), which are poor. Flow is affected by tide and is regulated by verticle lift gates at structure located about 500 feet downstream of station. Discharge computed from relations between stage vs. area and index velocity vs. mean channel velocity. U.S. Geological Survey gage-height telemeter at station. Several measurements of water temperature were made during the year.

EXTREMES FOR 2004 WATER YEAR.--Maximum discharge, 134 ft³/s, Apr. 17; minimum discharge, -33 ft³/s, Aug. 1, 4.

DISCHARGE, CUBIC FEET PER SECOND
APRIL 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

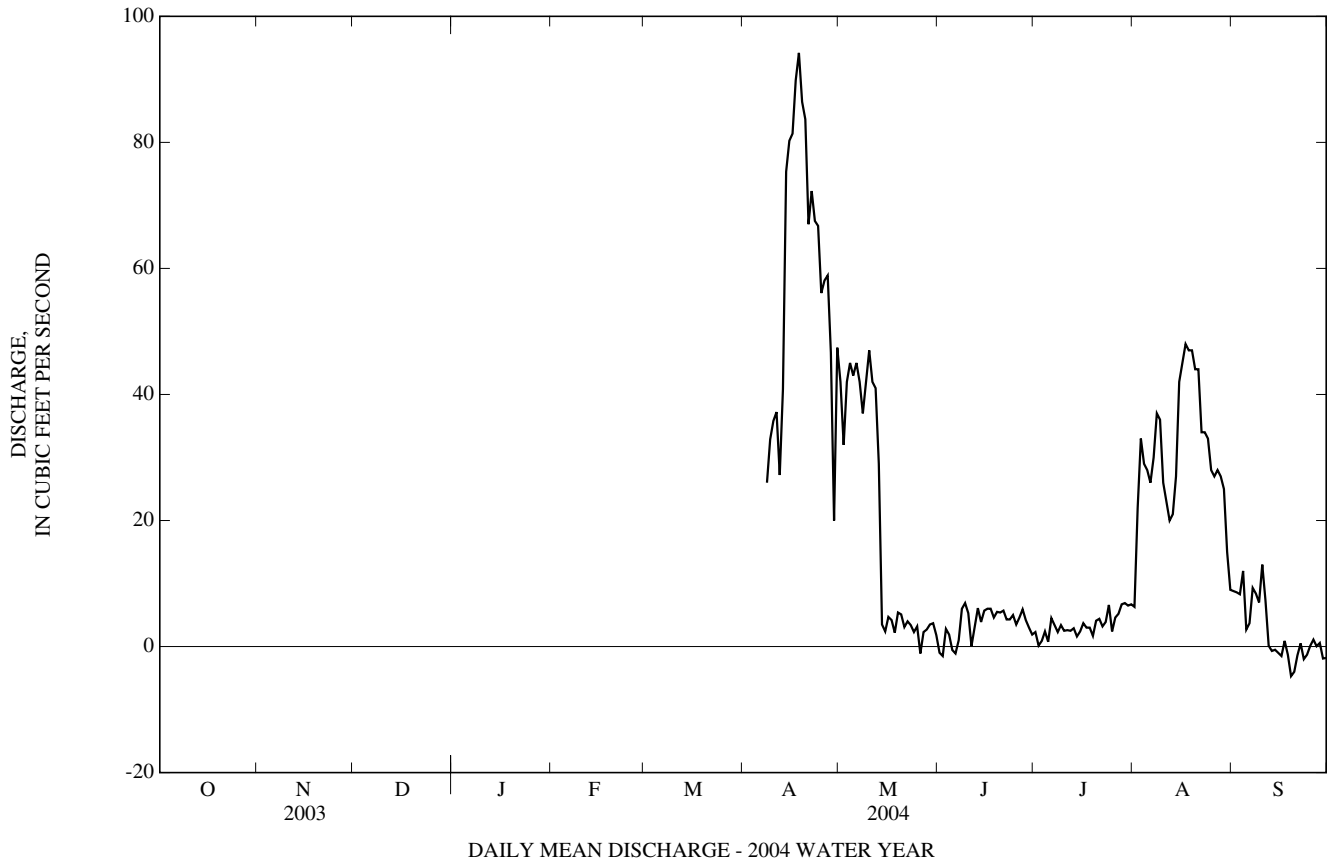
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	42	-0.98	2.3	6.3	8.8
2	---	---	---	---	---	---	---	32	-1.5	0.16	22	8.6
3	---	---	---	---	---	---	---	42	2.8	0.90	33	8.3
4	---	---	---	---	---	---	---	45	1.9	2.4	29	12
5	---	---	---	---	---	---	---	43	-0.55	0.76	28	2.7
6	---	---	---	---	---	---	---	45	-1.1	4.5	26	3.7
7	---	---	---	---	---	---	---	42	1.0	3.4	30	9.3
8	---	---	---	---	---	---	e26	37	6.0	2.3	37	8.4
9	---	---	---	---	---	---	33	42	6.9	3.4	36	7.0
10	---	---	---	---	---	---	36	47	5.3	2.5	26	13
11	---	---	---	---	---	---	37	42	0.08	2.6	23	7.3
12	---	---	---	---	---	---	27	41	3.1	2.5	20	0.13
13	---	---	---	---	---	---	41	29	6.1	2.9	21	-0.70
14	---	---	---	---	---	---	75	3.5	3.9	1.6	27	-0.51
15	---	---	---	---	---	---	80	2.4	5.7	2.4	42	-1.0
16	---	---	---	---	---	---	81	4.7	6.0	3.7	45	-1.5
17	---	---	---	---	---	---	90	4.2	6.0	3.0	48	0.90
18	---	---	---	---	---	---	94	2.2	4.6	3.0	47	-1.3
19	---	---	---	---	---	---	86	5.4	5.5	1.7	47	-4.7
20	---	---	---	---	---	---	84	5.1	5.4	4.1	44	-4.0
21	---	---	---	---	---	---	67	3.1	5.7	4.4	44	-1.4
22	---	---	---	---	---	---	72	4.0	4.3	3.2	34	0.50
23	---	---	---	---	---	---	68	3.4	4.3	3.9	34	-2.0
24	---	---	---	---	---	---	67	2.3	5.0	6.6	33	-1.3
25	---	---	---	---	---	---	56	3.2	3.5	2.4	28	0.11
26	---	---	---	---	---	---	58	-1.1	4.6	4.6	27	1.1
27	---	---	---	---	---	---	59	2.3	5.9	5.2	28	0.05
28	---	---	---	---	---	---	47	2.7	4.2	6.7	27	0.57
29	---	---	---	---	---	---	e20	3.5	3.0	6.9	25	-1.9
30	---	---	---	---	---	---	47	3.7	1.9	6.5	15	-1.8
31	---	---	---	---	---	---	---	1.8	---	6.7	9.0	---
MEAN	---	---	---	---	---	---	---	18.9	3.62	3.46	30.4	2.35
MAX	---	---	---	---	---	---	---	47	6.9	6.9	48	13
MIN	---	---	---	---	---	---	---	-1.1	-1.5	0.16	6.3	-4.7
AC-FT	---	---	---	---	---	---	---	1,160	215	213	1,870	140
CFSM	---	---	---	---	---	---	---	10.5	2.02	1.93	17.0	1.31
IN.	---	---	---	---	---	---	---	12.17	2.26	2.23	19.56	1.46

e Estimated

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

MEAN	---	---	---	---	---	---	---	18.9	3.62	3.46	30.4	2.35
MAX	---	---	---	---	---	---	---	18.9	3.62	3.46	30.4	2.35
(WY)	---	---	---	---	---	---	---	(2004)	(2004)	(2004)	(2004)	(2004)
MIN	---	---	---	---	---	---	---	18.9	3.62	3.46	30.4	2.35
(WY)	---	---	---	---	---	---	---	(2004)	(2004)	(2004)	(2004)	(2004)

01484320 PETERSFIELD DITCH AT BROADKILL BEACH, DE—Continued



BROADKILL RIVER BASIN

01484320 PETERSFIELD DITCH AT BROADKILL BEACH, DE—Continued

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 134 ft³/s, Nov. 18; minimum discharge, -86 ft³/s, Apr. 23.DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.60	6.3	74	36	43	28	e53	5.9	65	22	20	12
2	2.5	2.3	89	29	52	79	e21	23	63	26	21	12
3	1.2	4.8	80	16	e37	77	70	24	55	25	13	12
4	1.9	3.0	63	2.9	30	74	87	25	69	28	11	9.9
5	0.04	8.0	70	-0.49	37	63	80	25	70	26	10	8.0
6	3.0	4.2	37	-2.0	40	62	67	15	64	28	12	7.3
7	5.0	4.1	-1.1	0.32	48	50	64	7.9	71	22	11	9.3
8	5.7	6.4	3.2	3.4	58	58	61	15	74	18	10	10
9	4.4	4.2	24	-1.5	50	63	57	29	64	45	12	9.3
10	3.8	2.6	17	-0.79	59	65	58	43	62	53	9.2	8.3
11	1.7	2.7	e21	0.62	e76	60	61	55	61	45	15	9.8
12	1.3	-0.65	43	-2.7	e62	60	74	58	54	34	14	10
13	-1.5	-0.51	50	-5.7	76	58	70	49	44	32	14	9.3
14	-5.8	3.6	52	5.3	64	66	71	51	38	34	13	4.4
15	-5.8	27	49	5.8	72	78	24	39	24	33	9.0	5.9
16	-1.3	45	44	3.7	78	65	56	33	19	30	4.5	6.3
17	3.9	58	56	22	74	55	74	33	28	30	8.4	4.5
18	4.2	77	42	29	79	54	23	30	30	32	8.9	6.7
19	-2.0	79	30	23	78	49	1.1	27	23	29	8.7	e8.1
20	-13	70	51	24	74	42	2.6	-2.9	25	31	5.8	9.3
21	-7.6	68	49	21	54	48	3.7	28	30	26	7.7	9.5
22	-6.0	51	48	16	51	39	1.2	45	28	23	9.5	9.6
23	-10	14	34	27	56	17	-1.8	46	28	23	8.9	11
24	-12	0.86	36	17	42	27	-1.5	35	9.0	22	e11	4.0
25	-9.4	3.5	30	23	37	50	1.6	11	25	25	e12	9.7
26	-3.0	5.6	22	17	56	60	-0.51	19	27	23	12	8.5
27	-0.19	6.4	22	22	72	57	-0.68	55	27	23	10	12
28	-1.3	2.3	17	10	54	42	2.6	64	32	20	8.9	6.3
29	0.15	44	36	25	---	52	-0.09	65	31	22	12	8.5
30	-0.83	71	29	29	---	65	-0.78	59	29	23	11	7.9
31	2.9	---	28	25	---	60	---	69	---	18	9.7	---
MEAN	-1.21	22.5	40.2	13.5	57.5	55.6	35.9	34.9	42.3	28.1	11.1	8.65
MAX	5.7	79	89	36	79	79	87	69	74	53	21	12
MIN	-13	-0.65	-1.1	-5.7	30	17	-1.8	-2.9	9.0	18	4.5	4.0
AC-FT	-74	1,340	2,470	833	3,190	3,420	2,140	2,140	2,520	1,730	681	515
CFSM	-0.67	12.5	22.4	7.57	32.1	31.1	20.1	19.5	23.6	15.7	6.18	4.83
IN.	-0.78	14.00	25.88	8.73	33.44	35.81	22.41	22.46	26.37	18.10	7.13	5.39

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2004 - 2005, BY WATER YEAR (WY)

MEAN	-1.21	22.5	40.2	13.5	57.5	55.6	35.9	26.9	23.0	15.8	20.7	5.50
MAX	-1.21	22.5	40.2	13.5	57.5	55.6	35.9	34.9	42.3	28.1	30.4	8.65
(WY)	(2005)	(2005)	(2005)	(2005)	(2005)	(2005)	(2005)	(2005)	(2005)	(2005)	(2004)	(2005)
MIN	-1.21	22.5	40.2	13.5	57.5	55.6	35.9	18.9	3.62	3.46	11.1	2.35
(WY)	(2005)	(2005)	(2005)	(2005)	(2005)	(2005)	(2005)	(2004)	(2004)	(2004)	(2005)	(2004)

01484320 PETERSFIELD DITCH AT BROADKILL BEACH, DE—Continued

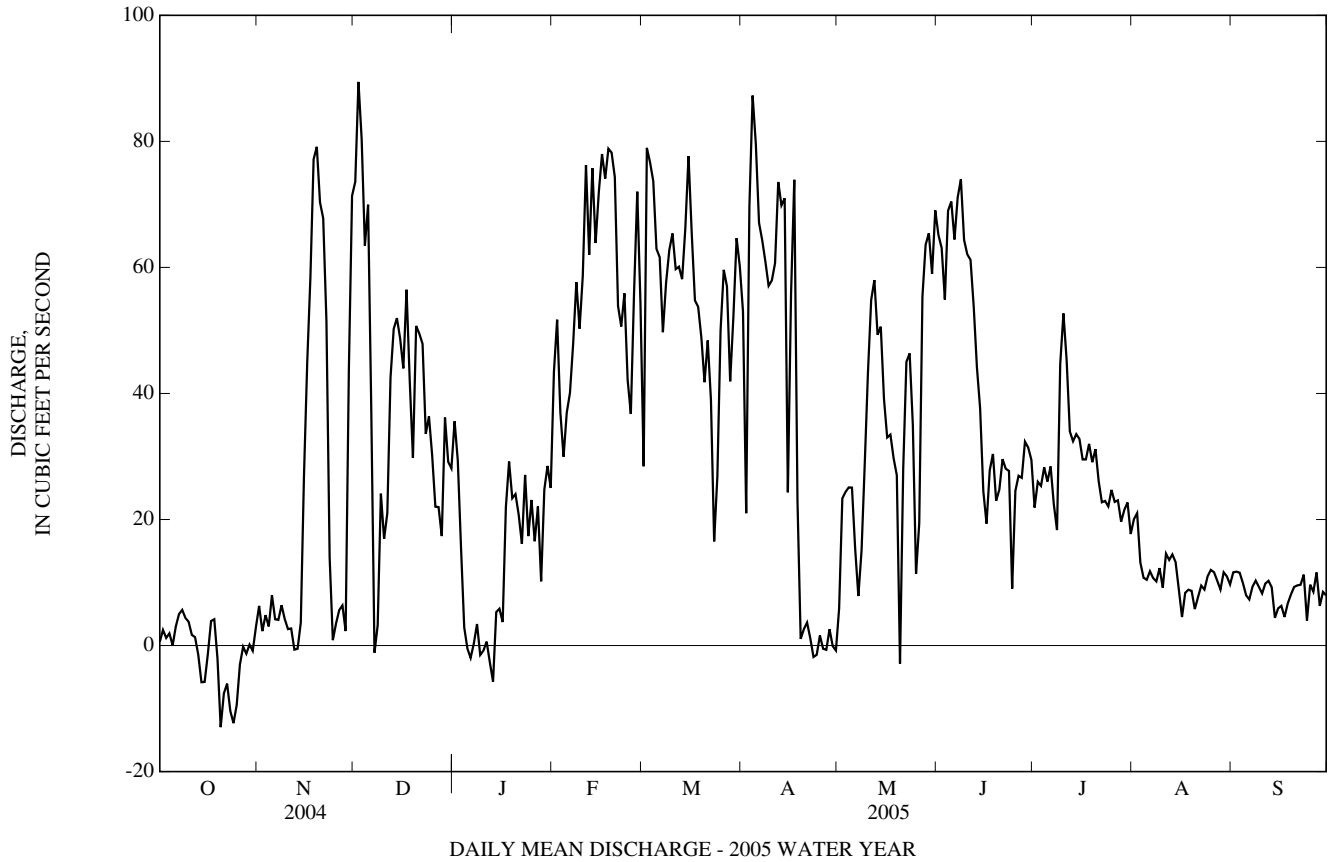
SUMMARY STATISTICS

FOR 2005 WATER YEAR

WATER YEARS 2004 - 2005

ANNUAL MEAN	28.9		28.9	
HIGHEST ANNUAL MEAN			28.9	2005
LOWEST ANNUAL MEAN			28.9	2005
HIGHEST DAILY MEAN		Dec 2	94	Apr 18, 2004
LOWEST DAILY MEAN	-13	Oct 20	-13	Oct 20, 2004
ANNUAL SEVEN-DAY MINIMUM	-8.7	Oct 20	-8.7	Oct 20, 2004
MAXIMUM PEAK FLOW	134	Nov 18	134	(a)
MAXIMUM PEAK STAGE	3.36	Feb 11	3.36	Feb 11, 2005
INSTANTANEOUS LOW FLOW	-86	Apr 23	-86	Apr 23, 2005
ANNUAL RUNOFF (AC-FT)	20,900		20,910	
ANNUAL RUNOFF (CFSM)	16.1		16.1	
ANNUAL RUNOFF (INCHES)	218.94		219.09	
10 PERCENT EXCEEDS	65		65	
50 PERCENT EXCEEDS	24		24	
90 PERCENT EXCEEDS	0.76		0.76	

a Apr. 17, Nov. 18, 2004.



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 mi².

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.--Records fair except those for estimated daily discharges (missing record), which are poor. 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, 572 ft³/s, May 21, gage height, 3.88 ft; minimum discharge, 28 ft³/s, Sept. 29.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	57	37	72	69	103	146	152	123	107	e103	84	50
2	58	37	70	67	100	152	197	115	108	e98	79	45
3	60	37	65	67	98	129	476	93	119	e88	74	44
4	58	45	60	66	95	121	390	88	136	e80	69	39
5	55	64	60	67	100	118	259	86	104	e74	62	37
6	54	57	60	68	102	113	213	87	69	80	61	37
7	54	51	64	70	102	107	193	89	72	85	70	37
8	54	50	68	76	102	147	183	83	77	247	77	37
9	54	47	64	83	102	184	176	79	e124	410	86	37
10	52	47	90	73	106	163	167	77	e201	224	e98	37
11	51	44	113	70	100	133	157	77	e164	149	e86	37
12	51	48	105	70	93	124	148	75	e145	126	e83	36
13	48	103	86	71	91	121	141	74	e133	109	73	34
14	47	105	80	103	100	118	139	73	e124	102	68	36
15	48	83	78	136	123	115	132	80	e118	124	64	37
16	50	68	73	124	120	110	124	125	110	175	64	37
17	49	60	67	102	110	107	123	84	106	222	70	37
18	41	56	67	91	105	107	123	74	96	207	64	52
19	40	54	69	84	98	104	120	74	90	149	61	45
20	63	54	76	84	96	102	116	223	84	126	60	38
21	62	54	68	87	104	101	109	494	e83	108	59	37
22	55	54	67	93	128	98	107	297	85	102	55	37
23	54	54	73	110	125	166	106	188	92	96	52	34
24	54	54	86	100	118	349	108	172	87	85	52	32
25	54	56	85	93	120	275	101	154	83	82	51	33
26	52	54	79	93	108	201	91	157	80	77	51	36
27	47	52	74	92	107	171	88	150	119	76	51	36
28	47	87	70	85	117	166	87	135	117	79	51	32
29	46	99	70	82	---	183	84	123	116	77	51	31
30	43	78	70	95	---	185	89	114	106	85	51	31
31	37	---	70	111	---	162	---	108	---	86	51	---
TOTAL	1,595	1,789	2,299	2,682	2,973	4,578	4,699	3,971	3,255	3,931	2,028	1,128
MEAN	51.5	59.6	74.2	86.5	106	148	157	128	108	127	65.4	37.6
MAX	63	105	113	136	128	349	476	494	201	410	98	52
MIN	37	37	60	66	91	98	84	73	69	74	51	31
CFSM	0.78	0.90	1.12	1.31	1.61	2.24	2.37	1.94	1.64	1.92	0.99	0.57
IN.	0.90	1.01	1.30	1.51	1.68	2.58	2.65	2.24	1.83	2.22	1.14	0.64

e Estimated

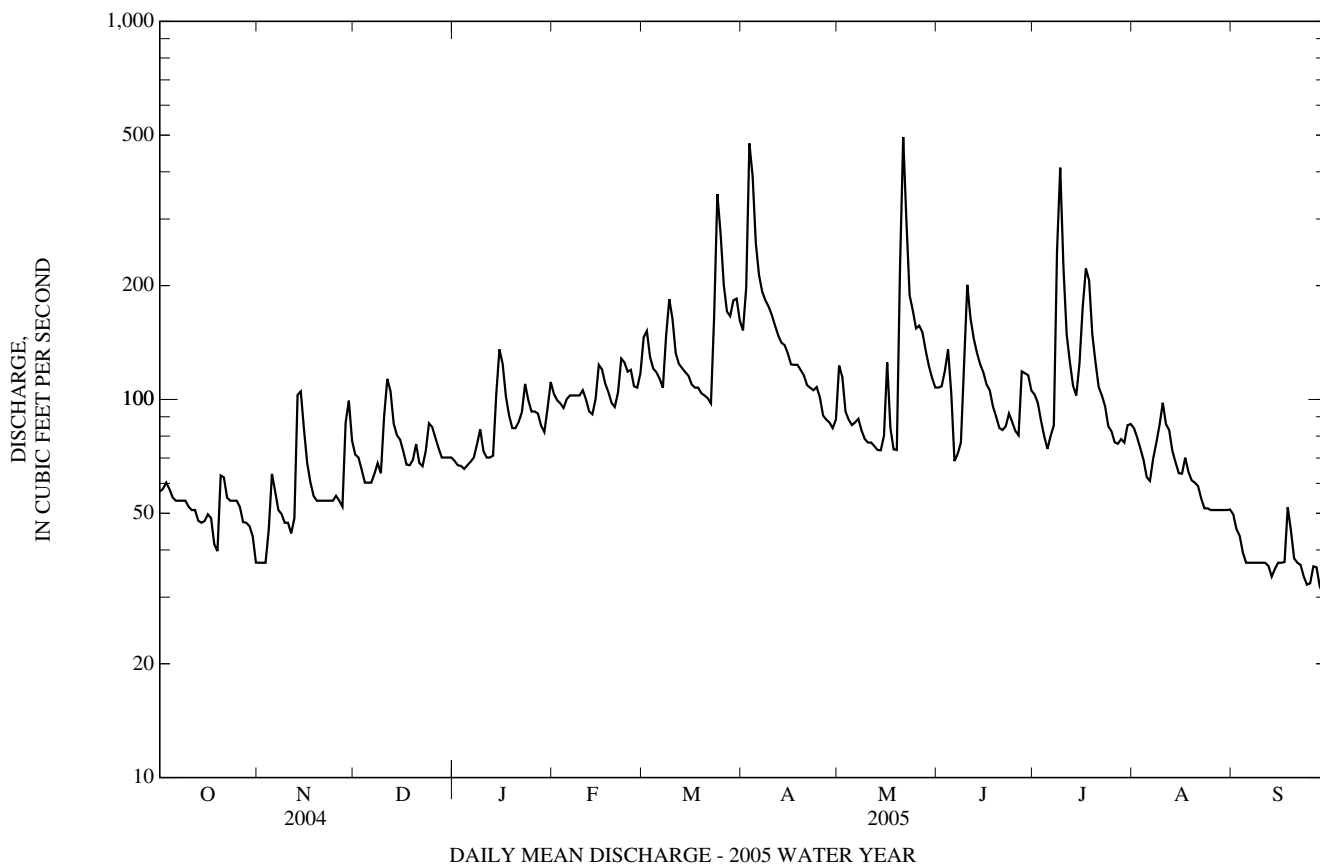
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1986 - 1988, 1991 - 2005, BY WATER YEAR (WY)

MEAN	55.8	69.6	92.0	103	141	158	145	105	75.0	59.3	62.8	61.2
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 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1986 - 1988, 1991 - 2005	
	ANNUAL TOTAL	37,537		34,928		95.2
ANNUAL MEAN	103		95.7		173	2003
HIGHEST ANNUAL MEAN					42.3	2002
LOWEST ANNUAL MEAN					1,260	Mar 4, 1994
HIGHEST DAILY MEAN	467	Apr 14	494	May 21	(c,e)0.00	Aug 30, 1998
LOWEST DAILY MEAN	37	(a)	31	(b)	10	Aug 9, 2002
ANNUAL SEVEN-DAY MINIMUM	40	Oct 29	33	Sep 24	(d)1,770	Mar 3, 1994
MAXIMUM PEAK FLOW			572	May 21	4.94	Mar 3, 1994
MAXIMUM PEAK STAGE			3.88	May 21	(a)0.00	(f)
INSTANTANEOUS LOW FLOW			28	Sep 29	1.44	
ANNUAL RUNOFF (CFSM)	1.55		1.45		19.59	
ANNUAL RUNOFF (INCHES)	21.16		19.69		176	
10 PERCENT EXCEEDS	172		153		75	
50 PERCENT EXCEEDS	85		84		29	
90 PERCENT EXCEEDS	49		45			

- a Oct. 31, Nov. 1-3.
- b Sept. 29, 30.
- c As a result of lake being refilled.
- e Estimated.
- d From rating curve extended above 1,500 ft³/s.
- f Aug. 29-31, 1998.



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 mi².

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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar 23	1930	108	4.41	May 20	1915	*143	*4.91
Apr 2	2145	119	4.57	Jun 3	2115	84	3.99

Minimum discharge, 0.03 ft³/s, on several days.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.71	0.18	5.3	3.7	9.1	14	7.2	3.4	2.6	3.8	1.1	0.07
2	0.68	0.16	4.8	3.4	8.1	9.7	47	3.2	2.3	3.1	0.87	0.07
3	0.75	0.16	4.1	3.0	e6.9	6.9	63	2.8	32	2.6	0.75	0.06
4	0.67	0.43	3.4	2.9	6.6	5.6	17	2.4	50	2.2	0.68	0.06
5	0.58	0.85	3.0	2.9	6.5	5.1	11	2.2	15	1.8	0.63	0.06
6	0.49	0.72	2.7	3.0	6.1	4.7	8.4	2.1	9.7	1.8	0.60	0.06
7	0.43	0.62	3.4	3.0	5.8	4.3	7.1	2.6	12	1.6	0.60	0.06
8	0.39	0.53	5.0	3.0	5.7	13	6.8	2.3	9.2	27	0.59	0.05
9	0.35	0.46	4.1	3.4	5.4	13	8.1	2.0	6.3	14	0.79	0.05
10	0.31	0.40	19	3.1	5.8	8.6	6.7	1.8	4.9	7.0	0.81	0.04
11	0.29	0.36	22	2.9	5.5	7.2	5.6	1.7	4.0	4.8	0.54	0.05
12	0.27	0.91	14	2.7	4.6	6.7	e5.1	1.6	3.3	3.7	0.45	0.06
13	0.25	19	10	2.5	4.1	5.7	4.8	1.5	2.9	3.2	0.40	0.06
14	0.26	9.7	8.0	10	4.7	4.9	4.3	1.4	2.5	2.8	0.34	0.08
15	0.28	5.8	6.3	15	12	4.3	3.7	1.4	2.0	2.6	0.32	0.08
16	0.31	4.4	5.3	9.0	8.8	3.8	3.5	1.8	1.8	2.2	0.33	0.03
17	0.26	3.6	4.7	6.6	6.9	3.6	3.3	1.5	1.6	1.9	0.43	0.06
18	0.22	3.0	4.1	4.8	5.6	3.4	3.2	1.4	1.5	1.7	0.32	0.05
19	0.21	2.7	3.9	3.8	4.5	3.2	3.0	1.3	1.3	1.6	0.28	0.04
20	0.31	2.4	4.2	3.5	4.0	3.1	2.8	67	1.2	1.3	0.25	0.04
21	0.30	2.2	3.6	3.3	4.7	3.2	2.7	72	1.1	1.2	0.22	0.03
22	0.27	2.1	3.4	4.0	12	3.0	2.6	17	e1.1	1.0	0.20	0.03
23	0.24	2.2	3.7	11	8.8	47	2.5	10	e1.0	0.89	0.18	0.03
24	0.24	2.2	6.4	6.9	7.5	50	2.5	7.7	0.93	0.81	0.17	0.04
25	0.22	2.9	5.3	5.5	9.1	15	2.3	6.7	0.91	0.83	0.16	0.04
26	0.21	3.8	4.6	5.1	8.4	12	2.0	7.7	0.86	0.80	0.15	0.04
27	0.19	3.0	4.1	e5.9	7.6	9.7	2.1	6.5	3.0	0.80	0.22	0.04
28	0.18	12	3.4	4.0	7.5	13	2.1	5.0	3.1	1.0	0.18	0.04
29	0.18	11	3.3	3.1	---	16	2.0	4.1	4.8	0.84	0.16	0.04
30	0.18	6.7	3.7	10	---	11	2.0	3.3	5.4	1.8	0.16	0.04
31	0.17	---	3.8	12	---	8.4	---	3.0	---	1.4	0.12	---
TOTAL	10.40	104.48	182.6	163.0	192.3	319.1	244.4	248.4	188.30	102.07	13.00	1.50
MEAN	0.34	3.48	5.89	5.26	6.87	10.3	8.15	8.01	6.28	3.29	0.42	0.05
MAX	0.75	19	22	15	12	50	63	72	50	27	1.1	0.08
MIN	0.17	0.16	2.7	2.5	4.0	3.0	2.0	1.3	0.86	0.80	0.12	0.03
CFSM	0.15	1.55	2.63	2.35	3.07	4.60	3.64	3.58	2.80	1.47	0.19	0.02
IN.	0.17	1.74	3.03	2.71	3.19	5.30	4.06	4.13	3.13	1.70	0.22	0.02

e Estimated

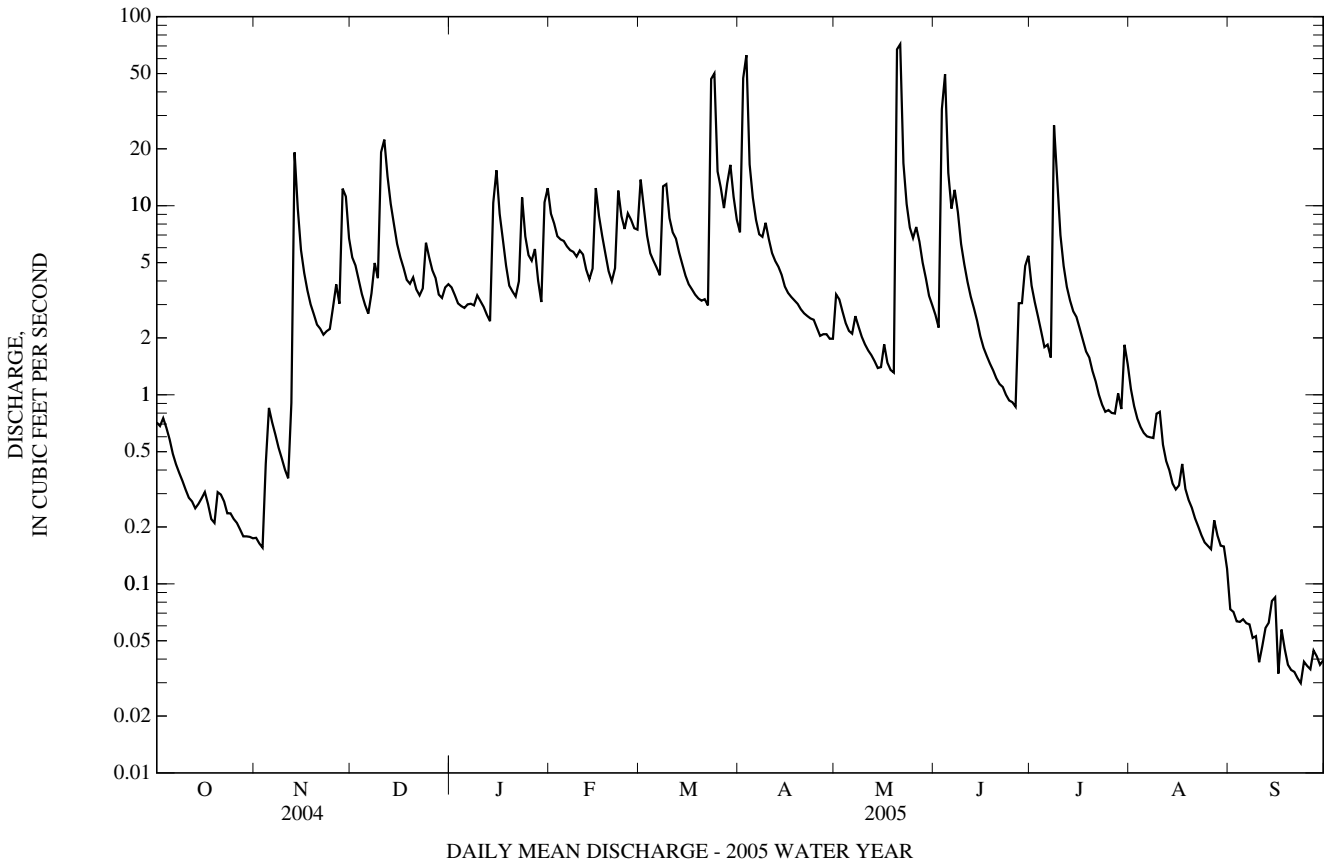
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1998 - 2005, BY WATER YEAR (WY)

MEAN	2.82	4.29	5.34	3.98	6.39	7.10	6.67	3.45	3.37	2.27	2.90	2.36
MAX	7.69	14.3	17.3	5.74	15.1	11.3	12.5	8.01	6.73	7.47	9.69	5.88
(WY)	(2003)	(2003)	(2004)	(2004)	(2003)	(2000)	(2003)	(2005)	(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	0.05
(WY)	(1999)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(1999)	(2002)	(1999)	(2002)	(2005)

01484695 BEAVERDAM DITCH NEAR MILLVILLE, DE—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1998 - 2005	
ANNUAL TOTAL	1,406.29		1,769.55		4.26	
ANNUAL MEAN	3.84		4.85		7.29	
HIGHEST ANNUAL MEAN					1.19	
LOWEST ANNUAL MEAN					2002	
HIGHEST DAILY MEAN	60	Apr 13	72	May 21	119	Mar 22, 2000
LOWEST DAILY MEAN	0.06	Jul 11	0.03	(a)	0.00	(b)
ANNUAL SEVEN-DAY MINIMUM	0.11	Jul 6	0.04	Sep 19	0.01	Jul 12, 2002
MAXIMUM PEAK FLOW			143	May 20	(c)147	Mar 22, 2000
MAXIMUM PEAK STAGE			4.91	May 20	4.97	Mar 22, 2000
INSTANTANEOUS LOW FLOW			0.03	(d)	0.00	(f)
ANNUAL RUNOFF (CFSM)	1.72		2.16		1.90	
ANNUAL RUNOFF (INCHES)	23.35		29.39		25.82	
10 PERCENT EXCEEDS	7.8		10		9.3	
50 PERCENT EXCEEDS	2.2		2.9		2.0	
90 PERCENT EXCEEDS	0.26		0.16		0.12	

- a Sept. 16, 21-23.
- b July 17, 18, 2002.
- c From rating curve extended above 55 ft³/s.
- d Sept. 10, 16-30.
- f July 8-13, 15-18, Aug. 14, 22, 2002.



SAINT MARTIN RIVER BASIN

0148471320 BIRCH BRANCH AT SHOWELL, MD

LOCATION.--Lat 38°24'33.6", long 75°12'44.6", Worcester 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 mi².

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 good 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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov 13	0530	154	7.55	Apr 2	1845	*399	*8.89
Nov 28	1130	119	7.23	May 20	1445	280	8.39
Dec 10	1315	138	7.41	Jun 3	1700	208	7.95
Mar 23	1530	254	8.24	Jul 8	0845	326	8.61

Minimum discharge, 0.40 ft³/s, Sept. 28-30.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.1	3.0	13	8.5	18	30	9.2	4.4	3.8	4.2	2.1	0.79
2	7.0	3.0	11	7.4	15	16	133	3.7	3.6	3.5	1.9	0.70
3	7.4	3.2	9.9	7.0	e13	11	81	3.2	66	3.1	1.7	0.65
4	5.2	4.8	8.6	6.7	12	9.3	28	2.8	45	2.7	1.5	0.61
5	4.1	7.6	7.9	7.0	12	8.6	16	2.6	19	2.5	1.4	0.59
6	3.3	6.8	7.3	7.8	11	7.9	12	2.6	12	2.6	1.6	0.60
7	2.9	6.5	11	7.2	10	7.2	9.6	3.3	24	2.4	3.5	0.62
8	2.6	5.9	12	7.2	9.8	32	10	2.8	14	107	3.1	0.64
9	2.4	e5.6	9.7	7.6	9.1	21	12	e2.5	8.7	25	4.6	0.63
10	2.3	e5.4	69	7.1	10	14	9.2	2.2	7.0	11	7.1	0.60
11	2.1	e5.4	45	6.4	9.3	11	7.9	2.2	5.7	7.4	7.7	0.57
12	2.0	10	23	6.1	7.9	10	7.0	1.9	4.8	5.4	4.4	0.54
13	2.0	75	18	5.7	7.1	8.6	6.4	1.6	4.0	4.4	3.1	0.53
14	2.0	19	14	45	12	7.6	5.6	1.6	3.4	3.9	2.3	0.54
15	2.0	12	11	30	30	6.6	5.0	1.7	3.1	5.8	1.9	0.55
16	2.1	e10	9.7	16	16	5.9	4.6	1.8	2.9	7.0	1.8	0.54
17	e2.0	8.7	9.1	12	11	5.5	4.4	1.5	2.7	5.5	1.9	0.54
18	1.9	7.9	8.4	9.0	9.1	5.2	4.2	1.3	2.3	4.2	1.5	0.52
19	2.0	7.4	8.4	7.5	7.5	4.8	3.9	1.3	2.1	3.5	1.4	0.49
20	2.8	7.1	8.9	7.5	6.8	5.6	3.5	105	2.1	3.0	1.3	0.47
21	2.8	8.2	7.5	6.8	8.7	5.9	3.3	48	2.1	2.5	1.3	0.47
22	2.7	8.0	7.6	8.9	33	5.2	3.1	20	2.1	2.2	1.1	0.46
23	2.7	9.0	9.0	17	16	98	3.3	13	2.0	1.9	e1.2	0.44
24	2.6	9.1	14	10	13	58	3.2	9.8	1.9	1.7	0.99	0.44
25	2.6	10	10	9.1	16	26	2.8	9.2	1.9	1.8	0.92	0.44
26	2.7	10	e9.4	12	14	21	2.6	9.6	1.8	1.8	0.89	0.44
27	2.9	8.5	e8.5	13	13	14	2.9	7.8	6.5	1.6	0.91	0.47
28	3.1	56	e7.6	8.3	16	28	2.6	6.6	5.3	1.7	0.92	0.43
29	3.0	23	e7.9	7.1	---	26	2.4	6.0	5.3	2.1	0.87	0.42
30	3.1	14	9.3	48	---	15	2.4	4.7	5.4	2.3	0.89	0.41
31	3.0	---	9.1	25	---	11	---	4.4	---	2.3	0.89	---
TOTAL	92.4	370.1	414.8	383.9	366.3	535.9	401.1	289.1	270.5	236.0	66.68	16.14
MEAN	2.98	12.3	13.4	12.4	13.1	17.3	13.4	9.33	9.02	7.61	2.15	0.54
MAX	7.4	75	69	48	33	98	133	105	66	107	7.7	0.79
MIN	1.9	3.0	7.3	5.7	6.8	4.8	2.4	1.3	1.8	1.6	0.87	0.41
CFSM	0.47	1.93	2.10	1.94	2.05	2.71	2.10	1.46	1.41	1.19	0.34	0.08
IN.	0.54	2.16	2.42	2.24	2.14	3.12	2.34	1.69	1.58	1.38	0.39	0.09

e Estimated

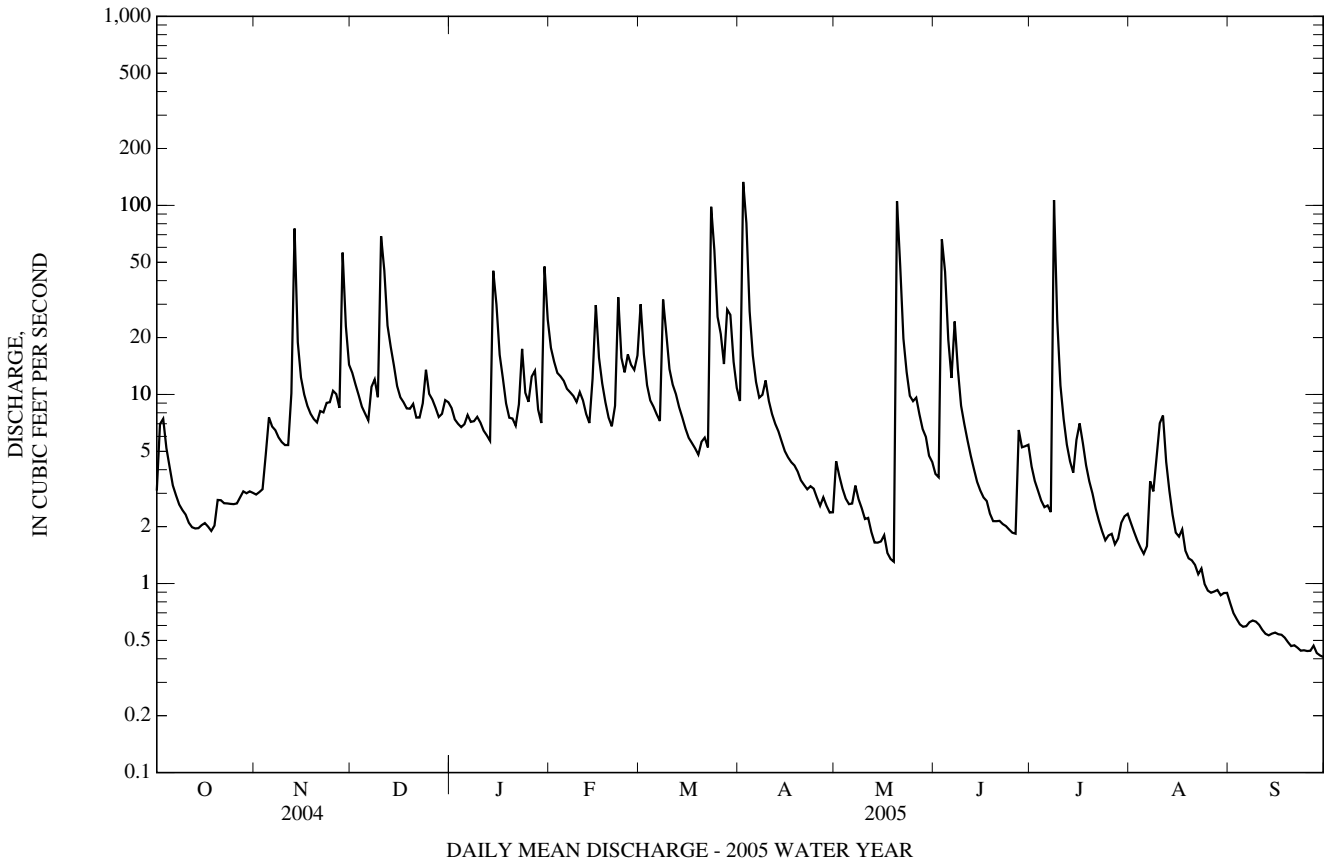
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2000 - 2005, BY WATER YEAR (WY)

	4.01	10.6	11.8	7.29	13.3	14.5	13.6	7.46	5.77	4.20	5.33	6.23
MAX	9.75	21.0	33.2	12.4	27.9	25.7	24.3	19.5	10.0	7.61	17.9	23.3
(WY)	(2004)	(2003)	(2004)	(2005)	(2003)	(2000)	(2003)	(2003)	(2003)	(2005)	(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	0.54
(WY)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2000)	(2002)	(2002)	(2002)	(2005)

0148471320 BIRCH BRANCH AT SHOWELL, MD—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 2000 - 2005	
ANNUAL TOTAL	3,201.19		3,442.92		8.70	
ANNUAL MEAN	8.75		9.43		14.9	
HIGHEST ANNUAL MEAN					2003	
LOWEST ANNUAL MEAN					2002	
HIGHEST DAILY MEAN	150	Apr 13	133	Apr 2	311	Mar 22, 2000
LOWEST DAILY MEAN	0.58	Jul 11	0.41	Sep 30	0.14	(a)
ANNUAL SEVEN-DAY MINIMUM	0.78	Jul 5	0.44	Sep 24	0.14	Aug 21, 2002
MAXIMUM PEAK FLOW			399	Apr 2	(b)563	Mar 22, 2000
MAXIMUM PEAK STAGE			8.89	Apr 2	9.38	Mar 22, 2000
INSTANTANEOUS LOW FLOW			0.40	(c)	0.14	(d)
ANNUAL RUNOFF (CFSM)	1.37		1.48		1.36	
ANNUAL RUNOFF (INCHES)	18.67		20.07		18.52	
10 PERCENT EXCEEDS	17		17		18	
50 PERCENT EXCEEDS	5.1		5.6		4.1	
90 PERCENT EXCEEDS	1.4		0.92		0.57	

- a Aug. 21-23, 26, 27, 2002.
- b From rating curve extended above 230 ft³/s.
- c Sept. 28-30.
- d Aug. 19-28, 2002.



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 mi².

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.--Records good except those for estimated daily discharges (missing record), which are poor. 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 25 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov 13	0430	44	13.50	Apr 2	1815	99	14.59
Dec 10	1130	29	13.03	May 20	1430	59	13.84
Jan 30	1400	34	13.21	Jun 3	1445	37	13.30
Mar 23	1430	65	13.97	Jul 8	0715	*177	*15.69

Minimum discharge, 0.15 ft³/s, Sept. 22, 23, 26, 30.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e1.6	0.97	e2.4	1.8	5.4	6.8	2.9	3.7	0.82	1.1	0.54	0.30
2	0.96	1.0	e1.9	1.6	4.5	4.1	37	1.9	0.82	1.8	0.48	0.30
3	1.0	1.1	e1.7	1.5	4.0	3.2	18	1.5	15	1.4	0.45	0.30
4	e1.0	2.7	e1.5	1.5	3.6	2.9	7.3	1.3	8.5	0.91	0.45	0.30
5	0.76	e3.1	1.2	1.6	3.4	2.6	e4.2	1.2	4.4	0.77	0.45	0.24
6	0.68	0.90	1.1	1.6	3.1	2.5	2.7	1.3	2.9	0.77	0.52	0.23
7	0.61	0.73	1.8	1.4	3.1	2.3	2.1	1.6	6.7	0.68	0.48	0.23
8	0.60	0.68	1.6	1.4	3.0	6.5	e2.5	1.2	3.1	50	0.52	0.25
9	0.66	0.76	1.4	1.3	2.9	4.3	2.3	1.0	2.2	5.9	0.94	0.24
10	0.59	0.79	15	1.3	2.9	3.4	2.1	0.97	1.8	3.1	0.53	0.25
11	e0.68	0.80	7.2	1.3	2.3	3.1	1.9	0.97	1.4	2.3	0.38	0.25
12	0.58	5.1	4.5	1.3	2.1	3.0	1.9	0.86	1.1	1.8	e0.33	0.24
13	0.58	24	3.7	1.3	1.9	2.6	1.9	0.82	0.94	1.4	0.32	0.24
14	0.68	6.6	2.8	10	4.8	2.6	1.8	0.77	0.77	1.1	0.31	0.24
15	0.87	4.7	2.3	6.3	7.9	2.4	1.5	0.78	0.64	0.97	0.31	0.24
16	0.97	3.2	2.0	3.7	4.5	2.3	1.5	0.77	0.55	0.88	0.34	0.23
17	0.87	e2.6	1.9	2.6	3.8	2.2	1.5	0.68	0.54	0.67	0.37	0.22
18	0.70	1.7	1.7	2.1	3.3	2.2	1.5	0.65	0.50	e0.54	0.32	0.18
19	0.93	1.4	1.7	2.3	e2.7	2.1	1.4	0.63	0.54	0.51	0.34	e0.19
20	1.3	1.3	1.8	2.0	2.5	2.5	1.4	28	0.58	0.49	0.34	0.19
21	0.79	1.1	1.5	1.7	3.2	1.9	1.3	11	0.55	0.46	0.34	0.20
22	0.68	1.0	1.6	4.0	7.6	1.7	1.3	5.7	0.55	0.44	0.34	e0.17
23	0.65	1.4	1.9	7.0	4.0	27	1.3	3.5	0.53	0.46	0.31	0.17
24	0.68	1.1	2.2	3.7	3.8	13	1.4	2.6	0.50	0.48	0.29	0.18
25	0.61	1.6	1.7	2.8	e5.6	7.9	1.2	2.4	0.49	0.52	0.28	0.18
26	0.58	1.3	1.6	3.8	4.4	6.4	1.1	2.4	0.51	0.59	0.30	0.17
27	0.58	1.0	1.4	3.1	3.6	4.7	1.7	1.9	5.1	0.53	0.30	0.21
28	0.58	12	1.1	2.7	4.6	9.2	1.3	1.6	1.3	0.51	0.29	0.18
29	0.59	e5.5	1.5	2.2	---	7.5	1.1	1.3	2.8	0.46	0.28	0.19
30	0.78	e3.1	2.2	17	---	4.7	1.1	1.1	1.8	0.48	0.29	0.16
31	0.97	---	1.9	8.6	---	3.7	---	0.96	---	0.57	0.28	---
TOTAL	24.11	93.23	77.8	104.5	108.5	151.3	110.2	85.06	67.93	82.59	12.02	6.67
MEAN	0.78	3.11	2.51	3.37	3.88	4.88	3.67	2.74	2.26	2.66	0.39	0.22
MAX	1.6	24	15	17	7.9	27	37	28	15	50	0.94	0.30
MIN	0.58	0.68	1.1	1.3	1.9	1.7	1.1	0.63	0.49	0.44	0.28	0.16
CFSM	0.64	2.55	2.06	2.76	3.18	4.00	3.01	2.25	1.86	2.18	0.32	0.18
IN.	0.74	2.84	2.37	3.19	3.31	4.61	3.36	2.59	2.07	2.52	0.37	0.20

e Estimated

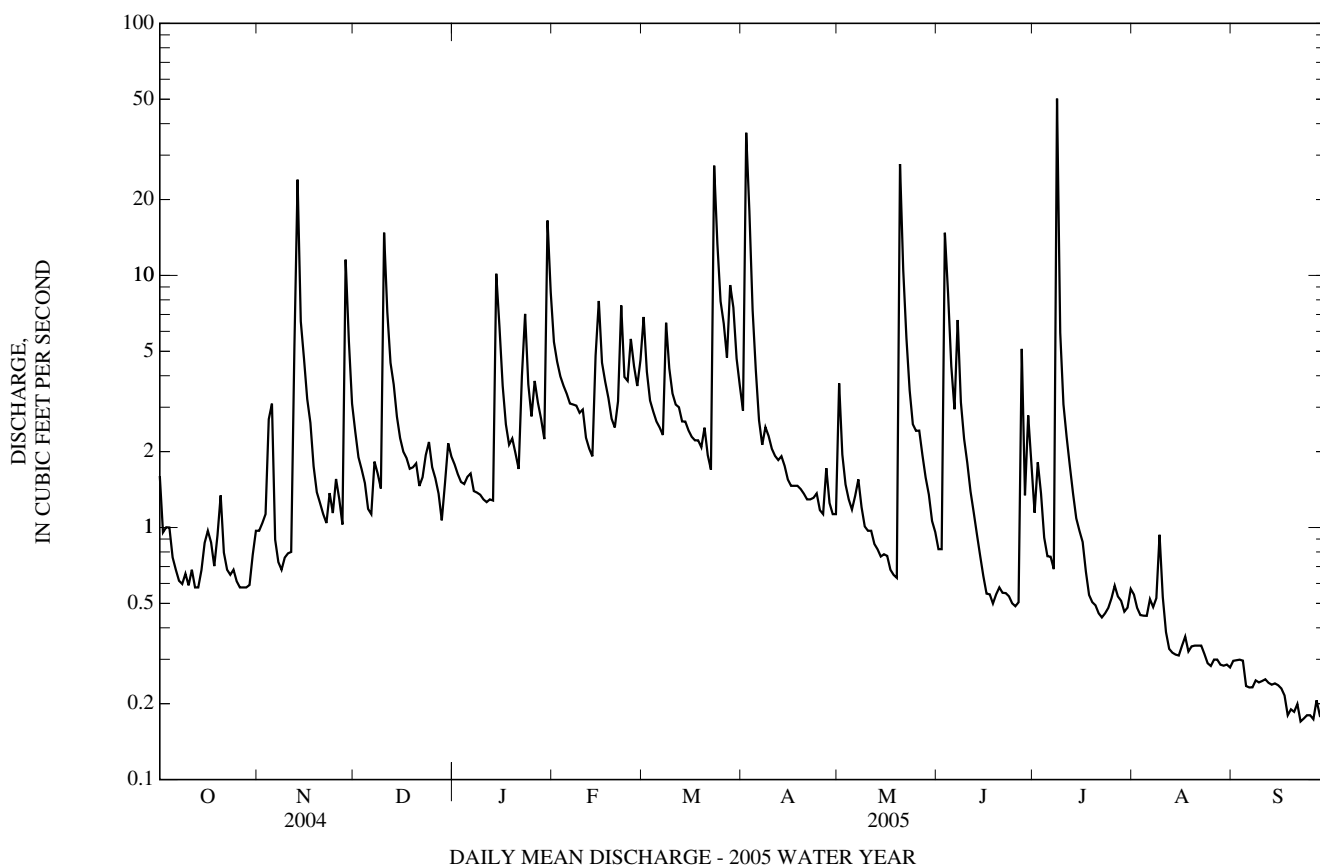
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2002 - 2005, BY WATER YEAR (WY)

MEAN	1.77	3.29	4.55	3.06	4.13	3.57	4.58	2.32	1.78	1.50	2.72	1.42
MAX	3.33	3.44	8.05	4.06	5.09	4.88	5.41	3.23	2.64	2.66	7.00	2.88
(WY)	(2004)	(2003)	(2004)	(2004)	(2003)	(2005)	(2003)	(2003)	(2003)	(2005)	(2004)	(2003)
MIN	0.78	3.11	2.51	1.75	3.45	1.85	3.67	0.97	0.44	0.87	0.39	0.22
(WY)	(2005)	(2005)	(2005)	(2003)	(2004)	(2004)	(2005)	(2004)	(2004)	(2004)	(2005)	(2005)

01484719 BASSETT CREEK NEAR IRONSHIRE, MD—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 2002 - 2005	
ANNUAL TOTAL	940.65		923.91		2.88	
ANNUAL MEAN	2.57		2.53		2.53	
HIGHEST ANNUAL MEAN					3.27	2004
LOWEST ANNUAL MEAN					2.53	2005
HIGHEST DAILY MEAN	40	Apr 13	50	Jul 8	50	Jul 8, 2005
LOWEST DAILY MEAN	0.22	Jul 8	0.16	Sep 30	0.06	(a)
ANNUAL SEVEN-DAY MINIMUM	0.24	Jul 5	0.18	Sep 20	0.06	Oct 4, 2002
MAXIMUM PEAK FLOW			(b)177	Jul 8	(b)177	Jul 8, 2005
MAXIMUM PEAK STAGE			15.69	Jul 8	15.69	Jul 8, 2005
INSTANTANEOUS LOW FLOW			0.15	(c)	0.06	(d)
ANNUAL RUNOFF (CFSM)	2.11		2.07		2.36	
ANNUAL RUNOFF (INCHES)	28.68		28.17		32.10	
10 PERCENT EXCEEDS	5.7		4.9		6.3	
50 PERCENT EXCEEDS	1.4		1.4		1.6	
90 PERCENT EXCEEDS	0.33		0.30		0.40	

- a Oct. 4-9, 2002.
- b From rating curve extended above 91 ft³/s on basis of slope-area measurements.
- c Sept. 22, 23, 26, 30.
- d Oct. 3-10, 2002.



POCOMOKE RIVER BASIN

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 mi².

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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec 11	2230	365	5.55	May 21	2345	457	5.91
Feb 1	0315	297	5.22	Jun 5	0600	346	5.47
Mar 24	1845	545	6.16	Jul 9	1100	*1,170	*7.14
Apr 3	2330	522	6.10				

Minimum discharge, 1.8 ft³/s, Sept. 23-26, 28-30.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	18	134	53	283	146	92	27	25	52	16	4.0
2	28	17	94	50	198	185	122	30	21	50	13	3.6
3	88	17	77	47	140	149	397	28	80	38	9.7	3.3
4	134	25	67	45	115	95	466	25	261	26	7.8	3.0
5	91	40	60	44	101	72	273	22	326	19	6.6	2.9
6	59	36	56	44	93	62	160	21	218	16	19	2.8
7	46	38	58	44	85	55	100	24	146	15	28	2.7
8	37	36	62	43	78	74	79	23	155	365	27	2.6
9	30	32	68	41	72	183	70	20	178	1,060	27	2.5
10	25	28	113	40	71	241	62	18	100	703	35	2.4
11	22	27	298	37	69	159	55	17	57	355	29	2.4
12	19	32	332	35	63	114	48	16	42	171	24	2.3
13	17	127	230	34	56	88	45	15	33	74	18	2.2
14	17	229	166	55	56	73	41	14	26	48	13	2.2
15	18	213	117	132	97	62	37	13	20	39	9.8	2.3
16	24	143	86	186	149	53	33	14	16	34	8.7	2.3
17	23	93	72	134	131	48	30	13	13	39	10	2.2
18	20	72	64	79	87	45	28	12	11	47	9.0	2.2
19	18	62	59	57	66	43	27	11	10	43	7.4	2.0
20	23	56	57	47	55	45	26	114	9.4	32	7.8	1.9
21	23	55	51	45	55	46	25	357	9.0	24	7.2	2.0
22	22	54	50	41	98	44	24	400	8.2	18	6.1	2.0
23	21	57	53	52	189	131	24	235	8.9	14	5.1	1.9
24	21	58	58	55	175	477	24	126	9.1	11	4.9	1.8
25	19	62	60	57	143	461	23	76	8.5	9.6	4.4	1.8
26	18	66	60	59	120	298	21	62	7.9	8.9	4.1	1.8
27	17	70	57	63	107	211	21	54	40	7.8	4.0	1.9
28	16	101	49	61	101	169	20	47	37	7.0	5.9	1.8
29	16	164	48	51	---	182	18	41	37	7.8	5.5	1.8
30	17	185	50	77	---	182	19	34	46	13	4.6	1.8
31	17	---	53	184	---	136	---	28	---	19	4.6	---
TOTAL	970	2,213	2,859	1,992	3,053	4,329	2,410	1,937	1,959.0	3,366.1	382.2	70.4
MEAN	31.3	73.8	92.2	64.3	109	140	80.3	62.5	65.3	109	12.3	2.35
MAX	134	229	332	186	283	477	466	400	326	1,060	35	4.0
MIN	16	17	48	34	55	43	18	11	7.9	7.0	4.0	1.8
CFSM	0.70	1.64	2.05	1.43	2.43	3.11	1.79	1.39	1.45	2.42	0.27	0.05
IN.	0.80	1.83	2.37	1.65	2.53	3.59	2.00	1.60	1.62	2.79	0.32	0.06

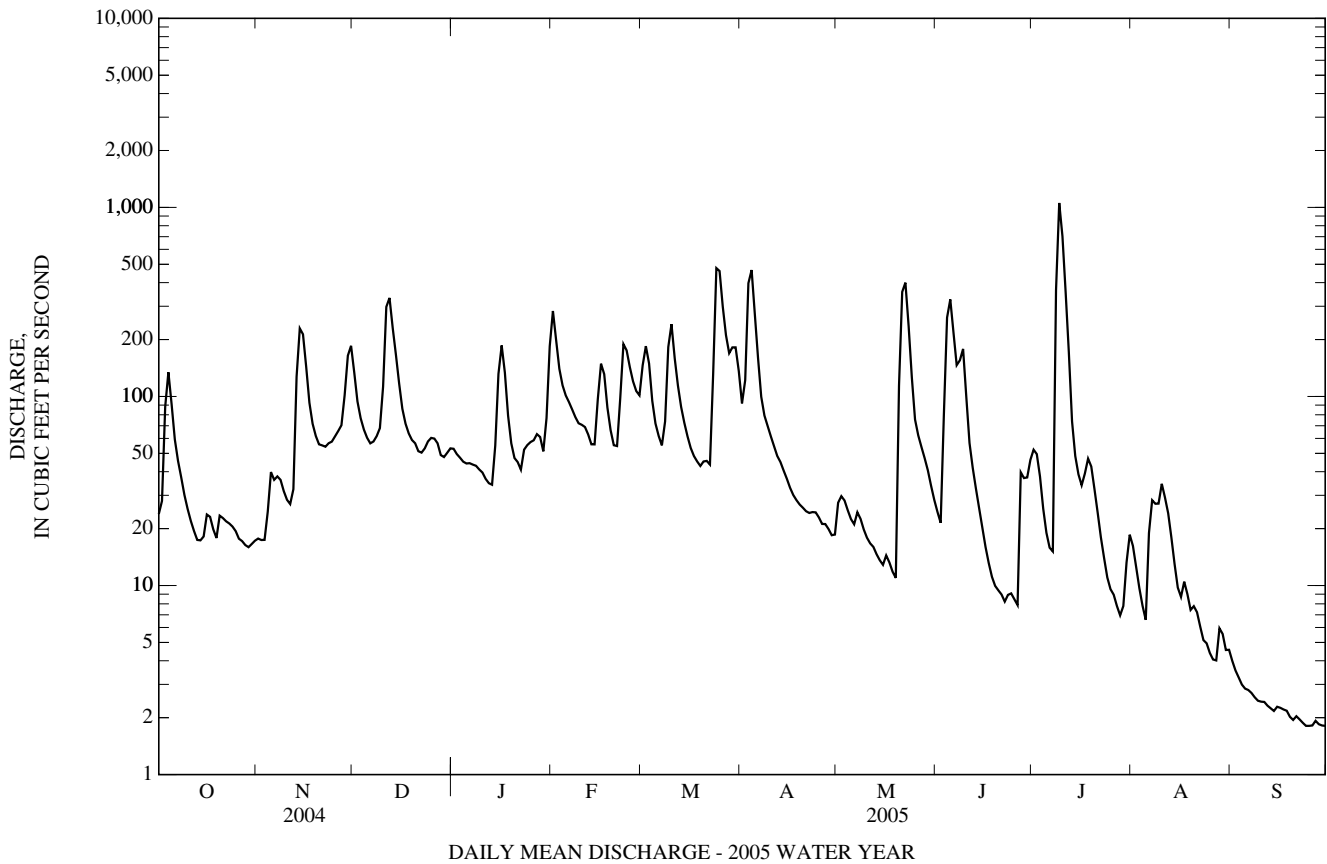
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1950 - 2005, BY WATER YEAR (WY)

MEAN (WY)	25.5 (1977)	39.3 (1980)	59.3 (2004)	82.6 (1978)	97.6 (1998)	115 (1994)	78.2 (1983)	43.3 (1978)	28.1 (1972)	22.2 (1975)	38.7 (1989)	21.5 (1979)
MAX (WY)	150 (1977)	175 (1980)	210 (2004)	261 (1978)	322 (1998)	302 (1994)	202 (1983)	183 (1978)	160 (1972)	120 (1975)	346 (1989)	177 (1979)
MIN (WY)	1.62 (1999)	2.39 (1999)	6.08 (2002)	10.8 (1966)	12.4 (2002)	28.3 (2002)	17.7 (1985)	7.10 (1986)	2.52 (1986)	1.58 (2002)	1.24 (2002)	1.64 (1980)

01485500 NASSAWANGO CREEK NEAR SNOW HILL, MD—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1950 - 2005	
ANNUAL TOTAL	22,353.6		25,540.7			
ANNUAL MEAN	61.1		70.0		54.5	
HIGHEST ANNUAL MEAN					116	1979
LOWEST ANNUAL MEAN					20.7	2002
HIGHEST DAILY MEAN	739	Apr 14	1,060	Jul 9	2,590	Aug 19, 1989
LOWEST DAILY MEAN	1.8	(a)	1.8	(b)	0.72	Aug 15, 2002
ANNUAL SEVEN-DAY MINIMUM	2.1	Jul 5	1.8	Sep 24	0.74	Aug 11, 2002
MAXIMUM PEAK FLOW			1,170	Jul 9	(c)3,930	Aug 19, 1989
MAXIMUM PEAK STAGE			7.14	Jul 9	9.07	Aug 19, 1989
INSTANTANEOUS LOW FLOW			1.8	(d)	0.63	Aug 14, 2002
ANNUAL RUNOFF (CFSM)	1.36		1.56		1.21	
ANNUAL RUNOFF (INCHES)	18.52		21.16		16.50	
10 PERCENT EXCEEDS	144		170		128	
50 PERCENT EXCEEDS	38		41		26	
90 PERCENT EXCEEDS	7.7		5.0		3.4	

- a July 10, 11.
- b Sept. 24-26, 28-30.
- c From rating curve extended above 1,300 ft³/s on basis of contracted-opening measurement at gage height 9.07 ft.
- d Sept. 23-26, 28-30.



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 mi².

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 good except those above 170 ft³/s and those for estimated daily discharges (backwater), 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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov 13	0445	61	2.71	Mar 23	1600	103	3.17
Dec 10	1230	71	2.80	Apr 2	1800	155	3.66
Jan 30	1315	61	2.71	May 20	1600	50	2.61
Mar 8	1415	54	2.65	Jul 8	0600	*349	*6.82

Minimum discharge, unknown.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.3	3.3	8.7	5.6	16	21	8.6	4.7	2.6	3.3	2.3	0.90
2	13	3.0	7.5	5.4	13	14	57	3.9	2.5	2.7	2.2	0.88
3	12	3.1	6.6	5.6	11	10	66	3.1	15	2.4	2.2	0.87
4	7.8	4.5	5.8	5.4	11	8.6	27	2.6	15	2.0	2.1	0.81
5	6.0	6.4	5.3	5.5	10	7.8	16	2.3	9.1	1.7	2.1	0.68
6	4.6	5.2	5.1	5.9	9.3	7.0	12	2.3	6.6	1.6	2.3	0.68
7	3.5	4.7	6.8	5.6	8.5	6.2	9.5	2.6	25	1.5	2.1	0.70
8	3.1	4.3	7.3	5.2	8.0	26	8.8	2.5	12	212	2.1	0.75
9	2.9	3.8	6.7	4.5	7.6	20	7.8	2.3	7.4	75	3.4	0.76
10	2.8	3.6	37	4.1	8.4	13	6.8	2.1	5.9	26	3.0	0.77
11	2.6	3.5	26	3.7	7.9	11	6.3	2.1	4.9	14	2.3	e0.76
12	2.5	5.2	16	3.3	7.2	11	5.9	2.0	4.0	7.6	2.2	e0.74
13	2.4	35	13	3.3	6.6	9.5	5.6	1.9	3.4	6.5	2.1	e0.72
14	2.4	14	9.9	15	9.9	8.0	5.4	1.9	3.0	5.7	1.9	e0.72
15	2.5	9.8	8.1	15	19	7.2	5.2	1.8	2.6	6.8	1.6	e0.74
16	2.7	8.2	7.1	10	13	6.6	5.1	1.8	2.4	5.7	1.6	e0.74
17	2.7	7.3	6.8	8.6	10	6.3	4.9	1.6	2.2	4.7	2.0	e0.72
18	2.5	6.8	6.4	7.1	8.3	6.0	5.1	1.6	2.1	4.3	1.3	e0.67
19	2.5	6.3	6.1	6.5	7.3	5.7	4.7	1.6	1.9	3.7	1.2	e0.66
20	3.4	5.8	6.0	6.4	6.9	6.6	4.6	27	1.8	3.2	1.3	e0.64
21	3.4	6.2	5.6	6.0	8.5	6.8	4.5	20	1.8	2.9	1.1	e0.66
22	3.0	5.8	5.5	6.1	25	5.8	4.7	10	1.8	2.7	1.0	e0.66
23	2.8	7.0	6.3	8.7	14	51	4.9	7.4	1.7	2.6	0.97	e0.64
24	2.6	7.0	8.2	7.1	12	40	4.8	6.1	1.7	2.5	0.92	e0.64
25	2.6	7.4	7.4	6.8	15	23	4.3	6.0	1.6	2.6	0.87	e0.62
26	2.5	7.3	7.0	7.6	13	21	4.0	5.9	1.7	2.4	0.88	e0.60
27	2.5	6.1	6.4	8.3	12	15	3.8	5.0	3.8	2.3	0.93	e0.62
28	2.4	18	5.9	6.5	13	17	3.4	4.2	2.4	2.4	0.94	e0.60
29	2.6	13	5.8	6.0	---	16	3.3	3.7	5.2	3.1	0.85	e0.60
30	3.2	9.6	5.8	34	---	11	3.3	3.2	5.5	2.6	0.88	e0.60
31	3.6	---	5.7	25	---	9.6	---	2.8	---	2.5	0.96	---
TOTAL	116.4	231.2	271.8	253.8	311.4	427.7	313.3	146.0	156.6	419.0	51.60	21.15
MEAN	3.75	7.71	8.77	8.19	11.1	13.8	10.4	4.71	5.22	13.5	1.66	0.70
MAX	13	35	37	34	25	51	66	27	25	212	3.4	0.90
MIN	2.4	3.0	5.1	3.3	6.6	5.7	3.3	1.6	1.6	1.5	0.85	0.60
CFSM	0.78	1.61	1.83	1.71	2.32	2.87	2.18	0.98	1.09	2.82	0.35	0.15
IN.	0.90	1.79	2.11	1.97	2.41	3.31	2.43	1.13	1.21	3.25	0.40	0.16

e Estimated

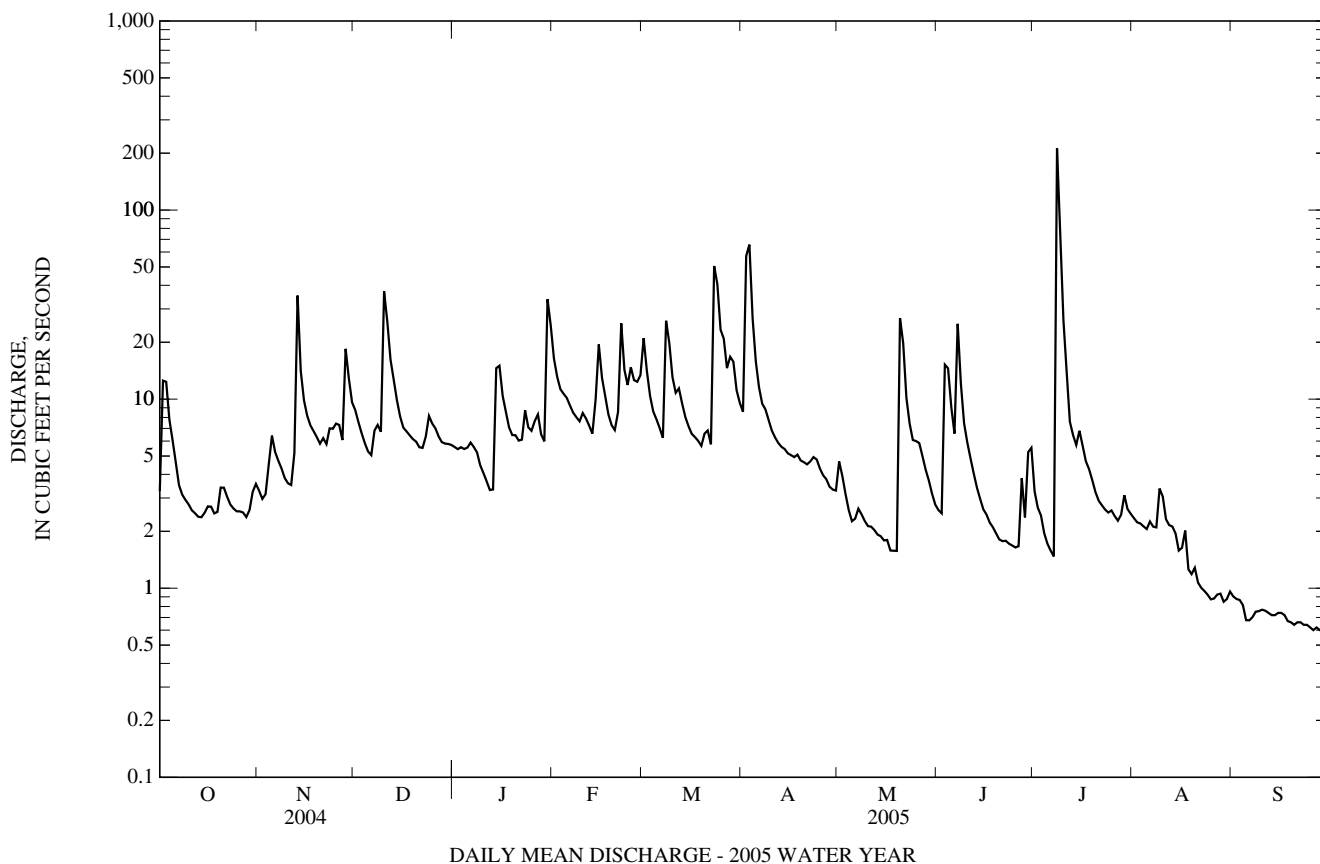
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 1971, 1974 - 2005, BY WATER YEAR (WY)

MEAN	1.95	2.86	5.32	8.15	9.48	11.1	7.63	3.93	2.52	1.97	3.97	2.07
MAX	10.5	17.5	22.5	24.9	29.1	30.3	17.3	12.2	12.7	13.5	27.8	18.7
(WY)	(1980)	(1980)	(1997)	(1998)	(1998)	(1994)	(1983)	(1978)	(1979)	(2005)	(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 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1951 - 1971, 1974 - 2005	
ANNUAL TOTAL	2,987.49		2,719.95		5.06	
ANNUAL MEAN	8.16		7.45		10.3	
HIGHEST ANNUAL MEAN					1.41 1981	
LOWEST ANNUAL MEAN					255 Jan 28, 1998	
HIGHEST DAILY MEAN	161	Aug 16	212	Jul 8	0.00 (b)	
LOWEST DAILY MEAN	0.71	Jul 11	(e)0.60	(a)	0.00 Aug 23, 1963	
ANNUAL SEVEN-DAY MINIMUM	0.75	Jul 5	0.61	Sep 24	(c)547 Aug 20, 1969	
MAXIMUM PEAK FLOW			349	Jul 8	(d)7.08 Aug 19, 1985	
MAXIMUM PEAK STAGE			6.82	Jul 8	0.00 (b)	
INSTANTANEOUS LOW FLOW			UNKNOWN		1.05	
ANNUAL RUNOFF (CFSM)	1.70		1.55		14.33	
ANNUAL RUNOFF (INCHES)	23.15		21.08		11	
10 PERCENT EXCEEDS	15		14		2.3	
50 PERCENT EXCEEDS	4.6		5.1		0.36	
90 PERCENT EXCEEDS	1.3		0.94			

- e Estimated
- a Sept. 26, 28-30.
- b No flow during 1954, 1963, 1964, 1966.
- c From rating curve extended above 170 ft³/s on basis of channel-conveyance study.
- d Gage height of 5.44 ft occurred on Aug. 20, 1969 following ditching of the stream channel.



WICOMICO RIVER BASIN

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 mi².

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.--No estimated daily discharges. Records good except those above 80 ft³/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, 4,550 ft³/s, July 8, gage height, 5.97 ft; minimum discharge, 2.2 ft³/s, May 10, 11.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	15	32	22	59	58	40	32	20	40	18	10
2	52	14	29	21	44	59	100	25	20	29	16	10
3	60	13	26	20	39	45	521	29	75	24	16	9.6
4	43	24	24	21	36	37	134	29	117	21	15	9.0
5	44	32	22	22	35	34	66	28	76	19	14	9.2
6	31	20	17	22	34	32	51	16	46	20	21	9.9
7	23	17	20	21	32	31	45	4.9	82	18	20	10
8	19	16	18	23	32	61	45	26	84	2,940	15	11
9	19	15	22	22	40	88	41	31	50	2,490	33	11
10	19	14	84	35	37	64	39	11	36	233	33	11
11	19	15	136	30	32	48	37	3.4	30	63	19	9.3
12	21	24	74	22	31	41	34	15	26	43	16	8.5
13	21	72	53	23	31	38	35	16	24	36	15	10
14	22	50	41	27	32	34	33	16	23	36	14	11
15	22	42	34	52	32	32	31	17	20	35	13	11
16	21	34	30	49	38	30	29	18	19	34	15	11
17	19	27	28	34	40	29	29	16	18	33	17	14
18	18	23	27	27	40	28	29	15	17	29	14	10
19	19	21	26	24	39	27	29	15	17	25	15	11
20	21	20	26	23	38	29	28	212	17	23	15	10
21	19	21	24	23	38	28	26	339	17	21	16	8.8
22	17	20	24	25	39	26	26	96	18	20	13	11
23	16	17	26	33	50	76	26	49	21	18	12	12
24	16	27	28	28	51	143	25	36	17	17	12	11
25	16	29	26	27	32	90	24	32	16	18	11	15
26	15	31	24	30	36	61	23	31	16	17	11	17
27	15	24	24	36	40	52	23	28	51	17	12	16
28	16	51	22	28	43	53	22	28	30	17	12	14
29	16	50	21	24	---	61	22	25	73	32	11	19
30	15	41	22	60	---	56	23	23	70	22	11	18
31	15	---	21	81	---	44	---	22	---	20	11	---
TOTAL	712	819	1,031	935	1,070	1,535	1,636	1,284.3	1,146	6,410	486	348.3
MEAN	23.0	27.3	33.3	30.2	38.2	49.5	54.5	41.4	38.2	207	15.7	11.6
MAX	60	72	136	81	59	143	521	339	117	2,940	33	19
MIN	15	13	17	20	31	26	22	3.4	16	17	11	8.5
CFSM	1.18	1.40	1.71	1.55	1.96	2.54	2.80	2.12	1.96	10.6	0.80	0.60
IN.	1.36	1.56	1.97	1.78	2.04	2.93	3.12	2.45	2.19	12.23	0.93	0.66

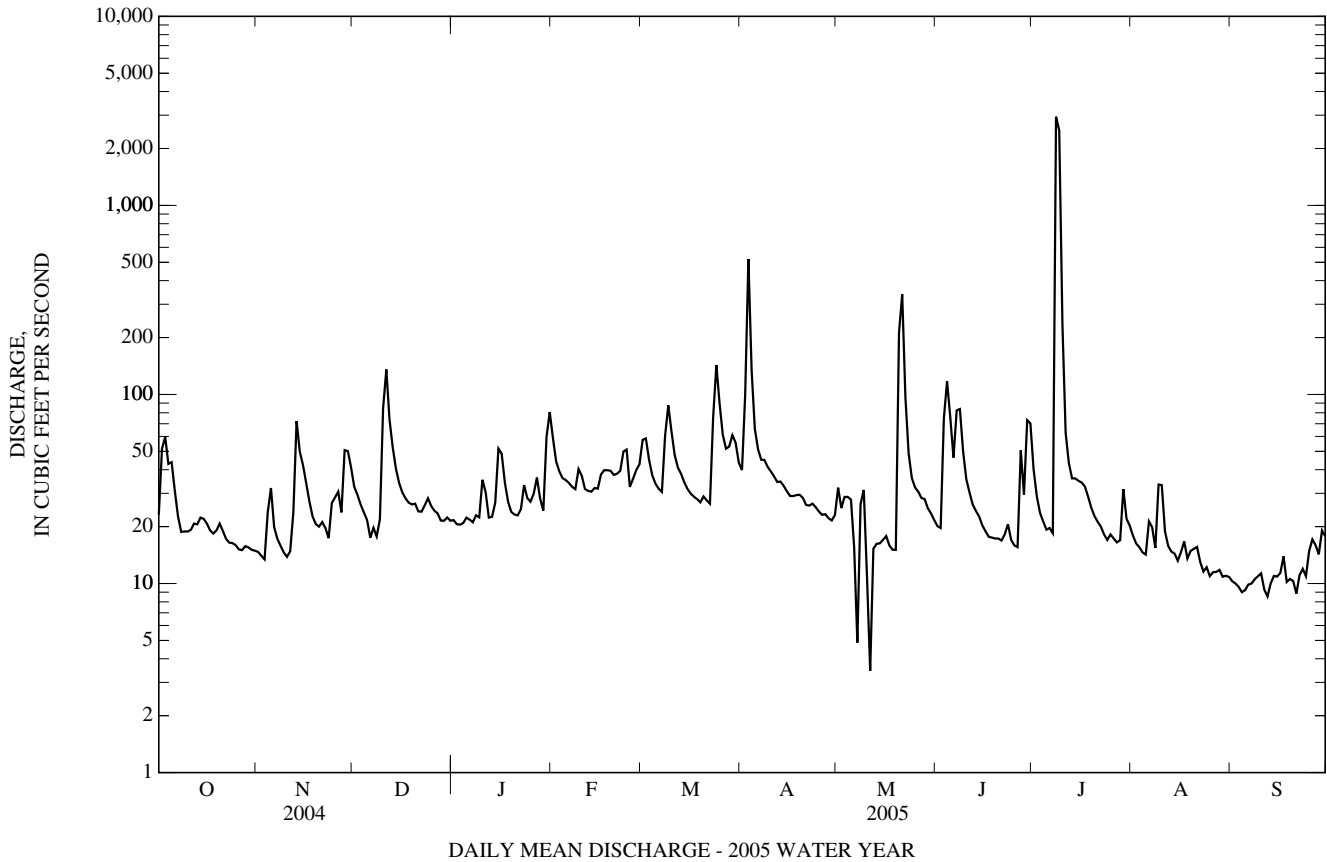
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1930 - 1933, 1935, 1938 - 1975, 2001 - 2005, BY WATER YEAR (WY)

MEAN	15.5	20.0	26.6	30.2	36.0	40.9	34.1	23.9	18.8	18.6	23.1	15.1
MAX	48.3	76.0	136	62.2	89.2	82.4	72.8	74.5	76.1	207	104	71.8
(WY)	(1956)	(2004)	(2004)	(1962)	(1961)	(2001)	(1958)	(1958)	(1948)	(2005)	(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 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1930 - 1933, 1935 1938 - 1975, 2001 - 2005	
ANNUAL TOTAL	13,130.4		17,412.6		25.2	
ANNUAL MEAN	35.9		47.7		48.7	
HIGHEST ANNUAL MEAN					6.56	
LOWEST ANNUAL MEAN					2004	
HIGHEST DAILY MEAN	857	Aug 17	2,940	Jul 8	2,940	Jul 8, 2005
LOWEST DAILY MEAN	1.0	Feb 21	(a)3.4	May 11	0.00	(b)
ANNUAL SEVEN-DAY MINIMUM	8.3	Jul 4	9.7	Sep 1	0.00	Feb 21, 2002
MAXIMUM PEAK FLOW			(c)4,550	Jul 8	(c)4,550	Jul 8, 2005
MAXIMUM PEAK STAGE			5.97	Jul 8	(d)14.31	Aug 4, 1948
INSTANTANEOUS LOW FLOW			2.2	(d, f)	0.00	Feb 20, 2002
ANNUAL RUNOFF (CFSM)	1.84		2.45		1.29	
ANNUAL RUNOFF (INCHES)	25.05		33.22		17.55	
10 PERCENT EXCEEDS	58		57		47	
50 PERCENT EXCEEDS	23		24		17	
90 PERCENT EXCEEDS	11		13		6.8	

- a Regulation.
- b Feb. 21-28, March 1, 2002.
- c From rating curve extended above 95 ft³/s.
- d At previous site and datum, from high-water mark in well.
- f May 10, 11.



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 mi².

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.--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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar 24	0200	437	6.41	May 21	0145	*793	*7.25
Apr 3	0630	662	6.98				

Minimum discharge, 24 ft³/s, Sept. 27.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	45	42	83	92	95	164	178	156	128	70	58	38
2	45	42	83	90	92	167	226	149	124	67	56	35
3	44	42	81	88	e91	150	569	134	144	62	51	34
4	43	47	77	89	93	141	343	121	173	58	47	34
5	42	58	76	88	96	138	260	113	151	57	45	34
6	40	49	74	89	101	133	231	109	136	65	45	32
7	40	47	80	96	116	131	218	109	179	59	65	32
8	39	46	83	104	124	164	219	103	167	102	83	31
9	39	46	82	112	127	223	214	96	144	97	69	30
10	39	45	109	103	131	179	202	92	134	78	68	31
11	39	46	133	101	128	167	193	88	126	70	61	29
12	38	51	131	103	121	161	184	86	118	66	57	31
13	39	106	119	102	116	152	179	83	111	63	54	31
14	40	85	110	142	113	142	172	82	107	64	52	31
15	40	64	104	234	153	137	163	83	101	95	47	31
16	42	60	100	161	145	134	155	83	94	104	46	29
17	41	58	101	143	136	132	152	78	93	158	50	29
18	39	60	99	131	129	130	150	76	87	124	46	29
19	40	57	100	126	122	126	146	74	83	102	45	30
20	51	57	102	127	118	127	142	322	80	90	46	29
21	49	57	94	125	120	126	136	629	78	83	45	29
22	45	56	93	116	138	122	132	325	75	78	42	29
23	44	60	96	118	135	189	135	243	85	71	39	28
24	43	58	126	115	130	351	139	215	75	66	40	28
25	42	62	111	110	134	232	125	200	69	67	38	27
26	42	58	104	108	129	207	117	195	66	69	37	27
27	42	55	101	105	133	193	120	183	78	60	38	27
28	42	101	95	95	134	197	114	169	77	60	40	26
29	42	116	97	93	---	226	109	158	75	63	39	27
30	42	84	96	99	---	200	111	147	74	66	38	27
31	43	---	93	102	---	185	---	139	---	62	39	---
TOTAL	1,301	1,815	3,033	3,507	3,400	5,226	5,534	4,840	3,232	2,396	1,526	905
MEAN	42.0	60.5	97.8	113	121	169	184	156	108	77.3	49.2	30.2
MAX	51	116	133	234	153	351	569	629	179	158	83	38
MIN	38	42	74	88	91	122	109	74	66	57	37	26
CFSM	0.56	0.80	1.30	1.50	1.61	2.24	2.45	2.07	1.43	1.03	0.65	0.40
IN.	0.64	0.90	1.50	1.73	1.68	2.58	2.73	2.39	1.59	1.18	0.75	0.45

e Estimated

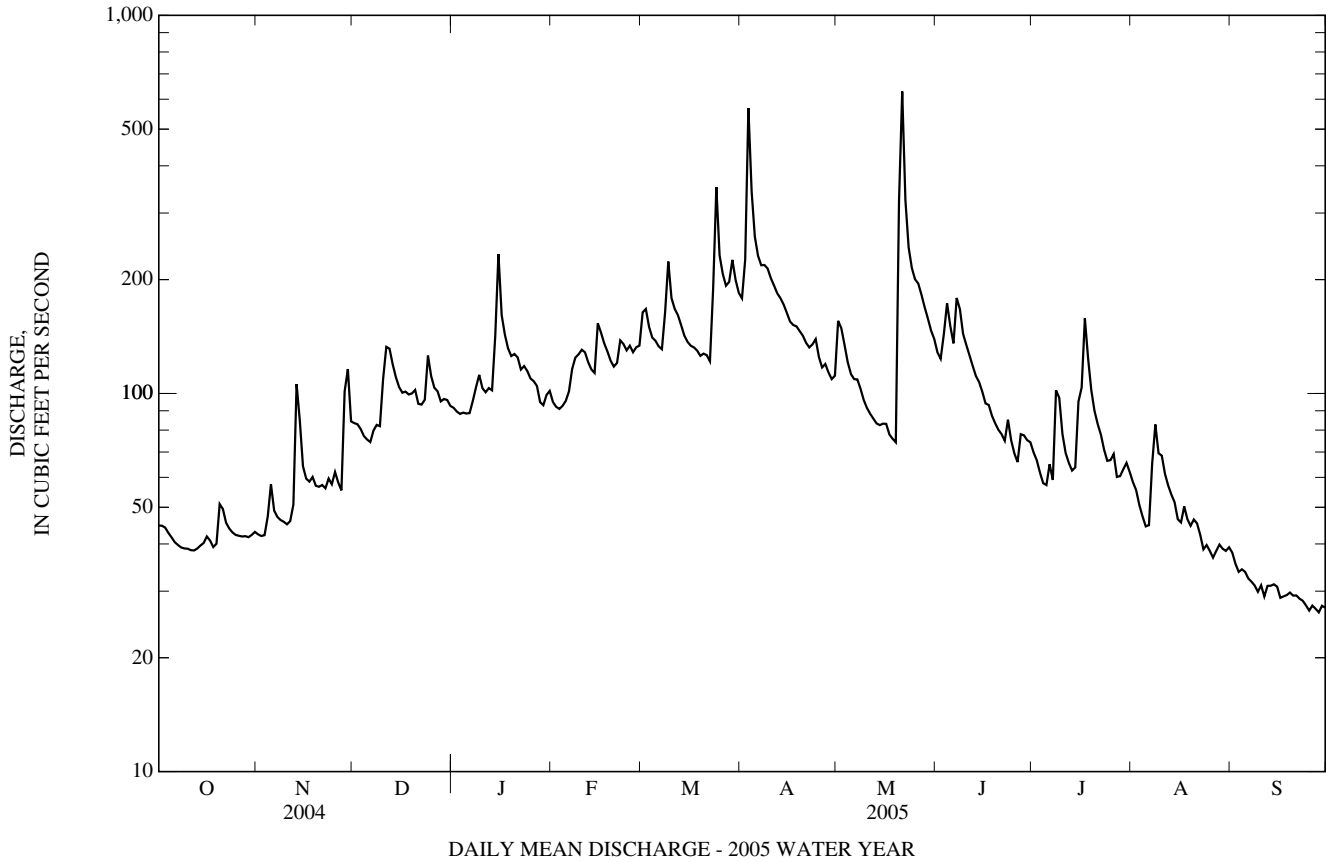
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1943 - 2005, BY WATER YEAR (WY)

MEAN	48.1	65.1	92.4	119	138	162	142	104	77.8	58.8	63.7	50.7
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 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1943 - 2005	
ANNUAL TOTAL	33,696		36,715		93.6	
ANNUAL MEAN	92.1		101		43.8	
HIGHEST ANNUAL MEAN					189	2003
LOWEST ANNUAL MEAN					43.8	1985
HIGHEST DAILY MEAN	679	Feb 7	629	May 21	2,880	Feb 26, 1979
LOWEST DAILY MEAN	36	Sep 24	26	Sep 28	6.6	Sep 29, 1943
ANNUAL SEVEN-DAY MINIMUM	38	Sep 21	27	Sep 24	7.8	Sep 23, 1943
MAXIMUM PEAK FLOW			793	May 21	3,020	Feb 26, 1979
MAXIMUM PEAK STAGE			7.25	May 21	10.31	Feb 26, 1979
INSTANTANEOUS LOW FLOW			24	Sep 27	(a)6.3	Sep 29, 1943
ANNUAL RUNOFF (CFSM)	1.22		1.33		1.24	
ANNUAL RUNOFF (INCHES)	16.62		18.11		16.86	
10 PERCENT EXCEEDS	158		170		180	
50 PERCENT EXCEEDS	77		92		69	
90 PERCENT EXCEEDS	41		39		27	

a Minimum discharge observed.



NANTICOKE RIVER BASIN

01488500 MARSHYHOPE CREEK NEAR ADAMSVILLE, DE

LOCATION.--Lat 38°50'58.9", long 75°40'23.2", Kent County, Hydrologic Unit 02060008, on left bank 45 ft upstream from highway bridge, 1.4 mi upstream from Cattail Branch, 1.6 mi northeast of Adamsville, 4.9 mi northwest of Greenwood, and 33 mi upstream from mouth.

DRAINAGE AREA.--43.9 mi².

PERIOD OF RECORD.--April 1943 to March 1969, October 1971 to September 2002, October 2004 to September 2005.

REVISED RECORDS.--WSP 1141: 1948(P). WSP 1432: 1946(M), 1948, 1952.

GAGE.--Water-stage recorder. Datum of gage is 26.21 ft above National Geodetic Vertical Datum of 1929. Prior to Nov. 24, 1953, nonrecording gage and crest-stage gage, and Nov. 24, 1953, to March 1969, recording gage at site on old channel about 240 ft southeast of present site at datum 2.00 ft higher.

REMARKS.--Records good except those for estimated daily discharges (missing record), 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 OUTSIDE PERIOD OF RECORD.--Maximum stage known, 16.5 ft, present datum, in September 1935, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 450 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan 14	1715	881	6.44	Apr 2	2230	1,060	7.03
Mar 23	2015	496	5.12	May 20	1900	*1,380	*7.98

Minimum discharge, 9.6 ft³/s, Sept. 25.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e18	13	41	39	45	157	90	54	44	29	36	14
2	e19	12	41	38	44	130	304	55	42	27	31	15
3	e19	13	39	37	44	96	466	49	50	25	26	13
4	e18	14	36	37	45	84	185	46	65	22	23	12
5	e17	19	35	37	46	77	130	43	55	21	23	13
6	e16	17	33	37	56	72	109	43	50	22	24	13
7	e16	15	34	36	76	69	98	42	79	21	25	12
8	e17	15	36	38	88	138	249	40	67	29	25	13
9	e16	14	35	43	92	131	195	38	56	32	25	13
10	e15	13	65	42	96	97	129	36	60	27	24	12
11	e13	14	77	40	83	89	106	36	54	23	23	12
12	e14	17	70	42	71	83	91	35	48	23	22	13
13	e15	97	57	43	64	75	82	32	46	23	21	12
14	e16	54	50	363	65	68	74	32	43	27	21	12
15	e17	33	45	209	132	63	67	33	40	62	20	12
16	e16	28	43	119	96	62	62	32	38	131	19	12
17	e15	26	43	99	82	58	59	30	36	154	18	11
18	e14	25	41	82	72	56	58	29	34	81	18	11
19	e20	24	41	74	64	53	55	28	32	54	18	11
20	e46	23	40	72	59	54	53	510	31	43	17	11
21	e28	23	37	65	62	52	52	374	30	36	19	11
22	e18	22	36	62	109	50	49	145	30	33	18	11
23	14	22	44	63	88	213	51	104	30	31	16	11
24	14	23	87	56	79	229	54	85	28	24	15	10
25	14	23	57	57	77	133	49	75	27	25	16	9.9
26	14	23	51	56	80	111	45	77	e32	26	16	10
27	14	22	47	52	93	98	47	68	e34	26	15	11
28	13	82	43	47	92	147	44	60	e32	26	15	10
29	13	67	43	47	---	178	43	55	e33	27	16	10
30	13	43	42	51	---	117	45	50	33	35	16	10
31	13	---	39	47	---	99	---	47	---	50	15	---
TOTAL	525	836	1,428	2,130	2,100	3,139	3,141	2,383	1,279	1,215	636	350.9
MEAN	16.9	27.9	46.1	68.7	75.0	101	105	76.9	42.6	39.2	20.5	11.7
MAX	46	97	87	363	132	229	466	510	79	154	36	15
MIN	13	12	33	36	44	50	43	28	27	21	15	9.9
CFSM	0.39	0.63	1.05	1.57	1.71	2.31	2.38	1.75	0.97	0.89	0.47	0.27
IN.	0.44	0.71	1.21	1.80	1.78	2.66	2.66	2.02	1.08	1.03	0.54	0.30

e Estimated

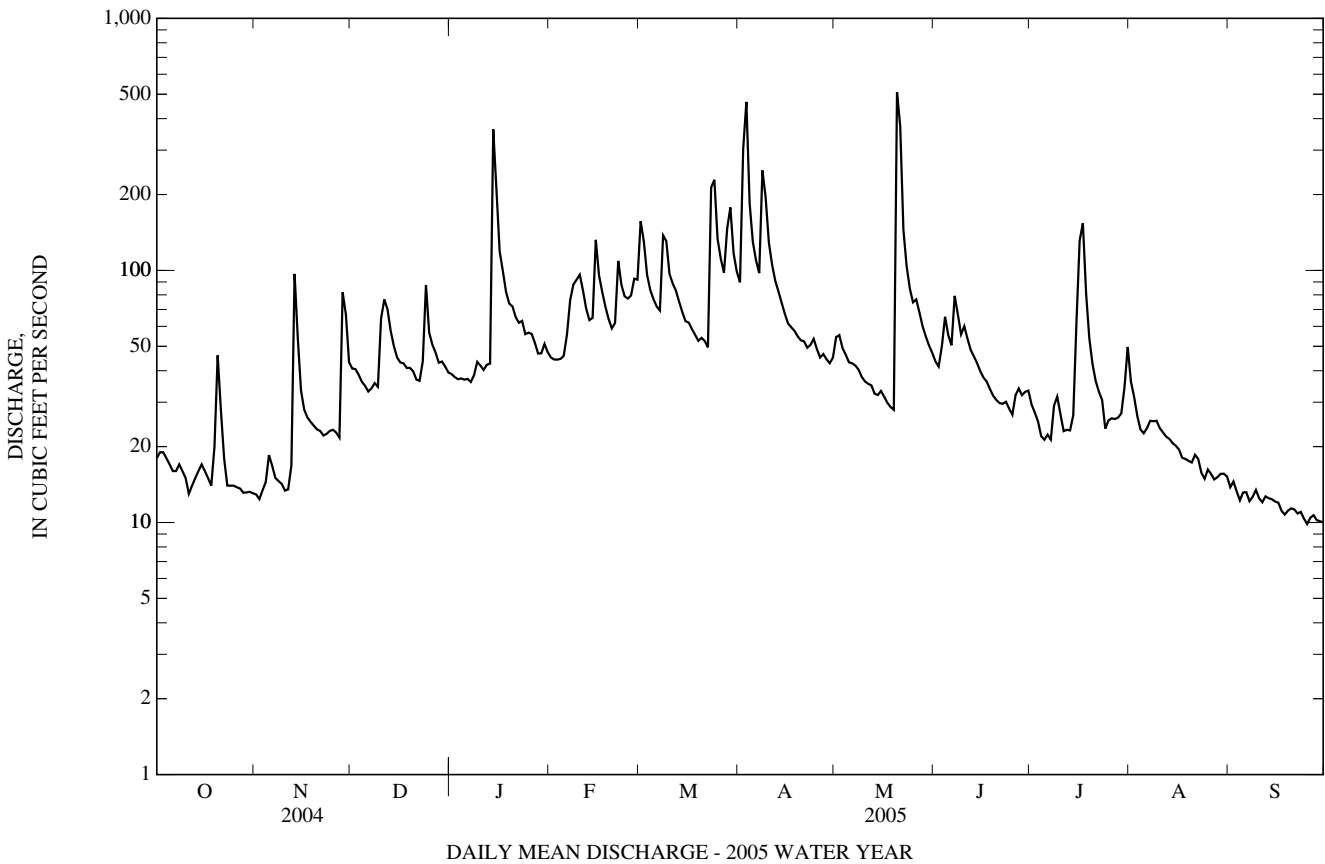
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1943 - 1969, 1972 - 2002, 2005, BY WATER YEAR (WY)

MEAN	20.8	36.8	59.8	82.4	89.1	110	77.3	53.3	37.0	34.3	36.0	24.0
MAX	101	190	219	258	279	284	226	178	156	297	340	197
(WY)	(1972)	(1957)	(1997)	(1978)	(1998)	(1994)	(1983)	(1989)	(1948)	(1975)	(1967)	(1999)
MIN	3.46	4.95	3.22	4.30	16.2	27.8	21.7	15.5	7.32	4.58	2.83	2.78
(WY)	(1966)	(1966)	(1966)	(1966)	(2002)	(1966)	(1985)	(1957)	(1965)	(1944)	(1964)	(1964)

01488500 MARSHYHOPE CREEK NEAR ADAMSVILLE, DE—Continued

SUMMARY STATISTICS	FOR 2005 WATER YEAR		WATER YEARS 1943 - 1969, 1972 - 2002, 2005	
	ANNUAL TOTAL	19,162.9		
ANNUAL MEAN	52.5		55.1	
HIGHEST ANNUAL MEAN			111	1958
LOWEST ANNUAL MEAN			16.2	1966
HIGHEST DAILY MEAN	510	May 20	2,710	Aug 5, 1967
LOWEST DAILY MEAN	9.9	Sep 25	1.2	(a)
ANNUAL SEVEN-DAY MINIMUM	10	Sep 24	1.3	Sep 5, 1964
MAXIMUM PEAK FLOW	1,380	May 20	(b)3,700	Jul 13, 1975
MAXIMUM PEAK STAGE	7.98	May 20	13.98	Aug 5, 1967
INSTANTANEOUS LOW FLOW	9.6	Sep 25	1.0	(c)
ANNUAL RUNOFF (CFSM)	1.20		1.26	
ANNUAL RUNOFF (INCHES)	16.24		17.07	
10 PERCENT EXCEEDS	97		113	
50 PERCENT EXCEEDS	39		30	
90 PERCENT EXCEEDS	13		8.0	

- a Sept. 9, 10, 1964.
- b From rating curve extended above 3,300 ft³/s.
- c Sept. 9, 10, 1964; Aug. 20, 1965.



TRANSQUAKING RIVER BASIN

01490000 CHICAMACOMICO RIVER NEAR SALEM, MD

LOCATION.--Lat 38°30'42.0", long 75°52'47.7", Dorchester County, Hydrologic Unit 02060007, on right bank at downstream side of highway bridge on U.S. Route 50, 1.6 mi east of Salem, 3.5 mi northwest of Vienna, and 13 mi upstream from confluence with Transquaking River.

DRAINAGE AREA.--15.0 mi².

PERIOD OF RECORD.--April 1951 to September 1980, October 2000 to September 2005.

REVISED RECORDS.--WSP 1332: 1952.

GAGE.--Water-stage recorder. Datum of gage is 10 ft above National Geodetic Vertical Datum of 1929, from topographic map. Gage was previously located downstream of Big Mill Pond dam.

REMARKS.--Records fair except those above 90 ft³/s and those for estimated daily discharges (backwater, missing record), which are poor. Occasional regulation by Big Mill Pond. Diversion for irrigation of about 225 acres above 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 2001 WATER YEAR.--Maximum discharge, 780 ft³/s, Mar. 21, gage height, 3.05 ft; minimum discharge, 2.6 ft³/s, Sept. 28.

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	7.7	e3.3	9.8	12	20	21	52	13	16	10	18	10
2	7.2	e3.3	9.3	12	18	20	41	13	21	11	15	9.0
3	6.6	e3.3	8.8	11	17	19	33	12	45	9.5	14	9.0
4	6.0	e3.2	8.7	11	15	19	29	10	25	9.7	13	9.1
5	5.6	e3.1	8.8	11	45	29	25	9.4	28	13	12	8.9
6	5.8	e4.0	8.7	12	70	28	23	8.9	e34	58	12	8.2
7	5.2	7.7	8.7	12	39	22	23	7.9	e49	23	10	7.1
8	4.5	8.2	8.7	13	29	19	21	8.5	e58	14	8.6	6.5
9	4.4	8.9	8.2	14	25	18	25	8.8	e42	14	7.4	e6.0
10	4.4	13	8.2	12	24	16	25	8.4	e30	12	7.9	e5.8
11	4.4	11	8.7	12	20	15	37	7.7	e23	13	24	e5.6
12	4.2	9.2	9.0	12	18	15	65	6.7	e19	12	31	e5.4
13	4.0	9.1	8.3	11	23	38	43	6.3	e16	11	96	e5.0
14	4.0	11	20	11	23	37	34	6.4	e15	9.4	323	e5.0
15	3.9	14	24	13	22	26	27	5.8	e14	9.0	100	e4.8
16	3.7	10	18	13	21	36	25	5.7	e14	8.3	54	e4.6
17	3.6	e9.0	76	12	35	31	25	5.5	e18	7.3	33	e4.3
18	3.6	e8.2	109	12	31	27	26	6.0	e26	7.1	25	e4.1
19	3.7	e7.6	37	22	23	21	23	11	e28	11	21	e4.0
20	3.5	e7.4	27	74	21	18	20	12	e24	10	19	e4.0
21	3.7	e7.4	21	84	20	214	18	14	21	9.4	17	12
22	4.0	e7.2	20	45	19	371	18	18	18	8.0	15	e8.0
23	3.8	e7.0	29	31	20	94	17	25	19	7.9	13	e3.6
24	e3.7	e6.8	17	26	21	54	17	15	25	7.0	15	e4.0
25	e3.6	e9.0	16	24	25	39	18	11	20	7.2	14	13
26	e3.6	50	14	20	42	34	16	46	17	12	12	4.5
27	e3.5	31	14	20	30	32	15	233	15	61	11	2.9
28	e3.4	14	14	18	25	28	15	80	14	21	12	2.8
29	e3.4	11	13	17	---	26	13	38	13	18	11	3.3
30	e3.4	11	13	20	---	109	13	26	12	37	10	4.3
31	e3.3	---	13	25	---	88	---	19	---	26	10	---
TOTAL	135.4	308.9	608.9	642	741	1,564	782	698.0	719	486.8	983.9	184.8
MEAN	4.37	10.3	19.6	20.7	26.5	50.5	26.1	22.5	24.0	15.7	31.7	6.16
MAX	7.7	50	109	84	70	371	65	233	88	61	323	13
MIN	3.3	3.1	8.2	11	15	15	13	5.5	12	7.0	7.4	2.8
CFSM	0.29	0.69	1.31	1.38	1.76	3.36	1.74	1.50	1.60	1.05	2.12	0.41
IN.	0.34	0.77	1.51	1.59	1.84	3.88	1.94	1.73	1.78	1.21	2.44	0.46

e Estimated

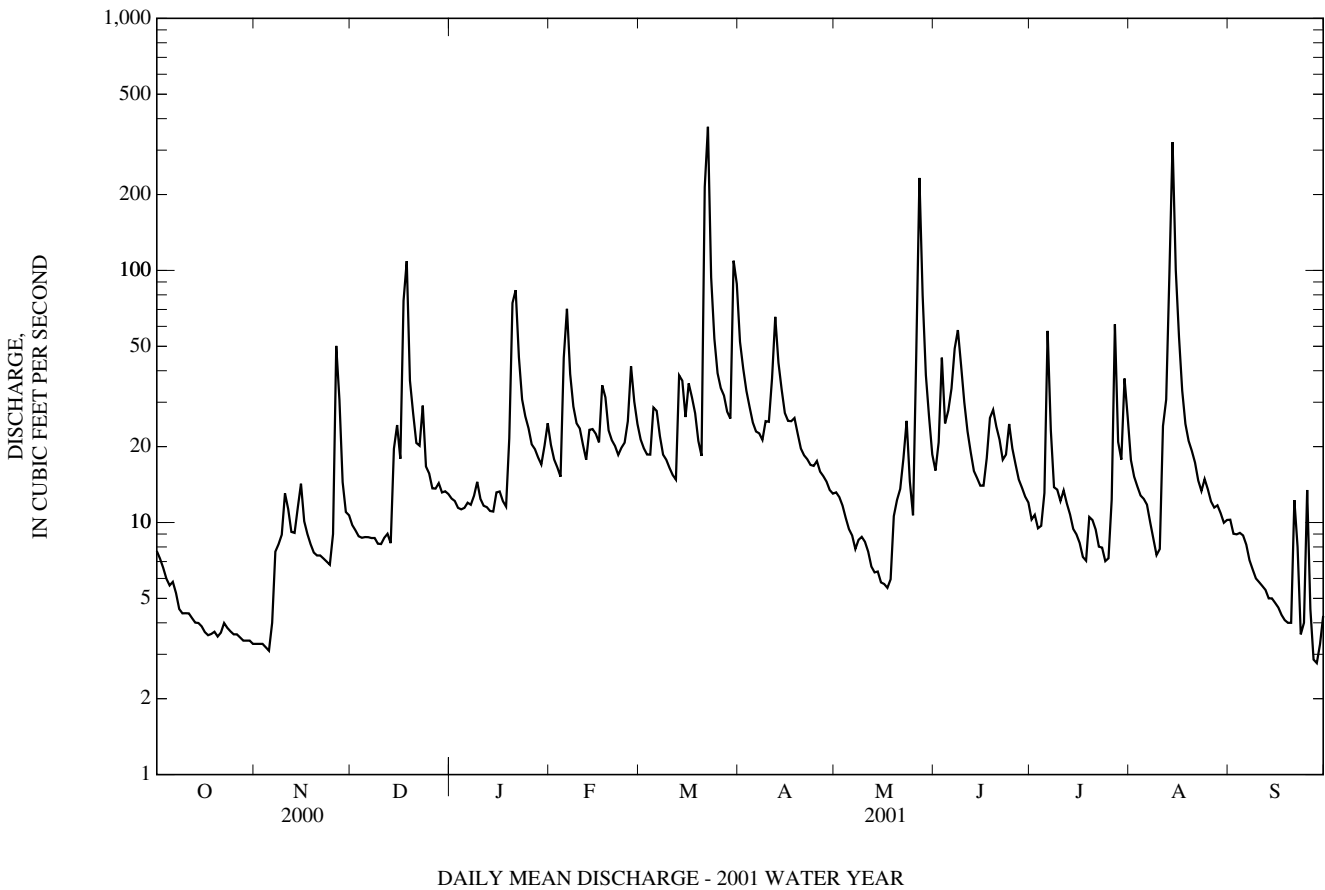
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 1980, 2001, BY WATER YEAR (WY)

MEAN	10.7	14.8	19.6	26.2	29.6	33.8	25.5	16.8	12.9	10.2	15.9	10.4
MAX	46.8	44.1	58.8	55.5	80.1	64.2	51.8	48.4	36.3	52.3	83.0	31.6
(WY)	(1980)	(1973)	(1973)	(1978)	(1979)	(1979)	(1958)	(1978)	(1972)	(1975)	(1973)	(1960)
MIN	3.58	5.95	5.76	6.37	9.76	12.1	10.9	6.02	5.58	2.48	2.65	4.16
(WY)	(1955)	(1969)	(1969)	(1966)	(1955)	(1977)	(1967)	(1977)	(1977)	(1976)	(1977)	(1976)

01490000 CHICAMACOMICO RIVER NEAR SALEM, MD—Continued

SUMMARY STATISTICS	FOR 2001 WATER YEAR		WATER YEARS 1951 - 1980, 2001	
ANNUAL TOTAL	7,854.7			
ANNUAL MEAN	21.5		18.9	
HIGHEST ANNUAL MEAN			31.9	1973
LOWEST ANNUAL MEAN			8.98	1977
HIGHEST DAILY MEAN	371	Mar 22	725	Feb 26, 1979
LOWEST DAILY MEAN	2.8	Sep 28	0.13	Jul 6, 1977
ANNUAL SEVEN-DAY MINIMUM	3.3	Oct 30	0.25	Jul 4, 1977
MAXIMUM PEAK FLOW	(a)780	Mar 21	(a)780	Mar 21, 2001
MAXIMUM PEAK STAGE	3.05	Mar 22	(b)5.62	Feb 26, 1979
INSTANTANEOUS LOW FLOW	5.2	May 17	0.13	(c)
ANNUAL RUNOFF (CFSM)	1.43		1.26	
ANNUAL RUNOFF (INCHES)	19.48		17.11	
10 PERCENT EXCEEDS	37		36	
50 PERCENT EXCEEDS	14		13	
90 PERCENT EXCEEDS	4.4		4.8	

- a From rating curve extended above 90 ft³s.
- b Result of dam failure.
- c July 6, 7, 1977, as a result of pumpage for irrigation.



TRANSQUAKING RIVER BASIN

01490000 CHICAMACOMICO RIVER NEAR SALEM, MD—Continued

EXTREMES FOR 2002 WATER YEAR.--Maximum discharge, 67 ft³/s, Apr. 1, gage height, 1.65 ft; 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	5.0	e6.4	7.7	e3.5	5.5	e5.2	59	11	12	e0.64	0.68	5.4
2	4.7	e6.4	7.5	e3.3	5.9	e9.0	30	13	12	e1.0	e0.60	14
3	4.7	e6.2	7.2	e3.1	5.4	44	20	16	9.0	e3.0	e0.52	11
4	5.3	e6.2	7.3	e3.0	5.9	16	e14	12	8.0	e2.0	e0.45	9.0
5	5.4	e6.0	7.4	e3.0	6.0	8.1	e16	13	7.0	e1.5	e1.0	7.2
6	5.9	e6.0	8.3	13	5.9	6.2	e13	12	7.1	e1.0	e0.90	5.9
7	6.6	e7.4	9.0	10	12	5.6	e11	11	11	e0.80	e0.70	5.1
8	6.7	11	10	2.3	12	5.3	e10	10	8.8	e0.70	e0.60	4.6
9	6.8	5.8	15	1.7	6.7	5.1	8.6	10	5.9	e0.60	e0.50	4.1
10	7.4	5.2	10	1.7	7.7	5.4	13	10	3.4	e2.0	e0.44	3.7
11	8.1	5.4	14	1.9	16	4.8	10	9.2	2.7	e1.5	e0.40	3.4
12	8.4	5.2	13	2.1	e15	4.6	10	8.3	2.0	e1.2	e0.36	3.0
13	8.2	5.2	9.4	2.1	e11	6.9	11	8.3	2.0	e1.0	e0.33	2.5
14	7.9	5.4	7.9	1.9	e9.4	7.8	10	15	2.2	e0.90	e0.30	2.3
15	8.9	5.6	7.4	1.9	e8.6	6.1	9.6	11	2.6	e2.5	e0.28	2.7
16	8.6	5.6	6.5	2.0	e8.0	5.4	8.9	8.4	3.4	e1.5	e0.27	7.7
17	8.9	5.7	6.2	2.1	e7.6	4.8	8.8	8.2	3.8	1.7	e0.26	10
18	9.1	5.6	13	2.4	e7.2	23	8.9	11	2.7	e1.1	e0.25	9.3
19	8.5	5.6	9.8	3.2	e6.8	27	8.0	12	1.9	e0.90	e0.23	8.2
20	7.7	6.1	6.8	5.5	e6.6	19	9.9	11	1.5	e1.5	e0.21	7.2
21	7.7	5.8	5.7	4.6	e6.4	45	11	9.9	1.2	e1.0	e0.20	6.4
22	8.5	5.6	5.2	4.4	e6.2	15	13	8.7	1.0	e0.80	e0.20	5.6
23	9.3	5.7	5.2	4.6	e6.0	7.4	9.2	8.0	0.90	e0.70	e0.20	5.1
24	8.6	5.7	8.0	5.0	e5.8	e7.0	6.8	7.1	1.0	0.61	e0.20	4.4
25	8.0	5.2	9.4	5.8	e5.6	e6.4	7.6	7.2	1.7	0.84	e0.40	3.8
26	8.2	5.5	e7.4	5.4	e5.6	e6.0	8.3	6.9	e1.1	1.2	e0.34	3.7
27	7.8	5.2	e6.2	5.0	e5.4	35	7.3	6.2	e0.90	1.4	e0.30	4.8
28	7.0	6.3	e5.2	5.0	e5.4	32	27	4.8	e0.80	1.5	e0.60	5.2
29	6.7	6.9	e4.5	5.0	---	17	30	4.2	e0.74	1.5	e2.0	4.7
30	e6.6	7.1	e4.0	5.2	---	13	13	4.6	e0.68	1.4	1.1	4.1
31	e6.6	---	e3.7	5.2	---	36	---	9.7	---	1.0	1.2	---
TOTAL	227.8	181.0	247.9	124.9	215.6	439.1	422.9	297.7	119.02	38.99	16.02	174.1
MEAN	7.35	6.03	8.00	4.03	7.70	14.2	14.1	9.60	3.97	1.26	0.52	5.80
MAX	9.3	11	15	13	16	45	59	16	12	3.0	2.0	14
MIN	4.7	5.2	3.7	1.7	5.4	4.6	6.8	4.2	0.68	0.60	0.20	2.3
CFSM	0.49	0.40	0.53	0.27	0.51	0.94	0.94	0.64	0.26	0.08	0.03	0.39
IN.	0.56	0.45	0.61	0.31	0.53	1.09	1.05	0.74	0.30	0.10	0.04	0.43

e Estimated

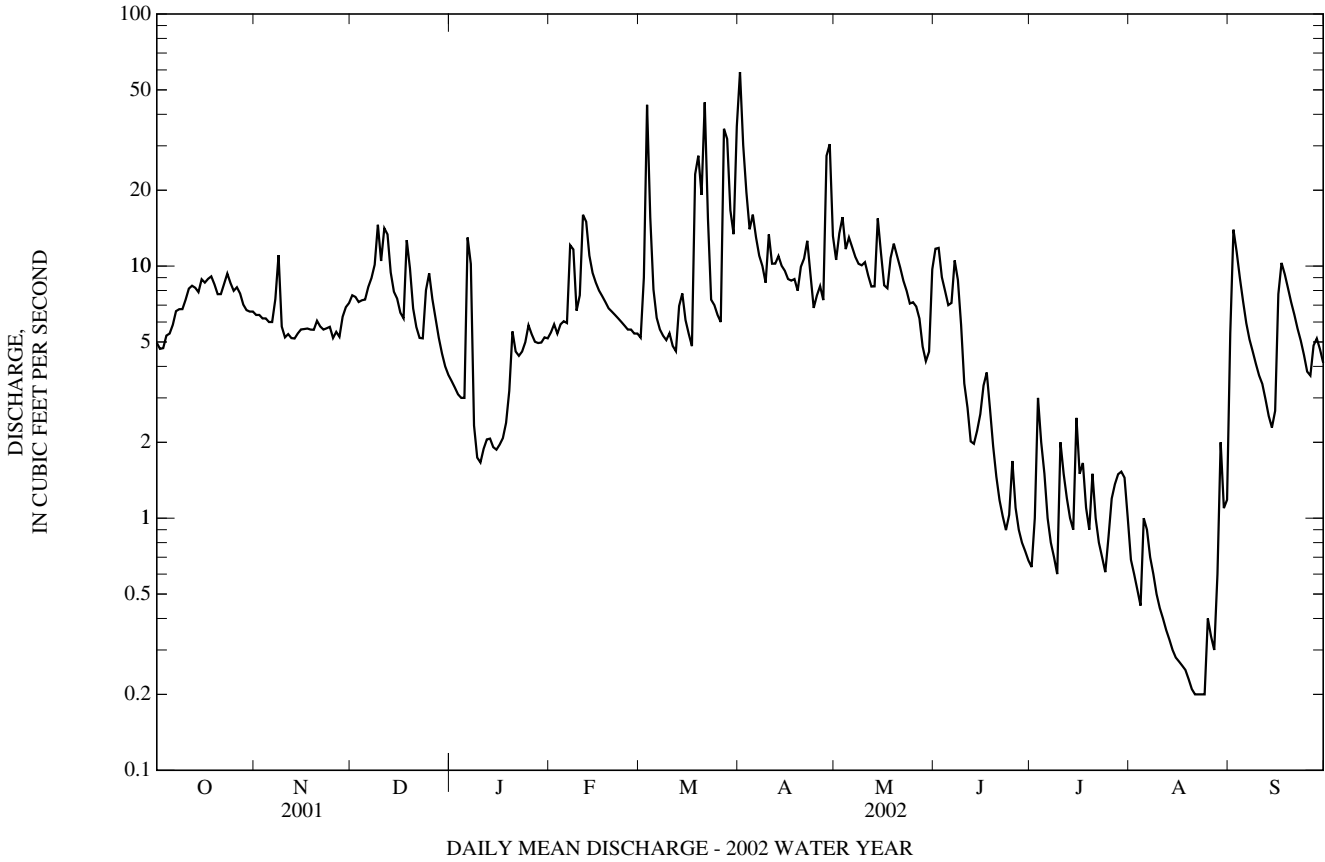
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 1980, 2001 - 2002, BY WATER YEAR (WY)

MEAN	10.6	14.5	19.2	25.5	28.9	33.2	25.1	16.6	12.6	9.92	15.4	10.3
MAX	46.8	44.1	58.8	55.5	80.1	64.2	51.8	48.4	36.3	52.3	83.0	31.6
(WY)	(1980)	(1973)	(1973)	(1978)	(1979)	(1979)	(1958)	(1978)	(1972)	(1975)	(1973)	(1960)
MIN	3.58	5.95	5.76	4.03	7.70	12.1	10.9	6.02	3.97	1.26	0.52	4.16
(WY)	(1955)	(1969)	(1969)	(2002)	(2002)	(1977)	(1967)	(1977)	(2002)	(2002)	(2002)	(1976)

01490000 CHICAMACOMICO RIVER NEAR SALEM, MD—Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1951 - 1980, 2001 - 2002	
ANNUAL TOTAL	7,458.2		2,505.03		18.5	
ANNUAL MEAN	20.4		6.86		31.9	1973
HIGHEST ANNUAL MEAN					6.86	2002
LOWEST ANNUAL MEAN					725	Feb 26, 1979
HIGHEST DAILY MEAN	371	Mar 22	59	Apr 1	0.13	Jul 6, 1977
LOWEST DAILY MEAN	2.8	Sep 28	(e)0.20	(a)	0.21	Aug 18, 2002
ANNUAL SEVEN-DAY MINIMUM	3.9	Sep 26	0.21	Aug 18	(b)780	Mar 22, 2001
MAXIMUM PEAK FLOW			67	Apr 1	(c)5.62	Feb 26, 1979
MAXIMUM PEAK STAGE			1.65	Apr 1	0.13	(d)
INSTANTANEOUS LOW FLOW			Unknown		1.23	
ANNUAL RUNOFF (CFSM)	1.36		0.458		16.76	
ANNUAL RUNOFF (INCHES)	18.50		6.21		35	
10 PERCENT EXCEEDS	36		12		12	
50 PERCENT EXCEEDS	12		5.9		4.7	
90 PERCENT EXCEEDS	5.6		0.82			

- e Estimated.
- a Aug. 21-24.
- b From rating curve extended above 90 ft³/s.
- c Result of dam failure.
- d July 6,7, 1977, result of pumpage for irrigation.



TRANSQUAKING RIVER BASIN

01490000 CHICAMACOMICO RIVER NEAR SALEM, MD—Continued

EXTREMES FOR 2003 WATER YEAR.--Maximum discharge, 874 ft³/s, Feb. 23, gage height, 3.14 ft; minimum discharge, 1.1 ft³/s, Oct. 9, 10.DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.7	17	15	28	20	55	25	14	31	13	13	29
2	3.3	13	14	55	23	75	23	14	25	14	12	22
3	2.9	11	14	48	19	94	21	13	22	42	11	20
4	2.5	11	13	49	24	53	20	13	22	48	10	46
5	2.2	11	15	38	32	56	20	12	25	32	11	120
6	1.9	21	18	31	22	76	20	13	22	22	29	54
7	1.6	28	17	28	22	74	25	13	49	17	29	32
8	1.4	23	16	26	22	49	37	15	232	16	70	24
9	1.2	20	15	25	20	42	58	14	89	16	38	20
10	1.3	19	14	23	20	37	84	15	51	24	134	18
11	9.6	24	21	20	22	32	63	16	36	21	106	17
12	12	47	55	19	21	31	58	14	29	16	44	17
13	7.4	54	39	18	19	31	47	12	26	13	29	31
14	4.8	34	46	18	18	28	36	11	23	29	91	30
15	3.6	20	41	17	27	24	31	10	27	37	51	24
16	7.8	16	30	16	31	24	29	37	25	22	35	41
17	12	80	24	17	32	44	26	69	22	17	121	32
18	7.6	88	21	17	39	49	23	40	22	14	61	30
19	5.5	45	19	16	37	37	22	34	34	20	34	203
20	5.5	28	24	16	41	35	21	27	67	18	25	106
21	6.1	23	36	16	53	72	20	23	183	15	20	49
22	6.5	27	29	15	204	54	20	42	70	14	18	34
23	6.7	26	23	15	741	40	19	46	41	15	17	76
24	6.6	21	21	14	211	33	17	45	29	14	14	169
25	6.7	19	36	14	88	29	17	38	22	11	13	68
26	16	17	56	14	58	26	19	67	19	10	13	43
27	14	17	36	14	49	25	18	78	17	9.3	15	34
28	9.9	16	28	13	50	23	16	52	17	9.2	20	30
29	9.8	16	25	14	---	24	15	52	16	12	23	27
30	18	16	22	15	---	28	14	44	15	13	26	23
31	21	---	21	16	---	30	---	36	---	13	38	---
TOTAL	219.1	808	804	685	1,965	1,330	864	929	1,308	586.5	1,171	1,469
MEAN	7.07	26.9	25.9	22.1	70.2	42.9	28.8	30.0	43.6	18.9	37.8	49.0
MAX	21	88	56	55	741	94	84	78	232	48	134	203
MIN	1.2	11	13	13	18	23	14	10	15	9.2	10	17
CFSM	0.47	1.80	1.73	1.47	4.68	2.86	1.92	2.00	2.91	1.26	2.52	3.26
IN.	0.54	2.00	1.99	1.70	4.87	3.30	2.14	2.30	3.24	1.45	2.90	3.64

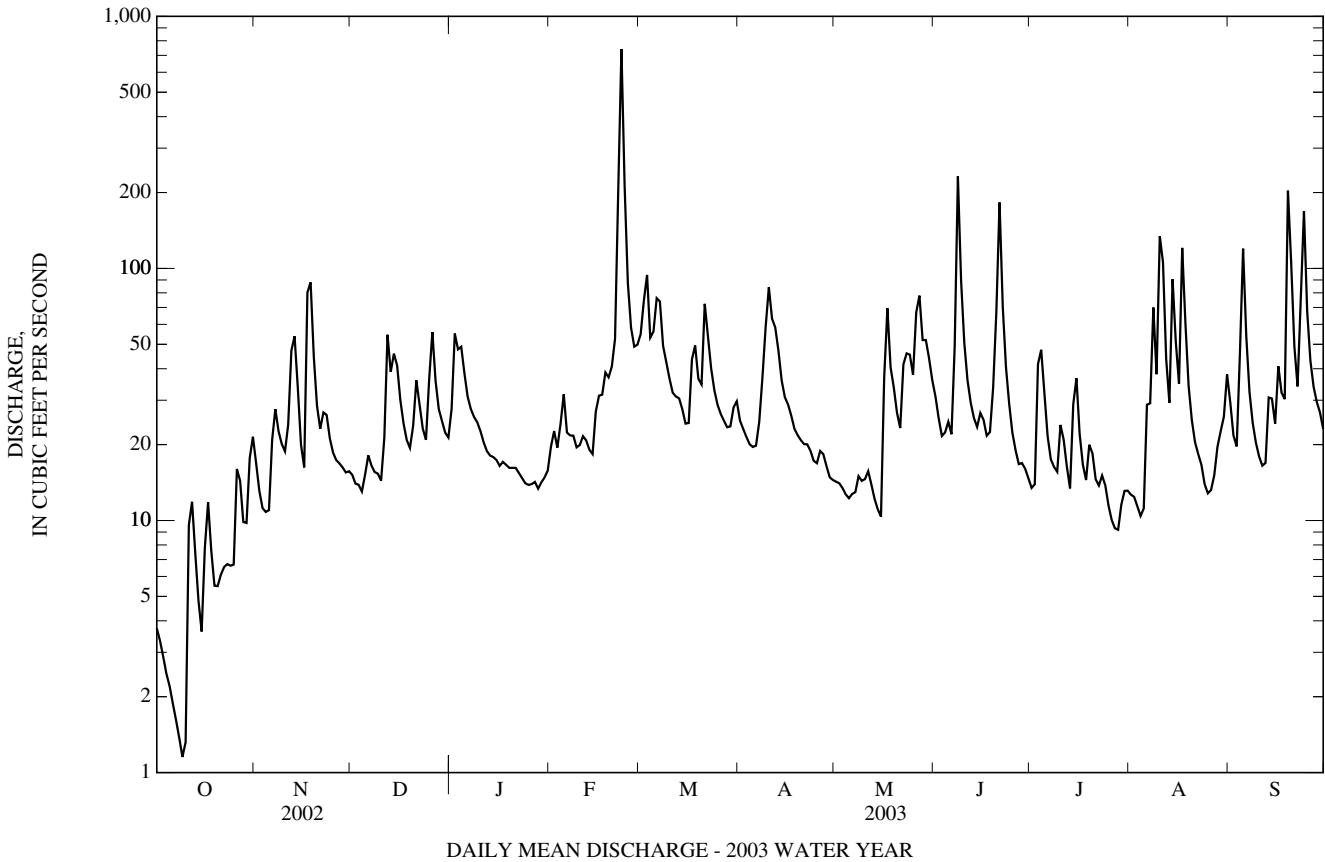
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 1980, 2001 - 2003, BY WATER YEAR (WY)

MEAN	10.5	14.9	19.4	25.4	30.2	33.5	25.2	17.0	13.6	10.2	16.1	11.5
MAX	46.8	44.1	58.8	55.5	80.1	64.2	51.8	48.4	43.6	52.3	83.0	49.0
(WY)	(1980)	(1973)	(1973)	(1978)	(1979)	(1979)	(1958)	(1978)	(2003)	(1975)	(1973)	(2003)
MIN	3.58	5.95	5.76	4.03	7.70	12.1	10.9	6.02	3.97	1.26	0.52	4.16
(WY)	(1955)	(1969)	(1969)	(2002)	(2002)	(1977)	(1967)	(1977)	(2002)	(2002)	(2002)	(1976)

01490000 CHICAMACOMICO RIVER NEAR SALEM, MD—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1951 - 1980, 2001 - 2003	
ANNUAL TOTAL	3,679.43		12,138.6			
ANNUAL MEAN	10.1		33.3		19.0	
HIGHEST ANNUAL MEAN					33.3 2003	
LOWEST ANNUAL MEAN					6.86 2002	
HIGHEST DAILY MEAN	88	Nov 18	741	Feb 23	741	Feb 23, 2003
LOWEST DAILY MEAN	(e)0.20	(a)	1.2	Oct 9	0.13	Jul 6, 1977
ANNUAL SEVEN-DAY MINIMUM	0.21	Aug 18	1.7	Oct 4	0.21	Aug 18, 2002
MAXIMUM PEAK FLOW			(b)874	Feb 23	(b)874	Feb 23, 2003
MAXIMUM PEAK STAGE			3.14	Feb 23	(c)5.62	Feb 26, 1979
INSTANTANEOUS LOW FLOW			1.1	(d)	0.13	(f)
ANNUAL RUNOFF (CFSM)	0.672		2.22		1.26	
ANNUAL RUNOFF (INCHES)	9.12		30.10		17.18	
10 PERCENT EXCEEDS	23		57		36	
50 PERCENT EXCEEDS	6.6		23		13	
90 PERCENT EXCEEDS	0.82		11		4.7	

- e Estimated.
- a Aug. 21-24.
- b From rating curve extended above 90 ft³/s.
- c Result of dam failure.
- d Oct. 9, 10.
- f July 6, 7, 1977, as a result of pumpage for irrigation.



TRANSQUAKING RIVER BASIN

01490000 CHICAMACOMICO RIVER NEAR SALEM, MD—Continued

EXTREMES FOR 2004 WATER YEAR.--Maximum discharge, 378 ft³/s, Feb. 7, gage height, 2.53 ft; minimum discharge, 2.1 ft³/s, July 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	21	28	27	29	16	16	e19	20	11	3.8	7.1	8.9
2	21	23	24	28	15	16	e18	19	9.2	3.7	11	6.3
3	19	21	22	28	30	17	e17	23	7.6	2.8	10	5.6
4	18	19	20	28	119	16	e15	25	6.4	2.3	9.4	6.1
5	19	18	44	30	44	16	e14	21	8.0	3.5	11	8.9
6	18	50	86	49	39	19	e14	19	9.0	4.0	14	11
7	17	179	59	39	272	20	e13	17	8.3	4.0	11	11
8	15	78	43	30	111	19	e13	19	7.4	3.4	9.2	7.8
9	15	46	36	28	52	e17	e13	17	6.4	3.1	9.8	15
10	15	35	34	28	41	e16	e12	17	5.5	3.4	10	13
11	15	31	130	20	37	e16	e20	16	5.5	3.6	11	8.5
12	15	31	114	20	32	e15	e25	15	8.3	4.2	11	8.2
13	14	60	56	22	29	e14	e60	14	7.6	7.6	12	7.7
14	14	56	57	21	28	e14	e125	13	6.7	7.8	14	7.6
15	22	38	127	20	26	e14	e54	12	6.5	6.9	18	9.3
16	21	31	67	26	23	e19	e43	12	5.8	5.2	20	14
17	17	28	55	17	21	e21	e36	11	5.5	4.1	18	11
18	15	26	72	32	21	e19	e33	11	7.6	20	9.3	13
19	14	30	52	79	21	e24	e31	10	7.5	19	7.2	13
20	14	186	42	83	20	e23	e29	9.1	6.1	8.8	6.2	10
21	13	110	35	31	21	e21	e27	9.9	4.9	6.0	5.8	9.0
22	13	60	32	24	20	e19	e26	9.7	4.4	4.9	7.1	8.2
23	13	44	30	22	19	e17	e25	8.8	11	4.7	6.6	7.8
24	13	37	93	19	18	e16	e24	7.7	9.1	5.9	5.9	6.8
25	12	34	148	17	18	e16	e23	7.1	6.9	7.9	5.7	6.1
26	12	31	71	17	17	e15	e25	7.5	7.0	7.4	6.0	6.1
27	14	28	50	18	17	e15	e32	7.7	7.0	6.7	7.2	7.7
28	23	27	41	23	16	e14	e29	10	6.1	10	6.8	10
29	56	33	36	21	16	e14	e25	10	4.6	14	6.3	12
30	75	31	34	20	---	e15	21	8.2	3.6	9.1	7.0	10
31	38	---	31	21	---	e16	---	9.4	---	7.2	12	---
TOTAL	621	1,449	1,768	890	1,159	529	861	416.1	210.5	205.0	305.6	279.6
MEAN	20.0	48.3	57.0	28.7	40.0	17.1	28.7	13.4	7.02	6.61	9.86	9.32
MAX	75	186	148	83	272	24	125	25	11	20	20	15
MIN	12	18	20	17	15	14	12	7.1	3.6	2.3	5.7	5.6
CFSM	1.34	3.22	3.80	1.91	2.66	1.14	1.91	0.89	0.47	0.44	0.66	0.62
IN.	1.54	3.59	4.38	2.21	2.87	1.31	2.14	1.03	0.52	0.51	0.76	0.69

e Estimated

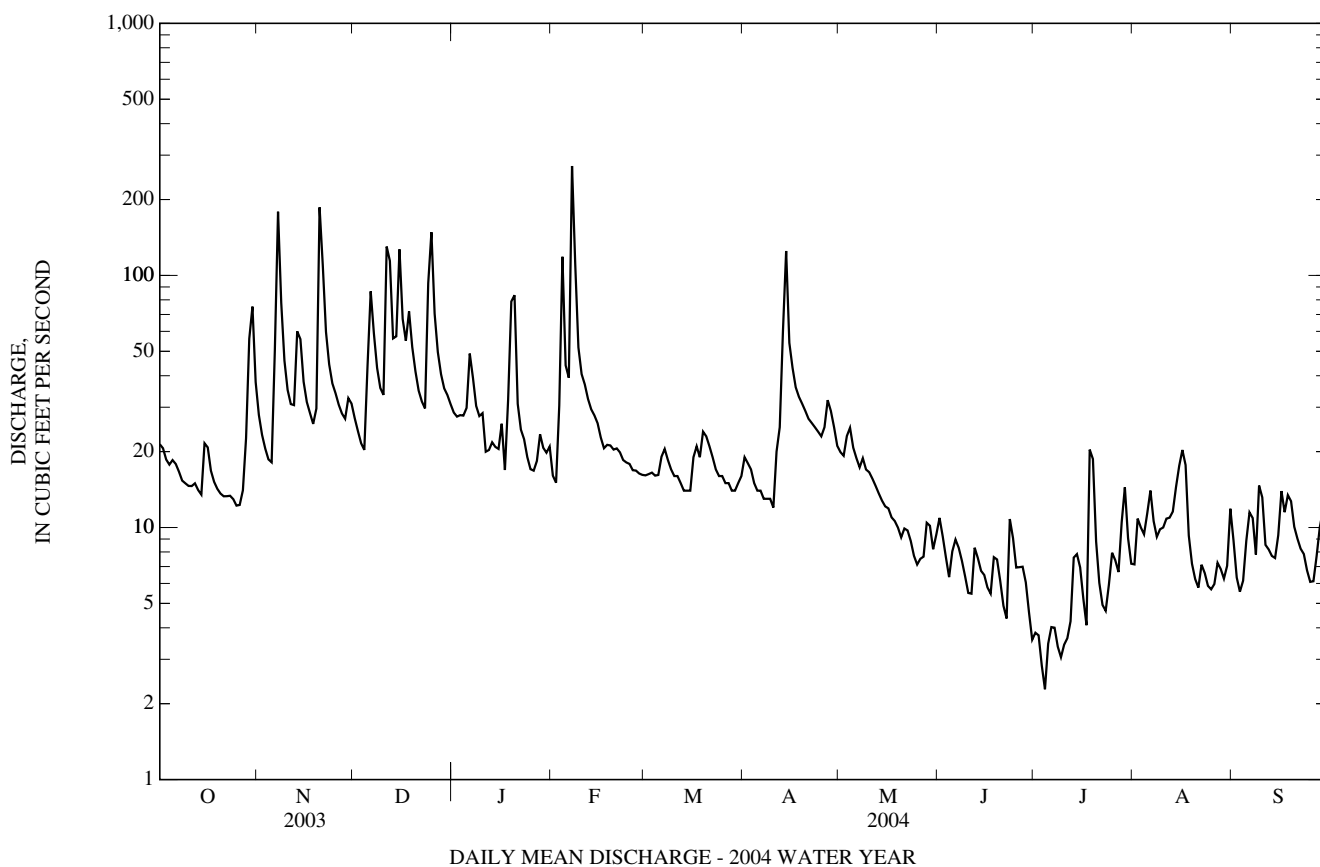
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 1980, 2001 - 2004, BY WATER YEAR (WY)

MEAN	10.8	15.9	20.6	25.5	30.5	33.0	25.3	16.9	13.4	10.1	15.9	11.4
MAX	46.8	48.3	58.8	55.5	80.1	64.2	51.8	48.4	43.6	52.3	83.0	49.0
(WY)	(1980)	(2004)	(1973)	(1978)	(1979)	(1979)	(1958)	(1978)	(2003)	(1975)	(1973)	(2003)
MIN	3.58	5.95	5.76	4.03	7.70	12.1	10.9	6.02	3.97	1.26	0.52	4.16
(WY)	(1955)	(1969)	(1969)	(2002)	(2002)	(1977)	(1967)	(1977)	(2002)	(2002)	(2002)	(1976)

01490000 CHICAMACOMICO RIVER NEAR SALEM, MD—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1951 - 1980, 2001 - 2004	
	ANNUAL TOTAL	14,145.5		8,693.8		19.1
ANNUAL MEAN	38.8		23.8		33.3	
HIGHEST ANNUAL MEAN					6.86	
LOWEST ANNUAL MEAN					2002	
HIGHEST DAILY MEAN	741	Feb 23	272	Feb 7	741	Feb 23, 2003
LOWEST DAILY MEAN	9.2	Jul 28	2.3	Jul 4	0.13	Jul 6, 1977
ANNUAL SEVEN-DAY MINIMUM	11	Jul 25	3.3	Jul 3	0.21	Aug 18, 2002
MAXIMUM PEAK FLOW			378	Feb 7	(a)874	Feb 23, 2003
MAXIMUM PEAK STAGE			2.53	Feb 7	(b)5.62	Feb 26, 1979
INSTANTANEOUS LOW FLOW			2.1	Jul 4	0.13	(c)
ANNUAL RUNOFF (CFSM)	2.58		1.58		1.27	
ANNUAL RUNOFF (INCHES)	35.08		21.56		17.31	
10 PERCENT EXCEEDS	70		45		36	
50 PERCENT EXCEEDS	26		16		13	
90 PERCENT EXCEEDS	14		6.2		4.8	

- a From rating curve extended above 90 ft³/s.
- b Result of dam failure.
- c July 6, 7, 1977, as a result of pumpage for irrigation.



TRANSQUAKING RIVER BASIN

01490000 CHICAMACOMICO RIVER NEAR SALEM, MD—Continued

EXTREMES FOR 2005 WATER YEAR.--Maximum discharge, 537 ft³/s, May 20, 21, gage height, 2.77 ft; minimum discharge, 1.2 ft³/s, Sept. 20.DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.6	20	11	9.9	17	31	24	33	16	7.7	10	3.3
2	9.3	20	12	9.8	16	29	40	31	16	7.2	8.2	2.6
3	8.7	21	11	9.9	16	23	166	22	23	6.6	7.0	2.2
4	7.5	25	9.8	10	17	20	73	19	30	6.0	5.9	2.2
5	6.6	26	9.1	11	21	19	41	17	23	5.6	5.0	2.0
6	4.8	15	9.0	11	25	18	31	16	20	6.0	4.7	2.2
7	4.4	11	13	11	25	18	27	17	54	6.0	5.7	2.1
8	4.8	9.4	16	20	23	32	29	16	43	32	6.5	1.6
9	5.7	8.6	13	24	22	44	28	14	25	33	9.2	1.6
10	6.9	8.0	25	16	23	28	24	14	21	20	16	1.9
11	6.9	8.0	29	14	20	23	22	13	19	15	10	2.1
12	6.5	11	23	13	18	23	20	13	17	13	7.2	2.2
13	6.9	32	17	12	17	21	20	12	16	12	5.7	2.1
14	9.8	18	14	35	18	19	19	11	15	12	4.6	1.5
15	15	10	12	53	27	18	18	12	13	12	4.3	1.5
16	17	8.6	11	25	23	17	17	16	12	12	4.0	1.8
17	15	7.7	12	19	19	17	17	12	12	10	7.7	1.9
18	13	7.9	11	24	17	16	17	10	11	9.6	6.4	1.7
19	13	8.4	12	15	16	16	16	10	10	9.3	5.6	1.5
20	16	10	12	16	16	16	16	180	9.9	7.2	7.1	3.7
21	17	9.1	10	16	17	16	16	264	9.8	4.3	6.2	19
22	16	8.9	11	15	27	15	16	69	9.7	3.8	5.3	6.5
23	15	10	12	16	23	44	17	39	11	3.6	4.6	4.2
24	15	11	15	14	21	80	19	31	14.5	3.2	4.3	3.5
25	15	14	12	14	22	40	16	29	8.6	3.4	3.4	3.1
26	16	17	11	15	20	33	15	28	7.9	3.9	2.8	2.8
27	17	17	11	15	23	28	17	24	8.8	3.5	3.2	2.3
28	18	21	9.6	13	23	35	15	22	9.4	3.2	4.4	1.9
29	20	16	10	12	---	56	14	20	8.9	5.5	4.7	2.1
30	22	11	11	18	---	36	15	18	8.6	35	4.5	2.2
31	21	---	10	19	---	28	---	18	---	18	4.4	---
TOTAL	379.4	420.6	404.5	525.6	572	859	825	1,050	498.1	329.6	188.6	89.3
MEAN	12.2	14.0	13.0	17.0	20.4	27.7	27.5	33.9	16.6	10.6	6.08	2.98
MAX	22	32	29	53	27	80	166	264	54	35	16	19
MIN	4.4	7.7	9.0	9.8	16	15	14	10	7.9	3.2	2.8	1.5
CFSM	0.82	0.93	0.87	1.13	1.36	1.85	1.83	2.26	1.11	0.71	0.41	0.20
IN.	0.94	1.04	1.00	1.30	1.42	2.13	2.05	2.60	1.24	0.82	0.47	0.22

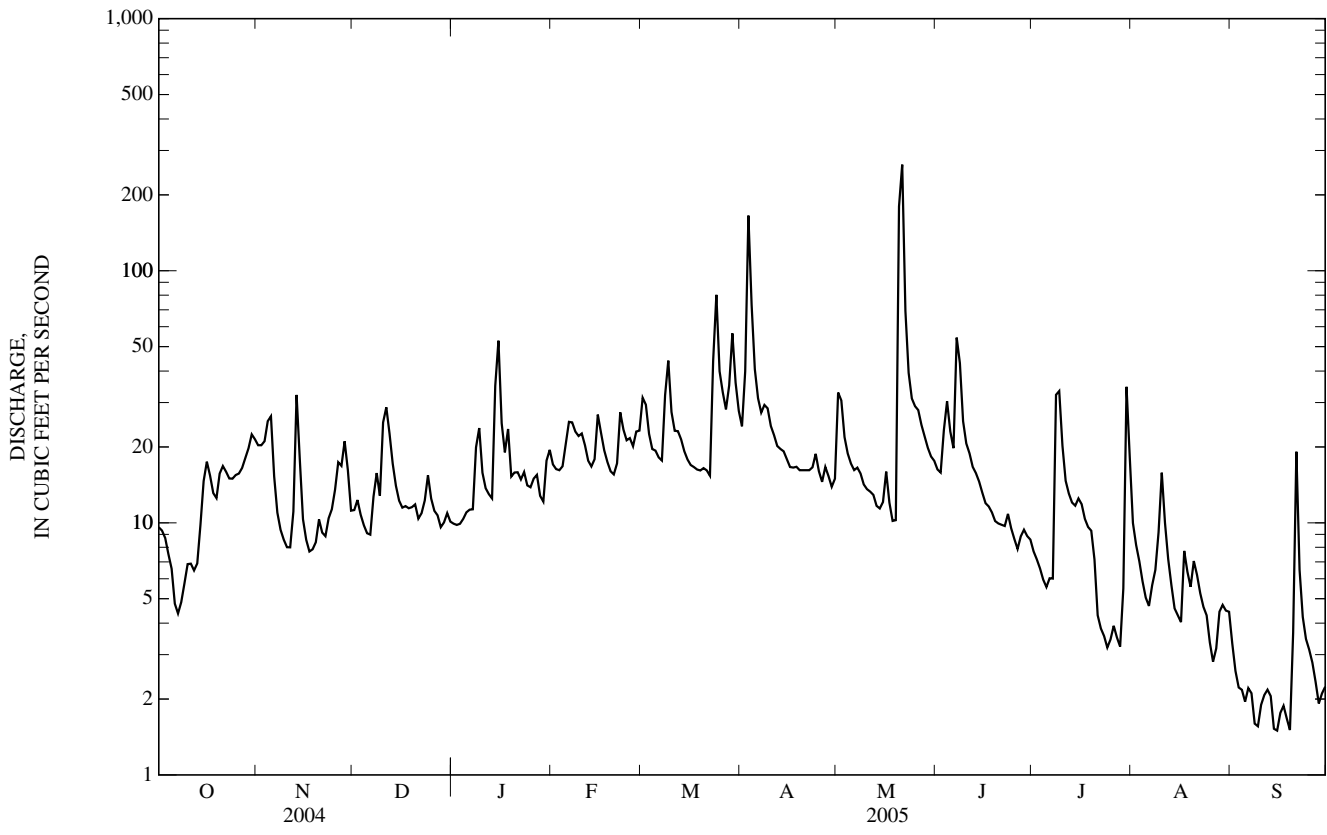
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 1980, 2001 - 2005, BY WATER YEAR (WY)

MEAN	10.8	15.9	20.4	25.2	30.2	32.8	25.4	17.4	13.5	10.1	15.6	11.2
MAX	46.8	48.3	58.8	55.5	80.1	64.2	51.8	48.4	43.6	52.3	83.0	49.0
(WY)	(1980)	(2004)	(1973)	(1978)	(1979)	(1979)	(1958)	(1978)	(2003)	(1975)	(1973)	(2003)
MIN	3.58	5.95	5.76	4.03	7.70	12.1	10.9	6.02	3.97	1.26	0.52	2.98
(WY)	(1955)	(1969)	(1969)	(2002)	(2002)	(1977)	(1967)	(1977)	(2002)	(2002)	(2002)	(2005)

01490000 CHICAMACOMICO RIVER NEAR SALEM, MD—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1951 - 1980, 2001 - 2005	
	Value	Date	Value	Date	Value	Date
ANNUAL TOTAL	6,060.3		6,141.7		19.0	
ANNUAL MEAN	16.6		16.8		33.3	2003
HIGHEST ANNUAL MEAN					6.86	2002
LOWEST ANNUAL MEAN					741	Feb 23, 2003
HIGHEST DAILY MEAN	272	Feb 7	264	May 21	0.13	Jul 6, 1977
LOWEST DAILY MEAN	2.3	Jul 4	1.5	(a)	0.21	Aug 18, 2002
ANNUAL SEVEN-DAY MINIMUM	3.3	Jul 3	1.7	Sep 13	(b)874	Feb 23, 2003
MAXIMUM PEAK FLOW			537	May 20	(c)5.62	Feb 26, 1979
MAXIMUM PEAK STAGE			2.77	May 20	0.13	(d)
INSTANTANEOUS LOW FLOW			1.2	Sep 20	1.27	
ANNUAL RUNOFF (CFSM)	1.10		1.12		17.25	
ANNUAL RUNOFF (INCHES)	15.03		15.23		36	
10 PERCENT EXCEEDS	28		28		13	
50 PERCENT EXCEEDS	13		14		4.7	
90 PERCENT EXCEEDS	6.1		3.9			

- a Sept. 14, 15, 19.
- b From rating curve extended above 90 ft³/s.
- c Result of dam failure.
- d July 6, 7, 1977, as a result of pumpage for irrigation.



DAILY MEAN DISCHARGE - 2005 WATER YEAR

CHOPTANK RIVER BASIN

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 mi².

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.--Water-discharge records good except those for estimated daily discharges (ice effect, backwater), 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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Apr 3	1630	2,260	9.03	May 21	1400	1,170	6.96
Apr 8	2315	*2,610	*9.56				

Minimum discharge, 9.1 ft³/s, Sept. 6, 7.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	39	21	134	90	108	203	248	169	102	50	56	16
2	32	20	132	88	103	252	379	205	93	46	44	16
3	37	20	132	84	103	241	1,810	179	114	44	38	16
4	37	22	113	85	104	196	1,200	155	152	39	30	14
5	32	52	100	87	113	177	577	145	152	39	27	13
6	29	57	94	93	131	167	383	134	136	56	33	10
7	27	46	92	95	154	162	289	127	220	76	53	10
8	25	37	102	96	171	173	1,530	120	360	76	52	11
9	24	33	114	99	184	226	1,780	111	236	90	43	11
10	24	31	142	92	192	225	748	101	183	68	46	12
11	22	30	206	90	187	192	496	95	160	52	41	12
12	25	40	213	89	168	178	350	90	141	46	35	12
13	29	133	191	98	152	171	269	87	119	41	29	13
14	24	240	162	220	146	159	231	84	104	41	26	18
15	24	172	139	663	203	148	216	89	92	49	22	22
16	23	105	120	492	270	141	198	87	81	53	24	17
17	23	83	125	272	224	135	184	76	77	227	33	16
18	22	72	120	215	192	130	170	66	69	209	32	14
19	22	67	103	182	185	123	159	67	63	90	29	13
20	27	64	104	183	153	123	154	260	64	65	31	12
21	28	63	96	e145	142	127	148	978	59	57	29	12
22	26	59	90	e114	160	122	144	646	57	48	25	11
23	24	61	95	136	173	191	143	374	64	41	22	11
24	24	61	139	151	168	566	158	229	58	38	e21	11
25	24	60	156	147	166	540	159	204	54	40	20	11
26	24	61	133	141	165	340	148	197	50	43	17	11
27	22	55	116	139	171	249	140	187	55	37	e16	11
28	21	86	e105	138	180	293	133	163	65	40	e16	11
29	20	182	97	138	---	606	123	146	57	42	e40	11
30	21	177	96	133	---	547	133	129	55	174	e20	11
31	21	---	93	118	---	331	---	114	---	77	e18	---
TOTAL	802	2,210	3,854	4,913	4,568	7,434	12,800	5,814	3,292	2,094	968	389
MEAN	25.9	73.7	124	158	163	240	427	188	110	67.5	31.2	13.0
MAX	39	240	213	663	270	606	1,810	978	360	227	56	22
MIN	20	20	90	84	103	122	123	66	50	37	16	10
CFSM	0.23	0.65	1.10	1.40	1.44	2.12	3.78	1.66	0.97	0.60	0.28	0.11
IN.	0.26	0.73	1.27	1.62	1.50	2.45	4.21	1.91	1.08	0.69	0.32	0.13

e Estimated

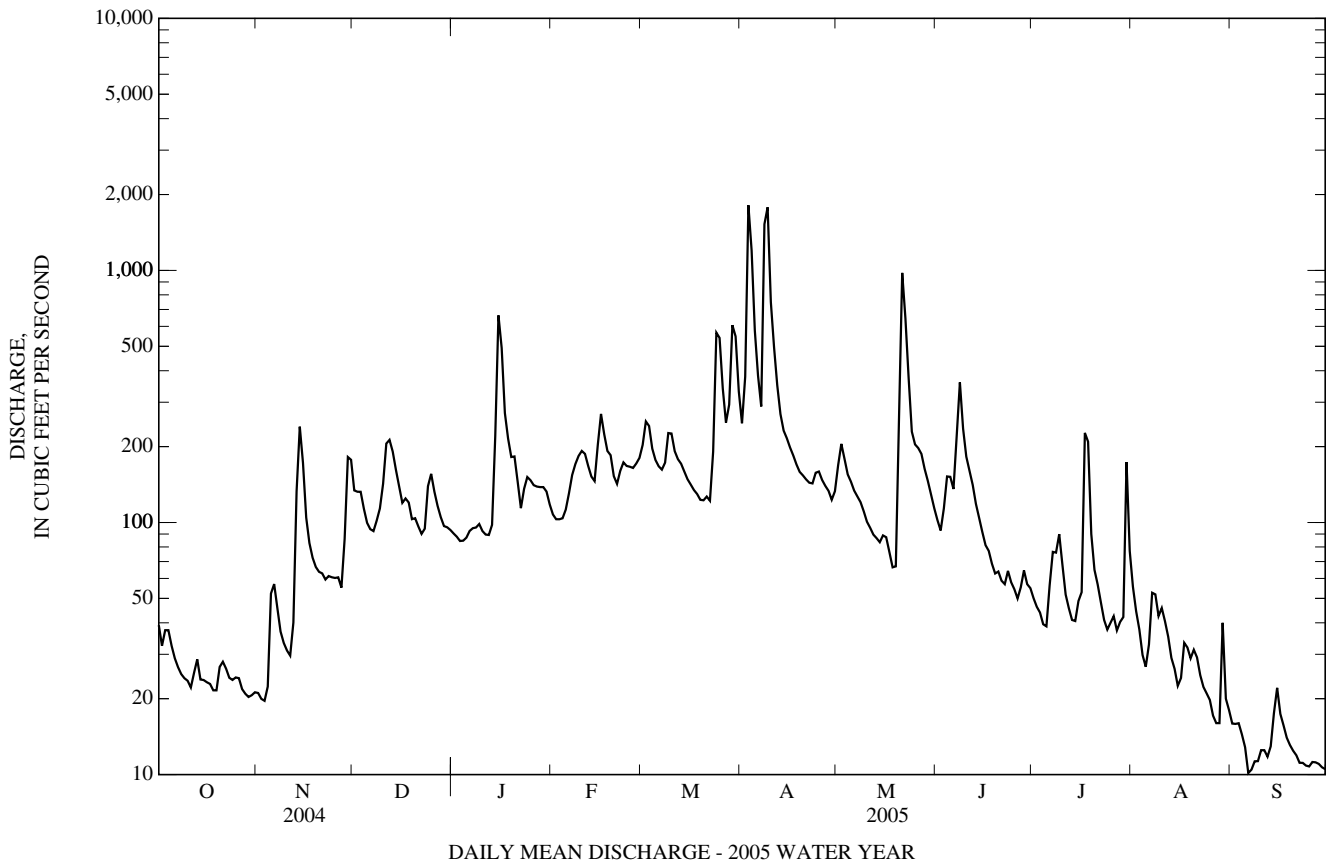
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1948 - 2005, BY WATER YEAR (WY)

MEAN	55.4	94.6	156	196	226	271	209	136	106	62.2	80.6	58.2
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 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1948 - 2005	
ANNUAL TOTAL	45,740		49,138		136	
ANNUAL MEAN	125		135		26.6	
HIGHEST ANNUAL MEAN					305	2003
LOWEST ANNUAL MEAN					26.6	1966
HIGHEST DAILY MEAN	2,100	Apr 15	1,810	Apr 3	6,160	Aug 4, 1967
LOWEST DAILY MEAN	17	Sep 26	10	(a)	(e)0.35	Aug 19, 2002
ANNUAL SEVEN-DAY MINIMUM	20	Sep 21	11	Sep 22	0.64	Aug 17, 2002
MAXIMUM PEAK FLOW			2,610	Apr 8	(b)6,970	Aug 4, 1967
MAXIMUM PEAK STAGE			9.56	Apr 8	14.47	Aug 4, 1967
INSTANTANEOUS LOW FLOW			9.1	(a)	0.26	(c)
ANNUAL RUNOFF (CFSM)	1.11		1.19		1.21	
ANNUAL RUNOFF (INCHES)	15.06		16.18		16.41	
10 PERCENT EXCEEDS	208		228		290	
50 PERCENT EXCEEDS	94		95		75	
90 PERCENT EXCEEDS	24		20		16	

a Sep. 6, 7.
 e Estimated.
 b From rating curve extended above 3,600 ft³/s.
 c Aug. 19, 20, 2002.



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.

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 2004 TO SEPTEMBER 2005

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)	Specific conductance, wat unf uS/cm 25 degC (00095)	Temperature, air, deg C (00020)
OCT												
06...	0830	Environmental	1028	80020	29	8010	772	8.4	80	7.3	161	11.0
NOV												
01...	0945	Environmental	1028	80020	21	8010	764	8.0	77	7.4	165	17.0
30...	1015	Environmental	1028	80020	182	40	769	10.1	84	7.0	128	9.0
DEC												
07...	1015	Environmental	1028	80020	90	40	760	11.0	92	7.1	143	9.5
JAN												
04...	1045	Environmental	1028	80020	85	40	765	11.5	99	7.1	140	16.5
FEB												
15...	1300	Environmental	1028	80020	204	10	765	11.9	98	7.0	132	16.5
MAR												
22...	1045	Environmental	1028	80020	122	40	768	11.7	98	7.0	137	10.0
25...	1100	Environmental	1028	80020	555	10	762	10.6	88	6.7	106	9.5
APR												
04...	1130	Environmental	1028	80020	1,120	10	762	--	--	5.7	76	19.5
19...	1015	Environmental	1028	80020	159	40	763	--	--	6.3	128	24.0
MAY												
17...	1015	Environmental	1028	80020	77	40	765	8.5	89	7.8	138	18.5
JUN												
01...	0900	Environmental	1028	80020	103	10	767	5.5	59	6.4	132	21.0
JUL												
06...	0815	Environmental	1028	80020	58	10	761	5.3	63	6.8	136	23.0
AUG												
03...	0800	<i>Blank</i>	1028	80020	--	--	--	--	--	--	--	--
03...	0900	Environmental	1028	80020	39	50	766	5.0	60	6.8	140	28.5
SEP												
12...	0900	Environmental	1028	80020	12	50	769	8.1	87	6.6	164	21.0

Agency collecting sample: 1028 - U.S. Geological Survey

Agency analyzing sample: 80020 - USGS-National Water Quality Lab, Denver, CO

Sampling method: 8010 - Other

40 - Multiple verticals

10 - Equal width increment (EWI)

50 - Point sample

01491000 CHOPTANK RIVER NEAR GREENSBORO, MD—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—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 total at 105 deg. C, suspended, mg/L (00530)
OCT 06...	14.0	48	13.6	3.52	4.54	8.04	27	14.1	E.1	18.0	18.6	112	<10
NOV 01...	14.1	--	--	--	--	--	--	--	--	17.0	--	--	<10
NOV 30...	8.0	--	--	--	--	--	--	--	--	15.8	--	--	12
DEC 07...	7.4	--	--	--	--	--	--	--	--	21.3	--	--	<10
JAN 04...	9.1	41	10.8	3.40	2.33	8.32	18	12.3	<.1	20.7	19.1	97	<10
FEB 15...	7.0	--	--	--	--	--	--	--	--	16.1	--	--	13
MAR 22...	8.0	--	--	--	--	--	--	--	--	15.0	--	--	<10
MAR 25...	7.3	--	--	--	--	--	--	--	--	10.4	--	--	<11
APR 04...	10.1	21	5.19	1.86	2.81	3.65	4	10.5	.1	8.20	7.2	75	15
APR 19...	15.5	39	10.1	3.44	2.21	7.48	--	11.2	E.1	15.7	15.8	100	<10
MAY 17...	17.8	--	--	--	--	--	--	--	--	14.9	--	--	<10
JUN 01...	19.0	--	--	--	--	--	--	--	--	--	--	--	<10
JUL 06...	24.0	41	10.8	3.46	2.38	7.53	23	12.3	E.1	17.2	14.4	98	<10
AUG 03...	--	--	--	--	--	--	--	--	--	--	--	--	<10
AUG 03...	25.0	--	--	--	--	--	--	--	--	--	--	--	<10
SEP 12...	19.0	--	--	--	--	--	--	--	--	--	--	--	21

Date	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)	Particulate nitrogen, susp, water, mg/L (49570)	Total nitrogen, wat flt by analysis, mg/L (62854)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, fltrd, mg/L (00666)	Phosphorus, water, unfltrd mg/L (00665)	Total carbon, suspnd sediment total, mg/L (00694)	Inorganic carbon, suspnd sediment total, mg/L (00688)	Organic carbon, suspnd sediment total, mg/L (00689)
OCT 06...	<10	<.04	1.27	1.28	.004	<.02	1.43	.015	.023	.062	.1	<.1	.1
NOV 01...	<10	<.04	.94	.94	.004	.20	1.22	.010	.018	.065	1.0	<.1	1.0
NOV 30...	<10	<.04	.85	.86	.005	.10	1.27	.028	.046	.136	1.2	<.1	1.2
DEC 07...	<10	.05	1.41	1.42	.006	.05	1.62	.016	.022	.055	.4	<.1	.4
JAN 04...	<10	.04	1.48	1.49	.010	<.02	1.77	.011	.015	.045	.2	<.1	.2
FEB 15...	<10	.05	1.62	1.63	.009	.10	1.82	.012	.015	.060	.8	<.1	.8
MAR 22...	<10	<.04	1.37	1.38	.005	.07	1.61	E.005	.012	.038	.5	<.1	.5
MAR 25...	<11	.25	1.03	1.04	.010	.20	1.96	.023	.041	.144	1.7	<.1	1.7
APR 04...	<10	.07	.60	.60	.007	.29	1.29	.044	.078	.170	2.3	<.1	2.3
APR 19...	<10	.04	1.53	1.54	.011	.04	1.90	.019	.026	.077	.4	<.1	.4
MAY 17...	<10	.05	1.37	1.38	.016	.04	1.72	.013	.025	.080	.4	<.1	.3
JUN 01...	<10	.08	1.35	1.37	.022	.03	1.69	.014	.030	.090	.5	<.1	.4
JUL 06...	<10	.05	1.31	1.32	.011	.10	1.67	.028	.039	.108	.9	<.1	.9
AUG 03...	<10	<.04	--	<.06	E.001	<.02	<.06	<.006	<.004	<.004	.2	<.1	.2
AUG 03...	<10	E.02	1.17	1.18	.008	.09	1.62	.025	.037	.111	.6	<.1	.6
SEP 12...	<10	<.04	1.22	1.23	.003	.25	1.53	.008	.019	.096	1.5	<.1	1.5

CHOPTANK RIVER BASIN

01491000 CHOPTANK RIVER NEAR GREENSBORO, MD—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Organic carbon, water, fltrd, mg/L (00681)	Iron, water, fltrd, ug/L (01046)	Manganese, water, fltrd, ug/L (01056)	Suspnd. sediment, sieve diametr <.063mm (70331)	Suspended sediment concentration mg/L (80154)	Suspended sediment discharge, tons/d (80155)	Sampler type, code (84164)
OCT 06...	3.7	210	46.3	--	1	.08	8010
NOV 01...	3.6	--	--	--	--	--	8010
30...	6.1	--	--	--	14	6.9	3060
DEC 07...	3.4	--	--	--	5	1.2	3060
JAN 04...	2.6	232	46.8	--	4	.92	3060
FEB 15...	3.7	--	--	--	8	4.4	3045
MAR 22...	3.0	--	--	--	4	1.3	3045
25...	7.9	--	--	--	22	33	3051
APR 04...	12.6	579	42.2	88	23	70	3051
19...	5.5	551	77.1	--	2	.86	3045
MAY 17...	8.4	--	--	--	5	1.0	3045
JUN 01...	4.2	--	--	89	5	1.4	3045
JUL 06...	5.6	319	74.7	80	11	1.7	3045
AUG 03...	.6	--	--	--	<1	--	--
03...	4.4	--	--	94	5	.53	3070
SEP 12...	3.1	--	--	95	6	.20	3070

Remark codes used in this table:

< -- Less than.

E -- Estimated.

Sampler type: 3060 - Weighted-bottle sampler
3045 - US DH-81 Teflon cap and nozzle
3051 - US DH-95 Teflon bottle
3070 - Grab sample
8010 - Other



Photo by D.A. Bringman

ADCP measurement being made at station 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 mi².

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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan 15	0445	914	5.04	Apr 8	1615	1,260	5.54
Mar 29	0800	1,440	5.76	May 21	0545	1,460	5.79
Apr 3	1130	*1,990	*6.35				

Minimum discharge, 12 ft³/s, Sept. 24, 25.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	38	20	72	55	66	122	166	139	75	39	41	28
2	33	20	84	53	64	168	349	136	71	34	35	23
3	34	21	73	51	64	125	1,670	112	101	25	30	19
4	29	26	63	52	66	103	730	99	126	21	24	17
5	28	64	57	53	74	95	326	90	99	56	22	19
6	25	54	53	55	86	91	221	85	88	149	39	18
7	26	40	54	55	103	90	189	83	237	59	151	18
8	28	32	61	56	113	106	873	81	185	232	197	20
9	26	28	62	58	124	151	601	77	108	183	74	17
10	21	27	95	56	122	115	302	74	86	73	69	16
11	19	26	125	55	110	102	221	72	78	56	61	17
12	19	36	110	56	92	99	179	70	73	49	59	15
13	19	188	92	56	83	92	159	67	69	44	48	16
14	20	162	75	218	84	85	145	67	66	38	43	17
15	21	73	65	650	177	80	134	74	62	36	40	26
16	23	55	59	205	163	76	125	72	60	47	40	26
17	23	48	57	136	119	74	120	66	60	77	50	25
18	20	44	56	107	102	73	119	61	54	61	45	23
19	22	41	55	90	90	71	114	57	50	48	42	21
20	30	40	56	88	82	73	110	309	50	40	44	20
21	28	39	53	86	88	74	106	1,130	51	31	42	18
22	24	38	52	73	105	72	103	358	51	26	38	17
23	22	40	57	73	103	151	108	174	52	22	30	16
24	21	41	86	75	95	546	138	135	46	19	22	12
25	21	44	81	79	93	239	121	135	38	25	22	14
26	21	42	65	79	94	157	103	135	35	37	23	18
27	21	40	60	78	109	131	98	116	36	39	25	20
28	20	80	56	66	107	282	92	101	43	45	30	19
29	19	143	55	64	---	1,140	86	94	44	41	31	19
30	20	82	55	71	---	400	102	86	42	47	32	18
31	21	---	56	69	---	209	---	80	---	44	31	---
TOTAL	742	1,634	2,100	3,018	2,778	5,392	7,910	4,435	2,236	1,743	1,480	572
MEAN	23.9	54.5	67.7	97.4	99.2	174	264	143	74.5	56.2	47.7	19.1
MAX	38	188	125	650	177	1,140	1,670	1,130	237	232	197	28
MIN	19	20	52	51	64	71	86	57	35	19	22	12
CFSM	0.28	0.64	0.80	1.14	1.16	2.04	3.09	1.68	0.87	0.66	0.56	0.22
IN.	0.32	0.71	0.92	1.32	1.21	2.35	3.45	1.94	0.98	0.76	0.65	0.25

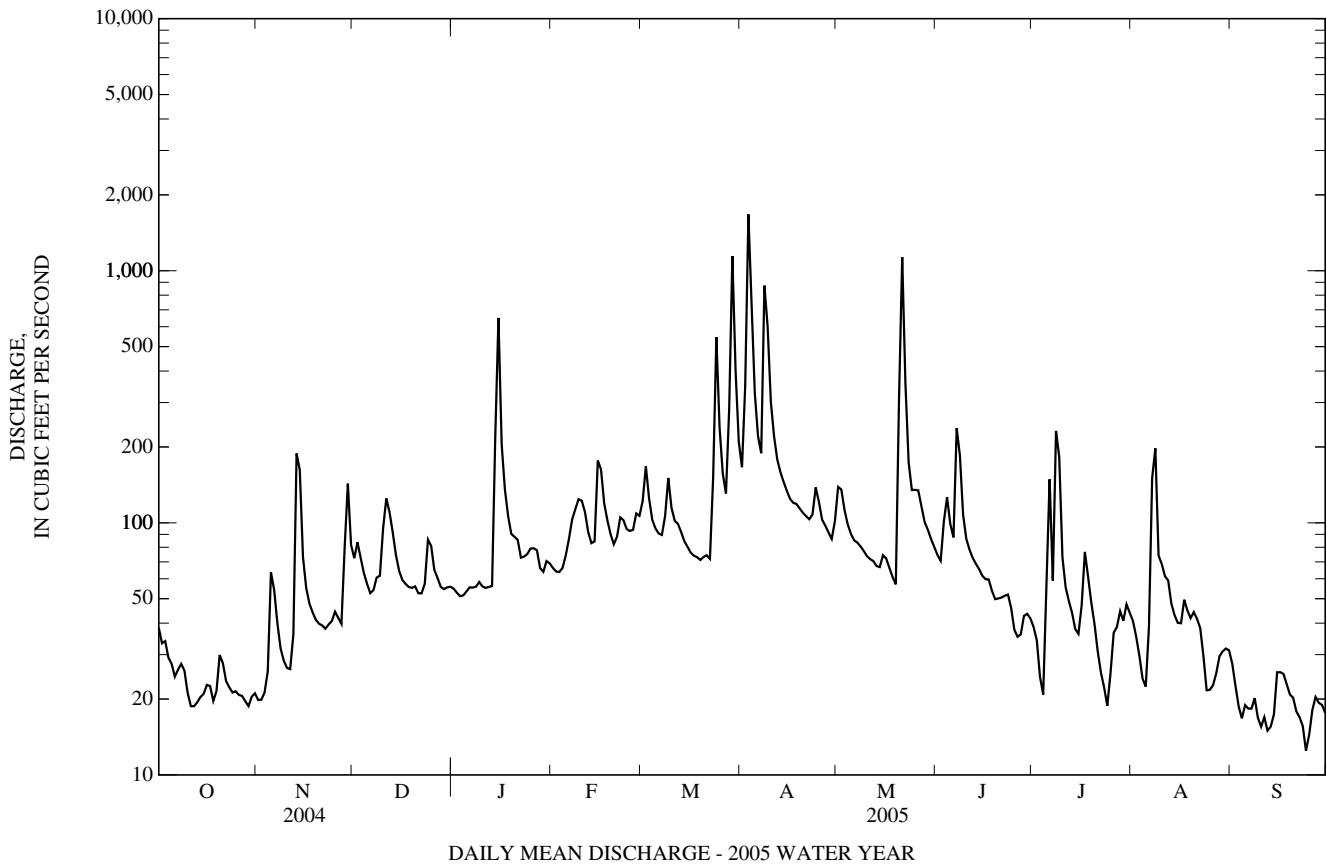
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 1956, 2001 - 2005, BY WATER YEAR (WY)

MEAN	40.7	89.2	126	117	144	189	160	109	92.9	63.6	65.2	43.2
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 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1951 - 1956 2001 - 2005	
ANNUAL TOTAL	31,286.9		34,040		103	
ANNUAL MEAN	85.5		93.3		209	
HIGHEST ANNUAL MEAN					203	
LOWEST ANNUAL MEAN					31.2	
HIGHEST DAILY MEAN	1,860	Feb 7	1,670	Apr 3	1,860	Feb 7, 2004
LOWEST DAILY MEAN	6.7	Jul 11	12	(a)	1.6	(b)
ANNUAL SEVEN-DAY MINIMUM	8.6	Jul 5	16	Sep 20	1.7	Aug 4, 2002
MAXIMUM PEAK FLOW			1,990	Apr 3	(c)2,310	Feb 7, 2004
MAXIMUM PEAK STAGE			6.35	Apr 3	6.64	Feb 7, 2004
INSTANTANEOUS LOW FLOW			12	Sep 24	1.5	(d)
ANNUAL RUNOFF (CFSM)	1.00		1.09		1.21	
ANNUAL RUNOFF (INCHES)	13.66		14.86		16.48	
10 PERCENT EXCEEDS	144		158		218	
50 PERCENT EXCEEDS	61		61		59	
90 PERCENT EXCEEDS	21		21		19	

- a Sep. 24, 25.
- b Aug. 7-9, 2002.
- c From rating curve extended above 1,730 ft³/s.
- d Aug. 8, 9, 2002.



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 mi².

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) 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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan 14	1745	178	4.30	Apr 8	0915	175	4.28
Mar 28	2245	220	4.64	May 20	1815	*352	*5.51
Apr 3	0445	248	4.83				

Minimum discharge, 2.4 ft³/s, Jan. 22.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.1	4.0	11	5.5	5.8	16	10	18	5.6	4.3	4.3	3.8
2	5.2	4.0	11	5.2	5.7	17	84	11	5.4	4.1	4.1	3.6
3	5.6	4.0	6.8	5.1	e5.7	9.0	158	9.7	18	3.8	3.8	3.5
4	4.3	12	6.0	5.2	6.4	7.6	35	8.3	11	3.7	3.5	3.4
5	3.8	27	5.5	5.7	8.4	7.2	16	7.6	7.8	26	18	3.3
6	3.5	6.9	5.4	6.2	11	6.7	14	7.5	13	41	18	3.4
7	3.4	4.7	6.7	5.6	12	6.7	13	7.1	52	7.8	23	3.3
8	3.4	4.5	8.1	5.9	12	16	108	6.8	11	50	9.5	3.4
9	3.4	4.2	7.4	6.4	13	14	34	e5.7	7.1	16	9.4	3.3
10	3.4	4.2	19	5.7	11	8.8	17	6.2	6.1	6.7	10	3.3
11	3.1	4.2	14	5.3	8.6	8.0	14	6.2	5.6	5.1	6.2	3.3
12	3.1	24	12	6.1	6.4	8.0	12	5.9	5.1	4.7	5.1	3.3
13	3.2	76	7.7	6.0	6.2	7.1	11	5.6	4.9	4.4	4.7	3.2
14	3.4	15	6.3	84	9.1	6.4	11	6.7	4.7	4.8	4.5	5.0
15	4.2	7.3	5.7	48	24	6.0	10	13	4.3	4.7	4.3	5.0
16	5.5	6.1	5.4	13	11	5.7	9.7	7.4	4.5	7.2	5.6	4.5
17	3.8	5.3	5.5	8.8	8.1	5.7	9.7	6.0	4.7	31	5.8	4.3
18	3.4	5.3	5.2	6.4	6.7	5.7	9.6	5.5	4.1	5.9	4.5	4.3
19	5.1	5.2	5.5	5.4	5.7	5.5	9.4	5.4	4.1	4.8	4.7	4.1
20	7.6	5.0	5.7	6.3	5.7	7.3	9.2	157	4.3	4.4	4.9	4.2
21	4.9	5.0	4.8	6.8	7.5	7.5	9.0	77	4.3	4.0	4.6	e4.0
22	4.3	5.0	5.3	5.9	13	5.9	9.3	14	4.2	3.9	4.1	e4.0
23	4.0	5.2	7.7	6.7	9.0	55	11	9.8	4.1	3.7	3.9	e3.9
24	4.0	5.3	13	6.7	7.5	59	14	9.1	4.0	3.5	3.8	4.0
25	4.0	6.1	6.9	6.5	8.1	15	9.8	13	4.0	6.5	3.7	4.0
26	4.0	6.1	5.7	6.7	9.5	11	8.7	12	4.0	4.8	3.8	4.0
27	3.8	5.1	5.2	6.9	11	9.3	8.0	8.6	4.3	4.2	4.0	3.8
28	3.8	48	4.8	6.1	9.3	66	7.5	7.1	4.6	4.9	4.2	3.5
29	3.9	19	5.0	5.1	---	94	7.2	6.6	4.3	6.1	4.2	3.6
30	4.0	7.6	5.5	5.9	---	20	14	6.2	4.6	5.7	4.2	3.5
31	4.0	---	5.6	5.9	---	13	---	6.0	---	4.6	4.1	---
TOTAL	128.2	341.3	229.4	315.0	257.4	530.1	693.1	476.0	225.7	292.3	198.5	113.8
MEAN	4.14	11.4	7.40	10.2	9.19	17.1	23.1	15.4	7.52	9.43	6.40	3.79
MAX	7.6	76	19	84	24	94	158	157	52	50	23	5.0
MIN	3.1	4.0	4.8	5.1	5.7	5.5	7.2	5.4	4.0	3.5	3.5	3.2
CFSM	0.51	1.41	0.91	1.26	1.14	2.11	2.86	1.90	0.93	1.17	0.79	0.47
IN.	0.59	1.57	1.05	1.45	1.18	2.44	3.19	2.19	1.04	1.34	0.91	0.52

e Estimated

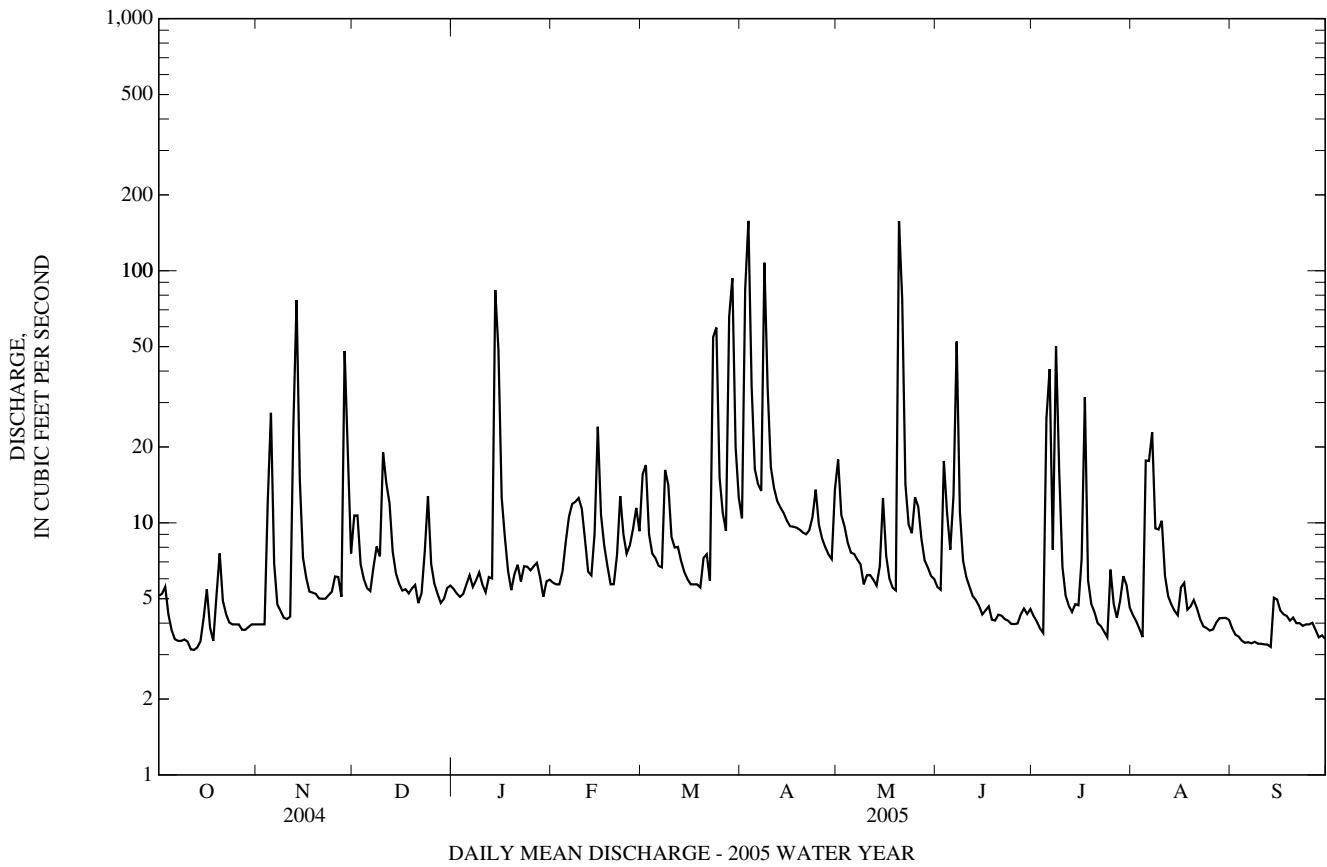
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 1956, 2001 - 2005, BY WATER YEAR (WY)

	1951	1952	1953	1954	1955	1956	2001	2002	2003	2004	2005	
MEAN	4.76	9.23	11.0	9.49	12.1	15.2	13.8	10.1	7.37	5.33	7.18	5.48
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 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1951 - 1956, 2001 - 2005	
	Value	Date	Value	Date	Value	Date
ANNUAL TOTAL	3,218.7		3,800.8			
ANNUAL MEAN	8.79		10.4		9.32	
HIGHEST ANNUAL MEAN					16.4	2003
LOWEST ANNUAL MEAN					3.98	2002
HIGHEST DAILY MEAN	170	Feb 7	158	Apr 3	428	Aug 13, 1955
LOWEST DAILY MEAN	2.1	Sep 27	3.1	(a)	1.2	(b)
ANNUAL SEVEN-DAY MINIMUM	2.3	Sep 21	3.3	Oct 7	1.2	Aug 15, 2002
MAXIMUM PEAK FLOW			352	May 20	(c)1,030	Aug 13, 1955
MAXIMUM PEAK STAGE			5.51	May 20	(d)7.02	Aug 13, 1955
INSTANTANEOUS LOW FLOW			2.4	Jan 22	0.67	Aug 21, 2002
ANNUAL RUNOFF (CFSM)	1.09		1.29		1.15	
ANNUAL RUNOFF (INCHES)	14.80		17.48		15.66	
10 PERCENT EXCEEDS	14		16		16	
50 PERCENT EXCEEDS	5.8		5.9		5.2	
90 PERCENT EXCEEDS	3.2		3.8		2.3	

- a Oct. 11, 12.
- b Aug. 17-20, 2002.
- c From rating curve extended above 370 ft³/s by logarithmic plotting at previous site and datum.
- d At previous site and datum.



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 mi².

PERIOD OF RECORD.--January 1948 to September 2005 (discontinued).

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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan 15	0345	227	3.81	Apr 3	0445	*495	*4.76
Mar 29	0415	371	4.40	May 21	0345	278	4.07

Minimum discharge, 1.0 ft³/s, Feb. 9.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	9.1	35	19	25	39	48	49	19	15	15	8.9
2	15	9.3	33	17	25	46	117	42	19	14	13	8.3
3	13	9.0	30	23	25	38	406	34	26	13	12	7.9
4	12	16	30	26	25	32	168	30	29	12	11	8.1
5	11	22	28	26	25	30	87	27	25	20	11	8.4
6	11	14	28	26	26	29	60	26	23	18	14	7.8
7	11	12	27	26	28	29	52	25	34	15	14	8.0
8	10	11	27	26	29	38	120	24	27	49	13	8.6
9	10	11	28	27	26	45	111	23	22	27	12	8.7
10	10	10	28	26	42	35	64	23	20	17	14	8.6
11	9.9	11	33	26	37	33	51	22	18	15	13	8.2
12	9.9	21	42	26	31	31	45	21	18	14	9.3	7.8
13	10	54	35	26	29	28	41	20	17	13	9.6	8.2
14	10	30	31	38	33	26	38	20	16	13	11	16
15	12	21	37	163	69	25	35	20	15	16	12	14
16	12	18	39	68	53	24	33	19	15	51	13	9.7
17	9.9	17	30	47	45	24	32	19	14	68	13	9.3
18	11	17	21	45	36	23	31	19	14	37	11	9.0
19	19	17	22	45	31	23	31	18	16	22	11	8.9
20	14	17	22	42	28	24	30	60	18	18	12	8.3
21	12	18	24	30	33	24	30	196	16	17	11	8.5
22	11	17	28	23	37	23	29	69	15	16	11	8.4
23	11	17	27	24	33	46	33	41	15	15	11	8.3
24	11	17	28	24	31	131	47	33	15	13	11	8.4
25	10	17	29	24	31	66	36	31	14	18	10	8.4
26	10	17	28	25	31	47	31	31	14	15	9.8	8.6
27	10	16	28	32	34	39	29	27	16	14	11	8.8
28	9.8	44	33	38	34	87	27	24	32	16	10	8.0
29	9.9	40	29	38	---	258	27	22	20	15	9.7	8.6
30	9.7	28	24	32	---	105	34	21	16	16	10	8.3
31	9.5	---	23	25	---	58	---	20	---	15	9.9	---
TOTAL	346.6	577.4	907	1,083	932	1,506	1,923	1,056	578	637	358.3	267.0
MEAN	11.2	19.2	29.3	34.9	33.3	48.6	64.1	34.1	19.3	20.5	11.6	8.90
MAX	19	54	42	163	69	258	406	196	34	68	15	16
MIN	9.5	9.0	21	17	25	23	27	18	14	12	9.3	7.8
CFSM	0.57	0.98	1.49	1.78	1.69	2.47	3.26	1.73	0.98	1.04	0.59	0.45
IN.	0.66	1.09	1.71	2.05	1.76	2.85	3.63	2.00	1.09	1.20	0.68	0.50

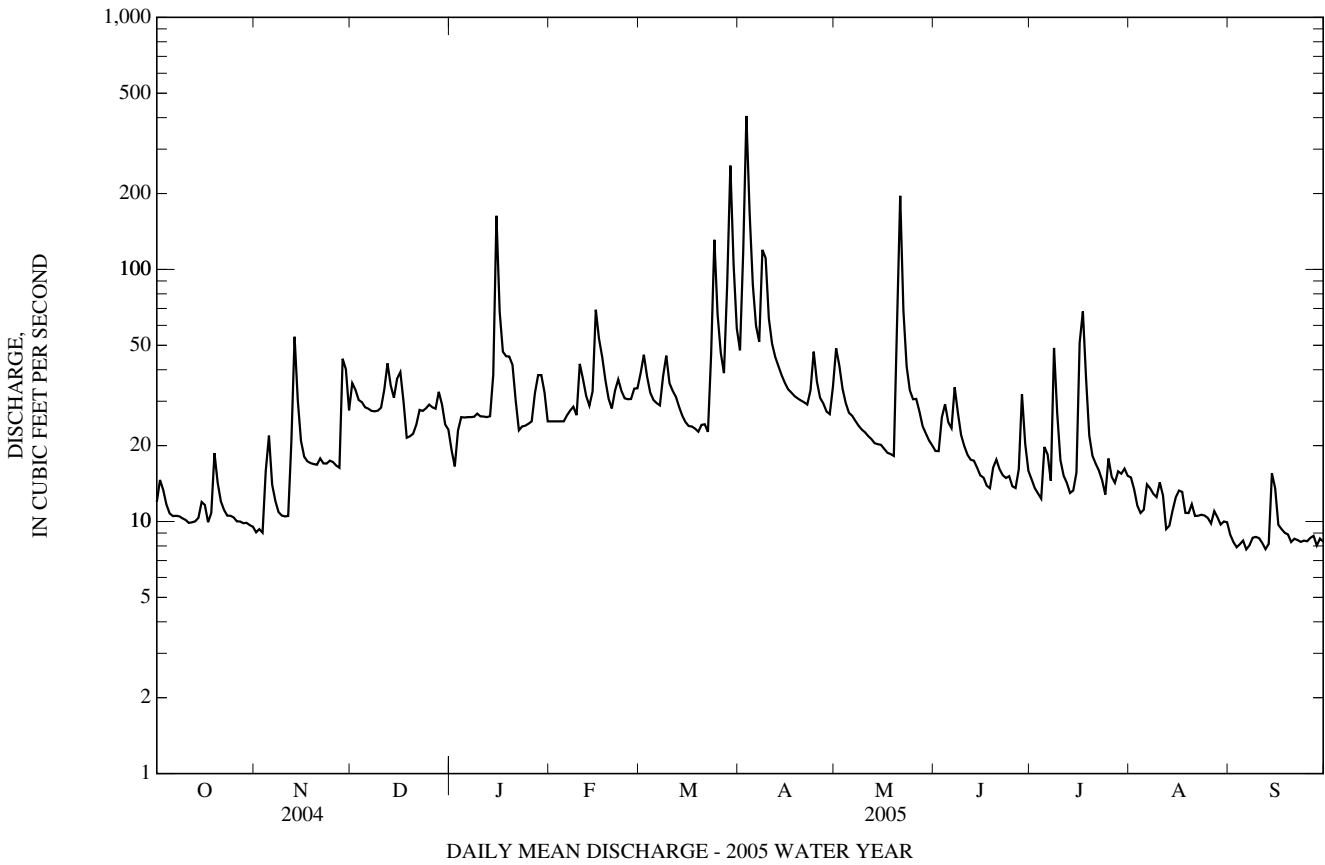
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1948 - 2005, BY WATER YEAR (WY)

MEAN	14.8	17.9	26.6	32.2	37.0	44.3	37.5	27.2	22.9	17.3	17.4	16.5
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 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1948 - 2005	
ANNUAL TOTAL	9,889.0		10,171.3			
ANNUAL MEAN	27.0		27.9		25.8	
HIGHEST ANNUAL MEAN					51.8	1972
LOWEST ANNUAL MEAN					7.08	1966
HIGHEST DAILY MEAN	449	Feb 7	406	Apr 3	1,200	Sep 16, 1999
LOWEST DAILY MEAN	9.0	Nov 3	7.8	(a)	0.10	Jun 9, 1965
ANNUAL SEVEN-DAY MINIMUM	9.5	Oct 28	8.2	Sep 2	0.14	Jun 8, 1965
MAXIMUM PEAK FLOW			495	Apr 3	(b)2,600	Sep 16, 1999
MAXIMUM PEAK STAGE			4.76	Apr 3	9.40	Sep 16, 1999
INSTANTANEOUS LOW FLOW			(c)1.0	Feb 9	0.00	(d)
ANNUAL RUNOFF (CFSM)	1.37		1.42		1.31	
ANNUAL RUNOFF (INCHES)	18.69		19.23		17.84	
10 PERCENT EXCEEDS	40		45		48	
50 PERCENT EXCEEDS	21		22		17	
90 PERCENT EXCEEDS	11		9.8		7.4	

- a Regulation.
- b From rating curve extended above 600 ft³/s on basis of USGS Cap Culvert Analysis Program of peak flow.
- c Sept. 6, 12.
- 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.



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 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1951 to September 2005 (discontinued).

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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar 28	2215	244	4.50	Apr 3	0430	*280	*4.80

Minimum discharge, 4.0 ft³/s, on several days.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	7.5	27	9.8	9.2	16	11	22	7.1	6.1	5.5	4.6
2	19	7.5	18	8.9	8.9	14	82	12	7.0	e6.8	5.3	5.1
3	13	7.5	11	9.0	9.2	9.9	190	9.7	18	5.7	4.9	5.1
4	9.2	16	9.8	9.7	10	8.8	36	9.0	16	5.6	4.7	5.1
5	7.9	27	9.5	13	12	9.7	20	8.8	9.8	5.7	4.6	5.1
6	7.6	11	9.2	12	13	9.2	14	8.6	8.2	8.9	5.2	5.1
7	7.5	8.9	12	10	14	9.1	14	8.7	11	7.0	5.5	5.1
8	7.5	7.7	13	11	14	13	23	e8.6	8.2	31	5.7	5.2
9	7.6	7.5	13	10	15	10	15	8.0	9.1	17	9.3	5.3
10	7.7	7.5	22	9.7	15	9.4	13	e8.0	7.2	8.3	6.8	5.6
11	7.4	7.5	e16	9.3	12	9.6	12	e8.6	6.9	6.4	5.7	5.3
12	7.1	20	13	10	9.8	13	11	8.0	6.5	5.9	5.3	5.7
13	7.2	67	11	10	9.3	11	11	7.7	6.3	5.9	4.8	5.6
14	8.9	19	9.9	103	14	8.6	11	7.7	6.3	6.4	4.6	7.2
15	e9.7	10	9.1	46	25	8.1	10	8.0	6.1	7.4	6.6	12
16	11	9.3	9.1	15	14	8.8	9.5	8.0	5.8	8.3	5.6	7.6
17	7.9	8.9	9.7	11	12	10	10	8.1	5.8	23	6.2	7.1
18	7.2	8.7	9.5	8.0	9.8	8.8	10	7.5	5.7	8.9	5.5	6.4
19	10	8.6	10	8.3	8.7	7.7	10	7.4	5.9	6.8	5.3	6.0
20	9.8	8.8	8.8	10	9.0	9.9	10	33	6.4	6.0	5.5	6.1
21	8.2	9.5	8.2	9.4	14	9.6	11	18	6.4	5.7	5.3	5.8
22	7.7	8.8	9.3	7.8	12	8.2	11	e10	6.3	5.5	4.5	5.8
23	7.2	8.6	e17	10	10	43	16	9.0	6.0	5.3	4.3	5.8
24	e7.5	9.0	18	10	9.9	42	19	e11	6.0	4.9	4.3	5.5
25	e8.0	e9.1	11	11	11	13	11	e13	5.7	e8.5	4.4	5.5
26	7.6	8.8	9.3	11	12	11	10	e12	5.5	6.3	4.4	5.7
27	7.5	8.0	8.3	10	12	10	9.9	e9.4	6.7	5.6	4.4	5.0
28	7.5	58	8.0	8.7	12	86	9.0	8.0	6.9	5.7	5.0	4.9
29	e7.5	28	9.3	8.7	---	102	9.5	7.8	6.4	5.5	5.2	e4.4
30	8.1	12	10	10	---	22	17	7.5	6.4	5.8	5.4	6.2
31	7.8	---	10	9.6	---	14	---	7.5	---	5.7	5.8	---
TOTAL	279.8	435.7	369.0	439.9	336.8	565.4	645.9	320.6	225.6	251.6	165.6	174.9
MEAN	9.03	14.5	11.9	14.2	12.0	18.2	21.5	10.3	7.52	8.12	5.34	5.83
MAX	22	67	27	103	25	102	190	33	18	31	9.3	12
MIN	7.1	7.5	8.0	7.8	8.7	7.7	9.0	7.4	5.5	4.9	4.3	4.4
CFSM	0.71	1.14	0.94	1.12	0.95	1.44	1.70	0.81	0.59	0.64	0.42	0.46
IN.	0.82	1.28	1.08	1.29	0.99	1.66	1.89	0.94	0.66	0.74	0.49	0.51

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 2005, BY WATER YEAR (WY)

	7.65	9.34	12.2	13.5	14.5	14.7	11.2	9.54	13.1	8.79	8.37	10.7
MEAN	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 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1951 - 2005	
ANNUAL TOTAL	5,814.4		4,210.8			
ANNUAL MEAN	15.9		11.5		11.1	
HIGHEST ANNUAL MEAN					24.2	1972
LOWEST ANNUAL MEAN					3.67	1966
HIGHEST DAILY MEAN	682	Sep 29	190	Apr 3	3,600	Sep 16, 1999
LOWEST DAILY MEAN	5.4	(a)	4.3	(b)	0.70	(c)
ANNUAL SEVEN-DAY MINIMUM	5.7	Sep 2	4.5	Aug 22	0.71	Sep 7, 1966
MAXIMUM PEAK FLOW			280	Apr 3	(d)11,200	Sep 16, 1999
MAXIMUM PEAK STAGE			4.80	Apr 3	(f)15.03	Sep 16, 1999
INSTANTANEOUS LOW FLOW			4.0	(g)	0.60	(h)
ANNUAL RUNOFF (CFSM)	1.25		0.908		0.876	
ANNUAL RUNOFF (INCHES)	17.03		12.33		11.91	
10 PERCENT EXCEEDS	20		16		17	
50 PERCENT EXCEEDS	9.3		8.9		6.5	
90 PERCENT EXCEEDS	6.4		5.5		3.3	

a July 10, 11, Sept. 14.

b Aug. 23, 24.

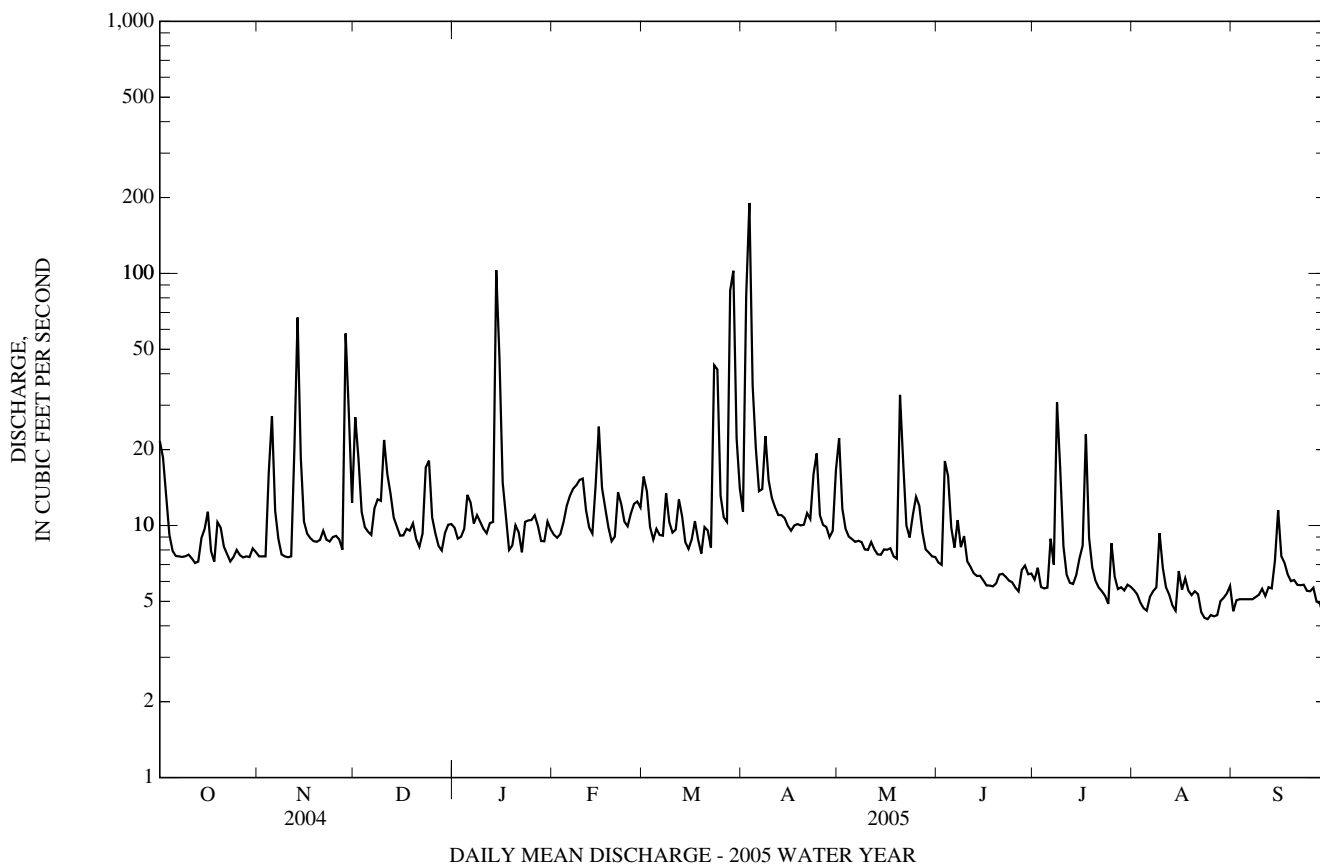
c July 21, Aug. 28-31, Sept. 4, 8-13, 1966.

d From rating curve extended above 640 ft³/s on basis of USGS Cap Culvert Analysis and flow-over-road measurement of peak flow.

f From floodmark.

g Aug. 23, 24, 27, Sept. 27-29.

h Aug. 28, 29, 1966.



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 mi².

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 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 1884 reached a stage of about 19 ft, from information by local residents; discharge, about 18,000 ft³/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,700 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov 28	0900	*2,360	*6.36	Mar 28	1845	*2,360	*6.36
Jan 14	1145	2,310	6.31	Apr 2	2045	1,790	5.81

Minimum discharge, 16 ft³/s, on several days.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	116	68	341	86	e88	105	121	137	57	38	30	23
2	100	65	154	81	e88	100	723	100	56	57	28	21
3	93	65	116	82	e86	94	748	95	76	36	26	20
4	86	145	102	84	e86	91	216	91	90	33	25	18
5	79	208	96	113	98	93	166	88	66	44	24	18
6	76	91	92	156	104	96	149	87	61	81	23	18
7	74	80	113	115	111	112	140	86	178	45	23	17
8	72	74	125	122	116	128	196	81	68	375	27	17
9	72	70	110	114	133	100	141	78	64	98	44	17
10	72	67	234	96	155	92	128	76	67	58	49	17
11	67	67	193	91	113	92	122	76	57	48	32	16
12	66	130	120	100	98	95	118	75	54	43	27	16
13	66	248	106	94	95	89	115	69	52	41	25	16
14	111	105	97	859	139	85	111	70	50	42	24	21
15	103	89	91	220	299	81	107	70	48	56	35	37
16	121	82	88	148	135	81	106	68	46	58	33	24
17	84	77	e84	129	123	81	105	65	46	55	56	25
18	73	75	e82	113	106	79	103	65	44	95	32	25
19	140	74	87	e100	97	78	101	64	42	59	30	20
20	96	73	81	e110	95	88	100	109	44	44	35	19
21	87	74	e78	e94	112	88	97	98	42	39	29	18
22	81	71	e76	e84	128	80	98	74	41	36	25	17
23	75	70	285	e100	109	352	113	69	39	34	23	17
24	73	74	213	e90	102	241	130	74	38	30	22	16
25	71	101	109	e90	101	128	103	72	36	41	21	16
26	70	82	95	e96	99	109	97	70	35	37	21	18
27	68	71	88	e90	101	102	96	65	38	43	22	21
28	66	860	88	e84	100	701	93	64	44	54	29	18
29	65	176	84	e88	---	344	91	67	44	34	32	17
30	85	118	86	e94	---	159	114	60	39	31	26	17
31	75	---	86	e90	---	133	---	60	---	30	25	---
TOTAL	2,583	3,650	3,800	4,013	3,217	4,297	4,848	2,423	1,662	1,815	903	580
MEAN	83.3	122	123	129	115	139	162	78.2	55.4	58.5	29.1	19.3
MAX	140	860	341	859	299	701	748	137	178	375	56	37
MIN	65	65	76	81	86	78	91	60	35	30	21	16
CFSM	1.58	2.31	2.33	2.46	2.18	2.64	3.07	1.49	1.05	1.11	0.55	0.37
IN.	1.83	2.58	2.69	2.84	2.28	3.04	3.43	1.71	1.18	1.28	0.64	0.41

e Estimated

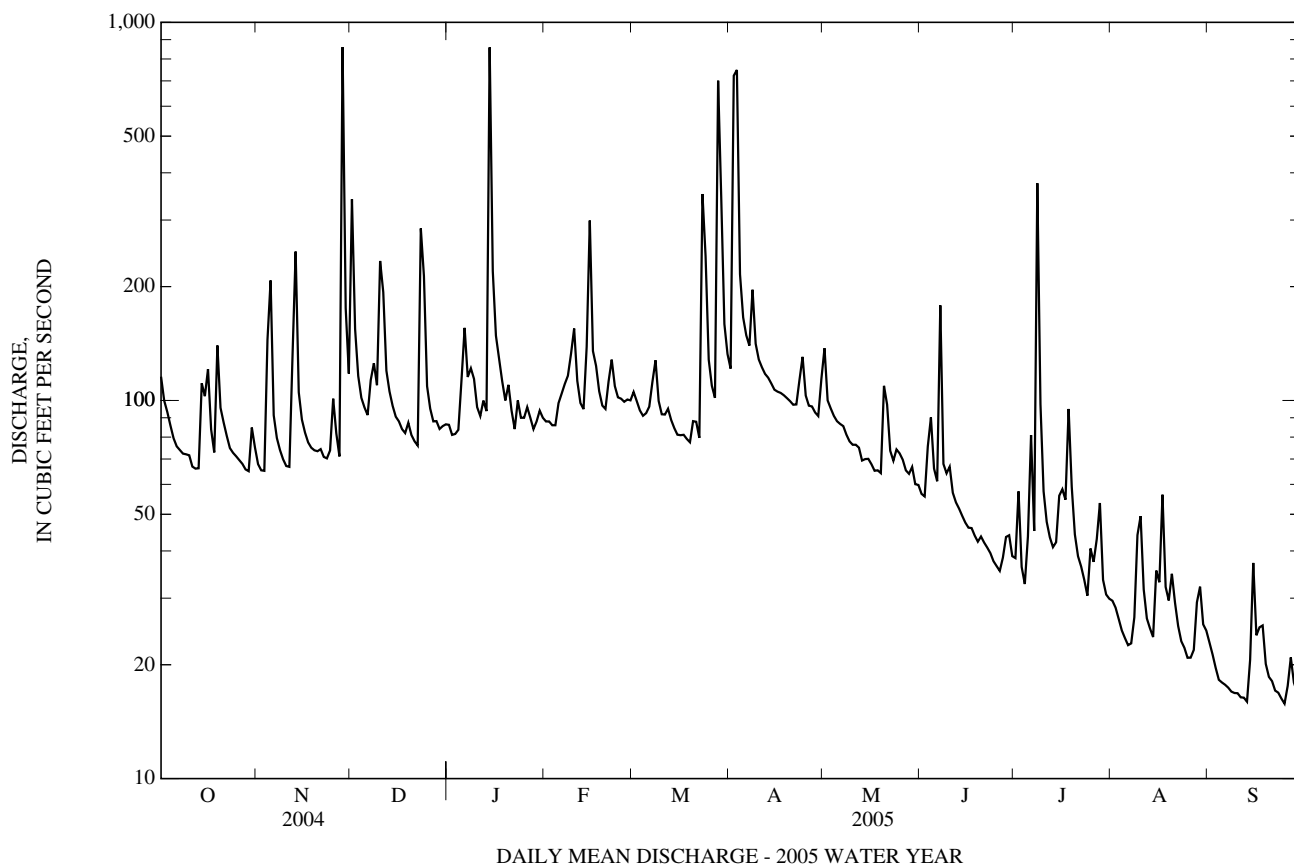
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1932 - 2005, BY WATER YEAR (WY)

	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943
MEAN	43.1	55.7	71.1	86.6	98.8	103	90.6	76.0	60.2	55.9	51.0	48.0
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 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1932 - 2005	
ANNUAL TOTAL	42,484		33,791		70.0	
ANNUAL MEAN	116		92.6		124	
HIGHEST ANNUAL MEAN					2004	
LOWEST ANNUAL MEAN					2002	
HIGHEST DAILY MEAN	1,510	Sep 28	860	Nov 28	4,570	Sep 16, 1999
LOWEST DAILY MEAN	50	(a)	16	(b)	(c,e)1.8	(d)
ANNUAL SEVEN-DAY MINIMUM	52	Sep 10	17	Sep 7	2.1	Aug 11, 2002
MAXIMUM PEAK FLOW			2,360	(f)	(g)10,600	Jul 5, 1937
MAXIMUM PEAK STAGE			6.36	(f)	(h)14.54	Sep 16, 1999
INSTANTANEOUS LOW FLOW			16	(i)	(j)4.5	Jan 21, 1955
ANNUAL RUNOFF (CFSM)	2.21		1.76		1.33	
ANNUAL RUNOFF (INCHES)	30.05		23.90		18.09	
10 PERCENT EXCEEDS	169		134		115	
50 PERCENT EXCEEDS	76		81		47	
90 PERCENT EXCEEDS	57		25		20	

- a Sept. 12-14, 2004.
- b Sept. 11-13, 24, 25.
- c May have been lower during period of doubtful gage-height record.
- e Estimated.
- d Aug. 16, 17, 2002.
- f Nov. 28 and March 28.
- g From rating curve extended above 1,700 ft³/s on basis of velocity-area and conveyance studies.
- h From floodmarks.
- i Sept. 8-14, 22-26, 28-30.
- j Measured discharge, may have been lower during period of doubtful gage-height record.



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 mi².

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.--No estimated daily discharges. Water-discharge records good. 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 satellite data collection platform at station.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 430,000 ft³/s, Apr. 4, gage height, 26.70 ft; minimum discharge, 706 ft³/s, Feb. 26.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

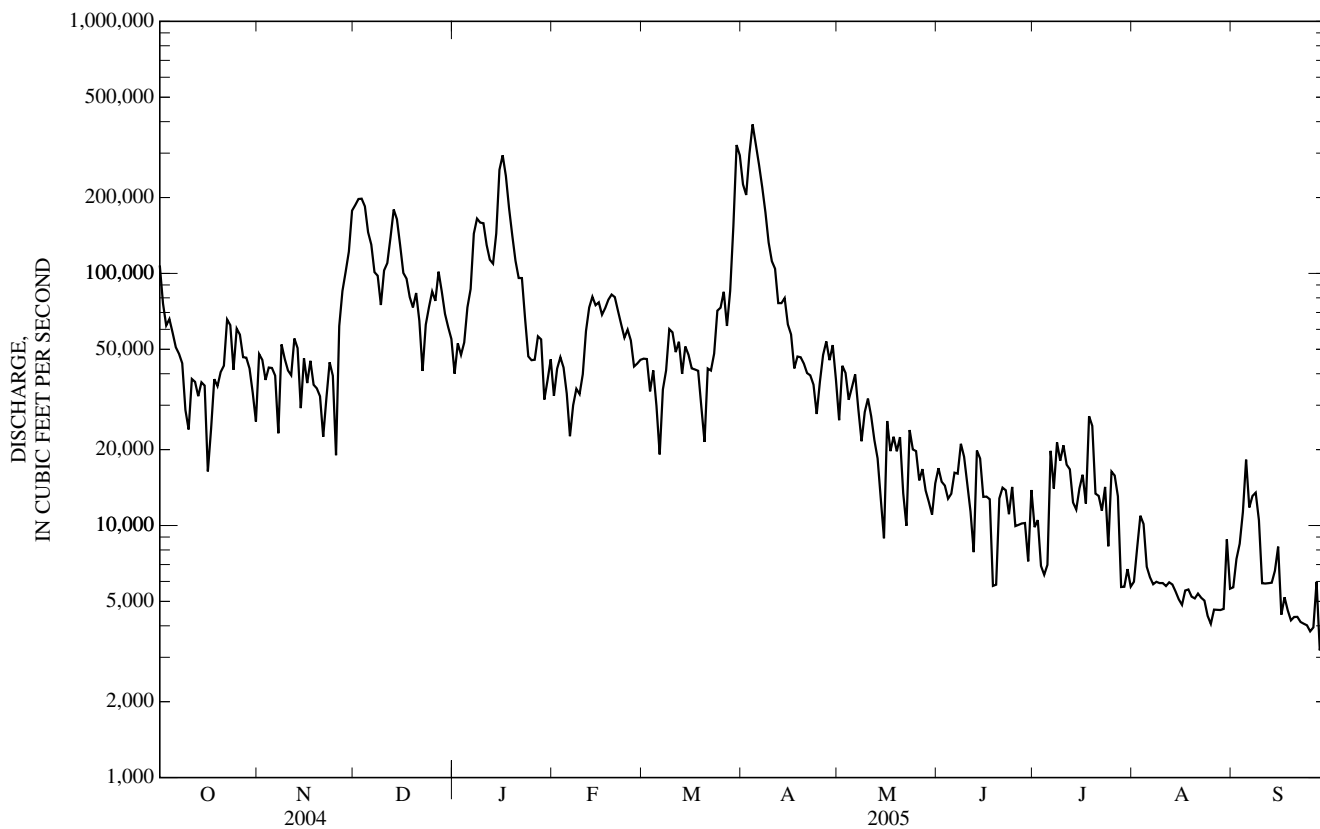
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	108,000	47,900	187,000	40,000	32,700	45,900	225,000	26,200	16,900	9,850	5,980	5,690
2	76,000	45,400	197,000	52,800	41,900	45,700	205,000	43,000	14,900	10,500	8,130	7,370
3	62,200	37,800	198,000	47,500	46,500	34,000	298,000	40,300	14,400	6,910	10,900	8,470
4	65,900	42,300	185,000	53,200	42,300	41,200	390,000	31,500	12,800	6,380	10,100	11,300
5	58,100	42,200	146,000	73,300	33,300	29,800	325,000	35,300	13,400	6,980	6,860	18,200
6	50,900	39,300	130,000	86,700	22,600	19,100	270,000	39,700	16,200	19,800	6,240	11,800
7	48,000	23,200	101,000	144,000	30,000	34,700	220,000	28,900	16,100	14,000	5,850	13,100
8	44,000	52,300	97,900	165,000	34,900	41,200	175,000	21,600	21,100	21,400	5,980	13,500
9	28,700	45,800	74,900	159,000	33,200	60,100	133,000	28,200	18,700	18,100	5,910	10,500
10	24,000	41,200	103,000	158,000	39,800	58,400	112,000	31,900	14,600	20,800	5,910	5,900
11	38,100	39,500	110,000	130,000	59,100	48,700	104,000	27,100	11,400	17,400	5,750	5,890
12	37,100	55,200	139,000	113,000	73,200	53,600	76,200	21,800	7,840	16,700	5,950	5,910
13	32,600	50,600	179,000	109,000	80,800	39,900	76,200	18,500	19,800	12,300	5,830	5,930
14	37,000	29,200	164,000	144,000	74,800	51,300	79,800	12,800	18,400	11,600	5,470	6,610
15	35,900	46,000	130,000	258,000	76,800	47,500	62,800	8,900	13,000	14,000	5,100	8,250
16	16,400	36,700	100,000	294,000	68,600	42,000	57,300	26,000	13,000	15,900	4,840	4,430
17	24,100	45,000	95,300	243,000	72,900	41,600	42,000	19,700	12,700	12,200	5,520	5,190
18	38,100	36,200	80,500	181,000	78,700	41,100	46,800	22,500	5,760	27,100	5,580	4,610
19	35,700	35,000	73,300	142,000	82,400	29,600	46,500	19,700	5,830	24,800	5,220	4,210
20	40,600	32,600	83,600	112,000	80,500	21,500	43,900	22,400	12,800	13,400	5,140	4,340
21	43,000	22,500	64,900	95,900	70,900	42,000	40,200	13,400	14,100	13,100	5,370	4,340
22	65,700	32,100	41,000	95,800	62,700	41,200	39,400	9,970	13,800	11,400	5,170	4,140
23	62,300	44,400	62,600	66,000	55,600	48,100	36,200	23,900	11,100	14,200	5,040	4,080
24	41,500	39,300	73,500	46,900	59,800	71,200	27,700	20,000	14,200	8,270	4,380	4,020
25	60,400	19,000	84,800	45,300	54,200	73,100	37,200	19,700	9,950	16,400	4,070	3,800
26	57,200	61,800	77,800	45,400	42,700	84,600	47,500	15,100	10,100	15,800	4,640	3,940
27	46,500	85,100	102,000	56,300	43,900	61,900	53,700	16,700	10,200	13,100	4,630	5,980
28	46,300	101,000	84,800	54,700	45,400	85,200	45,300	13,800	10,200	5,700	4,620	3,200
29	42,000	122,000	69,100	31,600	---	154,000	52,000	12,400	7,210	5,720	4,670	4,020
30	33,600	177,000	61,200	37,700	---	323,000	37,900	11,000	13,800	6,720	8,810	4,260
31	25,900	---	54,900	45,600	---	294,000	---	14,700	---	5,720	5,620	---
TOTAL	1,425,800	1,527,600	3,351,100	3,326,700	1,540,200	2,105,200	3,405,600	696,670	394,290	416,250	183,280	202,980
MEAN	45,990	50,920	108,100	107,300	55,010	67,910	113,500	22,470	13,140	13,430	5,912	6,766
MAX	108,000	177,000	198,000	294,000	82,400	323,000	390,000	43,000	21,100	27,100	10,900	18,200
MIN	16,400	19,000	41,000	31,600	22,600	19,100	27,700	8,900	5,760	5,700	4,070	3,200
CFSM	1.70	1.88	3.99	3.96	2.03	2.51	4.19	0.83	0.48	0.50	0.22	0.25
IN.	1.96	2.10	4.60	4.57	2.11	2.89	4.67	0.96	0.54	0.57	0.25	0.28

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1968 - 2005, BY WATER YEAR (WY)

MEAN	23,830	35,550	50,210	43,760	50,840	73,720	79,550	48,140	35,440	19,650	14,830	19,410
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 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1968 - 2005	
ANNUAL TOTAL	23,986,310		18,575,670		41,160	
ANNUAL MEAN	65,540		50,890		22,850	
HIGHEST ANNUAL MEAN					66,560	2004
LOWEST ANNUAL MEAN					22,850	1999
HIGHEST DAILY MEAN	545,000	Sep 20	390,000	Apr 4	1,120,000	Jun 24, 1972
LOWEST DAILY MEAN	9,910	Jul 11	3,200	Sep 28	269	Jul 13, 1969
ANNUAL SEVEN-DAY MINIMUM	13,000	Jul 3	4,090	Sep 20	1,810	Sep 24, 1980
MAXIMUM PEAK FLOW			430,000	Apr 4	1,130,000	Jun 24, 1972
MAXIMUM PEAK STAGE			26.70	Apr 4	36.83	Jun 24, 1972
INSTANTANEOUS LOW FLOW			706	Feb 26	144	Mar 2, 1969
ANNUAL RUNOFF (CFSM)	2.42		1.88		1.52	
ANNUAL RUNOFF (INCHES)	32.93		25.50		20.64	
10 PERCENT EXCEEDS	127,000		112,000		85,900	
50 PERCENT EXCEEDS	51,400		36,700		27,700	
90 PERCENT EXCEEDS	22,600		5,760		5,710	



DAILY MEAN DISCHARGE - 2005 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.

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 2004 TO SEPTEMBER 2005

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)	Specific conductance, wat unf 25 degC (00095)	Temperature, air, deg C (00020)
OCT 13...	0845	Environmental	1028	80020	66,700	40	754	10.0	105	8.2	256	16.0
NOV 16...	1000	Environmental	1028	80020	33,100	40	771	11.6	100	8.2	260	12.0
29...	1015	Environmental	1028	80020	103,000	40	768	11.6	100	8.0	221	9.0
DEC 14...	1045	Environmental	1028	80020	212,000	40	762	12.9	106	7.8	159	7.0
JAN 10...	1130	Environmental	1028	80020	180,000	40	762	13.8	107	7.5	170	10.0
10...	1135	Replicate	1028	80020	--	40	--	--	--	--	--	--
26...	1100	Environmental	1028	80020	55,100	40	750	13.1	94	7.7	211	6.5
FEB 16...	1030	Environmental	1028	80020	78,400	40	752	14.1	103	7.7	233	14.0
MAR 07...	1130	Environmental	1028	80020	26,200	40	751	13.6	108	7.8	261	22.5
29...	1100	Environmental	1028	80020	211,000	40	750	12.8	107	7.7	211	11.0
31...	1000	Environmental	1028	80020	305,000	40	764	13.8	114	7.4	136	9.0
31...	1005	Replicate	1028	80020	--	40	--	--	--	--	--	--
APR 04...	1045	Environmental	1028	80020	427,000	40	755	11.8	100	7.3	121	14.5
21...	0915	Environmental	1028	80020	84,800	40	759	11.3	115	8.1	223	14.5
MAY 12...	0945	Environmental	1028	80020	25,400	40	763	11.7	121	--	272	18.0
JUN 02...	1015	Environmental	1028	80020	6,220	40	767	9.7	109	7.5	284	16.0
JUL 20...	0945	Environmental	1028	80020	5,930	40	761	7.3	96	7.4	316	30.0
AUG 16...	0800	Environmental	1028	80020	4,780	40	764	7.3	97	7.4	315	26.0
SEP 14...	0815	Environmental	1028	80020	5,880	40	763	6.9	87	7.2	405	25.0

Agency collecting sample: 1028 - U.S. Geological Survey

Agency analyzing sample: 80020 - USGS National Water Quality Lab, Denver, CO

Sampling method: 40 - Multiple verticals

01578310 SUSQUEHANNA RIVER AT CONOWINGO, MD—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—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 non-filterable, mg/L (00540)
OCT 13...	17.2	110	29.7	7.50	1.91	9.01	63	13.8	E.1	6.39	32.6	149	--
NOV 16...	9.2	--	--	--	--	--	--	--	--	1.4	--	--	--
NOV 29...	9.3	--	--	--	--	--	--	--	--	3.7	--	--	--
DEC 14...	6.7	--	--	--	--	--	--	--	--	5.5	--	--	--
JAN 10...	4.7	61	16.6	4.64	1.53	7.41	34	10.7	E.1	5.99	22.9	89	--
JAN 10...	--	60	16.5	4.62	1.57	7.36	34	10.9	E.1	5.95	22.9	101	--
JAN 26...	1.1	--	--	--	--	--	--	--	--	6.0	--	--	--
FEB 16...	1.9	--	--	--	--	--	--	--	--	5.0	--	--	--
MAR 07...	5.0	--	--	--	--	--	--	--	--	5.1	--	--	--
MAR 29...	6.9	--	--	--	--	--	--	--	--	4.7	--	--	--
MAR 31...	7.0	--	--	--	--	--	--	--	--	4.4	--	--	142
MAR 31...	--	--	--	--	--	--	--	--	--	4.4	--	--	135
APR 04...	7.7	--	--	--	--	--	--	--	--	4.4	--	--	--
APR 21...	16.0	87	24.2	6.36	1.50	8.62	--	14.2	E.1	4.57	27.3	128	--
MAY 12...	17.2	--	--	--	--	--	--	--	--	.3	--	--	--
JUN 02...	21.4	--	--	--	--	--	--	--	--	1.2	--	--	.0
JUL 20...	29.6	110	30.0	8.73	2.78	14.1	--	22.3	E.1	4.09	40.6	178	--
AUG 16...	30.9	--	--	--	--	--	--	--	--	4.0	--	--	--
SEP 14...	27.1	--	--	--	--	--	--	--	--	3.6	--	--	--

Date	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)	Particulate nitrogen, susp, water, mg/L (49570)	Total nitrogen, wat flt by analysis, mg/L (62854)	Ortho-phosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, fltrd, mg/L (00666)	Phosphorus, water, unfltrd mg/L (00665)	Total carbon, suspnd sediment total, mg/L (00694)	Inorganic carbon, suspnd sediment total, mg/L (00688)
OCT 13...	10	<10	E.03	1.69	1.69	.008	.11	1.89	<.006	.008	.039	.8	<.1
NOV 16...	<10	<10	<.04	1.14	1.15	.006	.06	1.41	E.004	.010	.018	.6	<.1
NOV 29...	10	<10	<.04	1.58	1.59	.008	.16	1.87	.007	.017	.041	1.4	.2
DEC 14...	21	<10	<.04	1.21	1.22	.006	.12	1.36	.011	E.015	.053	.9	<.1
JAN 10...	30	<10	E.03	1.30	1.30	.006	.08	1.47	.009	.014	.056	1.1	<.1
JAN 10...	31	<10	E.03	1.30	1.31	.006	.14	1.52	.009	.014	.057	1.0	<.1
JAN 26...	<10	<10	.06	1.61	1.61	.007	.03	1.76	E.004	.009	.028	.3	<.1
FEB 16...	19	<10	.08	1.40	1.40	.009	.10	1.65	E.004	.011	.044	.7	<.1
MAR 07...	<10	<10	.04	1.68	1.69	.010	.03	1.87	.007	.009	.022	.3	<.1
MAR 29...	18	<10	E.03	1.44	1.45	.010	.12	1.71	.006	.011	.052	.8	<.1
MAR 31...	163	21	.06	1.21	1.22	.007	.47	1.53	.007	.013	.21	5.3	.1
MAR 31...	155	20	.06	1.20	1.20	.007	.49	1.45	.006	.013	.21	5.4	<.1
APR 04...	--	--	.07	1.11	1.12	.007	.60	1.34	.010	.021	.23	8.0	<.1
APR 21...	<10	<10	<.04	1.50	1.51	.010	.12	1.53	E.003	.007	.029	.7	<.1
MAY 12...	<10	<10	<.04	1.04	1.05	.010	.16	1.24	<.006	.008	.019	1.2	<.1
JUN 02...	10	10	.14	1.20	1.23	.023	.06	1.58	<.006	.009	.032	.7	<.1
JUL 20...	10	<10	.04	1.16	1.24	.079	.24	1.57	<.006	.010	.053	1.1	<.1
AUG 16...	<10	<10	.05	.90	1.04	.138	.14	1.45	<.006	.007	.015	.8	<.1
SEP 14...	<10	<10	.10	.80	.85	.056	.15	1.29	<.006	.005	.032	1.0	<.1

01578310 SUSQUEHANNA RIVER AT CONOWINGO, MD—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Organic carbon, suspd total, mg/L (00689)	Organic carbon, water, fltrd, mg/L (00681)	Iron, water, fltrd, ug/L (01046)	Manganese, water, fltrd, ug/L (01056)	Strontium, water, fltrd, ug/L (01080)	Suspnd. sedi- ment, sieve diametr <.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 13...	.8	2.0	19	3.2	140	--	7	1,260	3060
NOV 16...	.6	1.7	--	--	--	--	3	268	3060
29...	1.3	2.7	--	--	--	--	9	2,500	3060
DEC 14...	.8	1.9	--	--	--	--	23	13,200	3060
JAN 10...	1.1	2.0	36	50.6	81.7	--	30	14,600	3060
10...	1.0	2.0	37	50.3	81.2	--	31	--	3060
26...	.3	1.6	--	--	--	--	9	1,340	3060
FEB 16...	.7	1.7	--	--	--	--	17	3,600	3060
MAR 07...	.3	1.3	--	--	--	--	3	212	3060
29...	.8	1.6	--	--	--	--	22	12,500	3060
31...	5.2	2.3	--	--	--	96	173	142,000	3060
31...	5.3	2.2	--	--	--	97	171	--	3060
APR 04...	7.9	2.2	--	--	--	--	--	--	3060
21...	.6	1.5	26	44.4	--	--	10	2,290	3060
MAY 12...	1.2	1.7	--	--	--	--	4	274	3060
JUN 02...	.7	1.7	--	--	--	--	14	235	3060
JUL 20...	1.1	2.6	7	32.1	--	--	12	192	3060
AUG 16...	.8	2.4	--	--	--	--	4	52	3060
SEP 14...	1.0	4.8	--	--	--	--	6	95	3060

Remark codes used in this table:

< -- Less than.
E -- Estimated.

Sampler type: 3060 - Weighted-bottle sampler

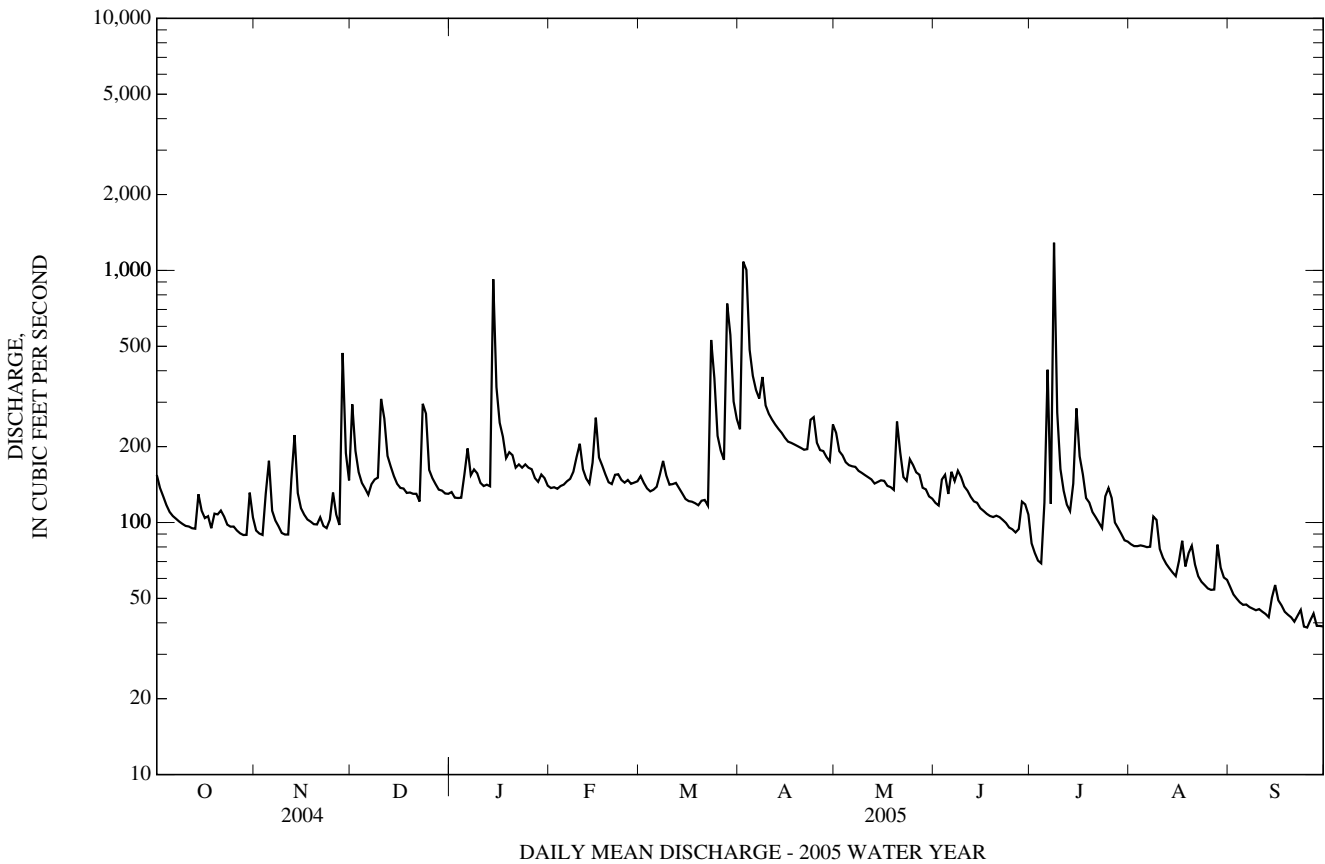


Photo by U.S. Geological Survey personnel

01580000 DEER CREEK AT ROCKS, MD—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1927 - 2005	
ANNUAL TOTAL	66,001		55,465		126	
ANNUAL MEAN	180		152		224	
HIGHEST ANNUAL MEAN					224	1972
LOWEST ANNUAL MEAN					36.3	2002
HIGHEST DAILY MEAN	1,400	Feb 6	1,290	Jul 8	6,610	Jun 22, 1972
LOWEST DAILY MEAN	77	(a)	38	Sep 25	4.0	Aug 22, 2002
ANNUAL SEVEN-DAY MINIMUM	82	Sep 21	40	Sep 24	5.0	Aug 17, 2002
MAXIMUM PEAK FLOW			2,940	Jul 8	(b)13,600	Aug 23, 1933
MAXIMUM PEAK STAGE			7.46	Jul 8	(c)17.70	Aug 23, 1933
INSTANTANEOUS LOW FLOW			37	(d)	3.5	Aug 22, 2002
ANNUAL RUNOFF (CFSM)	1.91		1.61		1.33	
ANNUAL RUNOFF (INCHES)	26.01		21.86		18.14	
10 PERCENT EXCEEDS	259		234		213	
50 PERCENT EXCEEDS	150		134		94	
90 PERCENT EXCEEDS	94		60		44	

- a Sept. 26, 27.
- b From rating curve extended above 3,000 ft³/s, on basis of slope-area measurements at gage heights 13.3 and 17.7 ft.
- c From floodmarks.
- d Sept. 24, 25, 28.



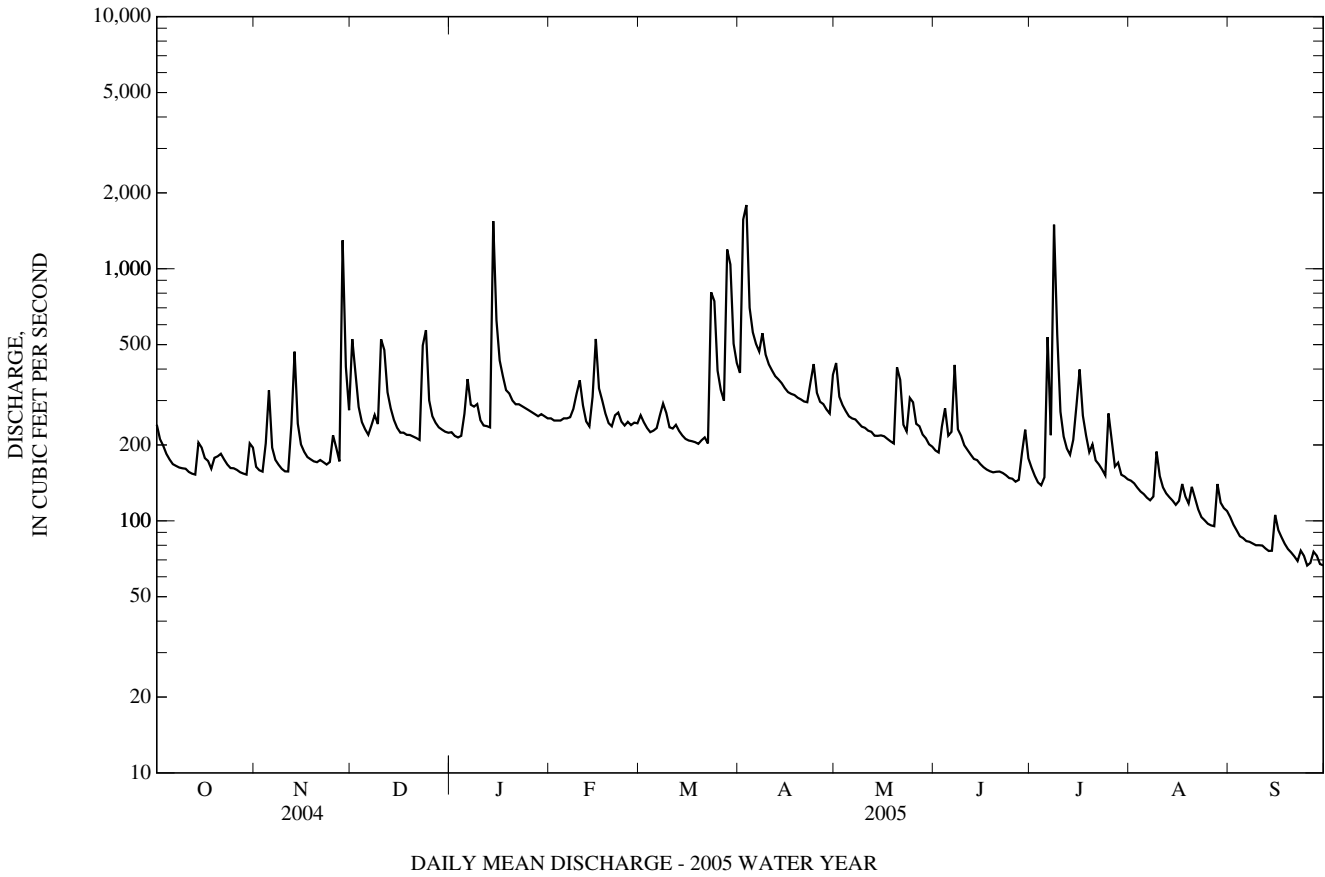
01580520 DEER CREEK NEAR DARLINGTON, MD—Continued

SUMMARY STATISTICS

FOR 2005 WATER YEAR

ANNUAL TOTAL	92,471	
ANNUAL MEAN	253	
HIGHEST DAILY MEAN	1,790	Apr 3
LOWEST DAILY MEAN	66	Sep 25
ANNUAL SEVEN-DAY MINIMUM	70	Sep 24
MAXIMUM PEAK FLOW	(a)3,560	Apr 2
MAXIMUM PEAK STAGE	6.56	Apr 2
INSTANTANEOUS LOW FLOW	65	Sep 25
ANNUAL RUNOFF (CFSM)	1.51	
ANNUAL RUNOFF (INCHES)	20.48	
10 PERCENT EXCEEDS	394	
50 PERCENT EXCEEDS	218	
90 PERCENT EXCEEDS	110	

a From rating curve extended above 600 ft³/s.



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 mi².

WATER-DISCHARGE RECORDS

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.--Water-discharge records good except those for estimated daily discharges (ice effect, 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 440 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov 28	0515	*1,620	*5.62	Mar 28	1915	1,220	5.06
Dec 23	1615	685	4.10	Apr 2	1445	812	4.36
Jan 14	0815	963	4.64	Apr 2	2315	667	4.06
Mar 23	1545	450	3.50	Jul 8	0845	1,010	4.72
Mar 28	1445	1,220	5.06				

Minimum discharge, 0.51 ft³/s, Sept. 30.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.8	3.7	80	6.0	e6.9	11	10	29	4.8	3.7	e2.8	1.3
2	5.6	3.7	15	5.6	e6.8	8.5	226	11	4.7	3.1	2.7	1.1
3	6.9	3.7	9.6	5.7	6.8	7.2	126	8.9	28	2.5	2.2	0.99
4	5.1	39	7.9	5.8	7.7	6.8	21	7.8	12	2.1	2.0	0.83
5	4.2	15	7.3	21	9.6	6.9	15	7.3	7.2	5.8	1.9	0.81
6	4.1	6.4	6.9	20	12	8.7	15	7.2	32	20	1.8	0.81
7	4.0	5.5	13	9.8	13	11	14	7.2	19	7.2	1.8	0.81
8	3.8	5.8	10	18	16	14	26	6.7	7.1	208	6.1	0.82
9	3.9	5.6	28	9.8	16	8.1	13	6.8	5.8	14	10	0.70
10	4.1	5.4	59	7.6	19	7.4	12	6.7	6.9	7.0	3.0	0.75
11	4.0	5.3	22	7.2	9.5	8.0	11	6.6	5.5	5.4	2.3	0.77
12	4.1	55	11	6.8	7.9	8.1	10	6.6	4.8	4.5	1.9	0.76
13	5.0	38	8.8	7.0	7.3	6.9	9.6	6.3	4.6	4.7	1.5	0.72
14	30	7.6	7.6	293	51	6.5	9.5	6.3	4.4	7.9	1.4	2.7
15	5.7	5.7	7.1	24	32	6.2	9.2	6.2	4.0	9.9	1.2	2.2
16	7.5	5.5	6.9	13	12	5.7	8.9	6.4	3.9	5.4	5.8	1.3
17	5.5	5.3	6.9	10	9.4	5.7	8.7	5.7	3.7	9.0	6.4	1.2
18	4.1	4.7	6.7	8.0	7.6	5.6	8.4	5.7	3.4	4.7	1.9	0.91
19	10	4.6	6.9	7.5	7.0	5.4	7.8	5.6	3.2	3.9	1.7	e0.80
20	6.0	4.6	6.3	e7.4	6.9	7.8	7.8	66	3.5	3.9	2.0	e0.75
21	11	5.3	5.9	e7.4	10	6.7	7.8	12	3.6	3.0	1.7	0.73
22	5.6	4.6	6.2	e7.4	8.2	5.5	7.9	7.1	3.3	3.3	1.4	0.69
23	5.3	4.4	111	e7.6	7.2	156	19	6.5	3.3	2.9	1.3	0.66
24	5.3	8.7	24	7.8	7.3	28	15	20	2.7	2.4	1.1	0.65
25	5.0	13	9.7	7.5	8.8	11	8.9	9.5	2.6	35	0.93	0.90
26	5.0	5.9	7.4	7.5	8.2	8.7	8.1	7.3	2.4	5.1	0.93	1.1
27	4.6	4.9	7.1	e7.2	7.8	8.1	8.7	6.2	6.1	3.8	0.94	1.1
28	4.4	305	6.8	e7.0	8.5	315	7.7	9.6	16	4.8	12	0.87
29	4.7	18	6.8	6.8	---	45	7.5	6.5	13	3.1	3.0	0.79
30	7.9	10	6.9	7.1	---	15	52	5.3	7.4	e3.0	1.7	0.62
31	3.8	---	6.9	6.9	---	12	---	5.2	---	e2.9	1.5	---
TOTAL	193.0	609.9	525.6	573.4	330.4	766.5	711.5	315.2	228.9	402.0	86.90	29.14
MEAN	6.23	20.3	17.0	18.5	11.8	24.7	23.7	10.2	7.63	13.0	2.80	0.97
MAX	30	305	111	293	51	315	226	66	32	208	12	2.7
MIN	3.8	3.7	5.9	5.6	6.8	5.4	7.5	5.2	2.4	2.1	0.93	0.62
CFSM	0.73	2.39	1.99	2.17	1.38	2.90	2.78	1.19	0.90	1.52	0.33	0.11
IN.	0.84	2.66	2.29	2.50	1.44	3.35	3.11	1.38	1.00	1.76	0.38	0.13

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1944 - 1951, 1955 - 1970, 1999 - 2005, BY WATER YEAR (WY)

	5.76	9.37	13.4	12.7	16.8	18.4	14.3	10.4	9.18	6.86	8.48	10.5
MEAN	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)	(2005)

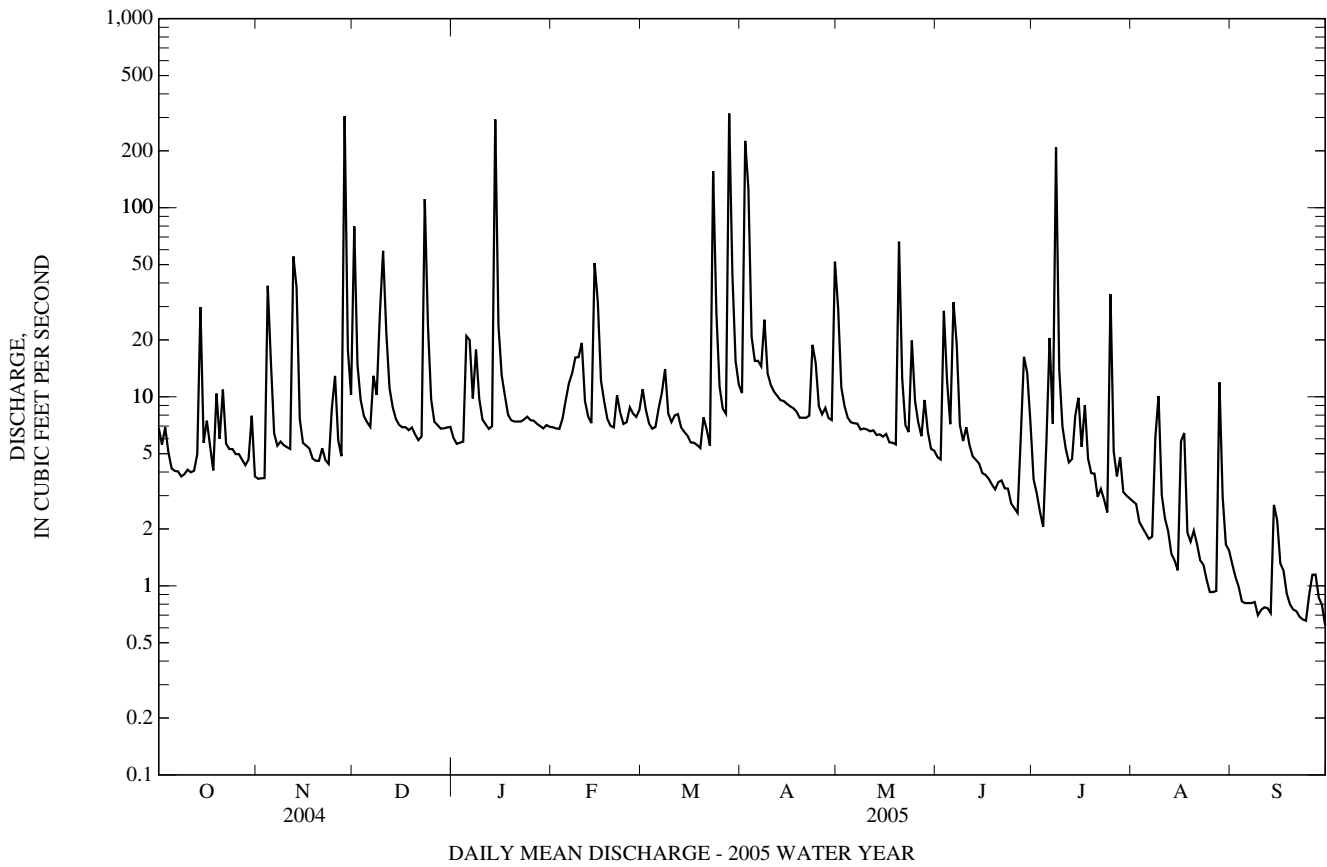
01581500 BYNUM RUN AT BEL AIR, MD—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1944 - 1951 1955 - 1970, 1999 - 2005	
	Value	Date	Value	Date	Value	Date
ANNUAL TOTAL	5,431.9		4,772.44			
ANNUAL MEAN	14.8		13.1		11.0	
HIGHEST ANNUAL MEAN					23.3	2003
LOWEST ANNUAL MEAN					4.96	2002
HIGHEST DAILY MEAN	347	Jul 27	315	Mar 28	2,320	Sep 16, 1999
LOWEST DAILY MEAN	1.8	(a)	0.62	Sep 30	0.01	Aug 22, 2002
ANNUAL SEVEN-DAY MINIMUM	2.0	Sep 11	0.74	Sep 19	0.05	Aug 16, 2002
MAXIMUM PEAK FLOW			1,620	Nov 28	(b)7,330	Sep 16, 1999
MAXIMUM PEAK STAGE			5.62	Nov 28	9.91	Sep 16, 1999
INSTANTANEOUS LOW FLOW			0.51	Sep 30	0.00	(c)
ANNUAL RUNOFF (CFSM)	1.74		1.53		1.30	
ANNUAL RUNOFF (INCHES)	23.72		20.84		17.62	
10 PERCENT EXCEEDS	26		19		20	
50 PERCENT EXCEEDS	7.2		6.8		5.2	
90 PERCENT EXCEEDS	3.3		1.5		1.6	

a Sept. 6, 12, 14, 26, 26.

b From rating curve extended above 560 ft³/s on basis of contracted-opening measurement at gage height 6.18 ft.

c Sept. 8-10, 1966.



WATER-QUALITY RECORDS

PERIOD OF RECORD.--July 1969 to September 1970, July 2005 to September 2005.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

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)	Specific conductance, wat unfltrd uS/cm 25 degC (00095)	Temperature, air, deg C (00020)
JUL 20...	1030	Environmental	1028	80020	3.7	10	762	9.5	114	8.2	315	29.0
AUG 24...	1045	Environmental	1028	80020	1.3	10	--	8.8	--	7.7	328	24.0
AUG 24...	1047	Blank	1028	80020	--	4080	--	--	--	--	--	--
SEP 21...	0955	Environmental	1028	80020	.75	10	765	8.3	90	7.5	321	19.8

Date	Temperature, water, deg C (00010)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water, fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Total nitrogen, water, fltrd, mg/L (00602)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	Sampler type, code (84164)
JUL 20...	24.5	.32	<.04	1.57	<.008	1.9	<.02	<.04	3071
AUG 24...	20.8	.15	<.04	1.53	<.008	1.7	<.02	<.04	3071
AUG 24...	--	.11	<.04	<.06	<.008	--	<.02	<.04	4080
SEP 21...	19.6	.17	<.04	.97	E.004	1.1	<.02	<.04	3071

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 (EWI)

4080 - Peristaltic pump

Remark codes used in this table:

< -- Less than.

E -- Estimated.

Sampler type: 3071 - Open-mouth bottle

4080 - Peristaltic pump

01581500 BYNUM RUN AT BEL AIR, MD—Continued



Photo by J.J. Kvech

01581500 BYNUM RUN AT BEL AIR, MD

01581649 JAMES RUN NEAR BELCAMP, MD—Continued

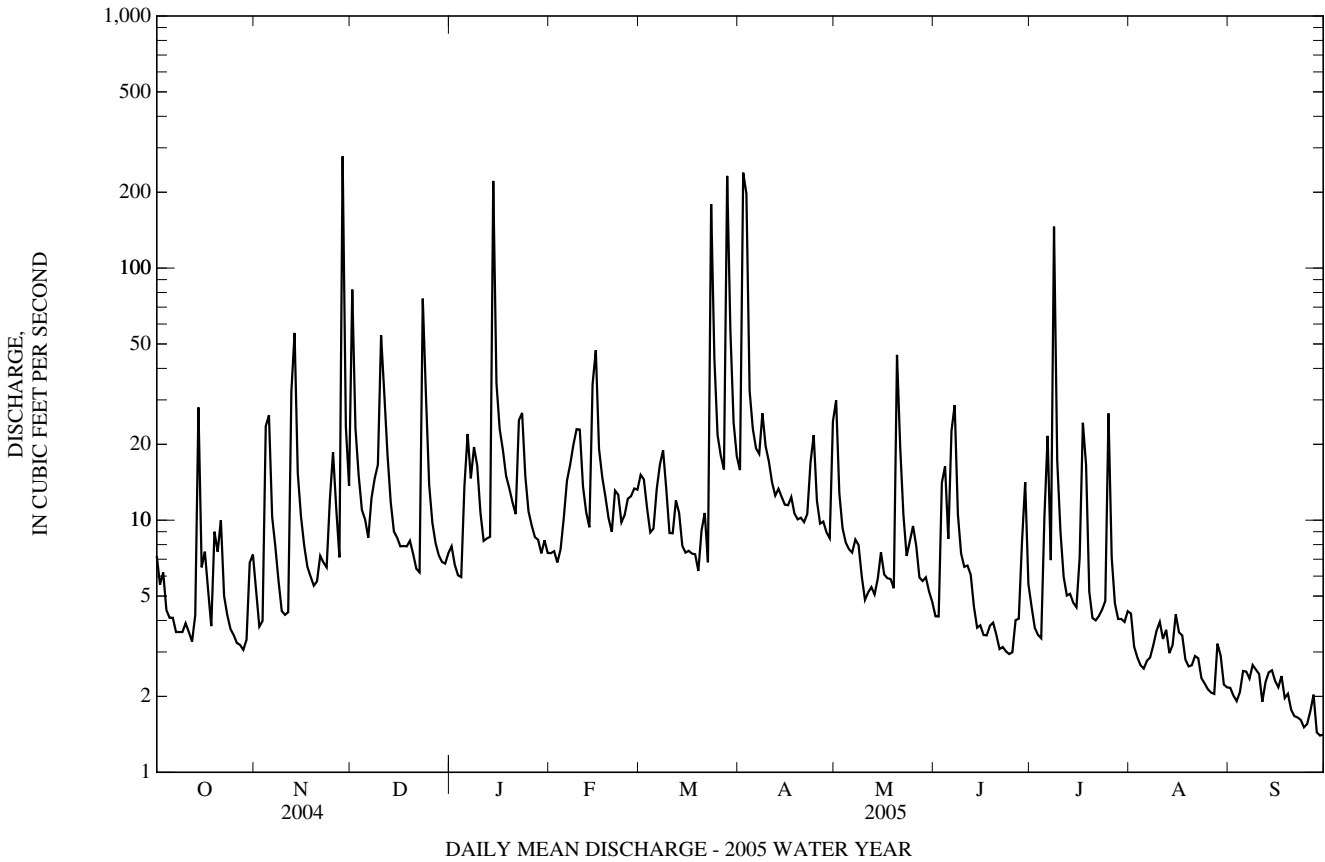
SUMMARY STATISTICS

FOR 2005 WATER YEAR

WATER YEARS 2004 - 2005

ANNUAL MEAN	14.1		14.1	
HIGHEST ANNUAL MEAN			14.1	2005
LOWEST ANNUAL MEAN			14.1	2005
HIGHEST DAILY MEAN	277	Nov 28	277	Nov 28, 2004
LOWEST DAILY MEAN	1.4	(a)	1.4	(a)
ANNUAL SEVEN-DAY MINIMUM	1.6	Sep 24	1.6	Sep 24, 2005
MAXIMUM PEAK FLOW	(b)1,200	Nov 28	(b)1,200	Nov 28, 2004
MAXIMUM PEAK STAGE	6.12	Nov 28	6.12	Nov 28, 2004
INSTANTANEOUS LOW FLOW	1.4	(c)	1.4	(c)
ANNUAL RUNOFF (CFSM)	1.54		1.54	
ANNUAL RUNOFF (INCHES)	20.88		20.90	
10 PERCENT EXCEEDS	23		23	
50 PERCENT EXCEEDS	7.4		7.4	
90 PERCENT EXCEEDS	2.6		2.6	

- a Sept. 28-30, 2005.
- b From rating curve extended above 400 ft³/s,.
- c Sept. 28, 29, 30.



BUSH RIVER BASIN

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 mi².

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 ft³/s and fair above 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. 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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov 28	0615	1,120	4.62	Apr 2	1545	*1,280	*4.90
Jan 14	0945	1,190	4.74	Jul 8	1000	1,110	4.59
Mar 28	1430	1,170	4.70				

Minimum discharge, 8.8 ft³/s, Sept. 22, 24, 25, 29.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	37	24	156	39	e50	49	65	89	38	27	21	16
2	32	24	68	35	e48	43	456	61	37	25	20	14
3	34	24	50	35	46	40	395	57	68	23	18	13
4	28	66	44	35	45	39	128	54	54	23	18	13
5	26	60	42	57	44	40	100	53	43	30	17	13
6	25	33	38	68	47	43	90	52	81	50	17	13
7	24	29	47	48	51	54	e85	51	86	29	17	12
8	24	28	46	57	57	66	e130	49	44	344	26	12
9	24	26	62	49	65	48	e90	47	39	56	29	12
10	24	25	143	43	70	42	e80	46	39	35	22	12
11	23	26	88	41	49	43	e75	46	37	30	19	12
12	23	92	57	40	44	43	69	45	35	28	18	12
13	23	e100	48	40	41	39	67	43	34	28	17	11
14	51	e50	42	499	87	37	64	44	33	30	16	13
15	28	e40	40	107	106	36	61	44	31	37	16	15
16	29	36	38	72	62	36	60	43	29	31	21	14
17	27	33	38	60	53	35	60	41	29	42	24	12
18	24	32	37	50	46	35	59	41	28	30	18	11
19	34	31	37	62	42	33	58	40	28	26	19	11
20	29	31	34	56	41	39	57	135	29	25	20	11
21	39	33	41	47	49	38	56	64	28	23	18	10
22	29	30	35	e60	47	34	58	47	31	23	15	9.6
23	27	29	215	e70	42	331	81	46	28	22	15	9.8
24	26	37	104	82	43	137	79	89	26	20	14	9.3
25	26	54	53	69	45	72	60	67	25	49	14	9.8
26	25	37	47	61	42	59	57	51	25	25	14	11
27	25	32	41	50	42	54	57	45	28	23	14	11
28	25	388	e40	e60	45	434	53	44	41	25	37	9.5
29	25	77	40	70	---	185	52	42	42	22	20	9.7
30	35	51	38	63	---	88	115	40	31	22	18	9.5
31	26	---	38	52	---	73	---	40	---	21	17	---
TOTAL	877	1,578	1,847	2,177	1,449	2,345	2,917	1,656	1,147	1,224	589	351.2
MEAN	28.3	52.6	59.6	70.2	51.8	75.6	97.2	53.4	38.2	39.5	19.0	11.7
MAX	51	388	215	499	106	434	456	135	86	344	37	16
MIN	23	24	34	35	41	33	52	40	25	20	14	9.3
CFSM	0.81	1.51	1.71	2.02	1.49	2.17	2.79	1.54	1.10	1.13	0.55	0.34
IN.	0.94	1.69	1.97	2.33	1.55	2.51	3.12	1.77	1.23	1.31	0.63	0.38

e Estimated

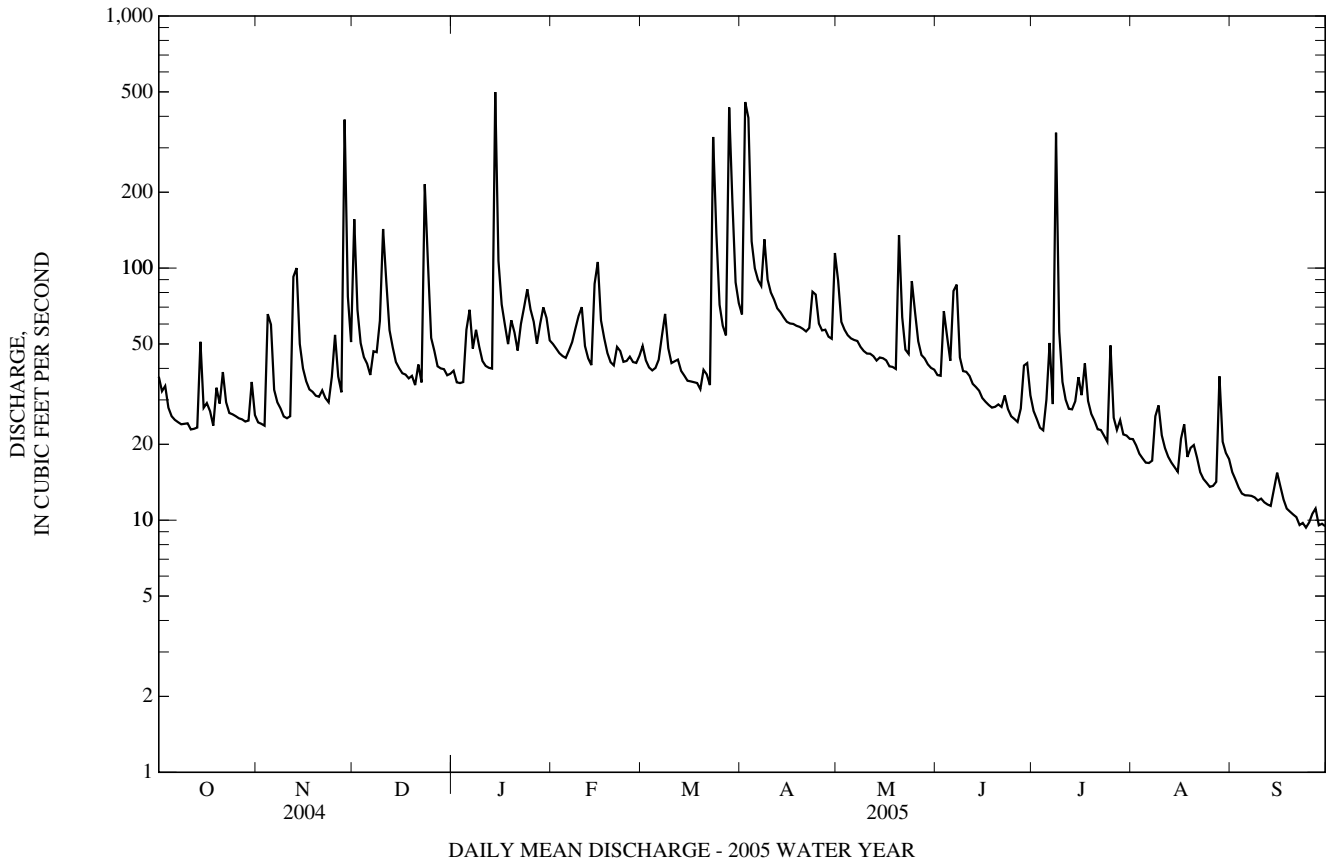
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1967 - 2005, BY WATER YEAR (WY)

MEAN	36.1	45.5	55.5	62.9	68.3	70.6	64.3	58.3	51.5	42.2	35.8	40.3
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 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1967 - 2005	
ANNUAL TOTAL	22,382		18,157.2			
ANNUAL MEAN	61.2		49.7		52.3	
HIGHEST ANNUAL MEAN					86.0	1972
LOWEST ANNUAL MEAN					14.5	2002
HIGHEST DAILY MEAN	884	Feb 6	499	Jan 14	3,000	Jun 22, 1972
LOWEST DAILY MEAN	(e)17	(a)	9.3	Sep 24	0.38	Aug 22, 2002
ANNUAL SEVEN-DAY MINIMUM	18	Sep 1	10	Sep 24	0.55	Aug 17, 2002
MAXIMUM PEAK FLOW			1,280	Apr 2	(b)7,600	Jun 22, 1972
MAXIMUM PEAK STAGE			4.90	Apr 2	11.60	Jun 22, 1972
INSTANTANEOUS LOW FLOW			8.8	(c)	0.34	(d)
ANNUAL RUNOFF (CFSM)	1.76		1.43		1.50	
ANNUAL RUNOFF (INCHES)	23.93		19.41		20.43	
10 PERCENT EXCEEDS	98		78		88	
50 PERCENT EXCEEDS	46		39		37	
90 PERCENT EXCEEDS	24		16		15	

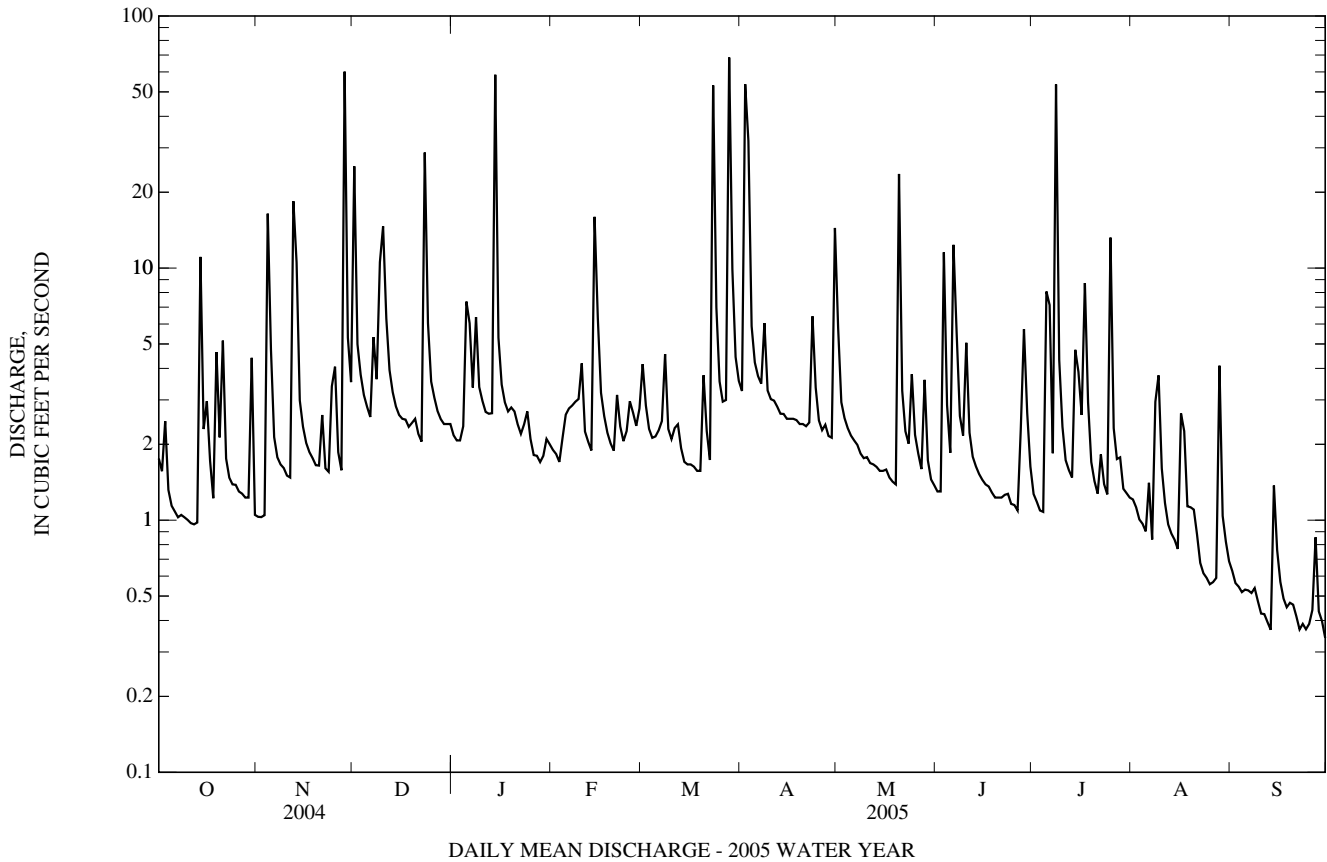
- e Estimated.
- a Sept. 13, 14.
- b From rating curve extended above 4,600 ft³/s.
- c Sept. 22, 24, 25, 29.
- d Aug. 22, 23, 2002.



01581752 PLUMTREE RUN NEAR BEL AIR, MD—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 2002 - 2005	
ANNUAL TOTAL	1,619.06		1,385.83		4.31	
ANNUAL MEAN	4.42		3.80		6.47	
HIGHEST ANNUAL MEAN					1.62	
LOWEST ANNUAL MEAN					101	
HIGHEST DAILY MEAN	92	Jul 27	68	Mar 28	101	Oct 27, 2003
LOWEST DAILY MEAN	0.68	Sep 14	0.34	Sep 30	0.07	(a)
ANNUAL SEVEN-DAY MINIMUM	0.77	Sep 11	0.41	Sep 20	0.08	Aug 17, 2002
MAXIMUM PEAK FLOW			324	Mar 28	(b)1,760	Aug 11, 2003
MAXIMUM PEAK STAGE			4.06	Mar 28	6.21	Aug 11, 2003
INSTANTANEOUS LOW FLOW			0.31	Sep 30	0.07	(c)
ANNUAL RUNOFF (CFSM)	1.77		1.52		1.73	
ANNUAL RUNOFF (INCHES)	24.09		20.62		23.45	
10 PERCENT EXCEEDS	7.3		5.7		7.5	
50 PERCENT EXCEEDS	2.5		2.1		2.2	
90 PERCENT EXCEEDS	1.0		0.80		0.53	

- a Aug. 20-22, 2002.
- b From rating curve extended above 154 ft³/s, on basis of slope-area measurement of peak flow.
- c Aug. 19-23, 2002.



WATER-QUALITY RECORDS

PERIOD OF RECORD.--July 2005 to September 2005.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

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)	Specific conductance, wat unfiltered, uS/cm 25 degC (00095)	Temperature, air, deg C (00020)
JUL 20...	0900	Environmental	1028	80020	1.5	10	762	8.2	96	7.5	378	25.5
AUG 24...	0815	Environmental	1028	80020	.61	10	764	8.6	93	7.4	413	22.0
AUG 24...	0817	Blank	1028	80020	--	4080	--	--	--	--	--	--
SEP 21...	0720	Environmental	1028	80020	.42	10	765	8.1	87	7.3	410	18.5

Date	Temperature, water, deg C (00010)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water, fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Total nitrogen, water, fltrd, mg/L (00602)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	Sampler type, code (84164)
JUL 20...	22.8	.85	<.04	2.67	E.007	3.5	<.02	E.04	3071
AUG 24...	19.1	.21	<.04	3.01	<.008	3.2	<.02	E.03	3071
AUG 24...	--	<.10	<.04	<.06	<.008	--	<.02	<.04	4080
SEP 21...	18.8	.24	<.04	2.88	E.007	3.1	E.01	E.03	3071

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 (EWI)

4080 - Peristaltic pump

Remark codes used in this table:

< -- Less than.

E -- Estimated.

Sampler type: 3071 - Open-mouth bottle

4080 - Peristaltic pump

01581752 PLUMTREE RUN NEAR BEL AIR, MD—Continued



Photo by J.J. Kvech

01581752 PLUMTREE RUN NEAR BEL AIR, MD

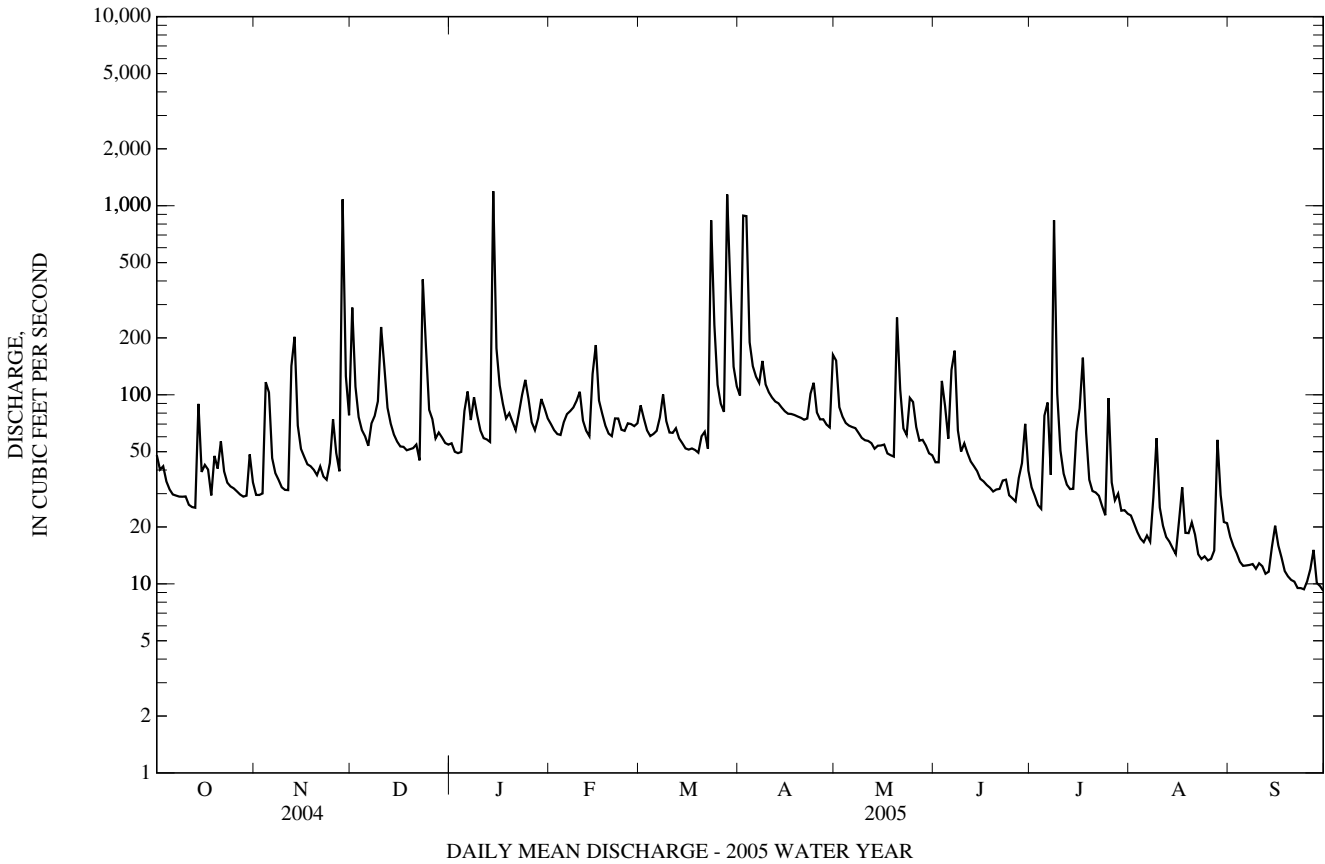
01581757 OTTER POINT CREEK NEAR EDGEWOOD, MD—Continued

SUMMARY STATISTICS

FOR 2005 WATER YEAR

ANNUAL TOTAL	28,885.3	
ANNUAL MEAN	79.1	
HIGHEST DAILY MEAN	1,190	Jan 14
LOWEST DAILY MEAN	9.2	Sep 30
ANNUAL SEVEN-DAY MINIMUM	9.9	Sep 19
MAXIMUM PEAK FLOW	(a)3,470	Nov 28
MAXIMUM PEAK STAGE	7.49	Nov 28
INSTANTANEOUS LOW FLOW	7.5	Aug 24
ANNUAL RUNOFF (CFSM)	1.42	
ANNUAL RUNOFF (INCHES)	19.33	
10 PERCENT EXCEEDS	114	
50 PERCENT EXCEEDS	55	
90 PERCENT EXCEEDS	17	

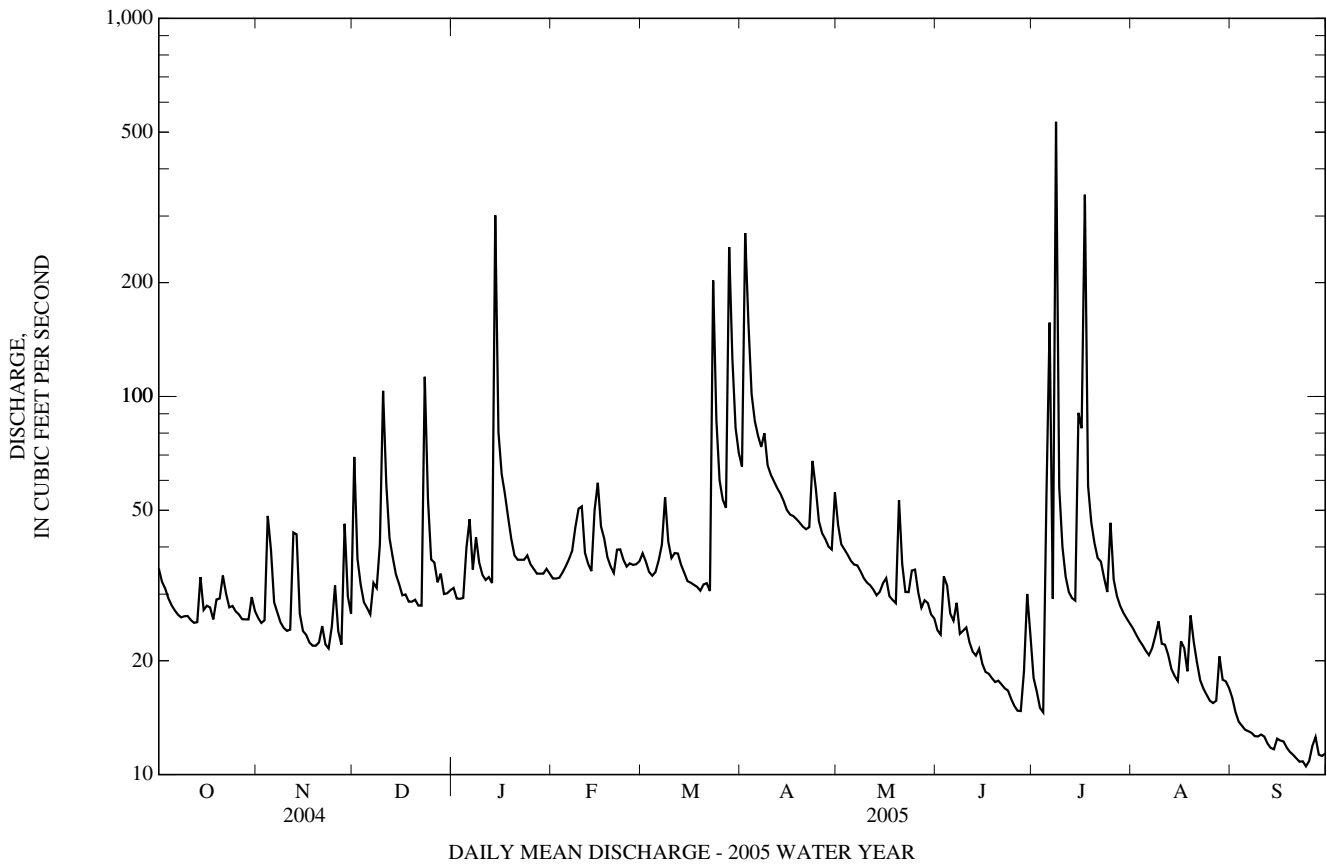
a From rating curve extended above 2,300 ft³/s.



01581810 GUNPOWDER FALLS AT HOFFMANVILLE, MD—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 2000 - 2005	
ANNUAL TOTAL	16,558		14,057		36.3	
ANNUAL MEAN	45.2		38.5		54.3	
HIGHEST ANNUAL MEAN					11.1	
LOWEST ANNUAL MEAN					2.0	
HIGHEST DAILY MEAN	513	Feb 6	533	Jul 8	536	Dec 11, 2003
LOWEST DAILY MEAN	17	Sep 6	11	(a)	2.0	Aug 11, 2002
ANNUAL SEVEN-DAY MINIMUM	18	Sep 1	11	Sep 19	2.0	Aug 10, 2002
MAXIMUM PEAK FLOW			1,740	Jul 8	(b)1,740	Jul 8, 2005
MAXIMUM PEAK STAGE			5.91	Jul 8	5.91	Jul 8, 2005
INSTANTANEOUS LOW FLOW			11	(c)	1.8	Aug 17, 2002
ANNUAL RUNOFF (CFSM)	1.68		1.43		1.34	
ANNUAL RUNOFF (INCHES)	22.81		19.37		18.27	
10 PERCENT EXCEEDS	65		56		63	
50 PERCENT EXCEEDS	37		31		29	
90 PERCENT EXCEEDS	23		16		9.8	

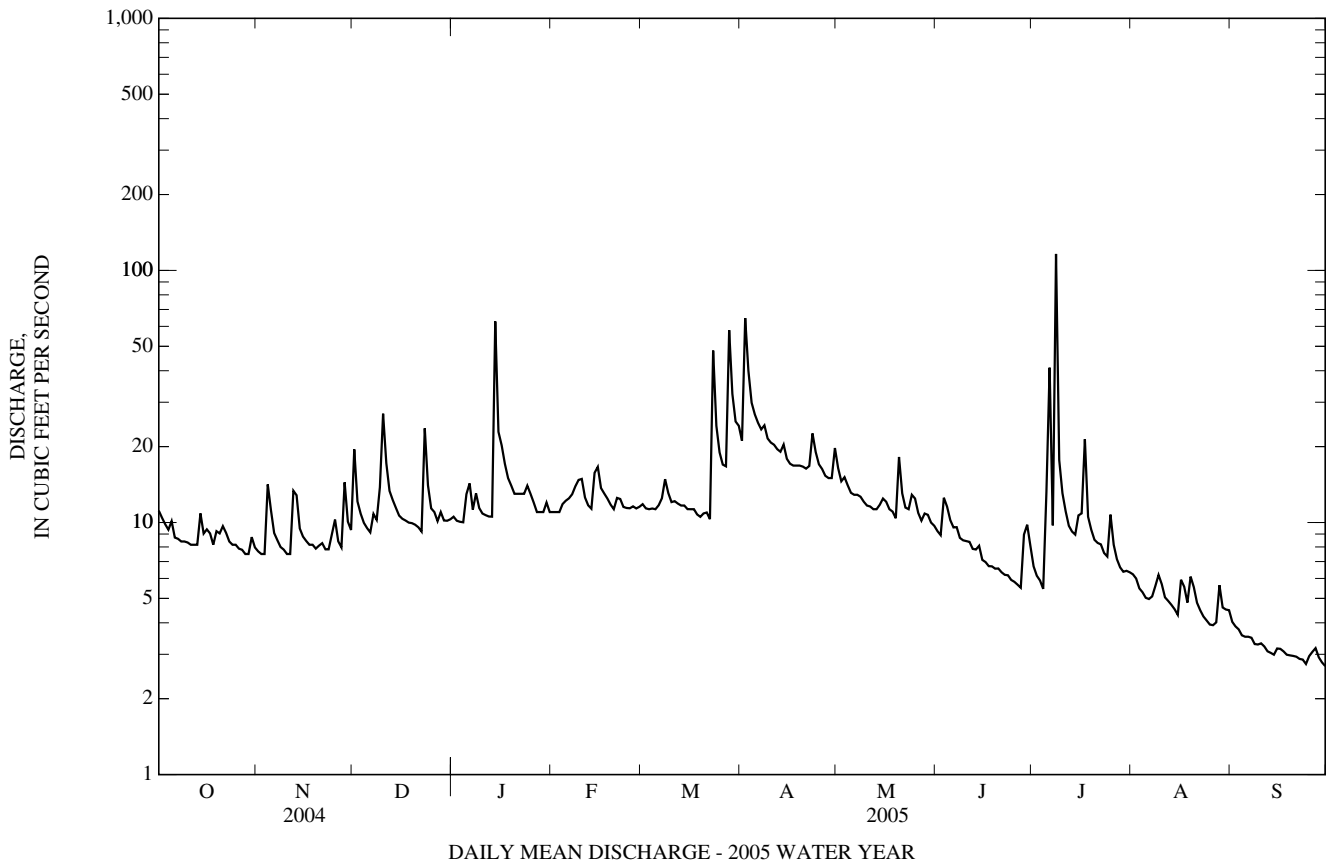
a Sept. 19-25, 28-30.
 b From rating curve extended above 110 ft³/s.
 c Sept. 13, 14, 18-30.



01581830 GRAVE RUN NEAR BECKLEYSVILLE, MD—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 2000 - 2005	
ANNUAL TOTAL	4,905.8		4,191.4		10.7	
ANNUAL MEAN	13.4		11.5		3.64	
HIGHEST ANNUAL MEAN					15.5	2004
LOWEST ANNUAL MEAN					3.64	2002
HIGHEST DAILY MEAN	130	Feb 6	116	Jul 8	130	Feb 6, 2004
LOWEST DAILY MEAN	6.9	Sep 6	2.7	(a)	0.54	Aug 22, 2002
ANNUAL SEVEN-DAY MINIMUM	7.2	Sep 1	2.9	Sep 18	0.57	Aug 17, 2002
MAXIMUM PEAK FLOW			488	Jul 8	(b)492	Sep 18, 2004
MAXIMUM PEAK STAGE			4.39	Jul 8	4.41	Sep 18, 2004
INSTANTANEOUS LOW FLOW			2.6	(c)	0.54	(d)
ANNUAL RUNOFF (CFSM)	1.75		1.50		1.40	
ANNUAL RUNOFF (INCHES)	23.76		20.30		18.96	
10 PERCENT EXCEEDS	18		17		19	
50 PERCENT EXCEEDS	11		10		9.2	
90 PERCENT EXCEEDS	8.0		4.4		3.2	

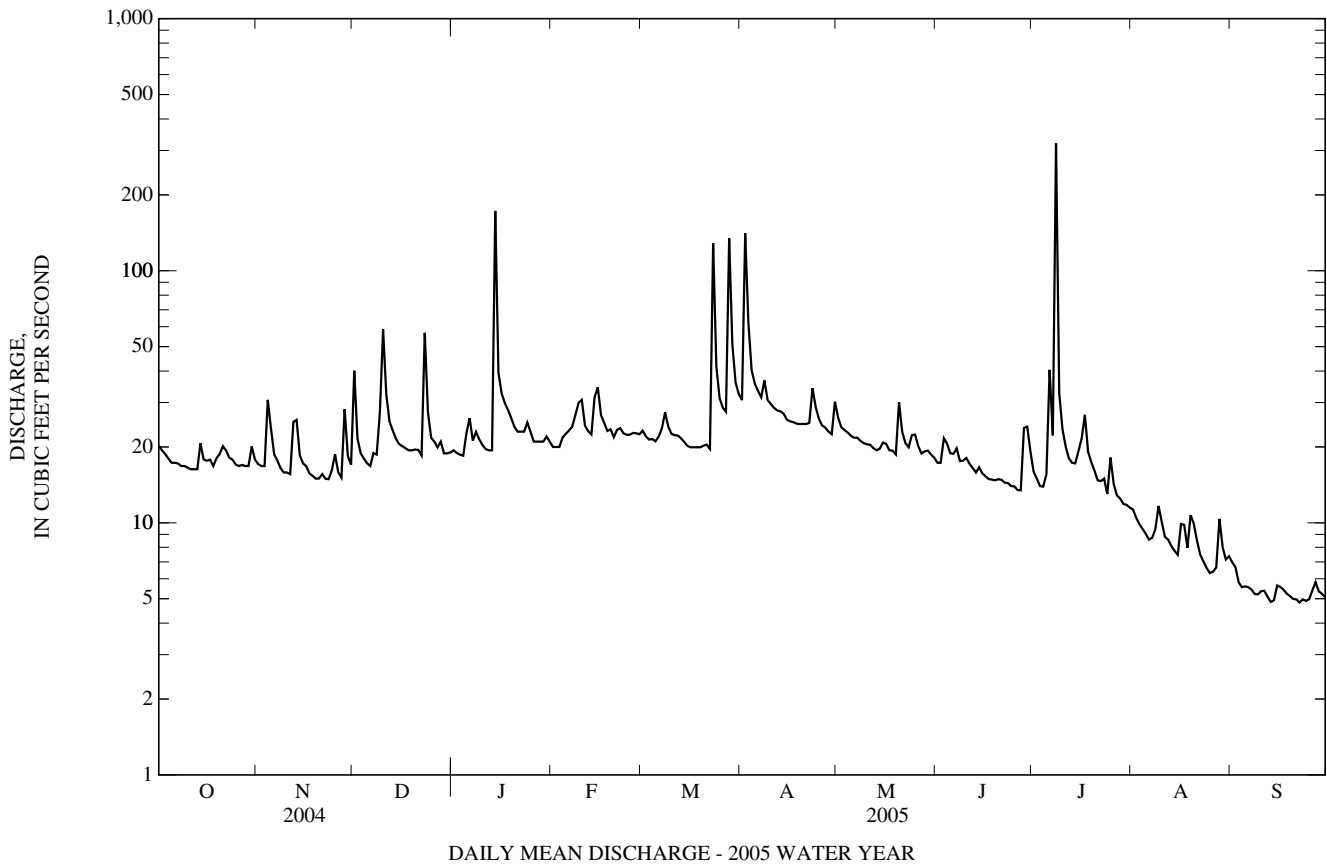
- a Sept. 24, 30.
- b From rating curve extended above 92 ft³/s.
- c Sept. 23, 24, 30.
- d Aug. 21-23, 2002.



01581870 GEORGES RUN NEAR BECKLEYSVILLE, MD—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 2000 - 2005	
ANNUAL TOTAL	10,222		7,817.3			
ANNUAL MEAN	27.9		21.4		21.6	
HIGHEST ANNUAL MEAN					32.3	2004
LOWEST ANNUAL MEAN					7.80	2002
HIGHEST DAILY MEAN	353	Feb 6	320	Jul 8	353	Feb 6, 2004
LOWEST DAILY MEAN	15	(a)	4.8	Sep 22	0.95	(b)
ANNUAL SEVEN-DAY MINIMUM	15	Sep 1	5.0	Sep 19	0.96	Aug 16, 2002
MAXIMUM PEAK FLOW			1,130	Jul 8	(c)1,450	Sep 23, 2003
MAXIMUM PEAK STAGE			4.53	Jul 8	5.19	Sep 23, 2003
INSTANTANEOUS LOW FLOW			4.5	(d)	0.95	(f)
ANNUAL RUNOFF (CFSM)	1.77		1.36		1.37	
ANNUAL RUNOFF (INCHES)	24.07		18.41		18.59	
10 PERCENT EXCEEDS	37		29		34	
50 PERCENT EXCEEDS	21		19		18	
90 PERCENT EXCEEDS	16		7.3		6.3	

- a Aug. 29, 30, Sept. 1-7, 12-16.
- b Aug. 18-22, 2002.
- c From rating curve extended above 186 ft³/s.
- d Sept. 12-14, 19-22.
- f Aug. 15-23, 2002.



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 mi².

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 (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 gage-height telemeter at station. Several measurements of water temperature were made during the year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 953 ft³/s, July 8, gage height, 5.40 ft; minimum discharge, 14 ft³/s.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	187	85	105	109	114	132	239	178	100	102	110	107
2	150	104	103	106	111	136	498	156	100	102	109	107
3	131	104	102	105	111	121	731	143	101	102	109	107
4	117	106	102	107	117	105	462	133	101	102	109	107
5	111	105	102	115	116	105	329	126	100	104	109	107
6	108	104	102	141	116	107	279	123	101	103	109	106
7	107	104	103	142	118	108	253	122	102	104	108	107
8	107	104	102	144	124	145	265	123	101	556	109	107
9	107	103	103	135	138	136	239	113	101	509	109	106
10	107	103	104	126	171	122	218	109	101	269	109	106
11	107	103	105	120	156	120	204	109	101	140	109	106
12	108	106	109	118	132	122	191	111	101	97	108	106
13	107	104	118	115	122	116	183	104	100	119	108	106
14	108	104	117	536	130	115	177	103	101	114	108	106
15	108	103	112	483	178	111	168	106	101	130	108	106
16	109	103	105	296	170	105	161	111	101	147	109	106
17	109	103	107	236	157	103	158	106	101	386	108	106
18	108	103	104	187	146	103	156	104	101	258	107	106
19	109	103	109	161	123	102	155	101	101	178	108	106
20	109	103	e112	e140	117	103	153	128	101	145	108	106
21	109	103	101	e127	123	106	150	149	101	123	108	106
22	109	102	102	e127	127	102	144	129	101	115	108	207
23	109	102	133	e127	125	274	181	121	101	113	107	320
24	109	102	206	133	122	464	200	121	101	111	107	320
25	108	102	171	e127	127	292	176	125	101	111	107	319
26	108	102	146	e122	122	225	157	118	100	111	107	137
27	106	101	135	e118	118	196	152	111	101	110	107	53
28	101	103	110	116	120	386	146	106	102	110	108	102
29	85	102	110	112	---	606	131	104	103	110	107	276
30	107	102	107	119	---	372	157	102	102	109	107	321
31	107	---	107	118	---	279	---	100	---	109	107	---
TOTAL	3,472	3,078	3,554	4,968	3,651	5,619	6,813	3,695	3,030	4,999	3,351	4,288
MEAN	112	103	115	160	130	181	227	119	101	161	108	143
MAX	187	106	206	536	178	606	731	178	103	556	110	321
MIN	85	85	101	105	111	102	131	100	100	97	107	53
(†)	19584	19448	19858	19902	19858	20018	19880	19840	19402	19767	18749	17085

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2000 - 2005, BY WATER YEAR (WY)

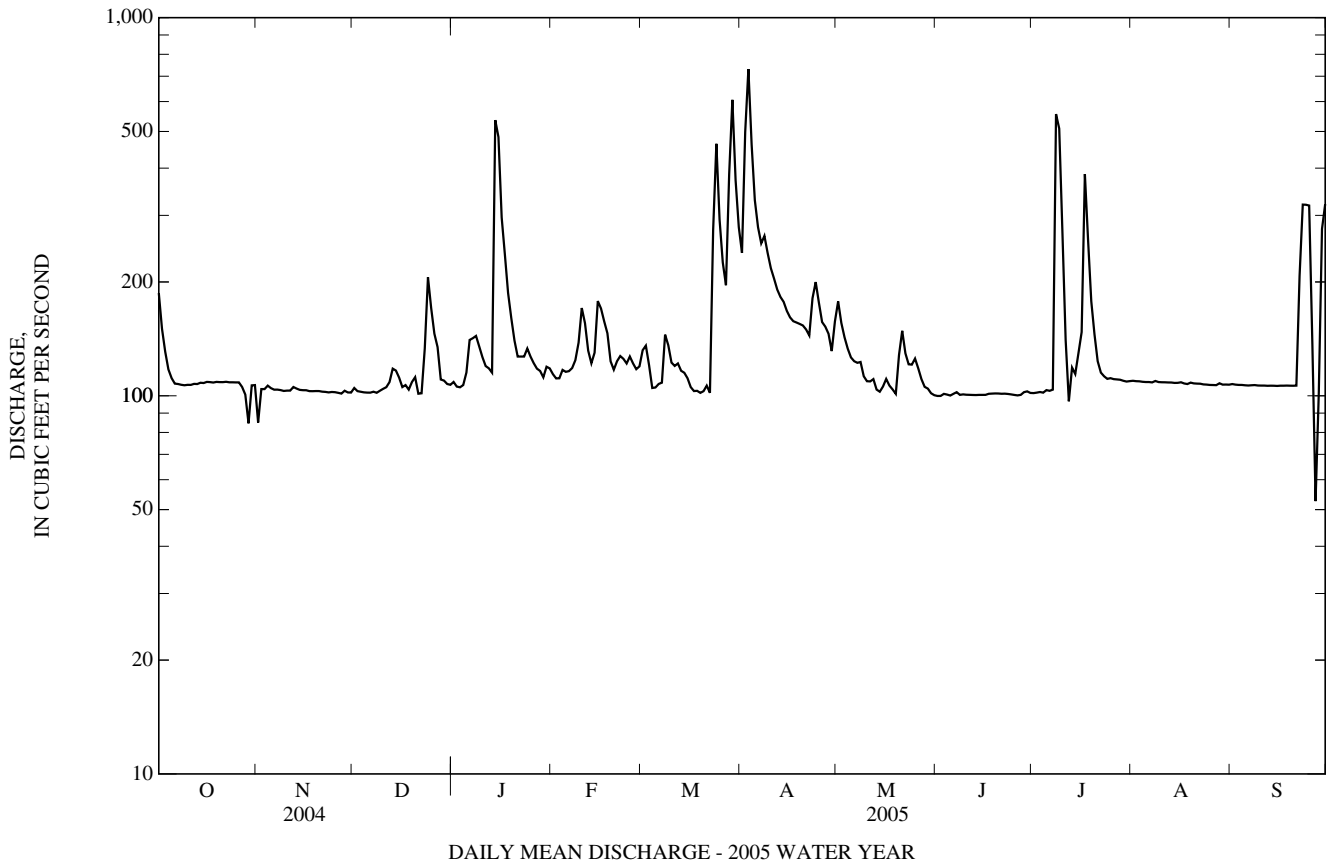
MEAN	110	107	112	100	99.7	83.3	124	99.6	130	132	124	133
MAX	166	178	263	160	235	181	227	166	252	162	209	188
(WY)	(2002)	(2004)	(2004)	(2005)	(2004)	(2005)	(2005)	(2003)	(2003)	(2003)	(2001)	(2001)
MIN	33.9	14.3	16.7	17.7	19.7	17.5	37.2	35.1	30.8	47.4	63.5	78.6
(WY)	(2003)	(2003)	(2003)	(2003)	(2003)	(2002)	(2002)	(2002)	(2002)	(2002)	(2000)	(2000)

(†)Monthend contents, in millions of gallons, in Prettyboy Reservoir (contents on Sept. 30, 2004, 19,984,000,000 gal). Records furnished by Baltimore City Department of Public Works.

01581920 GUNPOWDER FALLS NEAR PARKTON, MD—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 2000 - 2005	
ANNUAL TOTAL	53,819		50,518		115	
ANNUAL MEAN	147		138		169	
HIGHEST ANNUAL MEAN					2004	
LOWEST ANNUAL MEAN					63.0	
HIGHEST DAILY MEAN	1,000	Feb 7	731	Apr 3	1,000	Feb 7, 2004
LOWEST DAILY MEAN	85	Oct 29	53	Sep 27	12	(a)
ANNUAL SEVEN-DAY MINIMUM	99	Oct 28	99	Oct 28	13	Oct 27, 2002
MAXIMUM PEAK FLOW			953	Jul 8	(b)1,220	Feb 7, 2004
MAXIMUM PEAK STAGE			5.40	Jul 8	6.99	Feb 6, 2004
INSTANTANEOUS LOW FLOW			14	Jul 12	5.0	Oct 24, 2002
ANNUAL RUNOFF (CFSM)	1.80		1.70		1.41	
ANNUAL RUNOFF (INCHES)	24.57		23.06		19.14	
10 PERCENT EXCEEDS	211		198		201	
50 PERCENT EXCEEDS	121		109		106	
90 PERCENT EXCEEDS	104		102		21	

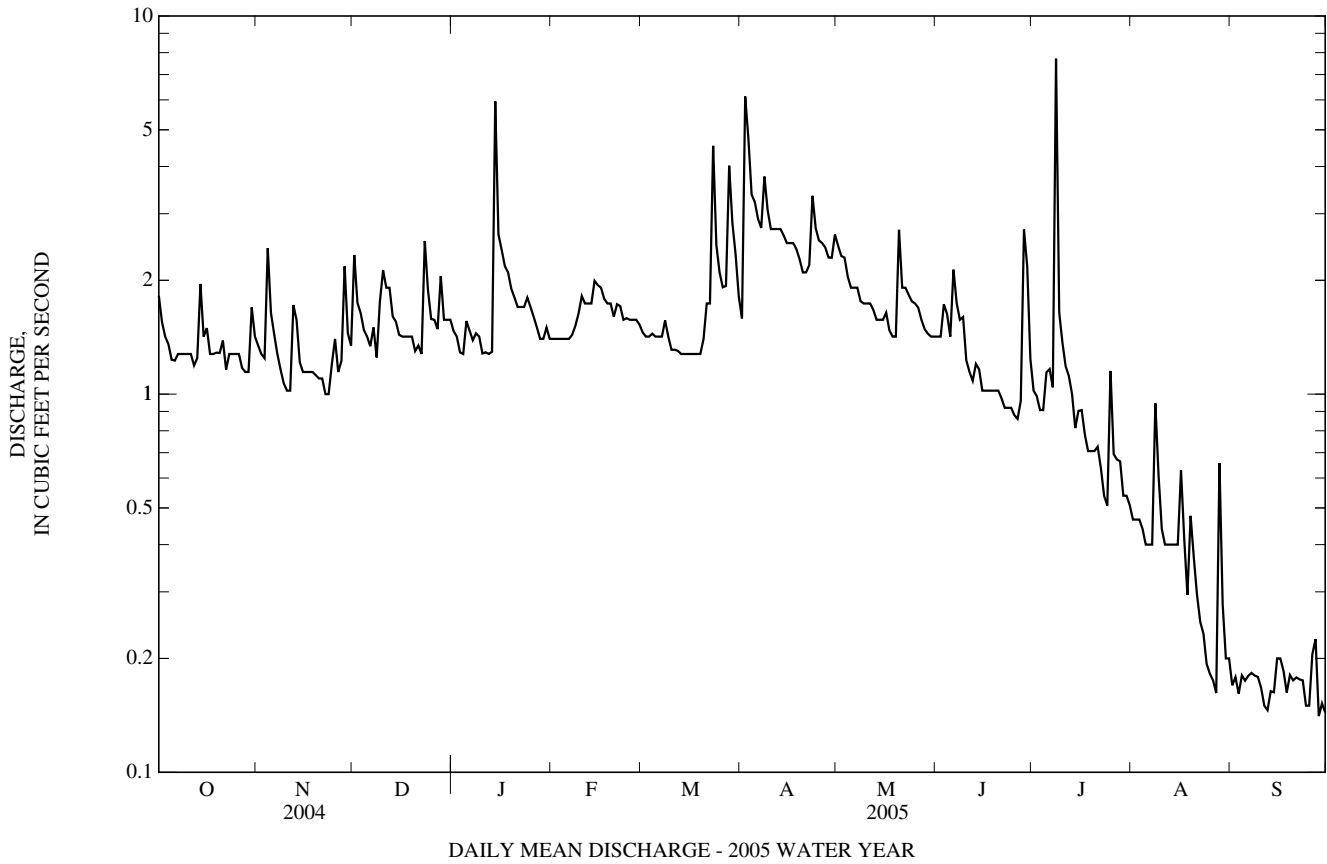
a Oct. 27-29, 2002.
 b From rating curve extended above 500 ft³/s.



01581940 MINGO BRANCH NEAR HEREFORD, MD—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 2000 - 2005	
ANNUAL TOTAL	627.42		514.30		1.06	
ANNUAL MEAN	1.71		1.41		1.73 2004	
HIGHEST ANNUAL MEAN					0.24 2002	
LOWEST ANNUAL MEAN					28 Sep 28, 2004	
HIGHEST DAILY MEAN	28	Sep 28	7.7	Jul 8	28	Sep 28, 2004
LOWEST DAILY MEAN	0.80	Sep 27	0.14	(a)	0.00	(b)
ANNUAL SEVEN-DAY MINIMUM	0.89	Sep 21	0.16	Sep 8	0.00	Aug 4, 2002
MAXIMUM PEAK FLOW			47	Jul 8	(c)1,000	Jul 7, 2004
MAXIMUM PEAK STAGE			1.03	Jul 8	(d)3.33	Jul 7, 2004
INSTANTANEOUS LOW FLOW			0.14	(f)	0.00	(g)
ANNUAL RUNOFF (CFSM)	2.20		1.81		1.36	
ANNUAL RUNOFF (INCHES)	29.92		24.53		18.46	
10 PERCENT EXCEEDS	2.1		2.3		2.0	
50 PERCENT EXCEEDS	1.4		1.4		0.91	
90 PERCENT EXCEEDS	1.1		0.23		0.20	

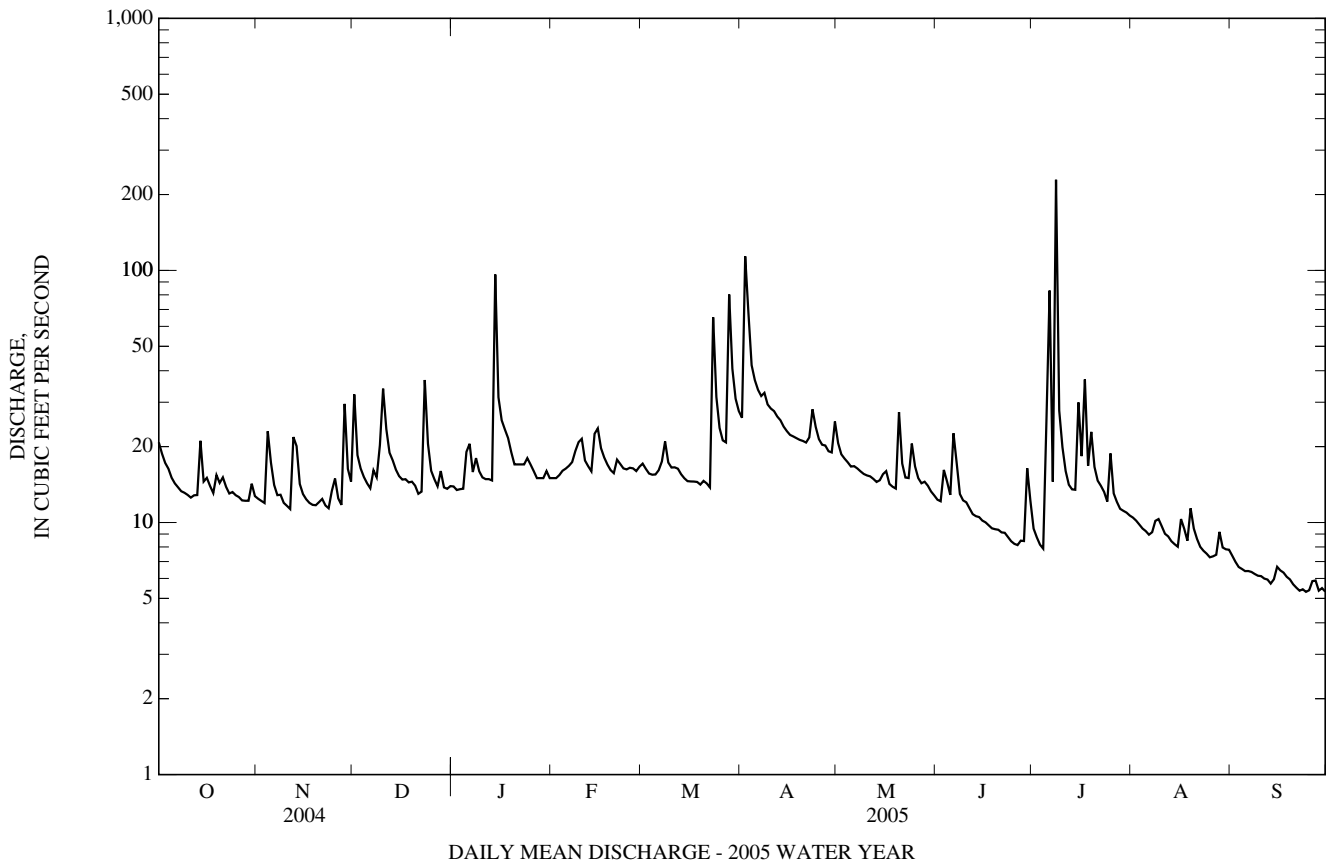
- a Sept. 28, 30.
- b July 30, 31, Aug. 1, 2, 4-23, 25-27, Oct. 6-10, 2002.
- c On basis of slope-area measurement at gage height of 3.33.
- d From high-water marks.
- f Sept. 12, 13, 28-30.
- g Many days in 2002 and 2003.



01581960 BEETREE RUN AT BENTLEY SPRINGS, MD—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 2000 - 2005	
ANNUAL TOTAL	7,331.2		6,183.8			
ANNUAL MEAN	20.0		16.9		14.2	
HIGHEST ANNUAL MEAN					22.3 2004	
LOWEST ANNUAL MEAN					5.08 2002	
HIGHEST DAILY MEAN	290	Sep 28	229	Jul 8	290	Sep 28, 2004
LOWEST DAILY MEAN	8.8	Sep 13	5.3	(a)	1.1	Aug 22, 2002
ANNUAL SEVEN-DAY MINIMUM	9.3	Sep 10	5.5	Sep 19	1.4	Aug 17, 2002
MAXIMUM PEAK FLOW			1,680	Jul 8	(b)1,930	Sep 28, 2004
MAXIMUM PEAK STAGE			4.59	Jul 8	4.91	Sep 28, 2004
INSTANTANEOUS LOW FLOW			5.1	(c)	1.1	(d)
ANNUAL RUNOFF (CFSM)	2.06		1.74		1.47	
ANNUAL RUNOFF (INCHES)	28.06		23.67		19.92	
10 PERCENT EXCEEDS	25		24		23	
50 PERCENT EXCEEDS	16		15		12	
90 PERCENT EXCEEDS	12		7.8		4.9	

- a Sept. 24, 30.
- b From rating curve extended above 185 ft³/s.
- c Sept. 21-24, 28, 30.
- d Aug. 19, 21-23, 2002.



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 mi².

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), 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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan 14	0945	1,040	4.14	Jul 8	1100	*2,230	*6.57
Apr 2	1615	1,460	5.03				

Minimum discharge, 22 ft³/s, Sept. 21-25, 28-30.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	110	58	160	76	81	88	127	121	66	45	50	34
2	98	58	102	72	81	84	510	108	64	41	48	33
3	89	57	89	72	81	80	355	103	84	38	47	31
4	83	100	82	74	84	78	218	100	79	37	45	31
5	77	92	77	95	84	79	187	97	70	72	44	30
6	73	69	73	108	86	81	172	96	92	201	43	29
7	71	65	84	87	89	87	163	95	99	62	43	29
8	69	61	81	94	97	101	178	92	71	693	50	28
9	69	58	96	86	106	86	153	89	66	126	50	28
10	67	57	178	83	112	82	145	87	65	88	46	28
11	64	57	135	81	92	83	140	86	62	74	44	27
12	64	99	104	81	87	82	135	84	58	68	42	26
13	65	113	97	80	84	79	132	81	57	65	41	26
14	106	76	87	452	105	76	128	83	56	65	39	27
15	73	70	83	168	126	73	123	85	53	187	38	30
16	72	67	79	132	100	72	119	86	51	98	47	30
17	71	65	79	119	95	72	118	79	49	135	46	28
18	65	63	76	108	88	71	116	77	48	80	40	26
19	73	62	76	e100	83	70	115	75	47	76	49	25
20	71	62	69	e90	82	73	113	140	48	70	46	24
21	75	65	e69	e86	90	72	111	99	47	64	41	23
22	70	60	71	e86	88	70	114	84	46	63	38	23
23	66	59	165	e86	84	298	151	83	44	62	36	23
24	66	66	119	e90	84	171	134	105	42	57	36	22
25	64	78	87	e88	85	121	117	93	41	77	34	23
26	62	65	84	e86	82	108	111	83	40	60	34	25
27	60	61	78	e82	82	102	110	77	42	56	35	27
28	59	159	e80	e82	85	348	104	75	47	53	47	23
29	59	90	76	e86	---	233	102	74	62	52	39	23
30	66	78	75	e82	---	156	137	71	64	51	38	23
31	61	---	76	e81	---	136	---	69	---	51	37	---
TOTAL	2,238	2,190	2,887	3,193	2,523	3,412	4,638	2,777	1,760	2,967	1,313	805
MEAN	72.2	73.0	93.1	103	90.1	110	155	89.6	58.7	95.7	42.4	26.8
MAX	110	159	178	452	126	348	510	140	99	693	50	34
MIN	59	57	69	72	81	70	102	69	40	37	34	22
CFSM	1.36	1.38	1.76	1.95	1.70	2.08	2.92	1.69	1.11	1.81	0.80	0.51
IN.	1.57	1.54	2.03	2.25	1.77	2.40	3.26	1.95	1.24	2.09	0.92	0.57

e Estimated

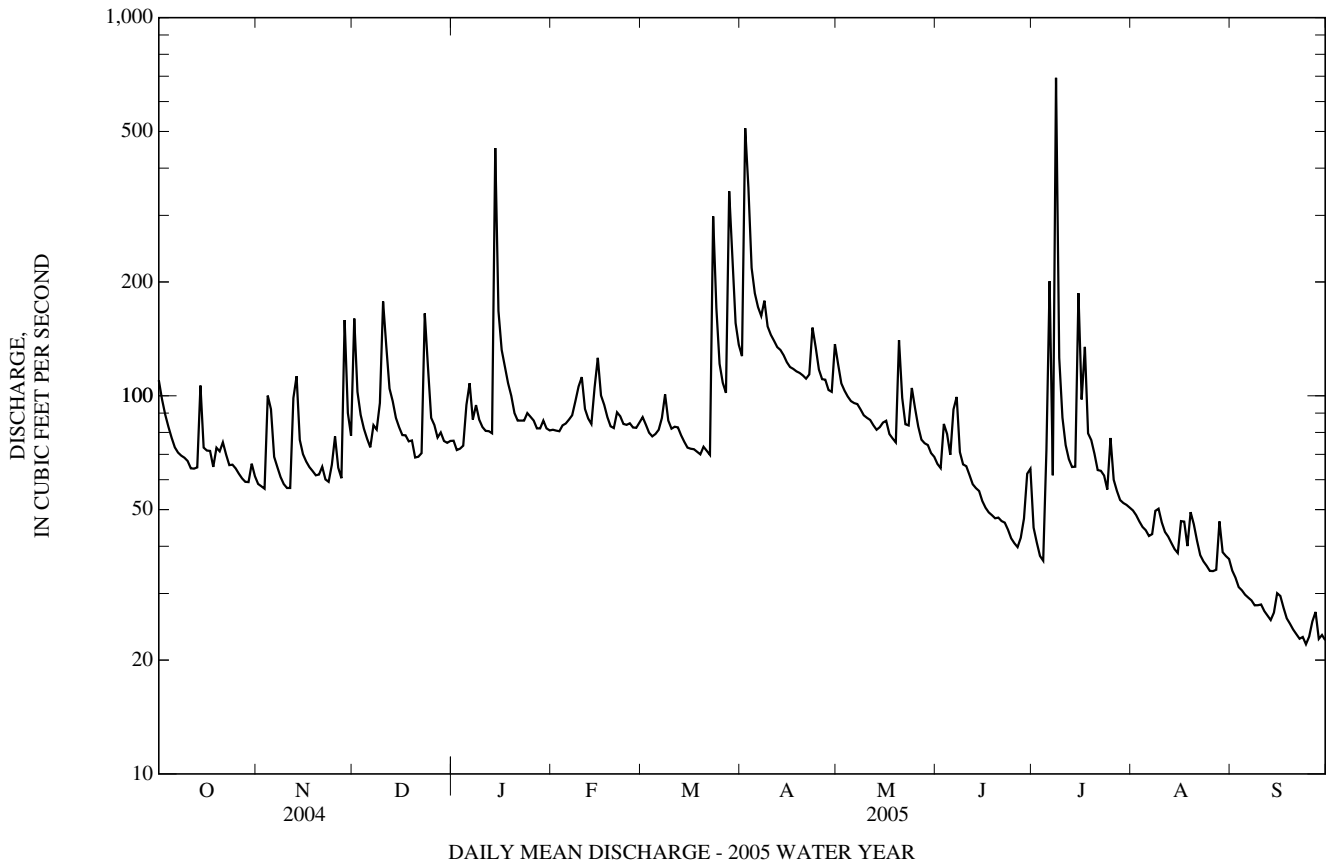
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1944 - 2005, BY WATER YEAR (WY)

MEAN	46.6	56.5	67.1	77.7	88.5	94.4	92.6	82.8	70.4	57.9	48.2	48.7
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 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1944 - 2005	
ANNUAL TOTAL	39,401		30,703		69.3	
ANNUAL MEAN	108		84.1		132	
HIGHEST ANNUAL MEAN					2002	
LOWEST ANNUAL MEAN					23.3	
HIGHEST DAILY MEAN	927	Sep 28	693	Jul 8	4,730	Jun 22, 1972
LOWEST DAILY MEAN	54	Sep 14	22	Sep 24	4.5	Sep 11, 1966
ANNUAL SEVEN-DAY MINIMUM	57	Sep 1	23	Sep 19	4.8	Sep 6, 1966
MAXIMUM PEAK FLOW			2,230	Jul 8	(a)8,280	Jun 22, 1972
MAXIMUM PEAK STAGE			6.57	Jul 8	18.54	Jun 22, 1972
INSTANTANEOUS LOW FLOW			22	(b)	1.9	Aug 29, 1966
ANNUAL RUNOFF (CFSM)	2.04		1.59		1.31	
ANNUAL RUNOFF (INCHES)	27.71		21.59		17.79	
10 PERCENT EXCEEDS	142		126		119	
50 PERCENT EXCEEDS	89		76		53	
90 PERCENT EXCEEDS	62		37		25	

a From rating curve extended above 1,600 ft³/s on basis of contracted-opening measurement of peak flow.
 b Sept. 21-25, 28-30.



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 mi².

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), 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, 3,010 ft³/s, July 8, gage height, 9.63 ft; minimum discharge, 72 ft³/s, Sept. 26.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	385	162	333	209	231	260	452	370	189	166	159	147
2	306	178	251	201	229	257	1,210	318	187	159	158	145
3	269	177	228	200	226	239	1,370	299	217	156	156	143
4	241	233	215	202	238	216	882	282	212	153	154	141
5	224	247	209	234	238	215	686	269	196	189	152	140
6	212	195	203	283	241	219	596	261	232	359	151	139
7	208	188	215	260	247	229	542	258	267	182	159	139
8	204	183	216	265	261	277	592	255	199	1,490	173	137
9	202	179	227	258	288	267	509	240	190	783	176	137
10	201	177	364	240	336	239	465	234	190	425	166	137
11	197	178	313	230	299	236	436	231	185	270	162	136
12	196	239	258	226	263	238	410	229	180	166	160	136
13	196	279	250	222	245	228	390	219	178	189	158	135
14	258	209	241	1,170	268	221	378	216	178	181	155	135
15	210	198	227	854	374	213	362	221	175	324	154	138
16	205	193	214	572	323	205	346	228	171	268	164	137
17	207	189	213	462	301	202	336	216	169	506	167	136
18	196	185	206	368	278	200	334	212	168	390	157	135
19	207	183	206	315	247	198	326	207	167	279	166	133
20	206	182	e200	e260	235	201	323	326	166	235	164	132
21	212	187	194	e260	251	204	315	297	166	191	157	131
22	203	180	194	e260	256	195	309	253	165	181	153	188
23	196	179	342	e260	247	649	401	238	163	174	150	379
24	196	187	404	e280	240	801	421	267	159	167	149	376
25	194	207	299	e260	251	524	359	260	157	201	147	376
26	190	186	257	e250	241	408	325	238	156	171	147	251
27	187	180	243	e240	236	351	313	219	159	169	147	88
28	177	338	206	e230	238	815	302	208	180	165	169	95
29	160	230	210	e230	---	1,040	285	208	195	162	154	283
30	197	209	208	246	---	668	358	199	206	162	151	376
31	187	---	207	239	---	521	---	194	---	160	150	---
TOTAL	6,629	6,037	7,553	9,786	7,328	10,736	14,333	7,672	5,522	8,773	4,885	5,301
MEAN	214	201	244	316	262	346	478	247	184	283	158	177
MAX	385	338	404	1,170	374	1,040	1,370	370	267	1,490	176	379
MIN	160	162	194	200	226	195	285	194	156	153	147	88
(†)	19584	19448	19858	19902	19858	20018	19880	19840	19402	19767	18749	17085

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1978 - 1980, 1983 - 2005, BY WATER YEAR (WY)

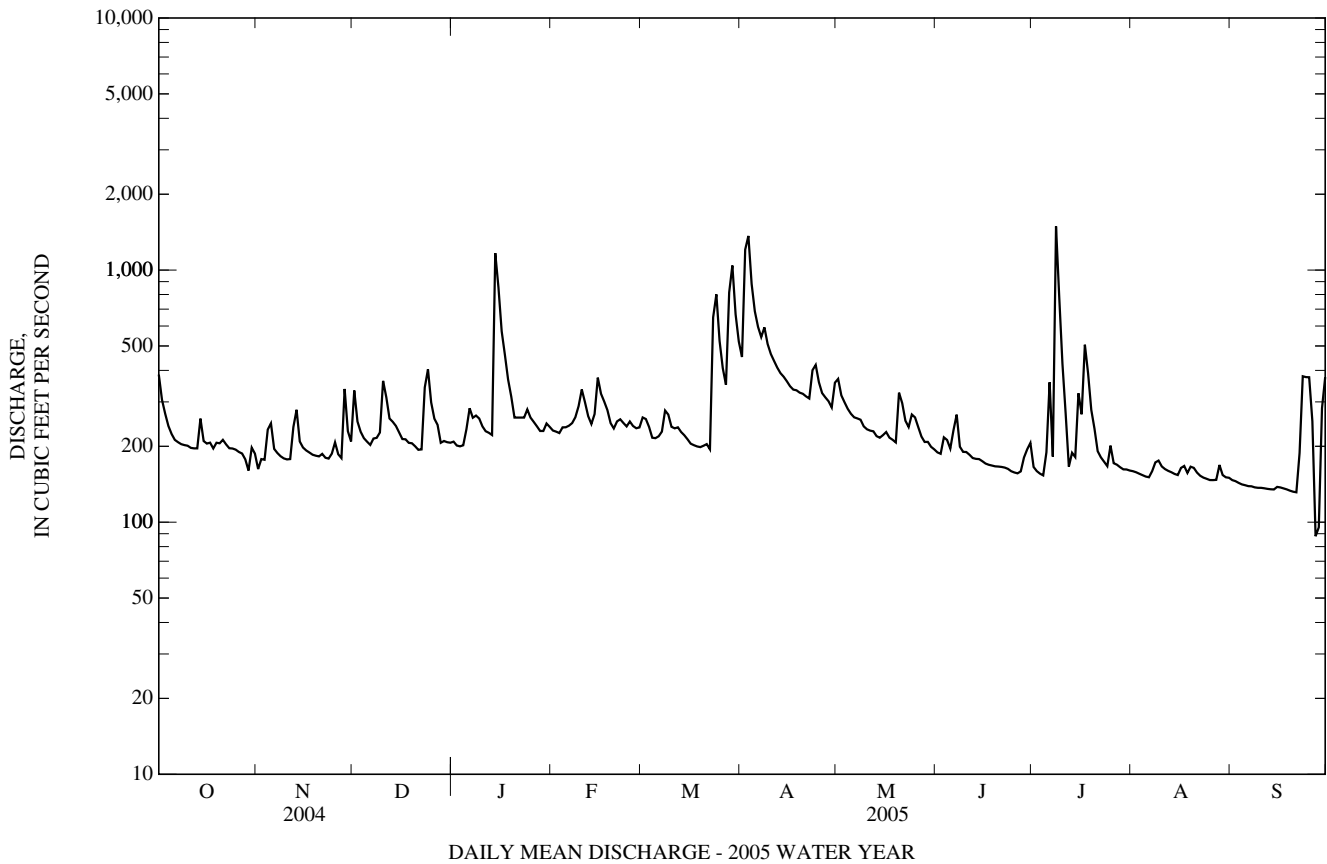
MEAN	166	174	202	228	240	261	269	247	198	186	165	172
MAX	603	352	604	625	598	755	586	476	476	293	324	512
(WY)	(1980)	(2004)	(1997)	(1979)	(1979)	(1994)	(1993)	(1989)	(2003)	(2004)	(2004)	(1979)
MIN	52.4	76.4	76.4	63.3	58.2	65.2	74.8	70.3	55.4	58.7	70.8	69.6
(WY)	(1987)	(2000)	(2002)	(1983)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(1985)	(1983)

(†)Monthend contents, in millions of gallons, in Prettyboy Reservoir (contents on Sept. 30, 2004, 19,984,000,000 gal). Records furnished by Baltimore City Department of Public Works.

01582500 GUNPOWDER FALLS AT GLENCOE, MD—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1978 - 1980, 1983 - 2005	
	ANNUAL TOTAL	110,099		94,555		208
ANNUAL MEAN	301		259		343	2004
HIGHEST ANNUAL MEAN					91.5	2002
LOWEST ANNUAL MEAN					4,500	Sep 6, 1979
HIGHEST DAILY MEAN	2,000	Aug 1	1,490	Jul 8	31	Sep 3, 1999
LOWEST DAILY MEAN	160	Oct 29	88	Sep 27	35	Aug 29, 1999
ANNUAL SEVEN-DAY MINIMUM	169	Sep 11	135	Sep 15	30	Sep 3, 1999
MAXIMUM PEAK FLOW			3,010	Jul 8	(a)6,110	Sep 6, 1979
MAXIMUM PEAK STAGE			9.63	Jul 8	15.30	Sep 6, 1979
INSTANTANEOUS LOW FLOW			72	Sep 26	30	Sep 3, 1999
ANNUAL RUNOFF (CFSM)	1.88		1.62		1.30	
ANNUAL RUNOFF (INCHES)	25.60		21.98		17.68	
10 PERCENT EXCEEDS	422		377		357	
50 PERCENT EXCEEDS	251		215		167	
90 PERCENT EXCEEDS	180		154		81	

a From rating curve extended above 2,400 ft³/s on basis of slope-area measurement at gage height of 12.65 ft.



GUNPOWDER RIVER BASIN

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 mi².

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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan 14	0615	425	4.66	Apr 2	1445	433	4.69
Mar 23	1715	402	4.57	Jul 7	1530	447	4.74
Mar 28	1545	483	4.87	Jul 8	0815	*1,150	*6.65

Minimum discharge, 6.8 ft³/s, Sept. 23-26, 29, 30.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	11	26	13	e15	16	21	22	15	15	11	8.0
2	13	11	17	12	e15	15	99	21	15	13	10	7.9
3	12	13	15	12	15	14	47	20	17	12	10	7.7
4	11	19	14	12	15	15	30	19	16	12	9.9	7.6
5	11	16	14	15	15	15	26	18	15	14	9.6	7.6
6	11	12	13	17	15	15	25	18	20	17	9.4	7.6
7	11	12	15	15	16	15	24	18	18	44	9.6	7.6
8	11	11	14	16	17	18	26	17	15	279	17	7.4
9	11	11	19	15	19	16	23	17	16	29	12	7.4
10	10	10	32	15	20	16	22	17	16	18	10	7.4
11	10	10	21	14	17	16	21	17	15	15	9.6	7.3
12	10	17	17	14	16	15	20	16	14	13	9.3	7.3
13	10	19	16	14	15	15	20	16	14	13	9.0	7.3
14	13	14	15	113	19	14	20	16	14	12	8.7	7.3
15	12	13	15	28	22	14	19	16	13	13	8.6	7.4
16	12	12	14	22	18	14	19	17	13	31	9.3	7.5
17	12	12	14	20	17	14	19	16	13	21	9.3	7.3
18	11	11	13	18	17	14	19	16	13	15	8.7	7.2
19	11	11	13	17	15	14	19	16	13	13	9.8	7.1
20	11	11	e13	17	15	14	18	25	12	13	9.5	7.1
21	12	11	13	17	16	14	18	19	12	12	9.0	7.1
22	11	11	13	e16	15	14	19	17	12	12	8.6	7.0
23	11	11	36	18	15	95	24	16	12	12	8.4	7.0
24	10	12	20	e18	15	33	21	17	12	11	8.4	6.8
25	11	14	16	17	15	23	20	17	12	17	8.2	6.9
26	10	12	15	16	15	21	19	16	11	12	8.2	7.1
27	10	11	14	16	15	19	19	15	12	12	8.4	7.2
28	10	19	e14	e16	15	84	19	15	29	12	11	7.0
29	11	14	13	e16	---	34	19	15	28	12	9.0	7.0
30	11	13	13	16	---	25	24	15	19	11	8.8	6.9
31	11	---	13	15	---	23	---	15	---	11	8.4	---
TOTAL	345	384	510	600	454	684	739	535	456	746	296.7	219.0
MEAN	11.1	12.8	16.5	19.4	16.2	22.1	24.6	17.3	15.2	24.1	9.57	7.30
MAX	14	19	36	113	22	95	99	25	29	279	17	8.0
MIN	10	10	13	12	15	14	18	15	11	11	8.2	6.8
CFSM	0.90	1.04	1.34	1.57	1.32	1.79	2.00	1.40	1.24	1.96	0.78	0.59
IN.	1.04	1.16	1.54	1.81	1.37	2.07	2.24	1.62	1.38	2.26	0.90	0.66

e Estimated

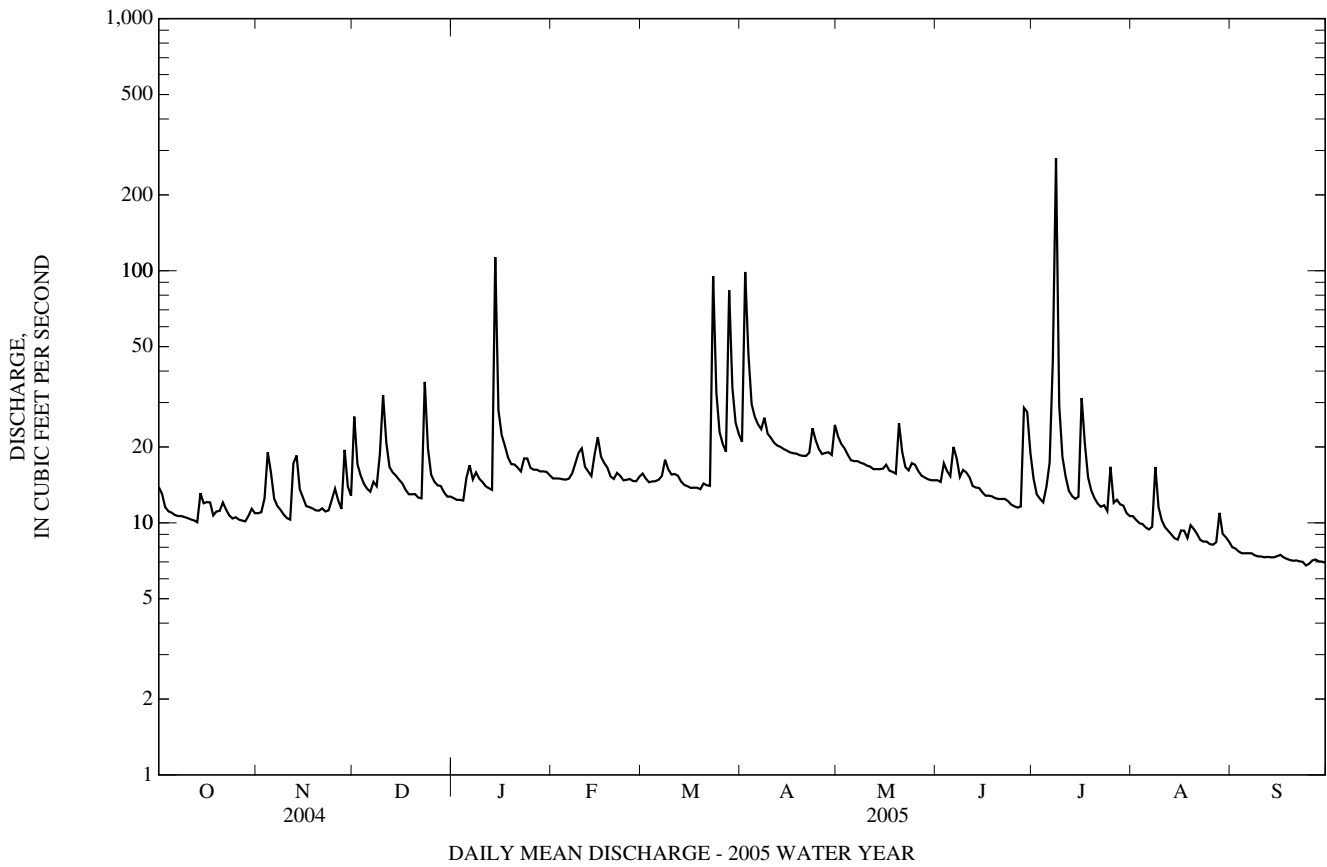
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1982 - 1988, 1997 - 2005, BY WATER YEAR (WY)

	10.4	13.0	17.0	16.1	20.3	20.1	20.1	16.6	13.5	11.8	8.93	10.1
MEAN	10.4	13.0	17.0	16.1	20.3	20.1	20.1	16.6	13.5	11.8	8.93	10.1
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 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1982 - 1988, 1997 - 2005	
	ANNUAL TOTAL	7,091.2		5,968.7		14.8
ANNUAL MEAN	19.4		16.4		22.1	
HIGHEST ANNUAL MEAN					5.38	
LOWEST ANNUAL MEAN					2004	
HIGHEST DAILY MEAN	289	Feb 6	279	Jul 8	599	Feb 12, 1985
LOWEST DAILY MEAN	9.6	(a)	6.8	Sep 24	0.96	Aug 22, 2002
ANNUAL SEVEN-DAY MINIMUM	9.9	Sep 11	7.0	Sep 24	1.1	Aug 16, 2002
MAXIMUM PEAK FLOW			1,150	Jul 8	(b)3,220	Sep 8, 1987
MAXIMUM PEAK STAGE			6.65	Jul 8	8.28	Sep 8, 1987
INSTANTANEOUS LOW FLOW			6.8	(c)	0.72	(d)
ANNUAL RUNOFF (CFSM)	1.58		1.33		1.21	
ANNUAL RUNOFF (INCHES)	21.45		18.05		16.39	
10 PERCENT EXCEEDS	25		21		25	
50 PERCENT EXCEEDS	17		14		11	
90 PERCENT EXCEEDS	11		8.5		5.3	

- a Sept. 5, 6.
- b From rating curve extended above 2,000 ft³/s.
- c Sept. 23-26, 29, 30.
- d Aug. 22, 23, 2002.



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 mi².

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 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 1,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan 14	1000	1,370	4.98	Apr 2	1645	1,540	5.27
Mar 23	1915	1,050	4.37	Jul 8	1000	*2,750	*6.99
Mar 28	1845	1,020	4.30				

Minimum discharge, 21 ft³/s, Sept. 21-25, 29.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	62	42	122	57	59	70	105	100	55	52	47	33
2	57	42	82	55	59	65	553	86	54	46	45	31
3	53	42	68	55	59	62	321	82	72	43	43	29
4	50	68	61	55	62	60	173	78	68	41	42	29
5	47	76	58	67	63	62	145	76	59	51	40	28
6	46	51	56	81	66	62	133	75	95	63	40	28
7	45	48	61	67	70	67	126	75	97	160	40	28
8	44	46	62	72	76	80	154	73	63	1,010	67	27
9	44	44	72	68	87	68	122	70	72	146	58	26
10	44	43	167	63	95	64	113	69	68	94	47	27
11	42	43	117	60	74	65	108	68	60	76	44	26
12	42	77	83	60	69	66	103	66	55	67	42	26
13	43	103	74	59	65	60	100	64	53	63	39	25
14	52	62	68	500	77	58	97	66	53	61	38	25
15	48	55	63	150	106	57	93	66	50	62	36	27
16	47	53	61	111	82	57	91	66	48	114	42	27
17	48	51	59	95	75	57	90	63	47	99	44	25
18	43	50	57	81	70	56	89	61	46	71	38	24
19	46	49	57	e79	64	55	87	60	46	64	40	24
20	47	49	53	76	63	58	86	113	46	59	41	24
21	51	50	e55	72	69	59	85	84	46	55	38	22
22	49	48	54	68	67	56	88	69	45	54	35	21
23	46	47	145	e80	64	384	117	66	43	52	33	22
24	45	51	111	e90	63	186	104	74	41	49	33	21
25	45	59	74	80	65	117	90	74	40	72	32	22
26	44	51	65	72	63	100	85	66	40	54	32	24
27	43	48	61	64	64	92	84	61	41	53	33	25
28	42	103	e60	e68	66	343	79	59	94	57	45	22
29	43	67	58	e80	---	202	78	58	107	51	38	22
30	46	58	57	65	---	131	112	58	78	50	36	22
31	43	---	57	60	---	114	---	57	---	48	35	---
TOTAL	1,447	1,676	2,298	2,710	1,962	3,033	3,811	2,203	1,782	3,037	1,263	762
MEAN	46.7	55.9	74.1	87.4	70.1	97.8	127	71.1	59.4	98.0	40.7	25.4
MAX	62	103	167	500	106	384	553	113	107	1,010	67	33
MIN	42	42	53	55	59	55	78	57	40	41	32	21
CFSM	0.78	0.93	1.24	1.46	1.17	1.64	2.12	1.19	0.99	1.64	0.68	0.42
IN.	0.90	1.04	1.43	1.69	1.22	1.89	2.37	1.37	1.11	1.89	0.79	0.47

e Estimated

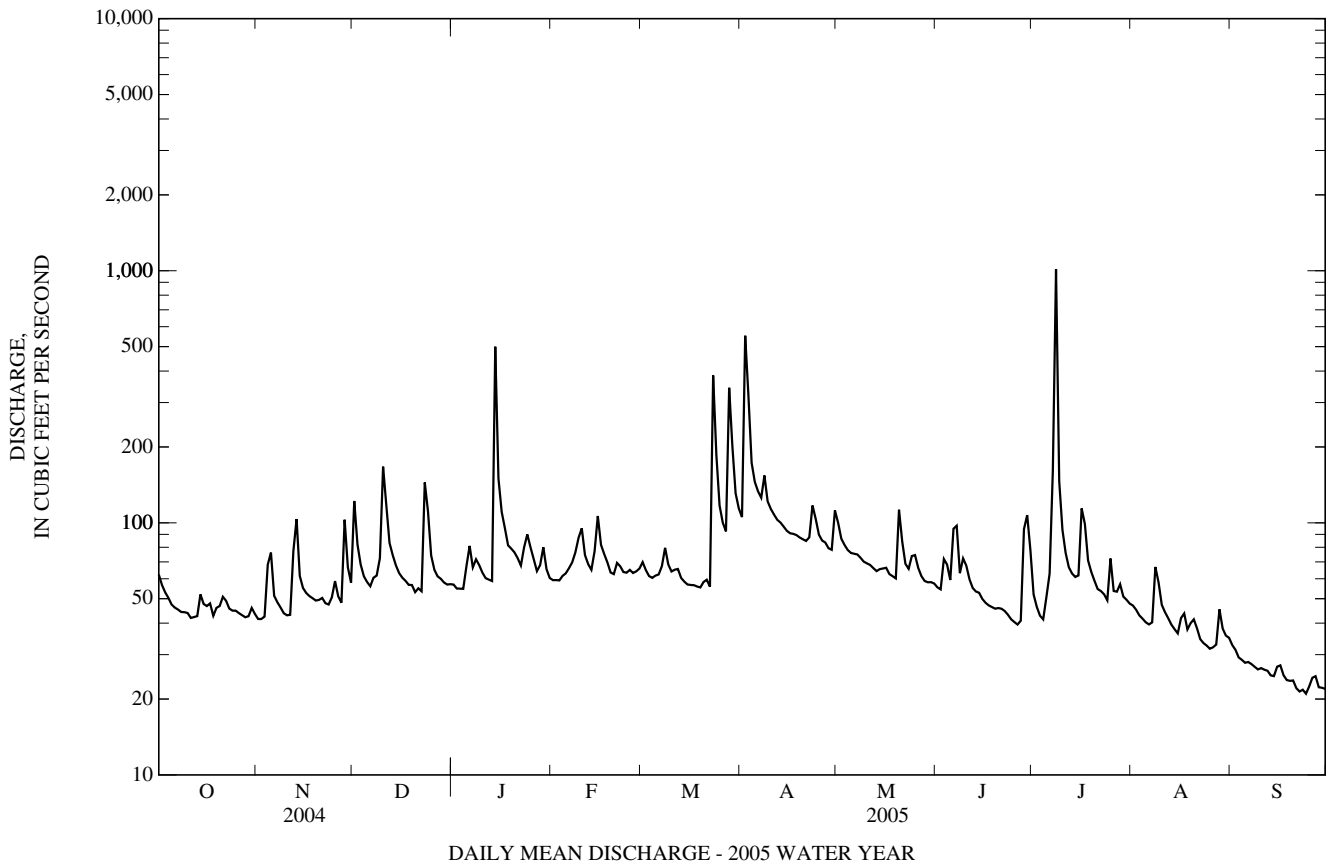
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1944 - 2005, BY WATER YEAR (WY)

	45.9	56.5	69.1	81.0	91.7	96.5	90.7	81.3	70.2	56.0	48.2	47.5
MEAN	45.9	56.5	69.1	81.0	91.7	96.5	90.7	81.3	70.2	56.0	48.2	47.5
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 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1944 - 2005	
ANNUAL TOTAL	32,006		25,984		69.5	
ANNUAL MEAN	87.4		71.2		138	
HIGHEST ANNUAL MEAN					20.3	
LOWEST ANNUAL MEAN					2002	
HIGHEST DAILY MEAN	1,290	Feb 6	1,010	Jul 8	7,000	Jun 22, 1972
LOWEST DAILY MEAN	34	(a)	21	(b)	2.5	Sep 12, 1966
ANNUAL SEVEN-DAY MINIMUM	36	Sep 1	22	Sep 19	3.7	Aug 16, 2002
MAXIMUM PEAK FLOW			2,750	Jul 8	(c)38,000	Jun 22, 1972
MAXIMUM PEAK STAGE			6.99	Jul 8	(d)26.00	Jun 22, 1972
INSTANTANEOUS LOW FLOW			21	(f)	2.4	Sep 12, 1966
ANNUAL RUNOFF (CFSM)	1.46		1.19		1.16	
ANNUAL RUNOFF (INCHES)	19.91		16.16		15.78	
10 PERCENT EXCEEDS	124		103		118	
50 PERCENT EXCEEDS	74		60		52	
90 PERCENT EXCEEDS	43		35		23	

- a Sept. 6, 14.
- b Sept. 22, 24.
- c From rating curve extended above 3,200 ft³/s, on basis of slope-area measurement and contracted-opening measurement of peak flow.
- d From floodmarks.
- f Sept. 21-25, 29.



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 mi².

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 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.--Maximum discharge, 2.6 ft³/s, Dec. 23, gage height, 1.68 ft; minimum discharge, 0.047 ft³/s, Aug. 8.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.14	e0.10	0.26	0.16	0.19	0.23	0.30	0.37	0.23	0.18	0.11	0.095
2	0.14	e0.10	0.17	0.14	0.19	0.22	0.88	0.34	0.22	0.17	0.11	0.094
3	0.12	0.12	0.17	0.14	0.19	0.21	0.71	0.33	0.35	0.17	0.11	0.091
4	0.13	0.26	0.16	0.14	0.21	0.21	0.50	0.33	0.24	0.15	0.096	0.089
5	0.11	0.15	0.16	0.20	0.22	0.21	0.44	0.33	0.23	0.17	0.093	0.091
6	0.092	0.14	0.15	0.18	0.22	0.22	0.40	0.33	0.30	0.16	0.089	0.089
7	0.092	0.14	0.17	0.16	0.22	0.21	0.39	0.33	e0.24	0.16	0.11	0.084
8	0.092	0.14	0.16	0.18	0.23	0.24	0.46	0.31	e0.22	0.44	0.097	0.082
9	0.092	0.13	0.27	0.16	0.22	0.22	0.38	0.30	e0.26	0.15	0.11	0.080
10	0.092	0.12	0.34	0.16	0.22	0.21	0.37	0.29	e0.23	0.15	0.096	0.081
11	0.092	0.13	0.27	0.16	0.21	0.22	0.35	0.29	e0.20	0.14	0.090	0.084
12	0.092	0.32	0.23	0.16	0.21	0.21	0.34	0.28	e0.19	0.15	0.084	0.091
13	0.092	0.22	0.21	0.17	0.21	0.21	0.33	0.28	e0.18	0.15	0.082	0.089
14	0.16	0.16	0.17	0.66	0.27	0.21	0.33	0.28	e0.17	0.15	0.081	0.090
15	0.11	0.16	0.14	0.27	0.24	0.21	0.33	0.28	e0.17	0.16	0.083	0.092
16	0.12	0.15	0.14	0.23	0.22	0.21	0.33	0.28	0.17	0.19	0.13	0.088
17	0.12	0.12	0.13	0.22	0.21	0.21	0.33	0.28	0.17	0.18	0.10	0.094
18	0.12	0.12	0.13	0.21	0.21	0.21	0.33	0.26	0.16	0.15	0.093	0.090
19	0.13	0.12	0.13	0.21	0.21	0.21	0.33	0.24	0.16	0.14	0.12	0.085
20	0.10	0.13	0.12	0.21	0.21	0.23	0.33	0.45	0.17	0.14	0.12	0.083
21	0.11	0.14	0.13	0.19	0.23	0.21	0.33	0.30	0.18	0.14	0.10	0.067
22	0.11	0.13	0.13	0.21	0.22	0.20	0.34	0.27	0.18	0.14	0.100	0.065
23	0.10	0.13	0.40	0.21	0.21	0.63	0.47	0.25	0.18	0.14	0.094	0.069
24	0.11	0.16	0.24	0.21	0.21	0.35	0.37	0.28	0.18	0.13	0.086	0.067
25	0.12	0.15	0.21	0.22	0.21	0.28	0.33	0.28	0.18	0.19	0.086	0.072
26	0.10	0.14	0.19	0.22	0.22	0.26	0.33	0.26	0.17	0.13	0.088	0.079
27	0.092	0.14	0.18	0.21	0.21	0.27	0.33	0.24	0.18	0.16	0.094	0.078
28	0.11	0.27	0.17	0.21	0.22	0.58	0.33	0.23	0.19	0.14	0.16	0.069
29	0.12	0.15	0.16	0.21	---	0.41	0.33	0.23	0.26	0.12	0.11	0.074
30	e0.13	0.15	0.16	0.22	---	0.34	0.45	0.22	0.21	0.12	0.11	0.070
31	e0.10	---	0.16	0.21	---	0.32	---	0.23	---	0.11	0.095	---
TOTAL	3.438	4.59	5.81	6.44	6.04	8.16	11.77	8.97	6.17	4.97	3.127	2.472
MEAN	0.11	0.15	0.19	0.21	0.22	0.26	0.39	0.29	0.21	0.16	0.10	0.08
MAX	0.16	0.32	0.40	0.66	0.27	0.63	0.88	0.45	0.35	0.44	0.16	0.095
MIN	0.092	0.10	0.12	0.14	0.19	0.20	0.30	0.22	0.16	0.11	0.081	0.065
CFSM	0.92	1.27	1.56	1.73	1.80	2.19	3.27	2.41	1.71	1.34	0.84	0.69
IN.	1.07	1.42	1.80	2.00	1.87	2.53	3.65	2.78	1.91	1.54	0.97	0.77

e Estimated

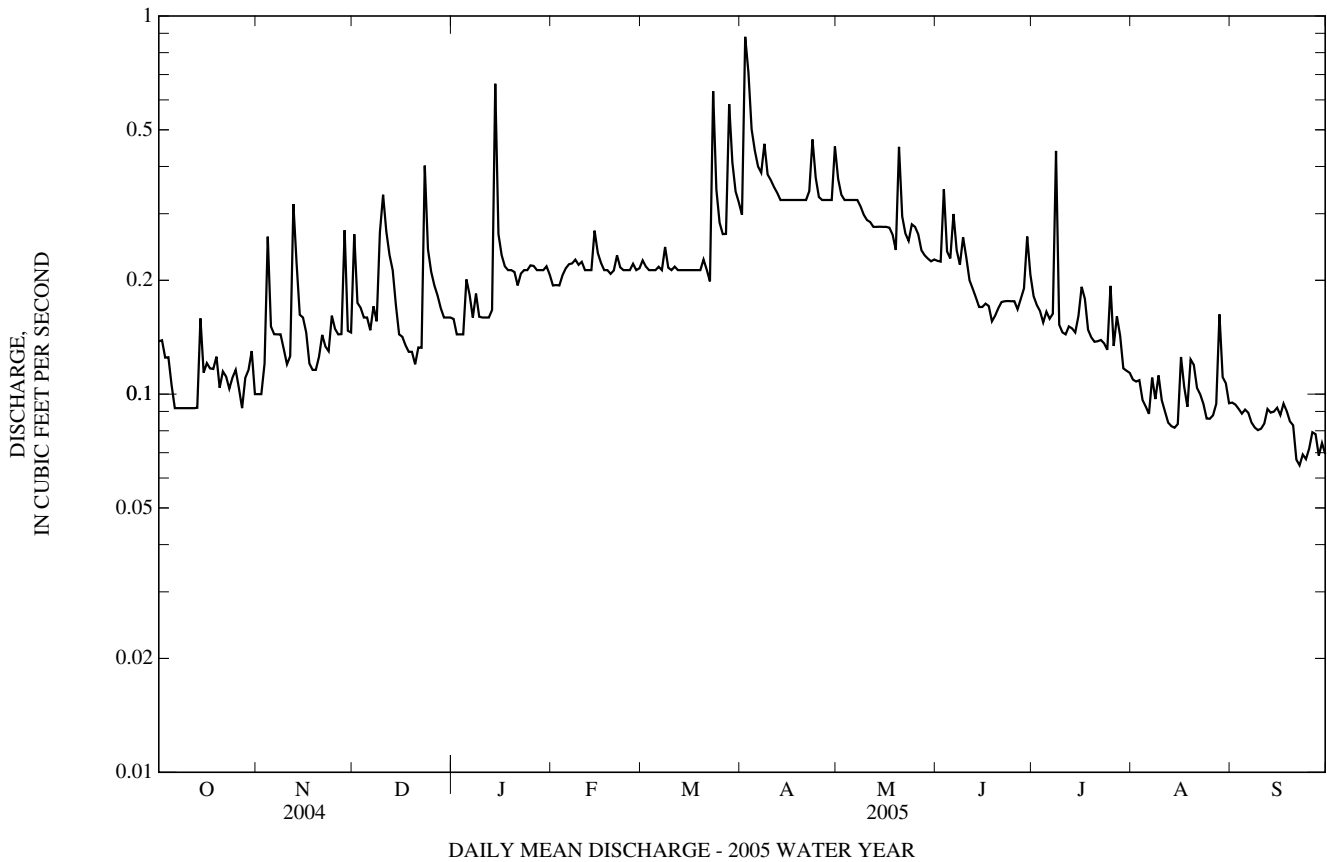
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 1986, 1998 - 2005, BY WATER YEAR (WY)

MEAN	0.10	0.12	0.15	0.13	0.15	0.17	0.22	0.22	0.16	0.13	0.10	0.09
MAX	0.19	0.21	0.30	0.23	0.27	0.26	0.40	0.41	0.28	0.27	0.19	0.20
(WY)	(2004)	(2004)	(1984)	(2004)	(2004)	(2005)	(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 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1983 - 1986, 1998 - 2005	
	ANNUAL TOTAL	76.168		71.957		0.14
ANNUAL MEAN	0.21		0.20		0.23	1984
HIGHEST ANNUAL MEAN					0.04	2002
LOWEST ANNUAL MEAN					1.8	Jul 1, 1984
HIGHEST DAILY MEAN	0.78	Sep 28	0.88	Apr 2	0.000	(b)
LOWEST DAILY MEAN	0.092	(a)	0.065	Sep 22	0.00	Jul 11, 1986
ANNUAL SEVEN-DAY MINIMUM	0.09	Oct 6	0.07	Sep 21	18	Jul 1, 1984
MAXIMUM PEAK FLOW			2.6	Dec 23	2.19	Jul 1, 1984
MAXIMUM PEAK STAGE			1.68	Dec 23	0.00	(b)
INSTANTANEOUS LOW FLOW			0.05	Aug 8	1.15	
ANNUAL RUNOFF (CFSM)	1.73		1.64		15.63	
ANNUAL RUNOFF (INCHES)	23.61		22.31		0.26	
10 PERCENT EXCEEDS	0.29		0.33		0.11	
50 PERCENT EXCEEDS	0.21		0.18		0.04	
90 PERCENT EXCEEDS	0.11		0.09			

a Sept. 14, Oct. 6-13, 2004.
 b No flow at times in 1986 and 2002.



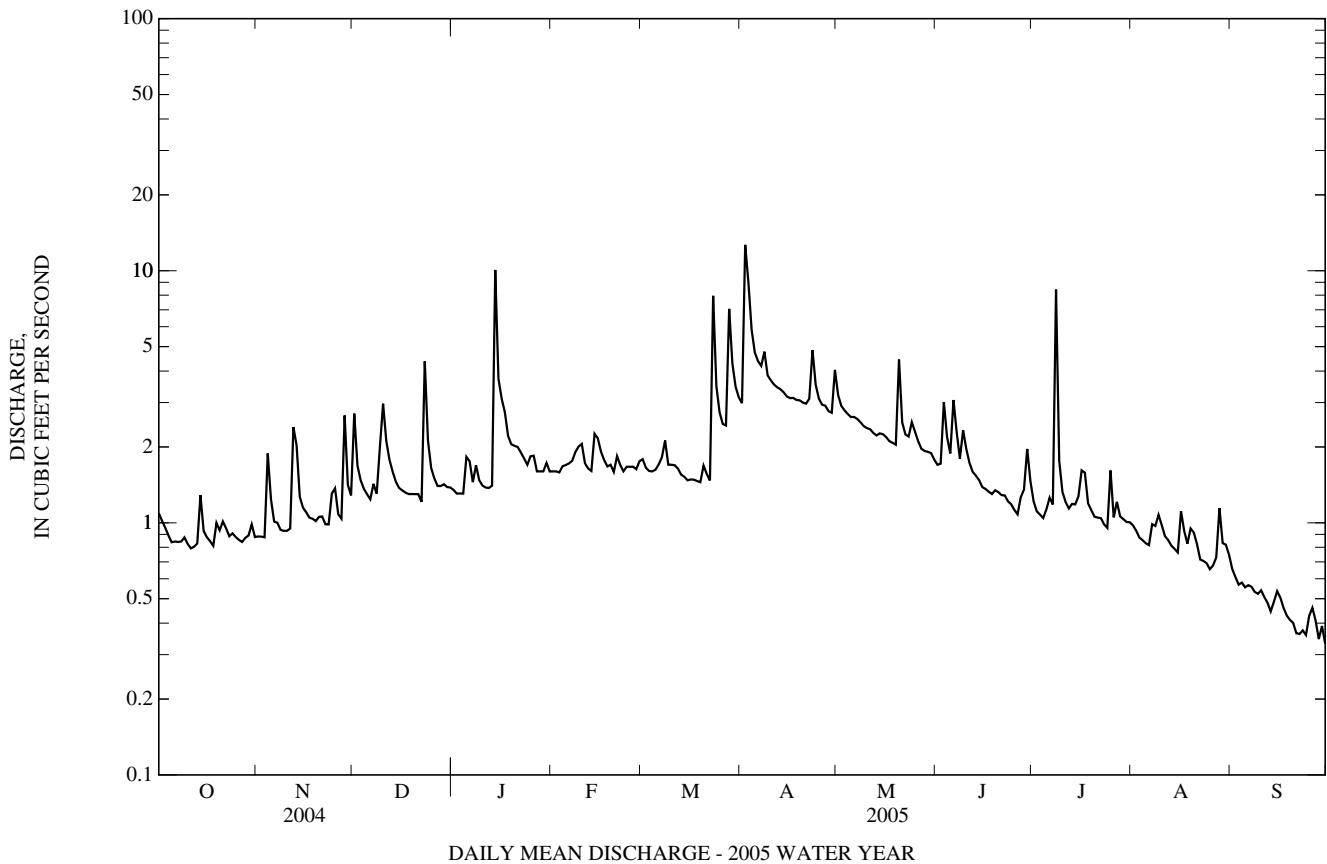
01583580 BAISMAN RUN AT BROADMOOR, MD—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1964 - 1969, 2000 - 2005	
	ANNUAL TOTAL	773.85		632.95		
ANNUAL MEAN	2.11		1.73		1.34	
HIGHEST ANNUAL MEAN					2.43 2004	
LOWEST ANNUAL MEAN					0.45 2002	
HIGHEST DAILY MEAN	17	Feb 3	13	Apr 2	41	Sep 10, 1968
LOWEST DAILY MEAN	0.64	Sep 5	0.33	Sep 30	0.00	(a)
ANNUAL SEVEN-DAY MINIMUM	0.67	Sep 1	0.38	Sep 18	0.00	Aug 28, 1966
MAXIMUM PEAK FLOW			47	Apr 2	(b)490	Sep 10, 1968
MAXIMUM PEAK STAGE			2.38	Apr 2	5.43	Sep 10, 1968
INSTANTANEOUS LOW FLOW			0.18	Sep 21	0.00	(c)
ANNUAL RUNOFF (CFSM)	1.44		1.18		0.914	
ANNUAL RUNOFF (INCHES)	19.58		16.02		12.42	
10 PERCENT EXCEEDS	3.2		3.1		2.7	
50 PERCENT EXCEEDS	2.0		1.4		1.0	
90 PERCENT EXCEEDS	0.84		0.74		0.40	

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 ft³/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 No flow Aug. 27 to Sept. 13, 1966, July 23, 30, 31, Aug. 1-3, 7-24, 2002.



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 mi².

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.--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 650 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan 14	0915	820	6.20	Jul 8	0830	*907	*6.55
Apr 2	1515	879	6.44				

Minimum discharge, 6.1 ft³/s, Sept. 18, 28, 30.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	15	76	19	22	30	37	37	18	16	12	12
2	19	15	31	17	23	24	370	28	18	14	12	11
3	18	15	27	17	22	22	214	28	49	13	13	9.2
4	16	57	25	18	25	23	90	27	26	12	12	8.8
5	15	26	24	35	25	22	54	27	20	15	11	8.5
6	15	22	22	28	25	22	43	26	59	18	11	8.5
7	15	19	29	22	25	23	39	25	38	17	11	11
8	15	15	25	31	26	32	54	24	20	372	18	10
9	16	15	54	23	28	23	39	22	36	32	18	12
10	14	15	68	20	32	23	38	24	26	23	14	9.7
11	13	15	39	19	24	24	34	23	22	19	13	7.6
12	14	71	29	19	23	22	32	21	20	18	12	9.8
13	14	45	23	21	22	20	30	24	18	19	13	9.0
14	28	23	22	349	46	19	30	25	19	19	10	6.9
15	16	20	21	56	36	20	30	24	17	20	9.3	9.1
16	19	18	20	37	27	20	29	23	17	44	21	9.2
17	16	17	19	32	24	21	28	22	17	38	14	8.7
18	13	17	18	29	23	20	27	20	18	20	10	7.6
19	23	17	19	28	22	19	28	20	17	18	18	8.4
20	17	20	17	27	22	25	29	80	15	16	14	9.7
21	21	20	16	26	24	21	28	31	16	15	9.7	8.6
22	18	16	18	24	21	19	32	25	15	14	8.2	9.7
23	16	16	117	24	20	242	68	22	15	15	9.3	9.9
24	16	29	39	24	22	59	40	29	16	14	8.6	8.6
25	15	28	26	25	27	35	29	24	15	36	10	7.1
26	15	20	24	26	24	31	26	22	14	16	11	7.7
27	14	18	21	26	23	32	27	21	16	26	13	7.4
28	14	85	21	25	25	227	27	21	18	18	46	8.7
29	15	27	20	25	---	81	26	20	36	17	14	7.3
30	18	25	19	22	---	45	64	20	22	16	14	7.6
31	16	---	20	22	---	37	---	18	---	14	12	---
TOTAL	515	761	949	1,116	708	1,283	1,642	803	673	964	422.1	269.3
MEAN	16.6	25.4	30.6	36.0	25.3	41.4	54.7	25.9	22.4	31.1	13.6	8.98
MAX	28	85	117	349	46	242	370	80	59	372	46	12
MIN	13	15	16	17	20	19	26	18	14	12	8.2	6.9
CFSM	0.79	1.21	1.46	1.72	1.21	1.98	2.62	1.24	1.07	1.49	0.65	0.43
IN.	0.92	1.35	1.69	1.99	1.26	2.28	2.92	1.43	1.20	1.72	0.75	0.48

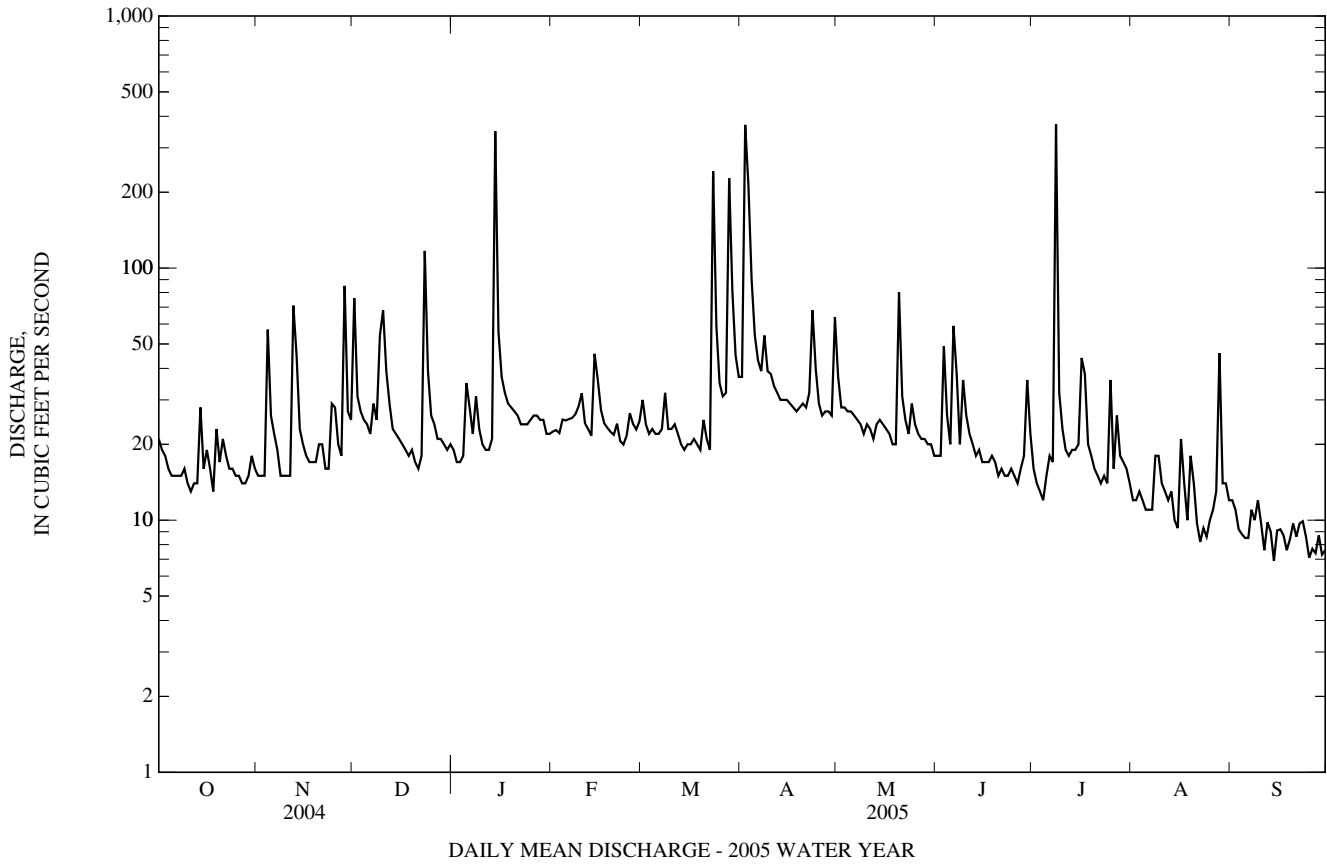
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 2005, BY WATER YEAR (WY)

MEAN	21.3	28.7	32.4	32.1	34.6	42.5	38.6	35.1	26.9	25.8	21.0	23.8
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 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1983 - 2005	
ANNUAL TOTAL	12,762.9		10,105.4		30.2	
ANNUAL MEAN	34.9		27.7		45.8	
HIGHEST ANNUAL MEAN					12.5	
LOWEST ANNUAL MEAN					3.0	
HIGHEST DAILY MEAN	552	Feb 6	372	Jul 8	903	Jan 19, 1996
LOWEST DAILY MEAN	9.4	(a)	6.9	Sep 14	3.0	(b)
ANNUAL SEVEN-DAY MINIMUM	10	Sep 1	7.8	Sep 24	3.8	Aug 16, 2002
MAXIMUM PEAK FLOW			907	Jul 8	(c)3,360	Jul 1, 1984
MAXIMUM PEAK STAGE			6.55	Jul 8	(d)12.10	Jul 1, 1984
INSTANTANEOUS LOW FLOW			6.1	(f)	2.5	(g)
ANNUAL RUNOFF (CFSM)	1.67		1.32		1.45	
ANNUAL RUNOFF (INCHES)	22.72		17.99		19.64	
10 PERCENT EXCEEDS	52		38		52	
50 PERCENT EXCEEDS	25		21		21	
90 PERCENT EXCEEDS	14		11		10	

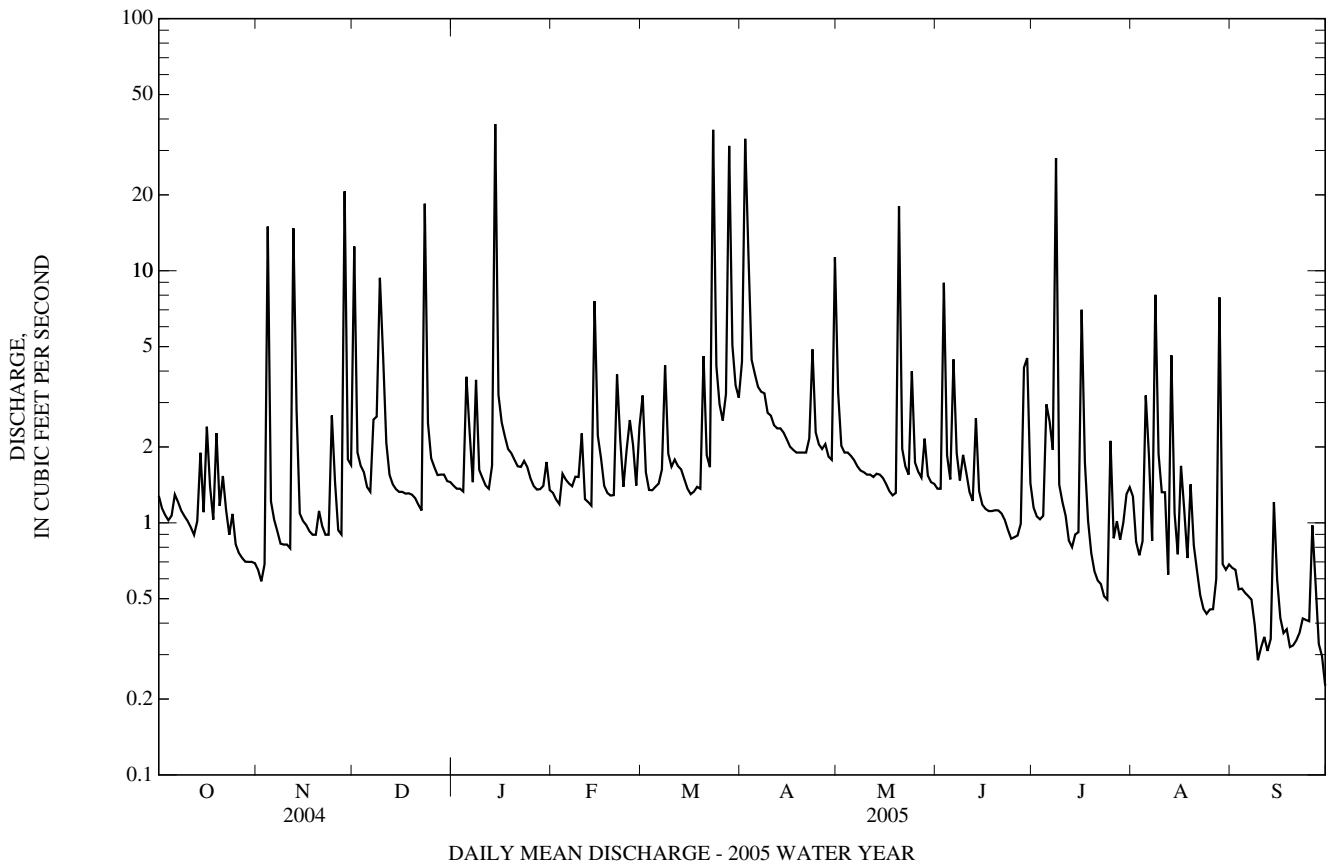
- a Sept. 6, 12.
- b Aug.19, 21, 2002.
- c From rating curve extended above 1,000 ft³/s.
- d From floodmarks.
- f Sept. 18, 28, 30.
- g Aug. 19, 20, 2002.



0158397967 MINEBANK RUN NEAR GLEN ARM, MD—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 2002 - 2005	
ANNUAL TOTAL	1,190.55		867.33		3.03	
ANNUAL MEAN	3.25		2.38		4.34	
HIGHEST ANNUAL MEAN					1.15	
LOWEST ANNUAL MEAN					61	
HIGHEST DAILY MEAN	54	Feb 6	38	Jan 14	61	Oct 27, 2003
LOWEST DAILY MEAN	0.48	Sep 26	0.23	Sep 30	(e)0.04	(a)
ANNUAL SEVEN-DAY MINIMUM	0.58	Sep 21	0.36	Sep 7	0.04	Aug 17, 2002
MAXIMUM PEAK FLOW			304	Dec 23	(b)1,390	Jun 12, 2003
MAXIMUM PEAK STAGE			6.35	Dec 23	(c)8.61	Jun 12, 2003
INSTANTANEOUS LOW FLOW			0.22	Sep 30	UNKNOWN	
ANNUAL RUNOFF (CFSM)	1.58		1.15		1.47	
ANNUAL RUNOFF (INCHES)	21.50		15.66		20.01	
10 PERCENT EXCEEDS	6.3		3.6		6.2	
50 PERCENT EXCEEDS	1.7		1.4		1.4	
90 PERCENT EXCEEDS	0.79		0.60		0.33	

e Estimated.
 a Aug. 17-23, Sept. 22, 24, 2002.
 b From rating curve extended above 100 ft³/s on basis of slope-area measurement of peak flow.
 c From floodmarks.



WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 2002 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Sample type	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Sampling method, code (82398)	Carbon dioxide water, unfltrd mg/L (00405)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unfltrd 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)
OCT												
05...	0950	Environmental	1028	80020	1.0	40	--	10.6	7.8	885	15.2	14.8
12...	1120	Environmental	1028	80020	.90	40	--	12.2	7.8	848	14.5	13.7
NOV												
01...	1130	Environmental	1028	80020	.70	10	--	12.0	7.7	874	15.5	13.9
09...	1100	Environmental	1028	80020	.80	10	9.6	12.6	7.6	876	7.1	7.4
29...	1130	Environmental	1028	80020	1.7	10	--	10.5	7.7	764	8.8	8.5
DEC												
06...	1050	Environmental	1028	80020	1.3	40	--	13.3	7.9	863	7.7	7.2
13...	1130	Environmental	1028	80020	1.4	40	--	13.3	8.0	839	7.9	7.9
21...	1100	Environmental	1028	80020	1.1	40	--	15.6	7.7	964	2.6	1.4
JAN												
03...	1130	Environmental	1028	80020	1.4	40	--	12.9	7.8	894	11.1	8.4
18...	1125	Environmental	1028	80020	1.9	10	--	14.1	7.6	855	-4.6	1.1
31...	1140	Environmental	1028	80020	1.2	10	--	14.3	7.7	5,550	7.5	2.0
FEB												
15...	1130	Environmental	1028	80020	1.9	10	--	13.3	7.7	1,030	9.1	7.1
MAR												
02...	1130	Environmental	1028	80020	1.4	10	--	13.5	7.7	592	1.3	4.5
02...	1132	Blank	1028	80020	--	--	--	--	--	--	--	--
15...	1140	Environmental	1028	80020	1.4	10	--	12.5	7.9	1,100	9.6	7.3
29...	1150	Environmental	1028	80020	4.8	10	--	10.5	7.6	918	15.2	12.1
APR												
06...	1110	Environmental	1028	80020	3.4	10	--	11.3	7.7	991	16.8	12.6
13...	1140	Environmental	1028	80020	2.5	10	--	12.5	7.8	986	16.1	11.8
19...	1030	Environmental	1028	80020	1.9	10	--	12.0	7.8	957	22.6	16.1
19...	1031	Replicate	1028	80020	--	10	--	--	--	--	--	--
26...	1030	Environmental	1028	80020	1.9	10	7.0	11.6	7.7	945	18.4	14.9
MAY												
03...	1040	Environmental	1028	80020	1.9	10	--	10.1	7.6	941	15.5	13.4
10...	1040	Environmental	1028	80020	1.6	10	--	8.7	7.8	960	24.1	18.0
17...	1020	Environmental	1028	80020	1.4	10	--	11.3	7.8	952	14.7	15.9
23...	1030	Environmental	1028	80020	1.6	10	--	10.9	7.8	927	14.7	14.4
JUN												
01...	1040	Environmental	1028	80020	1.4	10	--	10.7	8.2	927	24.4	20.1
14...	1030	Environmental	1028	80020	1.4	10	--	7.7	7.8	782	30.0	25.3
21...	1045	Environmental	1028	80020	1.1	10	--	9.4	7.9	939	25.8	20.9
28...	1040	Environmental	1028	80020	.94	10	--	11.6	8.1	914	28.4	23.8
28...	1042	Blank	1028	80020	--	--	--	--	--	--	--	--
JUL												
05...	1030	Environmental	1028	80020	1.1	10	--	11.0	8.1	929	25.1	24.1
11...	1230	Environmental	1028	80020	1.1	10	1.9	11.4	8.2	827	29.8	24.4
19...	1050	Environmental	1028	80020	.79	10	--	9.8	8.0	854	26.1	24.6
26...	1050	Environmental	1028	80020	.89	10	--	9.1	7.9	765	30.1	26.0
AUG												
04...	0915	Environmental	1028	80020	1.1	10	--	11.0	8.4	773	25.1	23.7
12...	0900	Environmental	1028	80020	.62	10	--	12.2	8.2	724	25.4	23.4
18...	1040	Environmental	1028	80020	.74	10	--	19.5	8.1	754	25.9	23.1
18...	1041	Replicate	1028	80020	--	10	--	--	--	--	--	--
25...	1040	Environmental	1028	80020	.53	10	--	11.2	8.0	933	22.4	21.3
30...	1040	Environmental	1028	80020	.67	10	--	9.0	8.0	833	22.9	22.9
SEP												
06...	1030	Environmental	1028	80020	.57	10	--	11.1	7.8	943	20.4	19.9
14...	1030	Environmental	1028	80020	.30	10	--	9.1	8.0	960	22.5	20.8
22...	1015	Environmental	1028	80020	.38	10	--	11.1	8.1	994	22.2	19.2
29...	1010	Environmental	1028	80020	.34	10	--	7.8	7.8	939	17.7	18.0

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 (EWI)

40 - Multiple verticals

0158397967 MINEBANK RUN NEAR GLEN ARM, MD—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Hardness, water, mg/L as CaCO ₃ (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)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia water, fltrd, mg/L as N (00608)	Nitrate water, fltrd, mg/L as N (00618)	Nitrite + nitrate water, fltrd, mg/L as N (00631)
OCT													
05...	--	--	--	--	--	--	--	--	--	.16	<.04	--	1.53
12...	--	--	--	--	--	--	--	--	--	.11	<.04	--	1.45
NOV													
01...	--	--	--	--	--	--	--	--	--	.12	E.02	--	1.10
09...	320	79.5	28.7	3.99	43.9	131	.1	11.2	20.9	.11	<.04	--	1.25
29...	--	--	--	--	--	--	--	--	--	.20	<.04	--	1.66
DEC													
06...	--	--	--	--	--	--	--	--	--	.19	<.04	--	1.76
13...	--	--	--	--	--	--	--	--	--	.15	<.04	--	1.77
21...	--	--	--	--	--	--	--	--	--	.11	<.04	--	1.97
JAN													
03...	--	--	--	--	--	--	--	--	--	.12	<.04	--	1.86
18...	--	--	--	--	--	--	--	--	--	.12	<.04	--	2.34
31...	--	--	--	--	--	--	--	--	--	.20	.04	1.89	1.91
FEB													
15...	--	--	--	--	--	--	--	--	--	.32	<.04	--	1.81
MAR													
02...	--	--	--	--	--	--	--	--	--	.19	<.04	1.86	1.87
02...	--	--	--	--	--	--	--	--	--	.12	<.04	--	<.06
15...	--	--	--	--	--	--	--	--	--	.15	<.04	--	1.79
29...	--	--	--	--	--	--	--	--	--	.28	<.04	--	2.48
APR													
06...	--	--	--	--	--	--	--	--	--	.20	<.04	--	2.29
13...	--	--	--	--	--	--	--	--	--	.19	<.04	--	1.91
19...	--	--	--	--	--	--	--	--	--	.20	<.04	--	1.75
19...	--	--	--	--	--	--	--	--	--	.14	<.04	--	1.76
26...	330	87.5	27.5	3.83	62.7	166	.1	7.5	22.7	.14	<.04	--	1.74
MAY													
03...	--	--	--	--	--	--	--	--	--	.21	<.04	--	1.78
10...	--	--	--	--	--	--	--	--	--	.21	<.04	--	1.67
17...	--	--	--	--	--	--	--	--	--	.23	<.04	--	1.53
23...	--	--	--	--	--	--	--	--	--	.23	<.04	--	1.42
JUN													
01...	--	--	--	--	--	--	--	--	--	.19	<.04	--	1.41
14...	--	--	--	--	--	--	--	--	--	.30	<.04	1.14	1.15
21...	--	--	--	--	--	--	--	--	--	.20	E.02	--	1.42
28...	--	--	--	--	--	--	--	--	--	.26	<.04	--	1.25
28...	--	--	--	--	--	--	--	--	--	E.09	<.04	--	<.06
JUL													
05...	--	--	--	--	--	--	--	--	--	.20	<.04	--	1.09
11...	290	75.8	25.2	3.99	52.2	142	.2	11.1	19.8	.19	<.04	--	1.21
19...	--	--	--	--	--	--	--	--	--	.19	<.04	--	1.08
26...	--	--	--	--	--	--	--	--	--	.27	<.04	--	.98
AUG													
04...	--	--	--	--	--	--	--	--	--	.15	<.04	--	1.02
12...	--	--	--	--	--	--	--	--	--	.10	<.04	--	.92
18...	--	--	--	--	--	--	--	--	--	.35	<.04	--	.97
18...	--	--	--	--	--	--	--	--	--	.17	<.04	--	.97
25...	--	--	--	--	--	--	--	--	--	.29	<.04	--	.98
30...	--	--	--	--	--	--	--	--	--	.15	<.04	--	1.00
SEP													
06...	--	--	--	--	--	--	--	--	--	.14	<.04	--	.97
14...	--	--	--	--	--	--	--	--	--	.28	<.04	--	1.03
22...	--	--	--	--	--	--	--	--	--	.24	<.04	--	.98
29...	--	--	--	--	--	--	--	--	--	.38	<.04	.87	.88

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Nitrite water, fltrd, mg/L as N (00613)	Organic nitro- gen, water, fltrd, mg/L (00607)	Total nitro- gen, water, fltrd, mg/L (00602)	Ortho- phos- phate, water, fltrd, mg/L as P (00671)	Phos- phorus, water, unfltrd mg/L (00665)	Iron, water, fltrd, ug/L (01046)	Mangan- ese, water, fltrd, ug/L (01056)	Sampler type, code (84164)
OCT								
05...	<.008	--	1.7	<.02	<.04	--	--	3070
12...	<.008	--	1.6	<.02	<.04	--	--	3070
NOV								
01...	E.007	--	1.2	<.02	<.04	--	--	3070
09...	E.004	--	1.4	<.02	<.04	<6	5.8	3070
29...	<.008	--	1.9	<.02	<.04	--	--	3070
DEC								
06...	<.008	--	2.0	<.02	<.04	--	--	3070
13...	<.008	--	1.9	<.02	<.04	--	--	3070
21...	<.008	--	2.1	<.02	<.04	--	--	3070
JAN								
03...	<.008	--	2.0	<.02	<.04	--	--	3070
18...	<.008	--	2.5	<.02	<.04	--	--	3070
31...	.014	.15	2.1	<.02	<.04	--	--	3070
FEB								
15...	E.005	--	2.1	<.02	<.04	--	--	3070
MAR								
02...	.013	--	2.1	<.02	<.04	--	--	3070
02...	<.008	--	--	<.02	<.04	--	--	--
15...	<.008	--	1.9	<.02	<.04	--	--	3070
29...	<.008	--	2.8	<.02	<.04	--	--	3070
APR								
06...	<.008	--	2.5	<.02	<.04	--	--	3070
13...	<.008	--	2.1	<.02	E.01	--	--	3070
19...	<.008	--	2.0	<.02	<.04	--	--	3070
19...	<.008	--	1.9	<.02	<.04	--	--	3070
26...	<.008	--	1.9	<.02	<.04	10	9.7	3070
MAY								
03...	<.008	--	2.0	<.02	<.04	--	--	3070
10...	E.005	--	1.9	<.02	<.04	--	--	3070
17...	<.008	--	1.8	<.02	<.04	--	--	3070
23...	E.005	--	1.6	<.02	<.04	--	--	3070
JUN								
01...	E.007	--	1.6	<.02	<.04	--	--	3070
14...	.012	--	1.4	<.02	<.04	--	--	3070
21...	E.006	--	1.6	<.02	<.04	--	--	3070
28...	E.007	--	1.5	<.02	<.04	--	--	3070
28...	<.008	--	--	<.02	<.04	--	--	--
JUL								
05...	E.005	--	1.3	<.02	E.03	--	--	3070
11...	<.008	--	1.4	<.02	E.02	<6	7.9	3070
19...	<.008	--	1.3	<.02	<.04	--	--	3070
26...	E.004	--	1.3	<.02	<.04	--	--	3070
AUG								
04...	<.008	--	1.2	<.02	<.04	--	--	3070
12...	<.008	--	1.0	<.02	<.04	--	--	3070
18...	<.008	--	1.3	<.02	<.04	--	--	3070
18...	<.008	--	1.1	<.02	<.04	--	--	3070
25...	<.008	--	1.3	<.02	<.04	--	--	3070
30...	<.008	--	1.2	<.02	<.04	--	--	3070
SEP								
06...	<.008	--	1.1	<.02	<.04	--	--	3070
14...	<.008	--	1.3	<.02	<.04	--	--	3070
22...	<.008	--	1.2	<.02	<.04	--	--	3070
29...	.012	--	1.3	<.02	<.04	--	--	3070

Remark codes used in this table:

< -- Less than.

E -- Estimated.

Sampler type: 3070 - Grab sample

0158397967 MINEBANK RUN NEAR GLEN ARM, MD—Continued



Photo by E.J. Doheny

0158397967 MINEBANK RUN NEAR GLEN ARM, MD

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 mi².

PERIOD OF RECORD.--October 1996 to September 2005 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is 181.39 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those above 150 ft³/s and estimated daily discharges (missing record), 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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 23	1500	*554	(a)*4.80	Mar. 28	1320	517	(a)4.68

(a) High-water mark from crest-stage gage.

Minimum discharge, 0.30 ft³/s, Sept. 22.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.4	0.85	12	1.4	2.2	3.8	5.6	6.1	1.6	0.98	1.2	0.70
2	1.3	0.85	2.7	1.3	2.1	2.4	44	3.8	1.6	0.98	0.95	0.63
3	1.2	0.85	1.9	1.4	2.0	2.1	21	3.6	10	0.98	0.85	0.60
4	0.98	11	1.6	1.3	2.4	2.3	8.6	3.4	2.7	0.98	0.90	0.53
5	0.98	1.7	1.6	4.1	2.4	2.3	6.7	2.9	2.1	1.9	2.9	0.53
6	0.98	1.1	1.6	2.4	2.3	2.3	5.6	2.8	5.2	3.4	2.4	0.53
7	0.98	1.0	3.4	1.5	2.2	2.5	5.0	2.8	2.7	1.6	0.98	0.53
8	0.98	0.85	4.2	4.3	2.5	5.7	5.1	2.5	1.8	35	8.2	0.51
9	0.96	0.85	9.1	2.0	2.6	2.3	4.5	2.3	2.4	e2.5	1.9	0.42
10	0.85	0.85	9.5	1.8	3.8	2.2	3.8	2.0	2.3	e2.0	0.85	0.41
11	0.85	0.85	4.4	1.6	2.1	2.2	3.3	2.0	1.8	e1.5	0.86	0.43
12	0.85	13	3.2	1.8	1.6	2.4	3.3	2.0	1.7	1.1	0.73	0.37
13	0.85	5.4	2.5	1.8	1.6	2.3	3.3	2.0	3.2	0.98	5.6	0.39
14	2.0	1.8	2.1	44	9.4	2.3	3.1	2.0	1.9	1.00	0.91	0.82
15	1.3	1.5	1.9	6.2	4.0	2.3	3.0	2.1	1.2	1.2	0.63	0.63
16	2.6	1.3	1.8	4.4	3.1	2.4	2.9	1.8	1.2	8.0	1.3	0.52
17	1.2	1.2	1.8	3.3	2.6	2.4	2.8	1.8	1.2	2.3	0.80	0.45
18	1.1	1.2	1.8	2.6	2.3	2.2	2.8	1.8	1.1	1.3	0.59	0.45
19	2.0	1.2	1.8	2.5	2.4	2.0	2.8	1.8	1.1	0.98	0.92	0.38
20	1.3	1.3	1.8	2.5	2.3	5.2	2.8	21	1.2	0.98	0.59	0.33
21	1.6	1.5	1.7	2.2	3.4	2.6	2.8	3.2	1.2	0.95	0.53	0.33
22	1.3	1.2	1.6	1.8	2.6	2.2	3.3	2.5	1.2	0.89	0.53	0.37
23	1.3	0.98	21	2.5	2.5	43	6.4	2.3	1.1	0.92	0.58	0.37
24	1.3	4.1	4.1	2.4	2.4	7.5	3.7	5.1	1.0	0.85	0.62	0.40
25	1.2	2.7	2.8	2.5	2.9	4.9	3.0	2.7	0.98	7.2	0.53	0.42
26	1.2	1.4	2.3	2.7	2.7	4.2	2.8	2.2	0.98	0.97	0.53	0.54
27	1.1	1.4	1.9	2.4	2.3	4.7	3.5	2.0	1.0	1.4	0.53	0.52
28	1.0	19	1.5	2.3	3.1	44	3.1	2.6	4.1	1.0	8.1	0.45
29	0.98	2.7	1.6	2.4	---	9.9	3.0	1.9	4.7	0.90	0.73	0.45
30	0.92	1.9	1.6	2.8	---	5.7	14	1.6	1.7	1.1	0.73	0.42
31	0.85	---	1.4	2.5	---	4.9	---	1.6	---	1.2	0.73	---
TOTAL	37.41	85.53	112.2	118.7	77.8	187.2	185.6	98.2	65.96	87.04	48.20	14.43
MEAN	1.21	2.85	3.62	3.83	2.78	6.04	6.19	3.17	2.20	2.81	1.55	0.48
MAX	2.6	19	21	44	9.4	44	44	21	10	35	8.2	0.82
MIN	0.85	0.85	1.4	1.3	1.6	2.0	2.8	1.6	0.98	0.85	0.53	0.33
CFSM	0.42	0.98	1.25	1.32	0.96	2.08	2.13	1.09	0.76	0.97	0.54	0.17
IN.	0.48	1.10	1.44	1.52	1.00	2.40	2.38	1.26	0.85	1.12	0.62	0.19

e Estimated

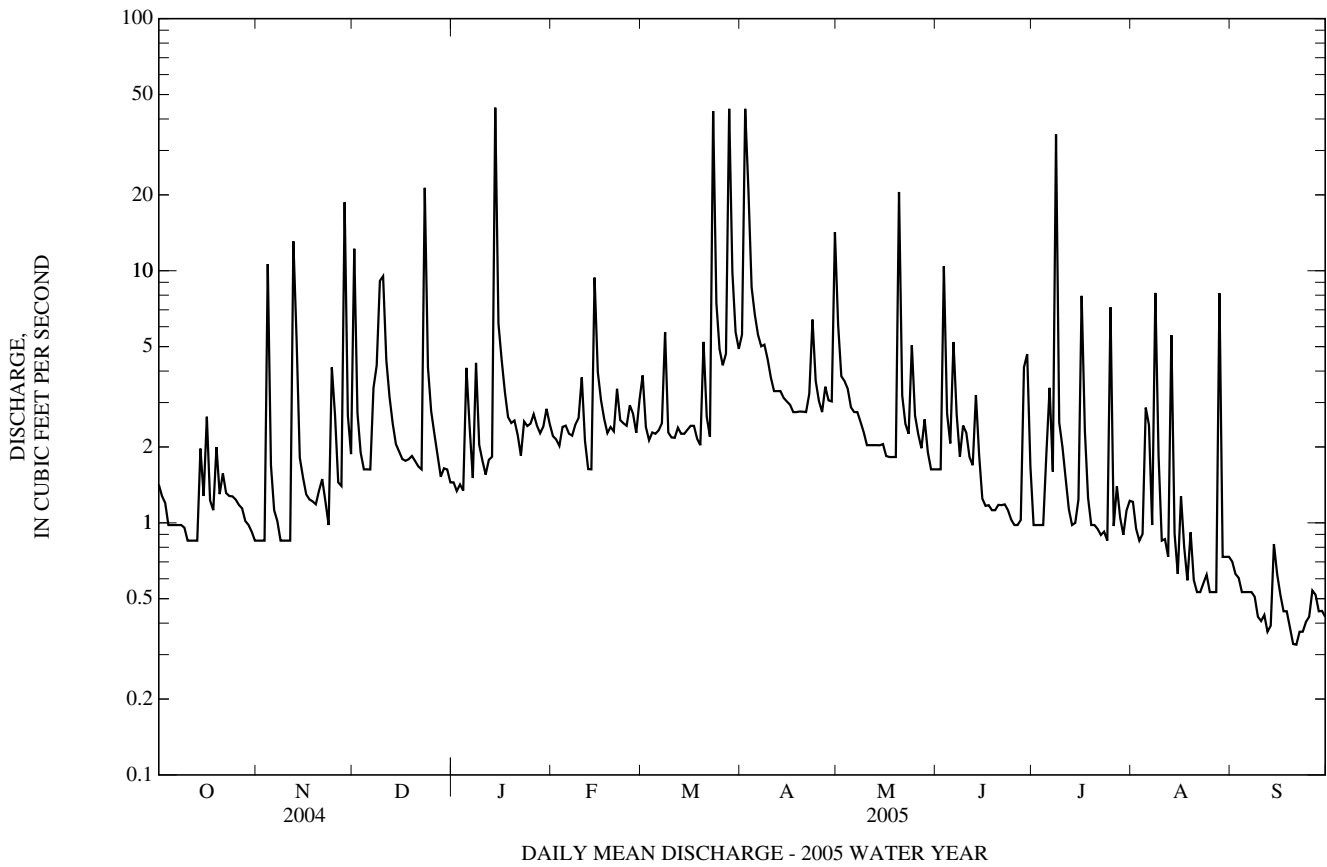
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 2005, BY WATER YEAR (WY)

MEAN	2.24	2.89	3.96	3.48	4.02	5.46	4.03	3.41	3.82	2.56	2.07	3.68
MAX	5.33	5.68	9.99	5.83	8.31	9.18	6.19	6.55	12.3	5.00	4.55	11.6
(WY)	(2004)	(2004)	(1997)	(1998)	(1998)	(2003)	(2005)	(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	0.48
(WY)	(2001)	(1999)	(1999)	(2002)	(2002)	(2002)	(2002)	(1999)	(1999)	(2002)	(2001)	(2005)

01583980 MINEBANK RUN AT LOCH RAVEN, MD—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1997 - 2005	
ANNUAL TOTAL	1,338.75		1,118.27		3.46	
ANNUAL MEAN	3.66		3.06		5.51 2003	
HIGHEST ANNUAL MEAN					1.30 2002	
LOWEST ANNUAL MEAN					150 Sep 16, 1999	
HIGHEST DAILY MEAN	45	Jul 27	44	Jan 14	0.13 Aug 23, 2002	
LOWEST DAILY MEAN	0.85	(a)	0.33	(b)	0.16 Aug 17, 2002	
ANNUAL SEVEN-DAY MINIMUM	0.90	Oct 28	0.37	Sep 19	(c)1,960 Sep 2, 1997	
MAXIMUM PEAK FLOW			554	Dec 23	7.94 Sep 2, 1997	
MAXIMUM PEAK STAGE			(d)4.80	Dec 23	0.08 Jul 20, 1999	
INSTANTANEOUS LOW FLOW			0.30	(f)	1.19	
ANNUAL RUNOFF (CFSM)	1.26		1.06		16.22	
ANNUAL RUNOFF (INCHES)	17.17		14.34		6.7	
10 PERCENT EXCEEDS	6.1		5.1		1.7	
50 PERCENT EXCEEDS	2.6		1.9		0.59	
90 PERCENT EXCEEDS	1.0		0.63			

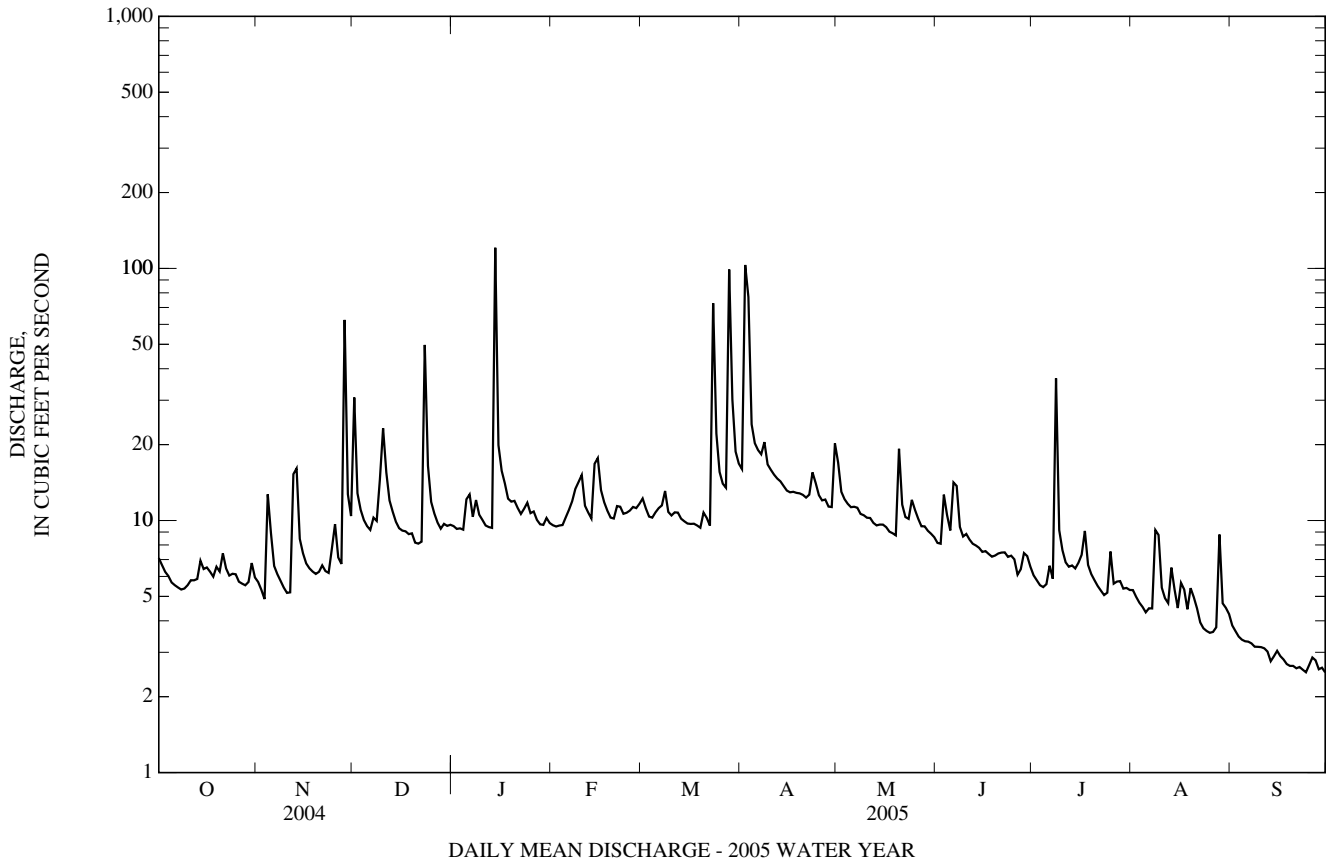
- a Oct. 10-13, Oct. 31-Nov. 3, Nov. 8-11.
- b Sept. 20, 21.
- c From rating curve extended above 150 ft³/s on basis of contracted-opening and flow-over-road measurement of peak flow.
- d High-water mark from crest-stage gage.
- f Sept. 20-22.



01584050 LONG GREEN CREEK AT GLEN ARM, MD—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1976 - 2005	
ANNUAL TOTAL	4,518.3		3,841.2			
ANNUAL MEAN	12.3		10.5		11.2	
HIGHEST ANNUAL MEAN					18.1	1979
LOWEST ANNUAL MEAN					3.02	2002
HIGHEST DAILY MEAN	180	Feb 6	121	Jan 14	408	Jan 26, 1978
LOWEST DAILY MEAN	4.1	(a)	2.5	(b)	(e)0.76	Aug 22, 2002
ANNUAL SEVEN-DAY MINIMUM	4.2	Sep 1	2.6	Sep 18	0.83	Aug 16, 2002
MAXIMUM PEAK FLOW			376	Mar 28	(c)3,250	Jul 1, 1984
MAXIMUM PEAK STAGE			3.73	Mar 28	6.70	Jul 1, 1984
INSTANTANEOUS LOW FLOW			2.4	(d)	(f)0.26	Feb 5, 2002
ANNUAL RUNOFF (CFSM)	1.31		1.12		1.19	
ANNUAL RUNOFF (INCHES)	17.88		15.20		16.24	
10 PERCENT EXCEEDS	18		15		18	
50 PERCENT EXCEEDS	9.8		9.2		8.2	
90 PERCENT EXCEEDS	5.3		4.1		3.2	

- a Sept. 2, 3, 5.
- b Sept. 24, 30.
- e Estimated.
- c From rating curve extended above 1,300 ft³/s.
- d Sept. 19-25, 27-30.
- f Result of freezeup.



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 mi².

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.--No estimated daily discharges. Records good. Several measurements of water temperature were made during the year.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Apr 2	1745	*1,090	*4.66	No other peak greater than base discharge.			

Minimum discharge, 11 ft³/s, Sept. 21-25, 28-30.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	38	24	109	42	47	53	68	80	37	25	20	16
2	35	25	62	41	46	50	390	62	37	24	19	15
3	33	25	50	40	47	47	351	58	55	22	18	15
4	31	42	45	40	48	46	121	55	53	22	17	14
5	28	54	42	52	49	47	97	53	43	25	17	14
6	27	30	40	63	51	49	90	53	72	38	16	13
7	27	27	45	51	54	55	84	52	100	28	17	13
8	26	26	47	54	59	62	116	50	48	219	30	13
9	26	25	47	51	67	51	85	48	41	51	28	13
10	26	25	117	46	70	48	78	47	41	34	22	13
11	24	25	79	44	55	48	75	47	38	29	19	13
12	24	59	55	44	50	50	72	45	36	27	18	12
13	24	92	49	43	48	46	69	43	33	27	17	12
14	27	40	44	390	62	45	67	44	32	28	17	12
15	26	34	41	101	97	43	65	45	30	28	17	15
16	26	32	40	70	61	43	63	43	29	29	21	14
17	26	30	40	62	57	43	63	41	28	32	23	13
18	24	30	39	52	52	43	62	41	28	27	19	13
19	28	29	39	54	48	42	62	40	28	25	20	12
20	28	29	33	57	47	45	61	95	28	24	21	12
21	33	29	39	50	52	46	60	60	28	22	19	11
22	29	29	37	47	54	43	61	47	27	22	16	11
23	27	28	143	64	50	236	74	47	26	21	16	11
24	26	30	93	53	49	122	73	80	25	20	15	11
25	26	43	55	54	50	71	61	68	24	33	15	11
26	24	34	49	53	49	62	60	52	24	23	15	12
27	24	31	43	47	50	58	60	45	25	21	15	12
28	24	184	46	46	51	260	57	43	29	22	34	11
29	24	62	43	47	---	168	57	41	31	20	19	11
30	29	49	42	51	---	85	94	40	28	21	18	11
31	26	---	42	48	---	73	---	39	---	20	17	---
TOTAL	846	1,222	1,695	1,957	1,520	2,180	2,796	1,604	1,104	1,009	595	379
MEAN	27.3	40.7	54.7	63.1	54.3	70.3	93.2	51.7	36.8	32.5	19.2	12.6
MAX	38	184	143	390	97	260	390	95	100	219	34	16
MIN	24	24	33	40	46	42	57	39	24	20	15	11
CFSM	0.76	1.13	1.51	1.75	1.50	1.95	2.58	1.43	1.02	0.90	0.53	0.35
IN.	0.87	1.26	1.75	2.02	1.57	2.25	2.88	1.65	1.14	1.04	0.61	0.39

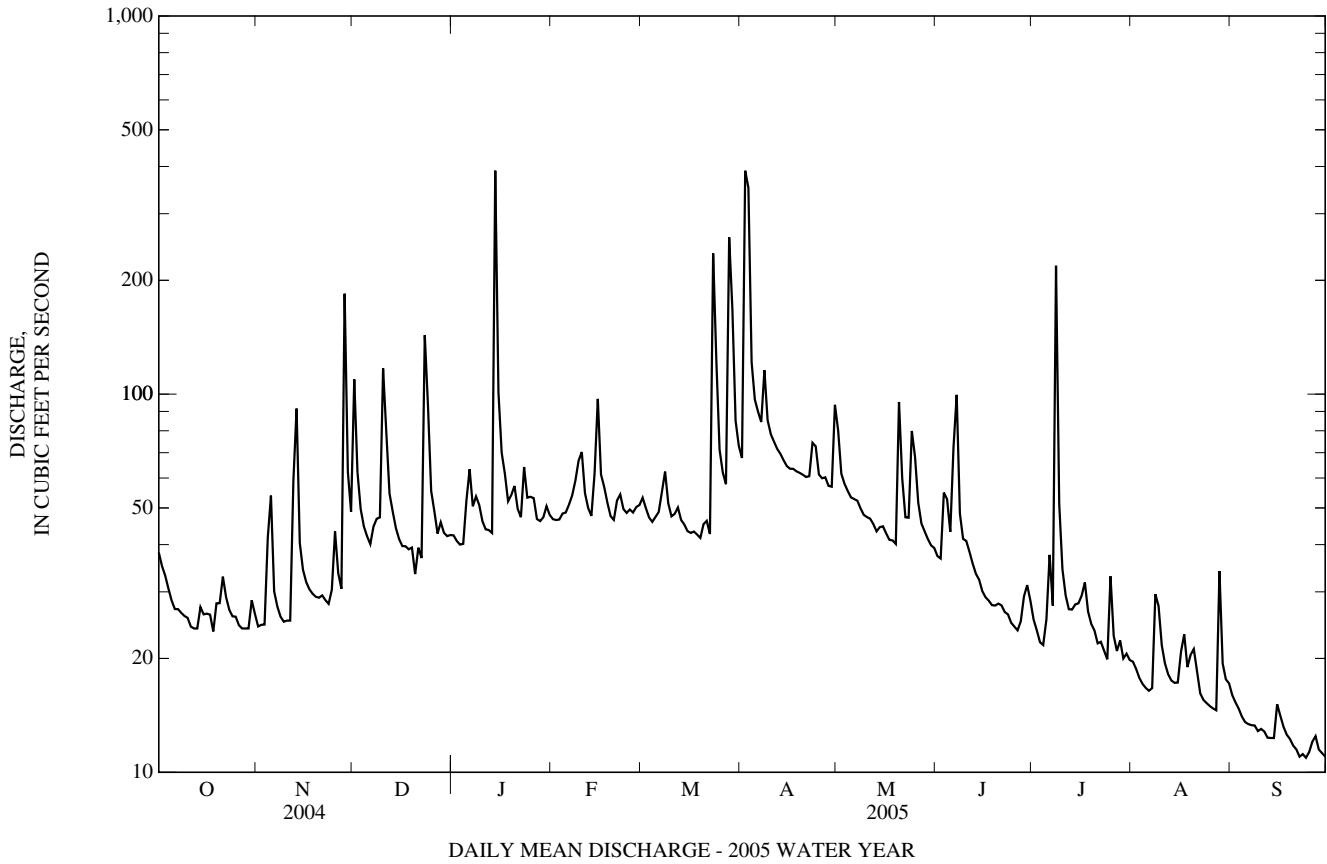
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1927 - 1970, 1999 - 2005, BY WATER YEAR (WY)

MEAN	30.5	39.2	42.0	49.7	58.1	60.3	59.5	48.9	42.5	35.2	37.2	32.3
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 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1927 - 1970, 1999 - 2005	
	ANNUAL TOTAL	21,879		16,907		
ANNUAL MEAN	59.8		46.3		44.3	
HIGHEST ANNUAL MEAN					81.5	1952
LOWEST ANNUAL MEAN					13.8	2002
HIGHEST DAILY MEAN	990	Feb 6	390	Jan 14	2,800	Aug 23, 1933
LOWEST DAILY MEAN	21	(a)	11	(b)	(e)0.90	Aug 22, 2002
ANNUAL SEVEN-DAY MINIMUM	22	Sep 1	11	Sep 19	1.2	Aug 17, 2002
MAXIMUM PEAK FLOW			1,090	Apr 2	(c)9,200	Aug 23, 1933
MAXIMUM PEAK STAGE			4.66	Apr 2	10.30	Aug 23, 1933
INSTANTANEOUS LOW FLOW			11	(b)	(d)1.1	Aug 21, 2002
ANNUAL RUNOFF (CFSM)	1.66		1.28		1.23	
ANNUAL RUNOFF (INCHES)	22.55		17.42		16.69	
10 PERCENT EXCEEDS	97		71		73	
50 PERCENT EXCEEDS	47		41		32	
90 PERCENT EXCEEDS	25		16		15	

- a Sept. 6, 14.
- b Sept. 21-25, 28-30.
- e Estimated.
- c From rating curve extended above 2,300 ft³/s on basis of slope-area measurement of peak flow.
- d Measured discharge of 1.1 ft³/s, Aug. 21, 2002, may have been lower during period of questionable record.



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 mi².

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 ft³/s which are fair, and 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 750 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan 14	0430	896	4.15	Jul 16	2155	*904	*4.16
Mar 28	1325	798	4.03				

Minimum discharge, 0.06 ft³/s, Oct. 1-5, 18, 23-26.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.10	0.19	20	e0.90	e1.3	5.9	2.6	4.1	0.50	0.43	0.31	0.27
2	0.06	0.24	2.0	e0.78	e1.4	2.6	72	1.4	0.48	0.32	0.29	0.24
3	0.07	0.27	1.3	e0.80	e1.6	1.9	28	1.2	13	0.26	0.26	0.24
4	0.06	19	1.1	e0.85	e1.8	1.7	3.9	1.1	1.5	0.30	0.24	0.24
5	0.08	2.0	1.1	4.5	e1.8	1.8	2.8	1.1	0.87	2.9	1.1	0.23
6	0.09	0.83	0.97	2.7	e1.9	1.8	2.2	1.1	6.3	4.6	2.7	0.23
7	0.10	0.63	2.8	1.2	e2.0	1.9	2.1	1.00	2.2	1.1	0.20	0.22
8	0.11	0.71	4.0	5.8	e2.2	6.9	2.3	0.91	0.74	51	30	0.24
9	0.13	0.67	14	1.4	2.3	1.8	1.7	0.84	0.81	1.6	4.4	0.20
10	0.13	0.64	10	1.2	4.0	1.6	1.6	0.79	0.94	0.82	0.49	0.22
11	0.13	0.71	3.4	1.1	1.7	1.7	1.4	0.73	0.50	0.89	0.46	0.20
12	0.15	21	1.5	1.5	1.5	1.6	1.3	0.70	0.43	0.54	0.35	0.18
13	0.16	6.6	1.2	1.9	1.5	1.4	1.3	0.59	1.3	0.47	24	0.16
14	1.4	1.1	1.1	128	12	1.3	1.2	0.60	0.66	0.66	2.1	0.17
15	0.19	0.88	0.97	6.3	4.6	1.6	1.1	0.72	0.38	1.0	0.57	1.0
16	2.6	0.67	0.95	3.1	3.2	1.4	1.1	1.7	0.37	33	1.1	0.21
17	0.23	0.64	0.86	2.4	2.1	1.3	1.1	0.63	0.35	5.6	0.74	0.16
18	0.08	0.64	0.86	1.8	1.7	1.2	1.1	0.54	0.31	0.51	0.34	0.15
19	1.1	0.64	0.89	e1.7	1.6	1.2	1.1	0.49	0.28	0.27	1.8	0.12
20	0.16	0.95	0.73	e1.6	1.6	4.3	0.98	32	0.29	0.19	0.48	0.12
21	0.34	0.99	0.69	1.6	3.6	1.8	0.97	2.0	0.28	0.16	0.41	0.14
22	0.10	0.64	0.79	1.5	2.0	1.4	1.0	1.1	0.27	0.17	0.35	0.23
23	0.07	0.64	32	e1.6	1.6	92	11	0.93	0.23	0.16	0.24	0.27
24	0.08	3.6	3.3	e1.6	2.5	8.0	2.2	3.2	0.20	0.14	0.25	0.23
25	0.07	1.6	1.5	e1.5	3.9	3.3	1.3	1.2	0.19	15	0.18	0.16
26	0.08	0.66	1.2	e1.4	3.1	2.6	1.2	0.90	0.17	0.40	0.20	0.50
27	0.11	0.53	1.1	e1.4	2.0	3.9	1.4	0.78	0.80	0.58	0.23	0.47
28	0.10	45	e1.0	e1.3	3.5	92	1.0	1.1	5.8	0.41	7.8	0.10
29	0.10	2.0	e0.90	e1.3	---	9.3	1.1	0.76	2.5	0.20	0.36	0.12
30	0.13	1.2	e1.0	e1.6	---	3.6	15	0.61	0.94	0.22	0.25	0.15
31	0.16	---	e0.90	e1.3	---	2.5	---	0.56	---	0.28	0.25	---
TOTAL	8.47	115.87	114.11	185.63	74.0	265.3	167.05	65.38	43.59	124.18	82.45	7.17
MEAN	0.27	3.86	3.68	5.99	2.64	8.56	5.57	2.11	1.45	4.01	2.66	0.24
MAX	2.6	45	32	128	12	92	72	32	13	51	30	1.0
MIN	0.06	0.19	0.69	0.78	1.3	1.2	0.97	0.49	0.17	0.14	0.18	0.10
CFSM	0.10	1.41	1.35	2.19	0.97	3.13	2.04	0.77	0.53	1.47	0.97	0.09
IN.	0.12	1.58	1.55	2.53	1.01	3.62	2.28	0.89	0.59	1.69	1.12	0.10

e Estimated

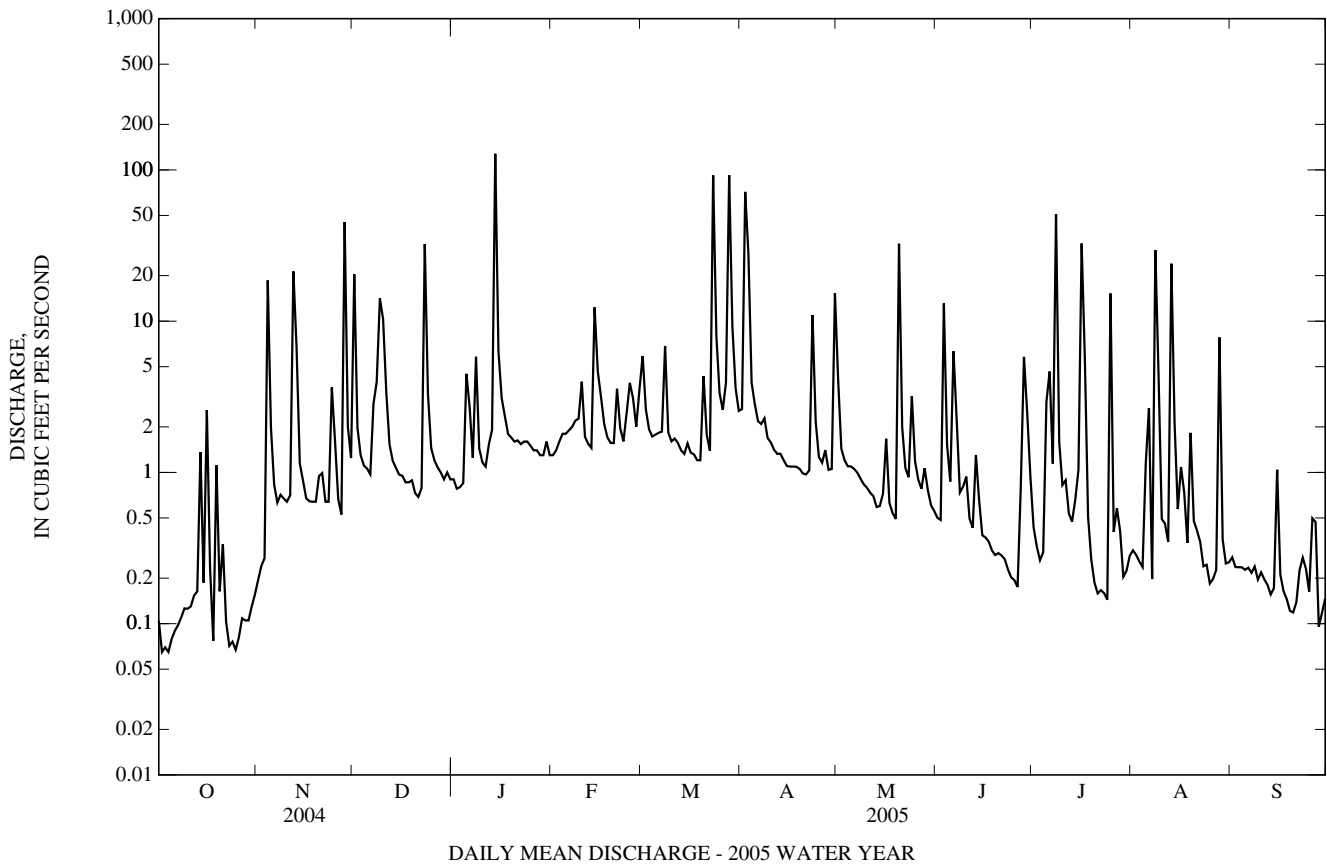
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1995 - 2005, BY WATER YEAR (WY)

MEAN	4.13	4.46	5.28	5.96	5.36	7.23	4.71	4.58	5.85	4.09	3.06	5.17
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	0.27	1.02	0.95	2.44	0.84	3.35	1.99	1.64	1.44	0.41	0.96	0.24
(WY)	(2005)	(1999)	(1999)	(2000)	(2002)	(2004)	(1995)	(1997)	(1995)	(1997)	(1995)	(2005)

01585090 WHITEMARSH RUN NEAR FULLERTON, MD—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1995 - 2005	
ANNUAL TOTAL	1,394.41		1,253.20		5.14	
ANNUAL MEAN	3.81		3.43		2.75	
HIGHEST ANNUAL MEAN					9.11	2003
LOWEST ANNUAL MEAN					2.75	2002
HIGHEST DAILY MEAN	149	Jul 27	128	Jan 14	418	(b)
LOWEST DAILY MEAN	0.06	(a)	0.06	(a)	0.00	Aug 11, 2002
ANNUAL SEVEN-DAY MINIMUM	0.08	Oct 1	0.08	Oct 1	0.00	Aug 11, 2002
MAXIMUM PEAK FLOW			904	Jul 16	(c)4,660	Jun 13, 2003
MAXIMUM PEAK STAGE			4.16	Jul 16	6.60	Jun 13, 2003
INSTANTANEOUS LOW FLOW			0.06	(d)	0.00	(f)
ANNUAL RUNOFF (CFSM)	1.40		1.26		1.88	
ANNUAL RUNOFF (INCHES)	19.00		17.08		25.60	
10 PERCENT EXCEEDS	5.9		4.4		11	
50 PERCENT EXCEEDS	1.6		1.0		1.5	
90 PERCENT EXCEEDS	0.40		0.16		0.36	

- a Oct. 2, 4.
- b Aug. 11-23, 2002.
- c From rating curve extended above 120 ft³/s.
- d Oct. 1-5, 18, 23-26.
- f Aug. 26, 1995, Aug. 14, 1999, June 17, July 23, Aug. 10-24, 2002.



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 mi².

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 ft³/s and fair below except those for estimated daily discharges (ice effect, plugged intake), which are poor. Several measurements of water temperature were made during the year.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 250 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar 28	1300	*366	*4.06	Jul 16	2200	325	3.76

Minimum discharge, 0.00 ft³/s, Sept. 12-15, 19-26, 29, 30.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.31	0.35	16	0.45	e0.40	4.1	1.4	2.5	0.26	0.25	0.19	0.40
2	0.27	0.36	2.0	0.41	e0.42	2.0	36	0.55	0.27	0.22	0.16	0.11
3	0.23	0.37	0.95	0.42	e0.54	1.1	14	0.45	8.0	0.21	0.16	0.09
4	0.20	14	0.64	0.42	e0.58	0.78	1.5	0.41	0.88	0.21	0.20	0.08
5	0.16	1.9	0.54	3.9	e0.60	0.79	1.1	0.39	0.40	2.2	0.44	0.13
6	0.25	0.43	0.48	2.9	e0.62	0.83	1.0	0.39	5.5	2.4	1.0	0.06
7	0.28	0.36	3.3	0.84	e0.65	0.82	0.99	0.39	2.0	1.00	0.21	0.06
8	0.29	0.34	3.2	5.6	e0.72	3.2	1.0	0.38	0.45	25	9.9	0.05
9	0.28	0.32	11	1.3	1.2	0.72	0.64	0.54	0.61	0.55	2.3	0.05
10	0.28	0.32	8.4	0.83	2.1	0.60	0.63	0.34	1.3	0.28	0.29	0.05
11	0.26	0.32	3.9	0.67	0.67	0.68	0.60	0.34	0.38	0.24	0.22	0.04
12	0.26	19	1.5	0.63	0.63	0.62	0.52	0.33	0.38	0.22	0.21	0.02
13	0.27	6.2	1.2	0.74	0.55	0.54	0.53	0.32	0.52	0.35	4.5	0.00
14	7.4	1.2	0.60	49	7.3	0.56	0.55	0.35	0.36	0.25	0.45	0.00
15	1.2	0.52	0.50	2.3	2.8	0.45	0.50	0.37	0.27	0.31	0.21	0.31
16	3.5	0.40	0.48	1.3	1.8	0.45	0.48	0.84	0.24	16	1.6	0.08
17	0.73	0.40	0.48	0.89	0.99	0.45	0.62	0.33	0.19	4.2	0.59	0.04
18	0.34	0.39	0.45	0.63	0.69	0.45	0.48	0.33	0.19	0.43	0.29	0.03
19	2.5	0.38	0.51	0.60	0.55	0.43	0.48	0.33	0.20	e0.32	2.4	0.01
20	0.52	0.64	0.42	e0.54	0.53	2.2	0.48	19	0.23	e0.25	0.30	0.00
21	0.94	0.64	0.38	e0.50	1.9	0.69	0.48	0.81	0.24	e0.21	0.20	0.01
22	0.43	0.36	0.39	0.46	0.80	0.46	0.50	0.35	0.46	e0.19	0.15	0.02
23	0.33	0.37	e1.0	e0.52	0.63	46	4.3	0.36	0.25	e0.19	0.13	0.00
24	0.33	3.2	e30	0.51	1.2	0.74	0.92	2.6	0.23	e0.18	0.11	0.00
25	0.40	2.5	e1.8	e0.50	2.3	0.55	0.57	0.63	0.24	7.5	0.08	0.00
26	0.31	0.67	e0.60	e0.46	1.9	0.69	0.51	0.48	0.22	0.23	0.08	0.19
27	0.30	0.56	e0.58	e0.44	1.0	2.6	0.86	0.36	0.48	0.32	0.11	0.22
28	0.29	35	e0.56	e0.40	2.0	62	0.66	0.60	0.74	0.21	5.3	0.05
29	0.31	2.0	0.53	e0.40	---	6.4	0.76	0.32	3.5	0.18	0.24	0.01
30	0.33	0.99	0.49	e0.44	---	1.1	9.8	0.33	0.78	0.19	0.19	0.00
31	0.36	---	0.48	e0.40	---	0.82	---	0.38	---	0.19	0.18	---
TOTAL	23.86	94.49	93.36	79.40	36.07	143.82	82.86	36.10	29.77	64.48	32.39	2.11
MEAN	0.77	3.15	3.01	2.56	1.29	4.64	2.76	1.16	0.99	2.08	1.04	0.07
MAX	7.4	35	30	49	7.3	62	36	19	8.0	25	9.9	0.40
MIN	0.16	0.32	0.38	0.40	0.40	0.43	0.48	0.32	0.19	0.18	0.08	0.00
CFSM	0.57	2.35	2.25	1.91	0.96	3.46	2.06	0.87	0.74	1.55	0.78	0.05
IN.	0.66	2.62	2.59	2.20	1.00	3.99	2.30	1.00	0.83	1.79	0.90	0.06

e Estimated

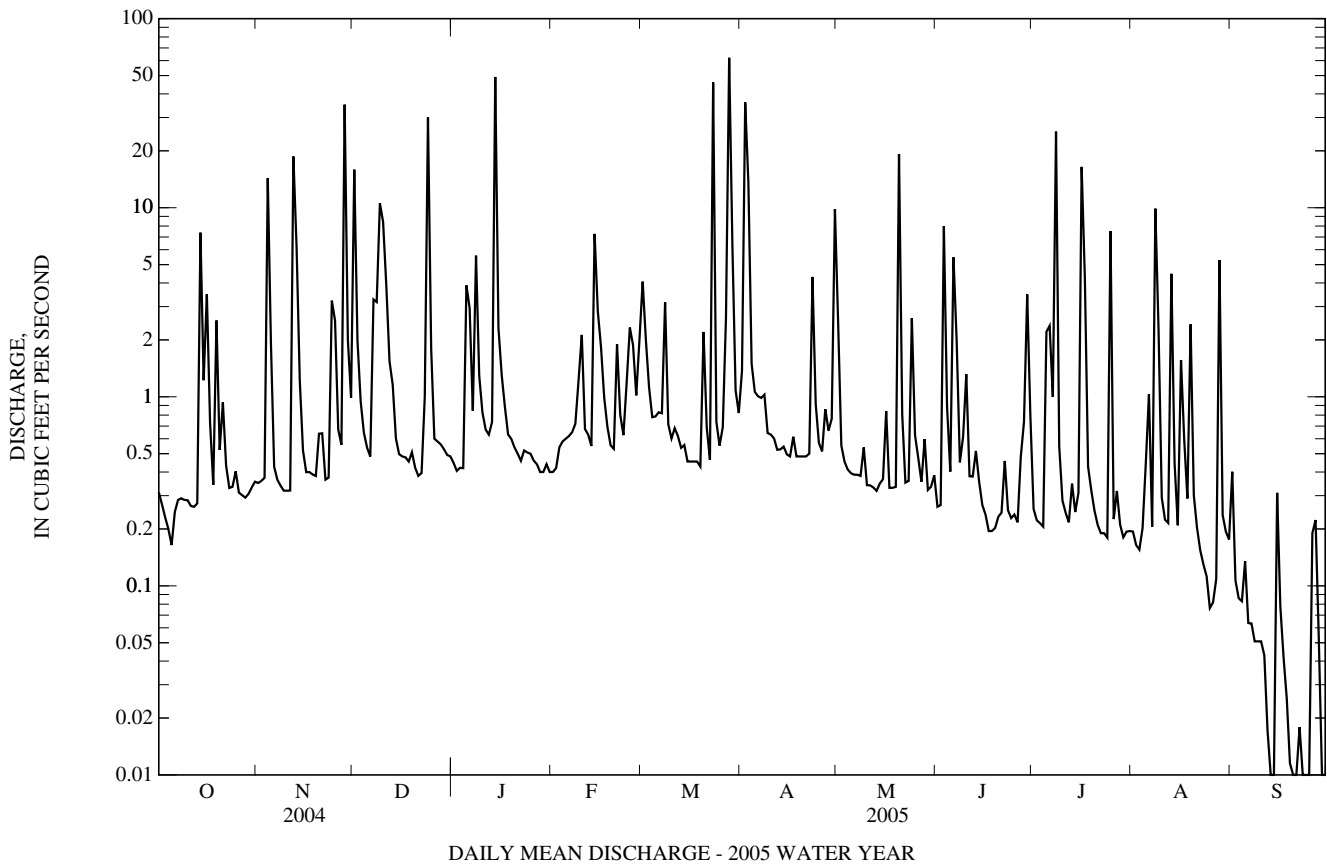
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 2005, BY WATER YEAR (WY)

MEAN	1.65	2.26	2.59	2.69	2.47	3.84	2.11	1.87	2.10	1.71	1.32	2.04
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	0.07
(WY)	(2001)	(2002)	(2002)	(2004)	(2002)	(2004)	(1995)	(1997)	(1994)	(1997)	(2001)	(2005)

01585095 NORTH FORK WHITEMARSH RUN NEAR WHITE MARSH, MD—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1992 - 2005	
ANNUAL TOTAL	682.89		718.71		2.24	
ANNUAL MEAN	1.87		1.97		3.74	
HIGHEST ANNUAL MEAN					0.81	
LOWEST ANNUAL MEAN					2002	
HIGHEST DAILY MEAN	43	Sep 28	62	Mar 28	140	Sep 16, 1999
LOWEST DAILY MEAN	0.15	Sep 2	0.00	(a)	0.00	(b)
ANNUAL SEVEN-DAY MINIMUM	0.18	Aug 31	0.01	Sep 19	0.00	Aug 6, 2002
MAXIMUM PEAK FLOW			366	Mar 28	(c)540	Jun 13, 2003
MAXIMUM PEAK STAGE			4.06	Mar 28	5.36	Jun 13, 2003
INSTANTANEOUS LOW FLOW			0.00	(d)	0.00	(f)
ANNUAL RUNOFF (CFSM)	1.39		1.47		1.67	
ANNUAL RUNOFF (INCHES)	18.96		19.95		22.69	
10 PERCENT EXCEEDS	3.5		3.2		5.0	
50 PERCENT EXCEEDS	0.58		0.48		0.62	
90 PERCENT EXCEEDS	0.27		0.18		0.14	

- a Sept. 13, 14, 20, 23-25, 30.
- b Many days.
- c From rating curve extended above 200 ft³/s.
- d Sept. 12-15, 19-26, 29, 30.
- f No flow at times 1999, 2002, 2005.



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 mi².

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 rock control. Datum of gage is 37.52 ft above National Geodetic Vertical Datum of 1929. Prior to June 12, 2002, water-stage recorder at site on left bank upstream side of Route 7 bridge at datum of 38.96 ft above National Geodetic Vertical Datum of 1929. From June 12, 2002 to September 30, 2004, gage located 2,500 ft upstream at Rt. 95 bridge at same datum.

REMARKS.--Records good except those for estimated daily discharges (equipment malfunction, ice effect), which are fair. Low flow affected by operations of sand and gravel plant in vicinity of gage. 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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov 28	0500	792	8.27	Mar 28	1415	*1,140	*10.26
Dec 23	1630	753	8.04	Jul 16	2300	912	8.97
Jan 14	0900	924	9.04				

Minimum discharge, 0.06 ft³/s, Sept. 30.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.7	5.5	69	4.1	e4.8	17	6.8	13	2.5	2.1	1.5	1.1
2	4.0	5.7	8.3	3.8	e5.8	9.8	195	4.3	2.3	1.8	1.4	0.81
3	3.0	5.6	5.5	3.7	e6.4	7.9	94	3.9	38	1.6	1.3	1.0
4	3.0	39	4.5	3.6	e6.6	7.2	11	3.6	6.5	1.6	1.2	1.00
5	2.0	11	4.1	13	e6.8	7.0	7.3	3.3	3.4	4.1	1.3	0.76
6	1.6	4.8	3.8	9.7	e7.4	7.1	6.0	3.3	24	17	6.2	0.76
7	1.7	3.9	11	5.1	e8.0	7.2	6.0	3.2	11	3.1	1.4	0.78
8	2.7	3.3	17	19	e9.0	17	6.6	3.0	3.3	145	52	0.76
9	2.7	3.2	48	6.1	11	7.3	5.0	3.1	2.7	5.9	20	0.75
10	2.7	e3.2	50	4.8	14	6.5	4.5	3.6	4.0	2.5	3.1	0.71
11	2.6	e3.2	20	4.2	9.2	6.6	4.2	2.9	2.4	2.2	1.6	0.65
12	2.6	e10	11	4.0	9.4	6.5	4.0	2.8	2.2	2.0	2.4	0.64
13	2.7	44	10	4.0	8.8	6.0	4.0	2.7	2.5	2.1	32	0.63
14	30	8.9	7.9	286	45	5.9	3.7	2.9	2.7	2.0	7.5	0.63
15	8.4	5.6	6.3	20	19	5.8	3.4	3.2	2.0	3.7	4.1	2.0
16	17	3.4	5.0	12	9.9	5.8	3.4	6.9	1.9	89	3.7	0.96
17	7.2	3.0	e4.6	8.9	7.7	5.8	3.2	2.9	1.7	37	3.1	0.74
18	4.4	3.0	e4.0	e8.0	6.6	5.7	3.1	2.9	1.7	3.3	1.9	0.62
19	12	3.0	e5.0	e7.0	6.2	5.7	3.1	2.8	1.8	2.2	7.2	0.58
20	7.2	3.4	2.1	e6.0	6.1	11	3.0	106	1.8	1.8	2.2	0.59
21	7.6	4.0	2.6	e5.8	11	7.2	2.9	8.0	1.8	1.7	2.1	0.56
22	6.4	3.0	3.1	e5.6	7.3	6.0	3.0	3.7	2.1	1.7	1.3	0.57
23	6.0	3.0	87	e5.6	6.5	256	21	3.1	1.8	1.5	1.1	0.59
24	6.0	10	13	e5.6	8.1	18	6.5	11	1.7	1.4	1.1	0.61
25	6.0	9.1	4.3	e5.4	10	7.7	3.3	4.5	1.7	40	1.0	0.62
26	5.7	3.6	3.9	e5.2	10	5.9	3.1	3.2	1.7	3.9	1.0	0.90
27	5.6	3.0	e3.6	e5.0	7.8	7.5	3.6	2.9	5.4	4.1	1.1	1.3
28	5.6	168	3.3	e5.0	11	247	2.9	3.5	6.5	2.7	25	0.90
29	5.6	10	4.4	e5.0	---	24	2.8	2.9	7.7	1.4	1.9	0.73
30	5.7	6.4	4.4	e5.0	---	9.4	38	2.7	4.2	1.5	1.2	0.57
31	5.6	---	4.2	e4.8	---	e5.5	---	2.7	---	1.5	1.1	---
TOTAL	187.0	392.8	430.9	491.0	279.4	753.0	464.4	228.5	153.0	391.4	193.0	23.82
MEAN	6.03	13.1	13.9	15.8	9.98	24.3	15.5	7.37	5.10	12.6	6.23	0.79
MAX	30	168	87	286	45	256	195	106	38	145	52	2.0
MIN	1.6	3.0	2.1	3.6	4.8	5.5	2.8	2.7	1.7	1.4	1.0	0.56
CFSM	0.79	1.72	1.83	2.08	1.31	3.19	2.03	0.97	0.67	1.66	0.82	0.10
IN.	0.91	1.92	2.11	2.40	1.37	3.68	2.27	1.12	0.75	1.91	0.94	0.12

e Estimated

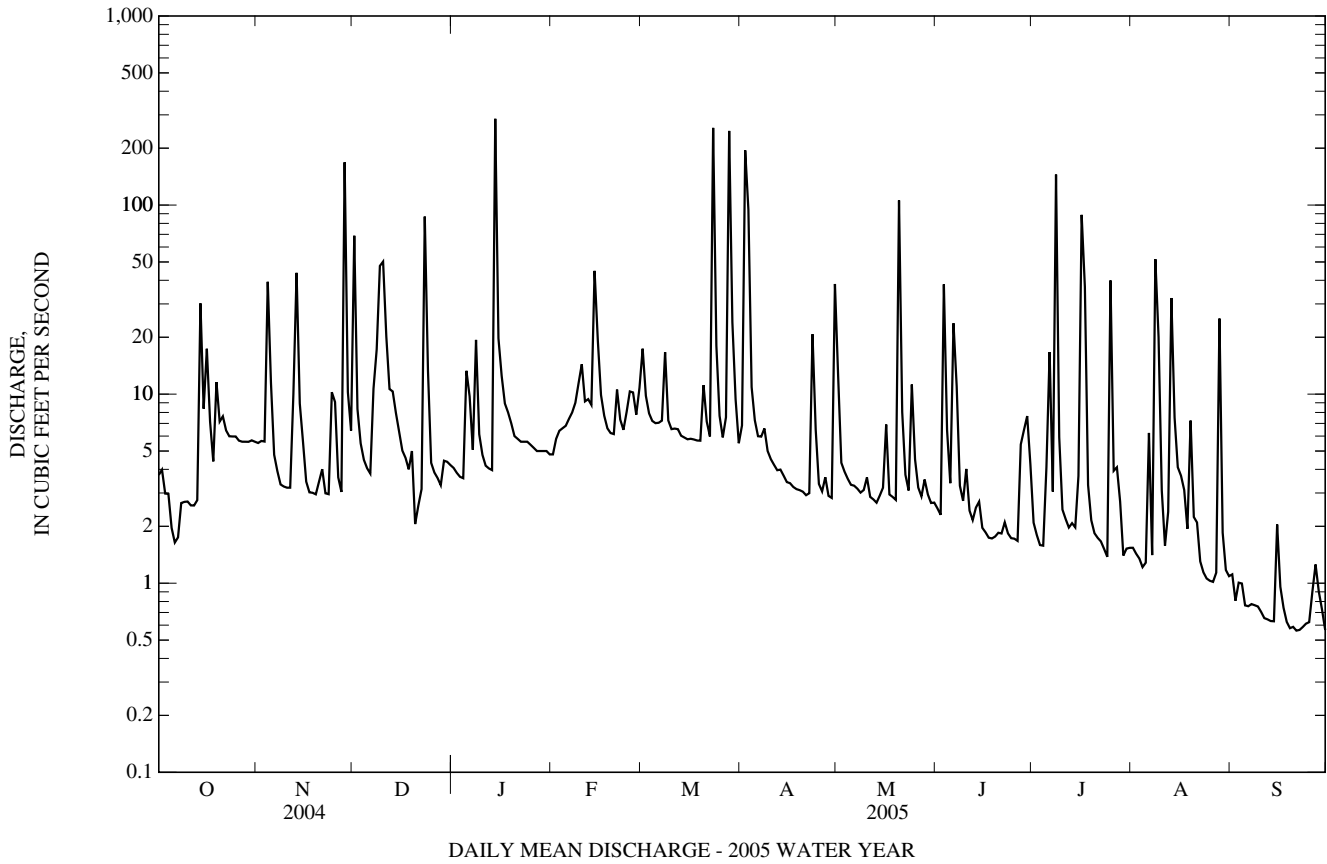
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1959 - 1989, 1992 - 2005, BY WATER YEAR (WY)

MEAN	8.26	10.7	14.2	14.4	16.0	17.8	13.3	11.8	10.3	9.76	9.99	11.2
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	0.79
(WY)	(2001)	(1966)	(1966)	(1981)	(2002)	(1969)	(1985)	(1969)	(1986)	(1966)	(1962)	(2005)

01585100 WHITEMARSH RUN AT WHITE MARSH, MD—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1959 - 1989, 1992 - 2005	
	ANNUAL TOTAL	5,486.33		3,988.22		
ANNUAL MEAN	15.0		10.9		12.5	
HIGHEST ANNUAL MEAN					29.3	
LOWEST ANNUAL MEAN					4.27	
HIGHEST DAILY MEAN	324	Feb 6	286	Jan 14	980	Sep 16, 1999
LOWEST DAILY MEAN	0.45	(a)	0.56	Sep 21	0.10	Sep 11, 1966
ANNUAL SEVEN-DAY MINIMUM	0.47	Sep 1	0.59	Sep 18	0.31	Aug 6, 2002
MAXIMUM PEAK FLOW			1,140	Mar 28	(b)8,000	Aug 1, 1971
MAXIMUM PEAK STAGE			10.26	Mar 28	(c)14.05	Aug 1, 1971
INSTANTANEOUS LOW FLOW			0.06	Sep 30	(d)0.00	Mar 20, 1965
ANNUAL RUNOFF (CFSM)	1.97		1.44		1.65	
ANNUAL RUNOFF (INCHES)	26.82		19.50		22.40	
10 PERCENT EXCEEDS	29		17		23	
50 PERCENT EXCEEDS	5.0		4.1		4.2	
90 PERCENT EXCEEDS	1.7		1.3		1.4	

- a Sept. 4-6, 11,12.
- b From rating curve extended above 1,300 ft³/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 (prior to June 12, 2002 at previous location upstream side of bridge and culvert).
- c At site upstream side of bridge and culvert, prior to June 12, 2002.
- d Result of construction work upstream from station.



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 mi².

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, equipment malfunction), 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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov 28	0500	160	2.38	Mar 28	1345	*211	*3.15
Dec 23	1615	133	2.00	Apr 2	1500	127	1.92
Jan 14	0815	158	2.35	Apr 3	0130	121	1.85
Mar 23	1300	137	2.06	Jul 16	2230	150	2.24

Minimum discharge, 0.03 ft³/s, Sept. 30.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.82	5.3	25	e1.2	e0.62	6.0	2.8	5.6	1.1	e0.80	0.48	0.37
2	0.40	2.2	6.3	e1.1	e0.64	3.5	55	1.5	1.1	e0.55	0.40	0.33
3	0.47	1.8	3.9	1.1	e0.68	2.1	36	e1.1	9.6	e0.42	0.41	0.31
4	0.43	12	2.8	1.1	e0.86	1.7	8.1	e0.90	4.2	e0.42	0.48	0.31
5	0.40	4.3	2.2	4.5	e0.92	1.4	4.4	e0.85	2.0	e1.3	0.50	0.35
6	0.59	1.7	2.2	4.7	e0.98	1.5	3.4	e0.80	5.1	e3.2	1.1	0.49
7	1.2	1.1	4.4	2.7	e1.0	1.6	2.9	e0.75	6.4	e1.2	1.0	0.88
8	0.65	1.1	7.9	8.2	e1.1	5.4	2.8	e0.70	1.8	e3.1	3.8	0.68
9	0.65	1.1	13	3.5	e1.4	1.7	2.6	e0.75	1.1	5.4	6.0	0.20
10	0.91	1.3	19	2.7	3.8	1.1	2.0	e1.3	1.9	2.3	1.4	0.20
11	1.4	1.3	8.4	2.2	1.7	1.1	1.6	0.77	1.4	1.0	0.57	0.18
12	1.6	17	4.6	2.2	1.1	1.1	1.6	0.61	0.98	0.66	0.50	0.19
13	2.0	13	3.5	2.2	0.94	0.70	1.6	0.40	0.65	0.65	0.83	0.16
14	11	3.1	2.7	59	10	0.86	1.1	0.44	0.91	0.65	0.99	0.13
15	3.3	2.1	2.2	8.8	e5.5	0.97	1.1	0.64	0.65	1.2	0.40	0.52
16	6.7	1.9	1.9	3.7	3.4	0.82	1.1	1.0	0.77	13	0.87	0.48
17	3.9	1.8	1.6	2.2	2.3	0.65	1.1	0.40	0.65	15	1.6	0.40
18	1.8	1.8	1.1	1.6	1.3	0.65	1.1	0.40	0.65	3.8	0.40	0.40
19	3.9	1.6	1.1	e1.1	1.1	0.57	1.1	0.40	0.65	1.8	1.1	0.25
20	3.4	1.7	1.1	e0.82	0.83	2.0	1.3	24	0.65	1.0	0.67	0.10
21	3.3	2.4	1.0	e0.60	2.4	1.8	1.5	5.7	0.85	0.75	0.40	0.11
22	2.8	2.2	0.94	e0.62	1.5	0.67	1.1	2.7	0.78	0.65	0.27	0.13
23	2.6	2.2	20	0.65	1.1	60	3.2	1.6	e0.55	0.62	0.35	0.13
24	2.6	3.0	6.7	0.65	1.3	15	2.4	4.3	e0.45	0.48	0.56	0.10
25	2.2	3.9	2.8	0.65	2.3	5.4	1.1	2.7	e0.45	7.3	0.36	0.10
26	2.1	1.9	1.9	e0.62	3.7	3.3	0.65	2.1	e0.45	1.6	0.40	0.18
27	3.5	0.87	1.6	e0.60	2.1	2.7	0.80	1.6	e1.6	0.98	0.40	0.90
28	1.6	44	e1.5	e0.60	2.5	e60	0.65	1.5	e1.8	1.4	3.7	0.42
29	1.6	6.7	e1.4	e0.62	---	e4.5	0.65	1.6	e1.8	0.44	0.76	0.55
30	2.5	3.9	e1.4	e0.64	---	e2.4	9.5	1.2	e1.0	0.51	0.40	0.08
31	2.5	---	e1.3	e0.70	---	e3.4	---	1.4	---	0.40	0.41	---
TOTAL	72.82	148.27	155.44	121.57	57.07	194.59	154.25	69.71	51.99	100.48	31.51	9.63
MEAN	2.35	4.94	5.01	3.92	2.04	6.28	5.14	2.25	1.73	3.24	1.02	0.32
MAX	11	44	25	59	10	60	55	24	9.6	31	6.0	0.90
MIN	0.40	0.87	0.94	0.60	0.62	0.57	0.65	0.40	0.45	0.40	0.27	0.08
CFSM	0.94	1.98	2.01	1.57	0.82	2.51	2.06	0.90	0.69	1.30	0.41	0.13
IN.	1.08	2.21	2.31	1.81	0.85	2.90	2.30	1.04	0.77	1.50	0.47	0.14

e Estimated

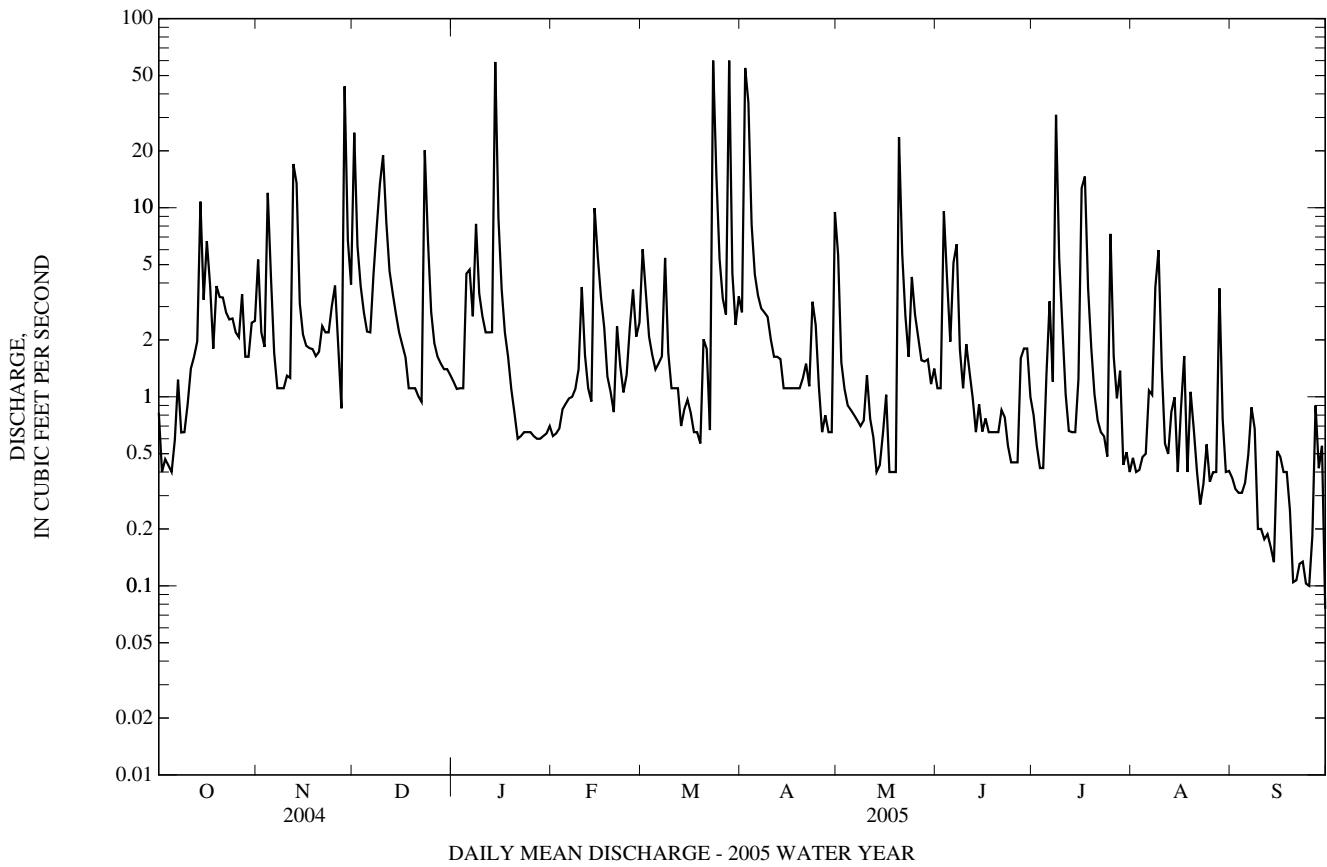
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2000 - 2005, BY WATER YEAR (WY)

MEAN	2.62	3.07	4.95	2.93	4.90	6.20	4.51	2.93	3.08	2.42	1.07	2.04
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	0.32
(WY)	(2002)	(2001)	(2002)	(2002)	(2002)	(2002)	(2001)	(2002)	(2002)	(2002)	(2002)	(2005)

01585104 HONEYGO RUN NEAR WHITE MARSH, MD—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 2000 - 2005	
ANNUAL TOTAL	1,311.75		1,167.33		3.39	
ANNUAL MEAN	3.58		3.20		1.14	
HIGHEST ANNUAL MEAN					5.57	2003
LOWEST ANNUAL MEAN					1.14	2002
HIGHEST DAILY MEAN	62	Feb 6	60	(a,e)	74	Feb 22, 2003
LOWEST DAILY MEAN	0.36	Aug 22	0.08	Sep 30	0.02	(b)
ANNUAL SEVEN-DAY MINIMUM	0.49	Aug 19	0.12	Sep 20	0.02	Aug 11, 2002
MAXIMUM PEAK FLOW			211	Mar 28	(c)226	Sep 23, 2003
MAXIMUM PEAK STAGE			3.15	Mar 28	3.38	Dec 17, 2000
INSTANTANEOUS LOW FLOW			0.03	Sep 30	0.02	(d)
ANNUAL RUNOFF (CFSM)	1.43		1.28		1.35	
ANNUAL RUNOFF (INCHES)	19.52		17.37		18.40	
10 PERCENT EXCEEDS	6.7		5.6		7.3	
50 PERCENT EXCEEDS	1.7		1.2		1.3	
90 PERCENT EXCEEDS	0.65		0.40		0.33	

- a March 23, 28 .
- b Aug. 14-17, 2002.
- c From rating curve extended above 90 ft³/s.
- d Aug. 13-18, 2002.
- e Estimated.



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 Register 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 mi².

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.--Records good except those for estimated daily discharges (ice effect, missing record, backwater), which are poor. Diurnal fluctuation (occasionally extensive) caused by ready-mixed concrete plant upstream from station. Several measurements of water temperature were made during the year.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 290 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec 23	1455	*393	*3.84	Jul 8	0640	371	3.76

Minimum discharge, 0.14 ft³/s, Sept. 30.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.66	e0.47	14	0.76	1.1	3.4	3.7	3.5	0.91	0.58	0.45	0.36
2	e0.67	e0.42	1.6	0.72	1.1	1.4	37	1.5	1.1	0.50	0.44	0.31
3	e0.59	e0.49	1.2	0.72	1.0	1.2	10	1.4	10	0.48	0.71	0.28
4	0.54	e12	1.1	0.71	1.7	1.1	3.1	2.2	1.6	0.45	0.59	0.28
5	0.59	e0.86	1.1	4.7	1.6	1.1	2.5	2.1	1.6	4.5	5.8	0.37
6	0.51	e0.73	1.00	2.1	1.5	1.2	2.3	1.9	6.7	5.9	1.9	e0.34
7	0.51	e0.68	3.7	0.92	1.4	1.2	2.4	1.7	1.7	2.4	0.73	e0.28
8	0.44	e0.60	3.0	4.6	1.4	4.4	2.4	1.6	1.2	37	13	e0.30
9	0.41	e0.60	12	1.0	1.4	1.2	1.8	1.5	1.9	1.1	1.6	e0.29
10	0.38	e0.60	6.5	0.94	2.7	1.1	1.7	e0.98	1.3	0.86	0.71	e0.26
11	0.38	e0.56	2.5	0.88	1.1	1.2	1.6	e0.88	1.0	0.81	0.62	e0.23
12	0.38	e14	1.5	0.87	1.1	1.1	1.5	0.87	0.99	0.79	0.38	e0.21
13	0.48	e2.0	1.2	1.3	1.0	0.99	1.4	0.91	2.3	0.80	3.0	e1.0
14	2.1	e0.80	1.1	44	11	0.95	1.5	0.92	0.85	0.82	0.41	e0.65
15	0.71	e0.74	1.0	e3.1	2.6	0.92	1.8	0.98	0.78	0.76	0.39	0.28
16	2.6	e0.72	1.00	e2.2	1.9	0.92	1.5	0.82	0.70	7.4	1.5	e0.28
17	0.76	e0.67	0.95	e1.8	1.3	0.91	1.6	0.77	0.61	1.7	0.53	e0.26
18	0.71	e0.65	0.90	e1.7	1.1	0.88	1.6	0.82	e0.65	0.83	0.32	e0.32
19	2.2	e0.65	0.97	e1.6	1.0	0.86	1.6	1.0	e0.51	e0.72	1.4	e0.30
20	0.84	e0.80	0.84	1.3	0.99	4.1	1.6	21	e0.53	e0.84	0.43	e0.30
21	1.6	e0.70	0.87	1.1	2.4	1.2	1.4	2.7	e0.51	e0.75	0.34	e0.27
22	1.2	e0.65	0.87	0.89	1.2	0.96	2.0	3.1	e0.48	e0.68	e0.34	e0.48
23	0.83	0.65	20	1.1	0.99	41	6.2	2.8	e0.46	0.64	e0.32	e1.0
24	0.85	4.9	2.0	0.92	1.4	3.5	e1.6	4.9	0.50	0.48	e0.30	0.33
25	e0.72	2.1	1.2	1.0	2.3	2.3	e1.2	1.5	0.37	6.6	e0.28	0.46
26	e0.65	0.77	1.0	1.4	1.8	2.1	1.1	1.2	0.33	0.64	0.25	1.0
27	e0.54	0.79	0.92	1.0	1.2	3.1	1.3	0.88	1.0	0.47	1.0	0.59
28	e0.50	23	0.90	0.92	2.1	34	1.5	2.0	8.4	0.59	e9.8	0.20
29	e0.50	1.4	0.91	0.96	---	4.1	1.4	0.93	6.3	0.50	e0.58	0.21
30	e0.50	1.2	0.82	1.6	---	2.4	15	0.92	0.96	0.47	0.46	0.16
31	e0.49	---	0.81	1.3	---	2.0	---	0.84	---	0.46	0.45	---
TOTAL	24.84	75.20	87.46	88.11	51.38	126.79	115.3	69.12	55.71	82.05	48.62	11.43
MEAN	0.80	2.51	2.82	2.84	1.83	4.09	3.84	2.23	1.86	2.65	1.57	0.38
MAX	2.6	23	20	44	11	41	37	21	10	37	13	1.0
MIN	0.38	0.42	0.81	0.71	0.99	0.86	1.1	0.77	0.33	0.45	0.25	0.16
CFSM	0.38	1.18	1.32	1.33	0.86	1.92	1.80	1.05	0.87	1.24	0.74	0.18
IN.	0.43	1.31	1.53	1.54	0.90	2.21	2.01	1.21	0.97	1.43	0.85	0.20

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1957 - 1965, 1966 - 1987, 1996 - 2005, BY WATER YEAR (WY)

MEAN	1.86	2.34	2.82	2.65	3.15	3.45	3.06	2.68	2.53	2.21	2.23	2.60
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)	(1977)	(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	0.38
(WY)	(2001)	(1982)	(1981)	(1981)	(2002)	(1981)	(1985)	(1963)	(1966)	(1966)	(1966)	(2005)

01585200 WEST BRANCH HERRING RUN AT IDLEWYLDE, MD—Continued

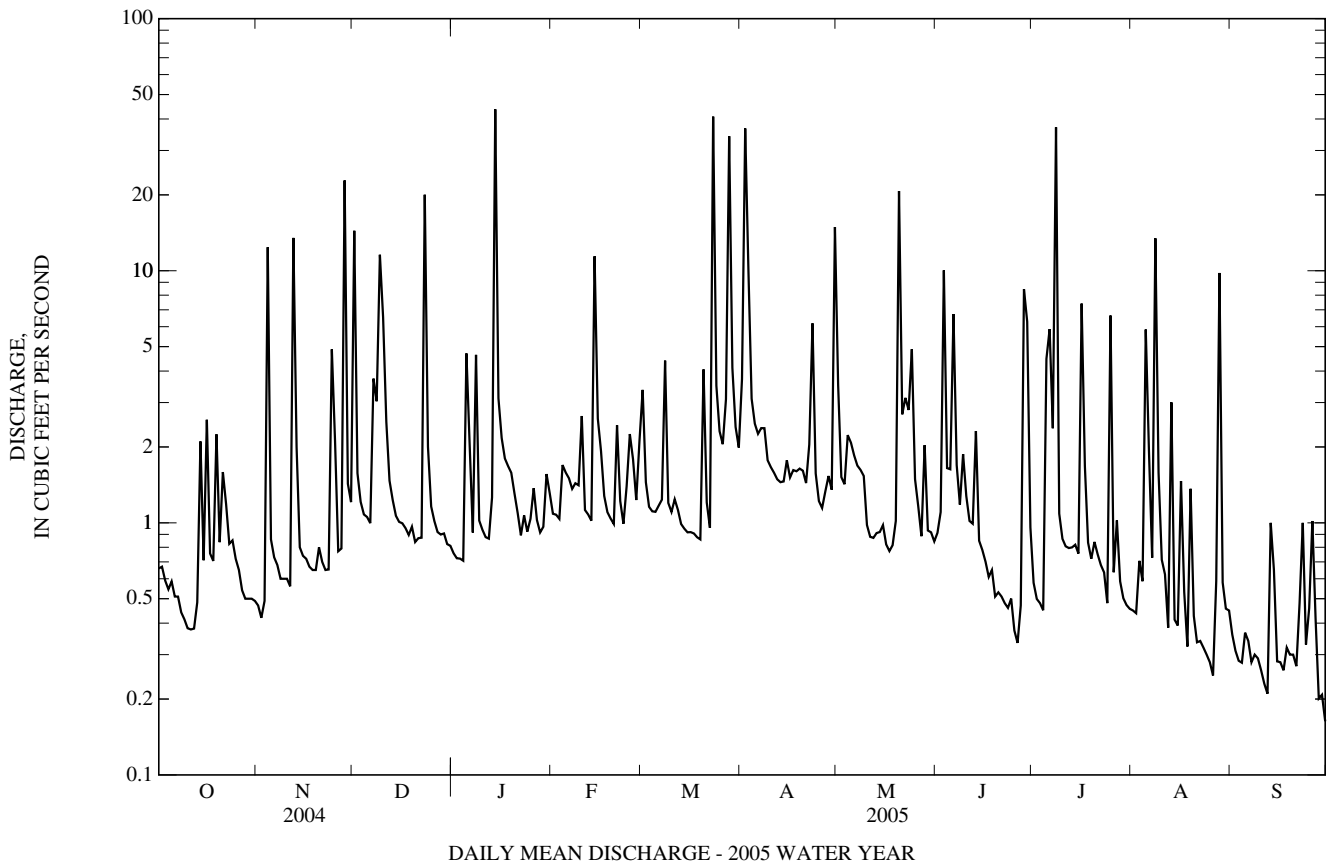
SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1957 - 1966 1966 - 1987, 1996 - 2005	
ANNUAL TOTAL	1,116.00		836.01			
ANNUAL MEAN	3.05		2.29		2.67	
HIGHEST ANNUAL MEAN					4.26 1972	
LOWEST ANNUAL MEAN					1.33 2002	
HIGHEST DAILY MEAN	60	Jul 27	44	Jan 14	137	Jun 22, 1972
LOWEST DAILY MEAN	(e)0.36	Oct 10	0.16	Sep 30	0.00	(a)
ANNUAL SEVEN-DAY MINIMUM	0.43	Oct 7	0.27	Sep 6	0.00	Aug 14, 1957
MAXIMUM PEAK FLOW			393	Dec 23	(b)1,910	Jul 7, 2004
MAXIMUM PEAK STAGE			3.84	Dec 23	7.05	Jul 7, 2004
INSTANTANEOUS LOW FLOW			0.14	Sep 30	0.00	(c)
ANNUAL RUNOFF (CFSM)	1.43		1.08		1.25	
ANNUAL RUNOFF (INCHES)	19.49		14.60		17.04	
10 PERCENT EXCEEDS	5.4		3.7		5.5	
50 PERCENT EXCEEDS	1.4		0.99		1.1	
90 PERCENT EXCEEDS	0.56		0.39		0.39	

e Estimated.

a Aug. 14-24, 1957, Aug. 15-19, 21-23, 2002.

b From rating curve extended above 90 ft³/s on basis of slope-area measurement at gage height of 6.37 ft.

c Aug. 14-24, 1957, Aug. 14-24, 2002.



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 mi².

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 (ice effect, missing record), which are fair and those below .20 ft³/s and above 20 ft³/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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar 28	1245	76	6.76	Jul 16	2108	187	7.73
Apr 2	1235	58	6.60	Jul 16	2151	166	7.53
Apr 23	1707	70	6.71	Aug 7	1000	103	6.98
Jul 5	2237	*238	*8.36	Aug 8	1348	51	6.54
Jul 16	1157	101	6.97	Aug 8	2109	196	7.82
Jul 16	1802	111	7.05	Aug 28	0307	131	7.23

Minimum discharge, 0.01 ft³/s, Sept. 17, 18.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e0.06	e0.05	e0.80	e0.02	e0.05	0.24	0.33	0.11	0.03	0.02	0.02	0.02
2	e0.05	e0.05	e0.10	e0.02	e0.04	0.05	3.7	0.03	e0.03	0.03	0.02	0.03
3	e0.05	e0.08	e0.06	e0.03	e0.05	0.04	0.88	0.03	e1.4	0.02	0.02	0.03
4	e0.04	e1.2	e0.05	e0.03	e0.20	0.04	0.12	0.03	e0.06	0.02	0.02	0.04
5	e0.05	e0.05	e0.05	e0.40	e0.16	0.04	0.08	0.02	0.03	2.4	0.02	0.05
6	e0.05	e0.05	e0.05	e0.10	e0.08	0.04	0.07	0.02	1.1	0.08	0.02	0.06
7	e0.04	e0.04	e0.60	e0.05	e0.05	0.04	0.08	0.02	0.07	e0.10	0.95	0.02
8	e0.08	e0.04	e0.10	e0.60	e0.05	0.46	0.06	0.03	0.03	e5.0	e1.2	0.02
9	e0.05	e0.03	e1.0	e0.10	e0.05	0.04	0.05	0.02	0.07	e0.08	0.10	0.02
10	e0.05	e0.03	e0.20	e0.06	e0.22	0.04	0.04	0.02	0.03	0.03	0.03	0.02
11	e0.04	e0.03	e0.08	e0.05	e0.08	0.18	0.04	0.03	0.03	0.03	0.04	0.02
12	e0.04	e1.6	e0.05	e0.05	e0.05	0.05	0.04	0.03	0.03	0.03	0.02	0.02
13	e0.05	e0.08	e0.05	e0.08	e0.05	0.04	0.04	0.03	0.02	0.03	0.02	0.02
14	e0.20	e0.04	e0.04	e7.0	e1.0	0.04	0.03	0.08	0.02	0.17	0.02	0.02
15	e0.10	e0.03	e0.04	e0.50	0.09	0.05	0.03	0.21	0.02	0.06	e0.02	0.53
16	e0.50	e0.03	e0.04	e0.10	0.11	0.03	0.03	0.13	0.02	5.3	0.11	e0.02
17	e0.10	e0.03	e0.04	e0.06	e0.05	0.03	0.03	0.02	0.02	0.20	0.02	0.02
18	e0.08	e0.04	e0.03	e0.05	0.04	0.03	0.03	0.02	0.02	0.06	0.02	0.02
19	e0.30	e0.03	e0.06	e0.04	0.04	0.02	0.03	0.02	0.02	0.05	0.15	0.02
20	e0.10	e0.08	e0.04	e0.06	0.04	0.29	0.03	2.6	0.02	0.04	0.03	0.02
21	e0.06	e0.05	e0.03	e0.04	0.16	0.03	0.03	0.05	0.02	0.05	0.02	0.02
22	e0.05	e0.04	e0.03	e0.04	0.05	0.02	0.03	0.03	0.02	e0.04	0.02	e0.02
23	e0.05	e0.04	e3.0	e0.04	0.30	6.6	1.1	0.03	0.02	e0.04	0.02	e0.04
24	e0.05	e0.50	e0.20	e0.03	e0.04	0.21	0.04	0.25	0.02	e0.03	0.02	0.02
25	e0.04	e0.10	e0.10	e0.03	e0.30	0.08	0.03	0.04	0.02	e0.03	0.02	0.02
26	e0.04	e0.06	e0.05	e0.12	0.07	0.06	0.15	0.03	0.02	0.03	0.02	0.14
27	e0.04	e0.05	e0.04	e0.06	0.04	0.26	0.04	0.03	0.12	0.43	0.02	0.02
28	e0.03	e2.0	e0.03	e0.04	0.12	4.7	0.03	0.05	0.08	0.03	1.6	0.02
29	e0.03	e0.20	e0.03	e0.03	---	0.25	0.02	0.03	0.16	0.02	0.02	0.02
30	e0.03	e0.08	e0.03	e0.10	---	0.09	0.95	0.03	0.02	0.02	0.02	0.02
31	e0.03	---	e0.02	e0.08	---	0.07	---	0.03	---	0.02	0.02	---
TOTAL	2.48	6.73	7.04	10.01	3.58	14.16	8.16	4.10	3.57	14.49	4.65	1.36
MEAN	0.08	0.22	0.23	0.32	0.13	0.46	0.27	0.13	0.12	0.47	0.15	0.05
MAX	0.50	2.0	3.0	7.0	1.0	6.6	3.7	2.6	1.4	5.3	1.6	0.53
MIN	0.03	0.03	0.02	0.02	0.04	0.02	0.02	0.02	0.02	0.02	0.02	0.02
CFSM	0.38	1.07	1.08	1.54	0.61	2.18	1.30	0.63	0.57	2.23	0.71	0.22
IN.	0.44	1.19	1.25	1.77	0.63	2.51	1.45	0.73	0.63	2.57	0.82	0.24

e Estimated

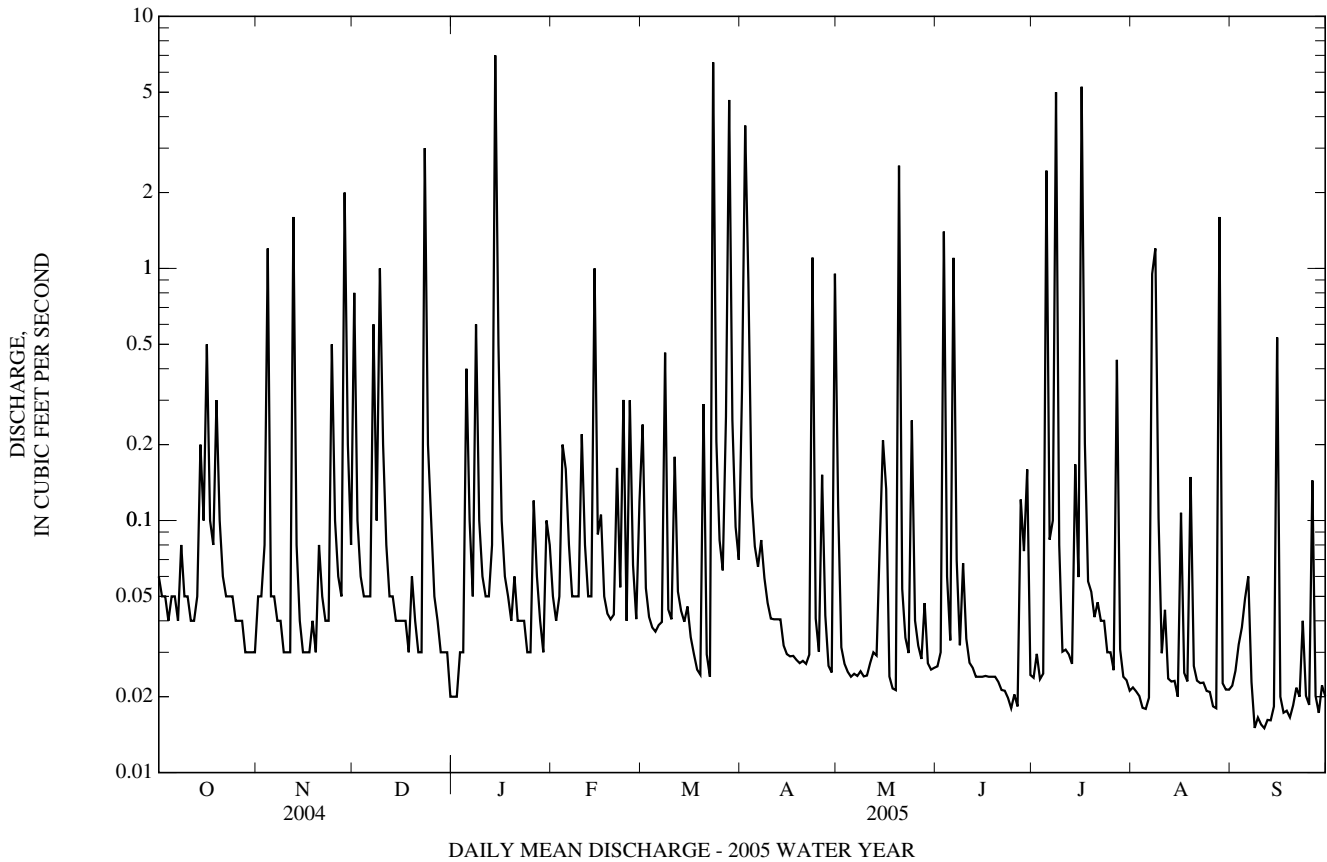
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1996 - 2005, BY WATER YEAR (WY)

MEAN	0.17	0.19	0.21	0.24	0.29	0.30	0.20	0.19	0.20	0.23	0.16	0.23
MAX	0.40	0.41	0.44	0.53	0.57	0.46	0.32	0.37	0.63	0.47	0.29	0.73
(WY)	(2004)	(1998)	(1997)	(1999)	(1998)	(2005)	(2000)	(2003)	(2003)	(2005)	(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	0.05
(WY)	(2001)	(2000)	(1999)	(2004)	(2002)	(2004)	(2001)	(1999)	(1999)	(1997)	(1998)	(2005)

01585225 MOORES RUN TRIBUTARY NEAR TODD AVE AT BALTIMORE, MD—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1996 - 2005	
ANNUAL TOTAL	71.56		80.33		0.22	
ANNUAL MEAN	0.20		0.22		0.33	
HIGHEST ANNUAL MEAN					0.12	
LOWEST ANNUAL MEAN					0.00	
HIGHEST DAILY MEAN	5.5	Jul 27	7.0	Jan 14	13	Sep 16, 1999
LOWEST DAILY MEAN	0.02	(a)	0.02	(b)	0.00	(c)
ANNUAL SEVEN-DAY MINIMUM	0.03	Mar 9	0.02	Jun 13	0.00	Dec 15, 1998
MAXIMUM PEAK FLOW			238	Jul 5	(d)261	Jun 13, 2003
MAXIMUM PEAK STAGE			8.36	(f)	5.68	Jun 13, 2003
INSTANTANEOUS LOW FLOW			0.02	(b)	0.00	(g)
ANNUAL RUNOFF (CFSM)	0.931		1.05		1.03	
ANNUAL RUNOFF (INCHES)	12.68		14.23		14.03	
10 PERCENT EXCEEDS	0.36		0.29		0.45	
50 PERCENT EXCEEDS	0.06		0.04		0.05	
90 PERCENT EXCEEDS	0.04		0.02		0.02	

- a March 5, 13-15, Aug. 7-10, Dec. 31.
- b Many days.
- c Many days in 1997-1999, 2001-2003.
- d From rating curve extended above 20 ft³/s on basis of runoff comparison with nearby station.
- f Gage height at temporary datum.
- g No flow at times during 1997-2001.



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 mi².

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.--Records poor, including those for estimated daily discharges (missing record). 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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec 23	1452	828	5.55	Jul 8	0639	834	5.56
Jan 14	0416	834	5.56	Jul 16	1213	628	5.16
Mar 28	1251	906	5.68	Jul 16	2121	*2,090	*7.08
Jul 5	2248	956	5.76	Jul 25	0423	623	5.15

Minimum discharge, 0.31 ft³/s, on several days.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.4	1.6	11	1.2	1.6	7.3	4.7	3.9	1.4	0.50	0.50	0.48
2	1.4	1.6	2.2	1.2	1.6	2.5	67	2.0	1.4	0.47	0.50	1.5
3	1.3	1.7	2.1	1.2	1.7	1.9	21	1.8	14	0.50	0.49	1.1
4	1.3	15	1.9	1.4	2.7	1.8	4.0	1.8	1.7	0.55	0.50	1.6
5	1.3	2.0	1.9	5.7	2.9	1.9	3.0	1.7	0.74	18	1.2	0.53
6	1.3	1.6	1.9	2.7	2.4	1.9	2.6	1.7	13	2.7	0.99	0.40
7	1.3	1.6	6.3	1.4	2.0	2.0	2.8	1.7	1.9	3.4	e0.90	0.39
8	1.4	1.6	3.3	7.3	2.0	7.4	2.9	1.7	0.84	53	e15	0.50
9	1.2	1.7	11	1.7	2.0	1.9	2.2	1.6	1.3	0.85	e2.0	0.51
10	1.2	1.7	e7.0	1.5	3.4	1.6	2.2	1.6	0.91	0.57	e0.95	0.34
11	1.3	1.7	3.1	1.4	1.5	2.4	2.1	1.6	0.71	0.54	e0.90	0.31
12	1.3	17	2.2	1.4	1.4	e2.0	2.0	1.6	0.67	0.55	e0.75	0.31
13	1.3	4.1	1.9	2.4	1.3	e1.8	e1.9	1.6	0.91	0.56	e3.5	0.33
14	2.6	2.0	1.6	104	11	e1.7	e1.8	2.3	0.68	2.3	e0.80	0.89
15	2.3	1.9	1.8	3.5	3.1	e1.7	1.7	1.8	0.60	1.00	e0.70	4.5
16	7.0	1.9	1.5	2.5	2.7	e1.6	1.7	4.4	0.55	69	2.3	0.89
17	1.5	1.8	1.5	2.0	1.7	e1.6	1.8	1.5	0.51	4.9	0.60	0.74
18	1.4	1.9	1.5	1.5	1.5	e1.6	1.9	1.5	0.50	1.1	0.44	1.9
19	3.1	1.9	1.7	1.5	1.4	e1.7	1.8	1.5	0.50	0.81	2.1	1.6
20	1.5	2.2	1.5	1.7	1.3	e6.0	1.8	40	0.53	0.76	0.51	0.69
21	1.6	1.9	1.5	1.5	4.0	e2.0	1.7	2.5	0.50	0.64	0.44	0.38
22	1.5	1.9	1.5	1.3	2.0	1.6	2.0	1.9	0.49	0.60	1.9	0.40
23	1.4	1.9	28	1.4	2.4	100	14	1.7	0.50	0.55	0.94	0.48
24	1.5	e8.0	2.7	1.4	2.6	6.7	2.2	5.1	0.52	0.53	0.37	0.50
25	1.5	2.5	1.5	1.8	4.7	3.0	1.8	1.8	0.57	11	0.40	0.46
26	1.5	2.1	1.4	2.8	2.7	2.5	e1.9	1.6	0.40	0.76	1.2	2.2
27	1.5	2.0	1.3	1.8	2.0	4.4	2.1	1.6	2.3	3.5	0.52	1.4
28	1.5	25	1.2	1.7	3.8	78	1.7	2.1	3.0	0.68	13	0.74
29	1.6	2.3	1.3	1.3	---	6.2	1.7	1.6	4.5	0.58	0.45	0.70
30	1.6	2.0	1.3	2.4	---	3.3	15	1.5	0.64	0.56	0.53	0.65
31	1.6	---	1.2	2.1	---	2.6	---	1.5	---	0.50	0.49	---
TOTAL	53.2	116.1	109.8	166.7	73.4	262.6	175.0	100.2	56.77	181.96	55.87	27.42
MEAN	1.72	3.87	3.54	5.38	2.62	8.47	5.83	3.23	1.89	5.87	1.80	0.91
MAX	7.0	25	28	104	11	100	67	40	14	69	15	4.5
MIN	1.2	1.6	1.2	1.2	1.3	1.6	1.7	1.5	0.40	0.47	0.37	0.31
CFSM	0.49	1.10	1.01	1.53	0.74	2.41	1.66	0.92	0.54	1.67	0.51	0.26
IN.	0.56	1.23	1.16	1.76	0.78	2.78	1.85	1.06	0.60	1.92	0.59	0.29

e Estimated

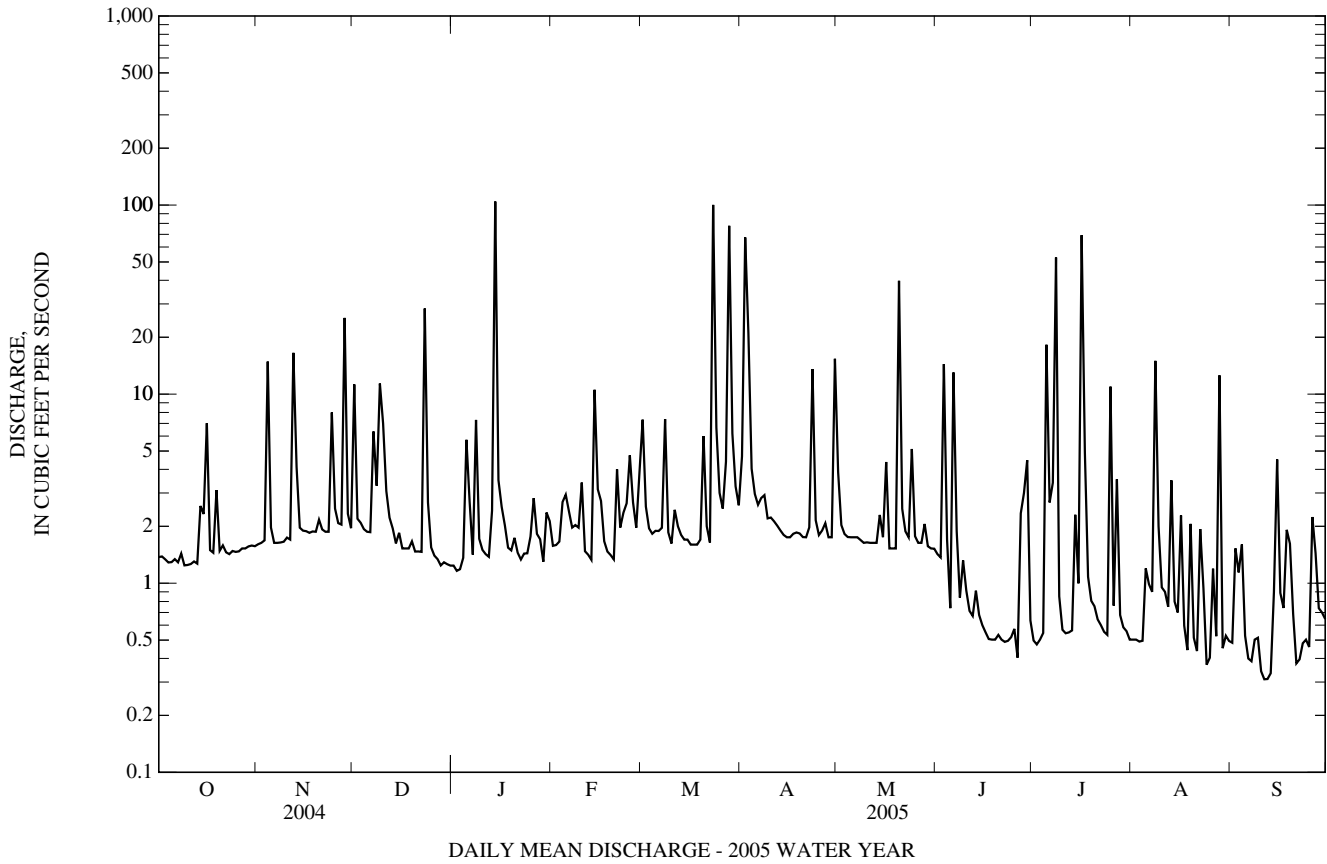
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1996 - 2005, BY WATER YEAR (WY)

MEAN	2.95	3.53	4.28	4.35	5.10	6.79	3.46	3.67	4.14	3.82	3.26	4.43
MAX	7.01	7.36	10.5	9.43	11.5	11.3	5.83	8.25	16.7	8.47	8.16	15.5
(WY)	(2004)	(1998)	(1997)	(1998)	(1998)	(1998)	(2005)	(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	0.91
(WY)	(2001)	(1999)	(1999)	(2004)	(2002)	(2004)	(2001)	(1997)	(1999)	(1997)	(2001)	(2005)

01585230 MOORES RUN AT RADECKE AVE AT BALTIMORE, MD—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1996 - 2005	
ANNUAL TOTAL	1,238.16		1,379.02			
ANNUAL MEAN	3.38		3.78		4.13	
HIGHEST ANNUAL MEAN					6.87	2003
LOWEST ANNUAL MEAN					2.35	2002
HIGHEST DAILY MEAN	105	Jul 27	104	Jan 14	310	Sep 16, 1999
LOWEST DAILY MEAN	0.78	Jul 3	0.31	(a)	0.17	(b)
ANNUAL SEVEN-DAY MINIMUM	0.89	Jun 18	0.38	Sep 7	0.18	Oct 1, 1997
MAXIMUM PEAK FLOW			2,090	Jul 16	(c)8,090	Jun 13, 2003
MAXIMUM PEAK STAGE			7.08	Jul 16	10.48	Jun 13, 2003
INSTANTANEOUS LOW FLOW			0.31	(d)	0.15	(f)
ANNUAL RUNOFF (CFSM)	0.961		1.07		1.17	
ANNUAL RUNOFF (INCHES)	13.09		14.57		15.95	
10 PERCENT EXCEEDS	4.0		4.8		7.8	
50 PERCENT EXCEEDS	1.6		1.6		1.1	
90 PERCENT EXCEEDS	1.1		0.52		0.42	

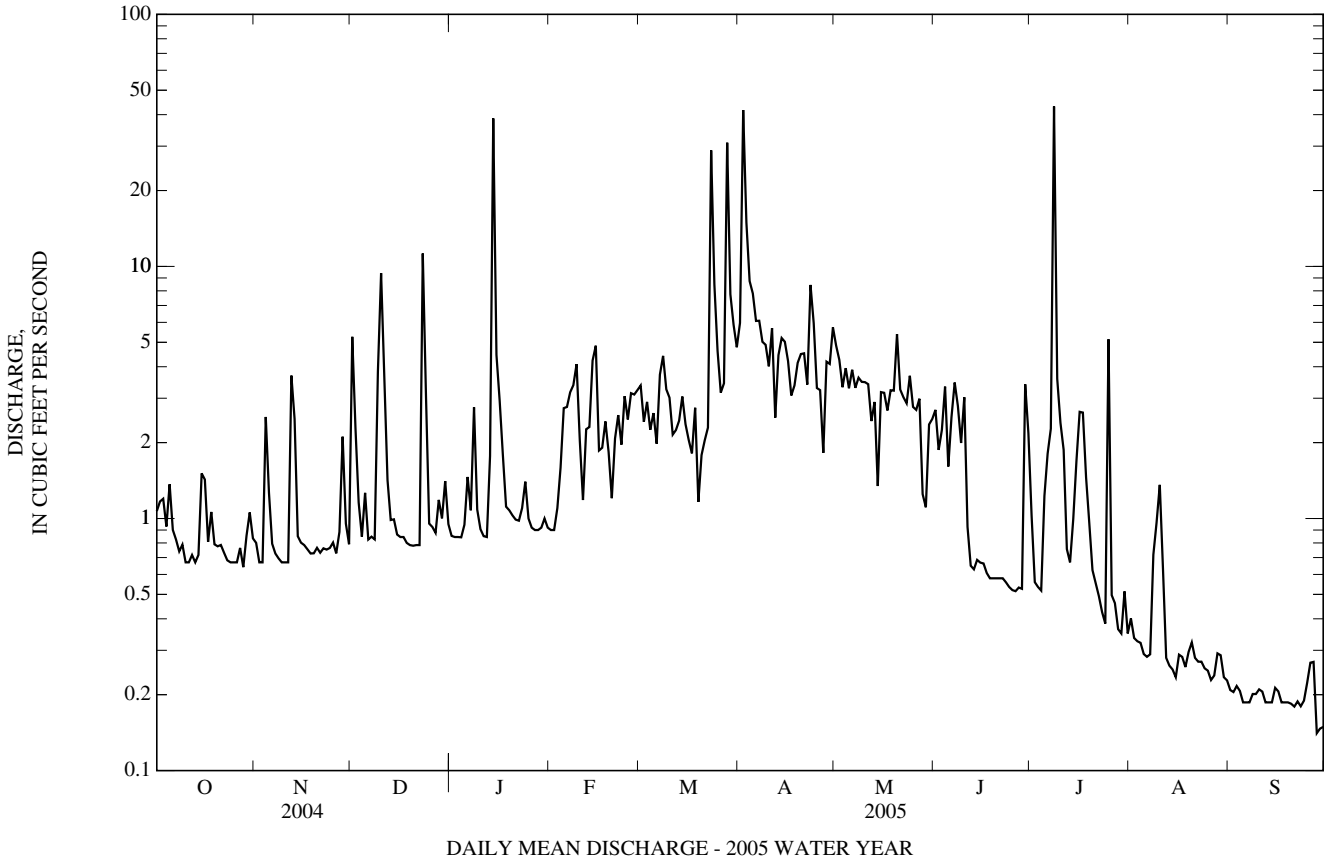
- a Sept. 11, 12.
- b Oct. 1, 2, 1997. Oct. 25, 26, 2001.
- c From rating curve extended above 320 ft³/s.
- d Sept. 6, 7, 10-13.
- f Oct. 20, 1997. Aug. 12, 1999.



01585500 CRANBERRY BRANCH NEAR WESTMINSTER, MD—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1950 - 2005	
ANNUAL TOTAL	1,176.95		849.18			
ANNUAL MEAN	(a)3.22		(a)2.33		(a)3.25	
HIGHEST ANNUAL MEAN					7.82	1972
LOWEST ANNUAL MEAN					0.34	2002
HIGHEST DAILY MEAN	80	Feb 6	43	Jul 8	440	Jun 22, 1972
LOWEST DAILY MEAN	0.45	(b)	0.14	Sep 28	0.01	(c)
ANNUAL SEVEN-DAY MINIMUM	0.47	Sep 21	0.19	Sep 17	0.01	Sep 6, 1995
MAXIMUM PEAK FLOW			252	Jul 8	(d)2,220	Sep 26, 1975
MAXIMUM PEAK STAGE			3.55	Jul 8	7.47	Sep 26, 1975
INSTANTANEOUS LOW FLOW			0.13	(f)	(g)0.00	(h)
ANNUAL RUNOFF (CFSM)	0.977		0.707		0.988	
ANNUAL RUNOFF (INCHES)	13.31		9.60		13.42	
10 PERCENT EXCEEDS	5.7		4.3		5.9	
50 PERCENT EXCEEDS	2.0		1.0		2.2	
90 PERCENT EXCEEDS	0.73		0.26		0.53	

- a Unadjusted for storage and diversions.
- b Sept. 12, 24-27.
- c Sept. 6-16, 1995.
- d From rating curve extended above 200 ft³/s on basis of culvert measurement at gage heights 5.54 and 7.47 ft.
- f Sept. 28, 29.
- g Result of regulation.
- h Sept. 5, 1995, July 4, 30, 31, Aug. 1-7, 10-15, 2002.



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 mi².

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, missing record), 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 3.03 ft³/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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan 14	0900	1,610	5.53	Apr 2	1700	1,540	5.38
Mar 23	1815	1,340	4.97	Jul 8	1100	*3,030	*7.51
Mar 28	1700	1,460	5.22				

Minimum discharge, 4.1 ft³/s, Aug 13.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	54	38	125	47	e49	77	122	94	44	50	34	22
2	48	33	72	44	49	75	550	77	41	39	33	22
3	44	32	55	43	51	68	325	72	65	35	31	21
4	40	71	48	43	56	64	186	69	62	34	30	20
5	38	76	45	60	56	65	158	66	53	38	29	20
6	37	43	42	80	61	67	143	66	52	71	28	20
7	36	38	51	59	64	75	130	66	74	42	28	19
8	35	35	54	70	73	98	149	64	49	986	39	18
9	35	33	69	63	91	83	122	60	53	124	43	19
10	34	32	214	53	99	72	112	59	59	78	33	19
11	32	33	124	50	72	73	107	57	47	64	29	19
12	32	74	80	51	65	74	99	56	41	58	27	16
13	32	94	67	50	63	71	98	54	39	57	26	16
14	e44	49	57	651	79	67	96	55	39	56	25	16
15	e38	41	51	165	125	63	93	59	35	67	24	18
16	38	39	48	119	82	61	88	62	35	115	29	20
17	40	38	47	101	77	59	85	54	34	88	31	19
18	34	37	46	81	71	59	83	51	34	60	25	17
19	39	36	45	69	62	59	80	49	34	51	30	16
20	42	37	44	e67	60	61	79	101	34	48	32	15
21	48	40	44	e54	69	62	77	74	34	42	27	15
22	42	37	43	42	70	57	77	59	32	43	24	14
23	38	36	148	e50	64	514	127	56	31	42	23	14
24	37	39	107	e57	64	215	114	66	29	38	22	14
25	36	55	62	e53	68	134	85	71	29	103	22	15
26	35	41	e56	e52	68	112	78	58	28	53	22	17
27	33	37	46	e49	71	102	75	53	28	43	22	17
28	33	66	47	48	72	490	71	53	113	40	36	14
29	33	46	e48	e48	---	232	70	55	133	36	26	15
30	40	41	46	e52	---	153	111	48	93	36	24	15
31	36	---	47	e50	---	130	---	47	---	35	24	---
TOTAL	1,183	1,347	2,078	2,521	1,951	3,592	3,790	1,931	1,474	2,672	878	522
MEAN	38.2	44.9	67.0	81.3	69.7	116	126	62.3	49.1	86.2	28.3	17.4
MAX	54	94	214	651	125	514	550	101	133	986	43	22
MIN	32	32	42	42	49	57	70	47	28	34	22	14
CFSM	0.67	0.79	1.18	1.44	1.23	2.05	2.23	1.10	0.87	1.52	0.50	0.31
IN.	0.78	0.89	1.37	1.66	1.28	2.36	2.49	1.27	0.97	1.76	0.58	0.34

e Estimated

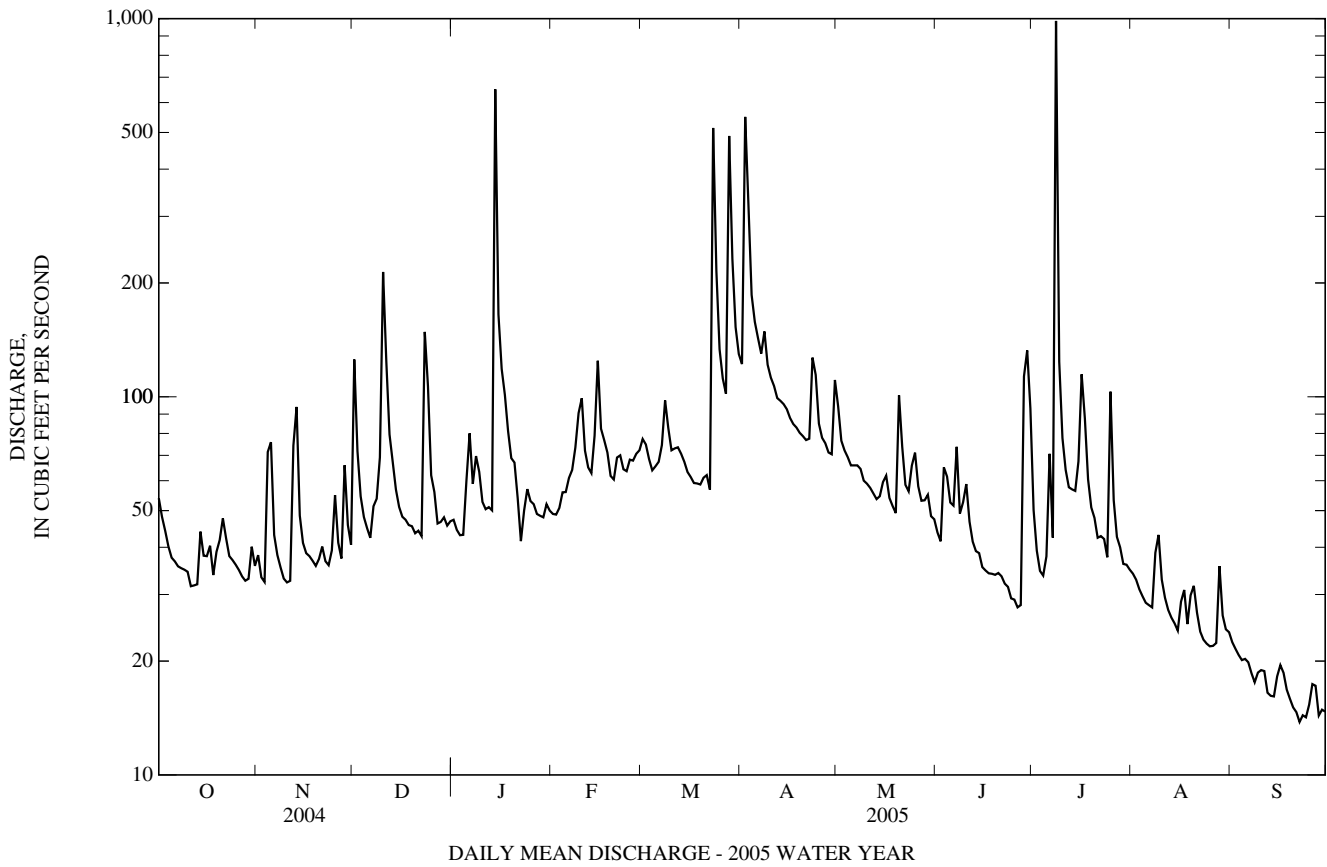
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1945 - 2005, BY WATER YEAR (WY)

MEAN	42.3	51.1	64.6	75.1	86.7	97.0	87.7	75.6	64.9	49.7	41.9	43.8
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 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1945 - 2005	
ANNUAL TOTAL	30,295		23,939		64.6	
ANNUAL MEAN	82.8		65.6		121	
HIGHEST ANNUAL MEAN					20.2	
LOWEST ANNUAL MEAN					2002	
HIGHEST DAILY MEAN	1,050	Feb 6	986	Jul 8	6,000	Jun 22, 1972
LOWEST DAILY MEAN	28	Sep 14	14	(a)	(e)0.83	Aug 22, 2002
ANNUAL SEVEN-DAY MINIMUM	30	Sep 1	15	Sep 19	1.9	Aug 17, 2002
MAXIMUM PEAK FLOW			3,030	Jul 8	(b)27,800	Jun 22, 1972
MAXIMUM PEAK STAGE			7.51	Jul 8	(c)20.75	Jun 22, 1972
INSTANTANEOUS LOW FLOW			4.1	Aug 13	0.83	(d)
ANNUAL RUNOFF (CFSM)	1.46		1.16		1.14	
ANNUAL RUNOFF (INCHES)	19.91		15.73		15.50	
10 PERCENT EXCEEDS	129		105		114	
50 PERCENT EXCEEDS	66		50		44	
90 PERCENT EXCEEDS	34		24		19	

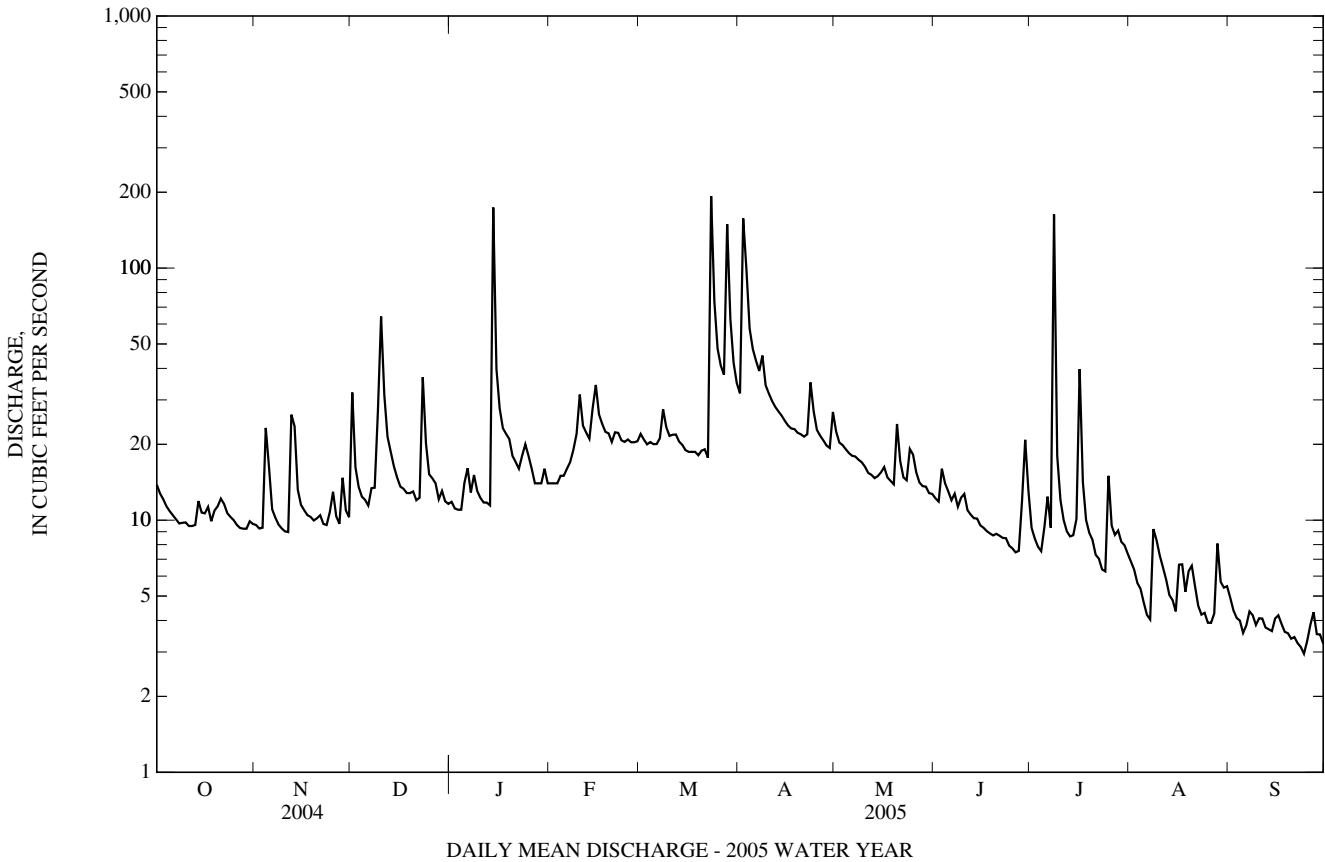
- a Sept. 22-24, 28.
- e Estimated.
- b From rating curve extended above 4,100 ft³/s on basis of contracted-opening measurement of peak flow.
- c From high-water mark in well.
- d Aug. 22, 23, 2002.



01586210 BEAVER RUN NEAR FINKSBURG, MD—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1983 - 2005	
ANNUAL TOTAL	7,275.8		6,305.5		16.6	
ANNUAL MEAN	19.9		17.3		25.2	
HIGHEST ANNUAL MEAN					5.40	
LOWEST ANNUAL MEAN					1996	
HIGHEST DAILY MEAN	270	Aug 1	193	Mar 23	528	Jan 19, 1996
LOWEST DAILY MEAN	6.2	Sep 14	3.0	Sep 24	0.27	Aug 22, 2002
ANNUAL SEVEN-DAY MINIMUM	6.5	Sep 10	3.3	Sep 19	0.37	Aug 17, 2002
MAXIMUM PEAK FLOW			671	Jul 8	(a)2,150	May 6, 1989
MAXIMUM PEAK STAGE			3.38	Jul 8	(b)5.70	May 6, 1989
INSTANTANEOUS LOW FLOW			2.9	Sep 24	0.23	(c)
ANNUAL RUNOFF (CFSM)	1.42		1.23		1.19	
ANNUAL RUNOFF (INCHES)	19.33		16.75		16.11	
10 PERCENT EXCEEDS	31		27		31	
50 PERCENT EXCEEDS	16		13		12	
90 PERCENT EXCEEDS	8.6		4.4		4.8	

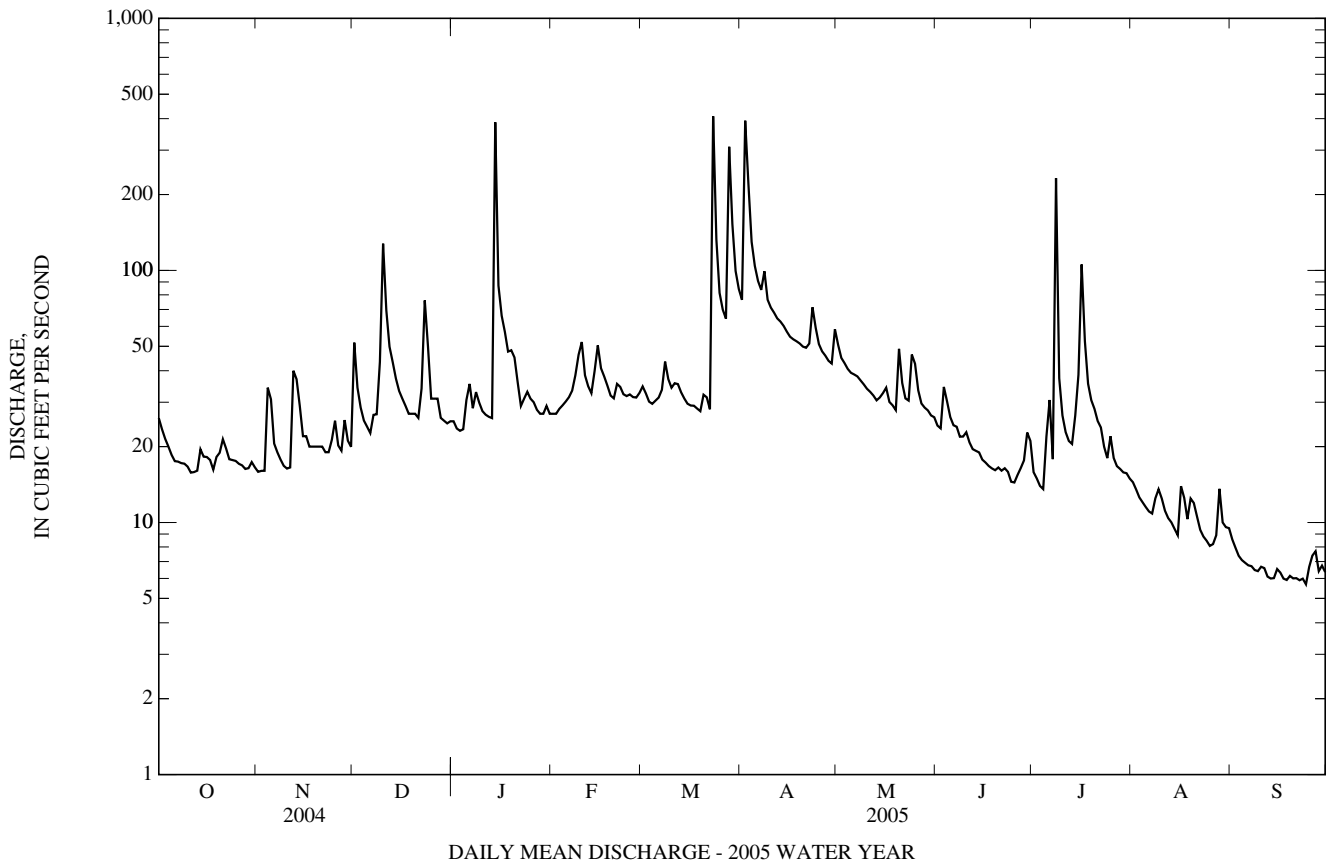
a From rating curve extended above 600 ft³/s.
 b From floodmarks.
 c Aug. 21-23, 2002.



01586610 MORGAN RUN NEAR LOUISVILLE, MD—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1983 - 2005	
ANNUAL TOTAL	14,323		12,588.7		34.7	
ANNUAL MEAN	39.1		34.5		58.3	
HIGHEST ANNUAL MEAN					1996	
LOWEST ANNUAL MEAN					2002	
HIGHEST DAILY MEAN	744	Feb 6	409	Mar 23	1,370	Jan 19, 1996
LOWEST DAILY MEAN	10	(a)	5.7	Sep 24	0.73	(b)
ANNUAL SEVEN-DAY MINIMUM	11	Sep 1	5.9	Sep 18	0.86	Aug 17, 2002
MAXIMUM PEAK FLOW			1,130	Apr 2	(c)3,860	Dec 11, 2003
MAXIMUM PEAK STAGE			5.04	Apr 2	8.74	Dec 11, 2003
INSTANTANEOUS LOW FLOW			5.3	(d)	0.73	(b)
ANNUAL RUNOFF (CFSM)	1.40		1.23		1.24	
ANNUAL RUNOFF (INCHES)	19.03		16.72		16.84	
10 PERCENT EXCEEDS	62		56		66	
50 PERCENT EXCEEDS	29		27		23	
90 PERCENT EXCEEDS	16		9.2		9.0	

- a Sept. 5, 6.
- b Aug. 21-23, 2002.
- c From rating curve extended above 1,900 ft³/s.
- d Sept. 14, 18, 22.



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 mi².

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), which are poor. 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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan 14	0425	455	4.14	Jul 8	0628	533	4.56
Mar 28	1255	*533	*4.56	Jul 16	2148	435	4.06

Minimum discharge, 0.33 ft³/s, Sept. 28, 29, 30.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.2	2.2	14	e1.2	e1.5	5.5	e3.4	e4.2	e0.79	0.68	1.1	0.62
2	1.2	2.1	2.0	e1.1	e1.4	2.2	e66	e1.8	e0.78	0.61	0.92	0.59
3	1.1	2.5	1.6	e1.1	e1.7	1.6	e22	e1.5	e7.6	0.65	0.80	0.58
4	1.1	27	1.4	e1.5	e2.6	1.5	e4.4	e1.3	e1.9	0.78	0.79	0.54
5	1.1	4.3	1.4	9.2	2.1	1.5	e3.1	e1.2	e1.2	4.4	0.79	0.53
6	1.1	1.6	1.4	3.0	1.8	1.5	e2.6	e1.2	e9.6	3.3	0.84	0.59
7	1.1	1.2	e2.5	2.3	1.6	1.5	e2.4	e1.2	e2.2	4.0	0.84	0.57
8	1.1	1.2	e3.2	8.1	1.6	6.8	e2.8	e1.2	e1.1	59	13	0.59
9	1.1	1.2	e11	5.1	1.5	1.5	e2.0	e1.0	e2.2	2.9	4.2	0.62
10	1.1	1.2	e8.1	5.0	2.7	1.2	e1.8	e1.1	1.4	1.2	1.1	0.61
11	1.1	1.2	e3.1	4.4	1.4	1.5	e1.7	e1.1	1.2	0.93	0.85	0.58
12	1.1	29	e2.0	e3.5	1.4	1.1	e1.6	e1.0	1.1	0.92	0.78	0.57
13	1.2	5.6	e1.6	2.7	1.3	0.95	e1.5	e0.98	1.5	8.3	0.78	0.57
14	4.5	1.7	e1.5	72	e13	0.90	e1.4	e1.5	1.1	2.8	0.79	0.61
15	1.2	1.4	e1.5	4.9	e3.9	0.88	e1.4	e1.3	1.0	5.7	0.77	1.5
16	1.4	1.4	e1.4	2.6	2.1	0.85	e1.3	e1.1	0.98	47	9.7	0.46
17	1.2	1.5	e1.3	2.1	1.6	0.84	e1.4	e0.92	0.90	9.3	1.0	0.48
18	1.1	1.3	e1.2	1.7	1.4	0.84	e1.3	e0.92	0.83	2.5	0.71	0.44
19	2.8	1.2	e1.2	1.8	1.4	0.82	e1.3	e0.86	0.84	1.8	4.9	0.50
20	1.9	3.6	e1.1	2.1	1.3	4.0	e1.3	e15	0.86	1.6	0.93	0.50
21	3.0	1.6	e1.1	1.5	3.4	1.1	e1.3	e2.5	0.79	1.2	0.72	0.49
22	3.2	1.2	e1.0	1.4	1.6	0.84	e1.7	e1.3	0.78	1.1	0.64	0.44
23	1.9	1.1	e23	1.5	1.3	87	e7.8	e1.1	0.62	0.97	0.65	0.49
24	2.0	4.2	e3.6	e1.5	2.3	7.2	e2.8	e4.6	0.64	0.91	0.66	0.47
25	1.9	2.2	e1.9	e1.7	3.7	3.1	e1.5	e2.0	0.54	11	0.64	0.53
26	1.7	1.2	e1.5	e2.0	2.4	3.0	e1.3	e1.4	0.54	1.3	0.74	1.3
27	1.8	1.2	e1.4	e1.5	1.8	3.4	e1.4	e1.0	2.9	2.9	1.3	0.58
28	1.8	17	e1.4	e1.4	3.3	57	e1.3	e1.0	2.3	1.3	8.3	0.41
29	2.3	1.8	e1.3	e1.5	---	7.1	e1.2	e0.90	7.8	11	0.78	0.64
30	2.5	1.5	e1.3	e2.3	---	3.4	e10	e0.83	1.6	1.3	0.62	0.34
31	2.0	---	e1.2	e1.9	---	e2.6	---	e0.84	---	1.0	0.61	---
TOTAL	52.8	125.4	101.2	153.6	67.1	213.22	155.0	57.85	57.59	192.35	61.25	17.74
MEAN	1.70	4.18	3.26	4.95	2.40	6.88	5.17	1.87	1.92	6.20	1.98	0.59
MAX	4.5	29	23	72	13	87	66	15	9.6	59	13	1.5
MIN	1.1	1.1	1.0	1.1	1.3	0.82	1.2	0.83	0.54	0.61	0.61	0.34
CFSM	0.69	1.69	1.32	2.01	0.97	2.78	2.09	0.76	0.78	2.51	0.80	0.24
IN.	0.80	1.89	1.52	2.31	1.01	3.21	2.33	0.87	0.87	2.90	0.92	0.27

e Estimated

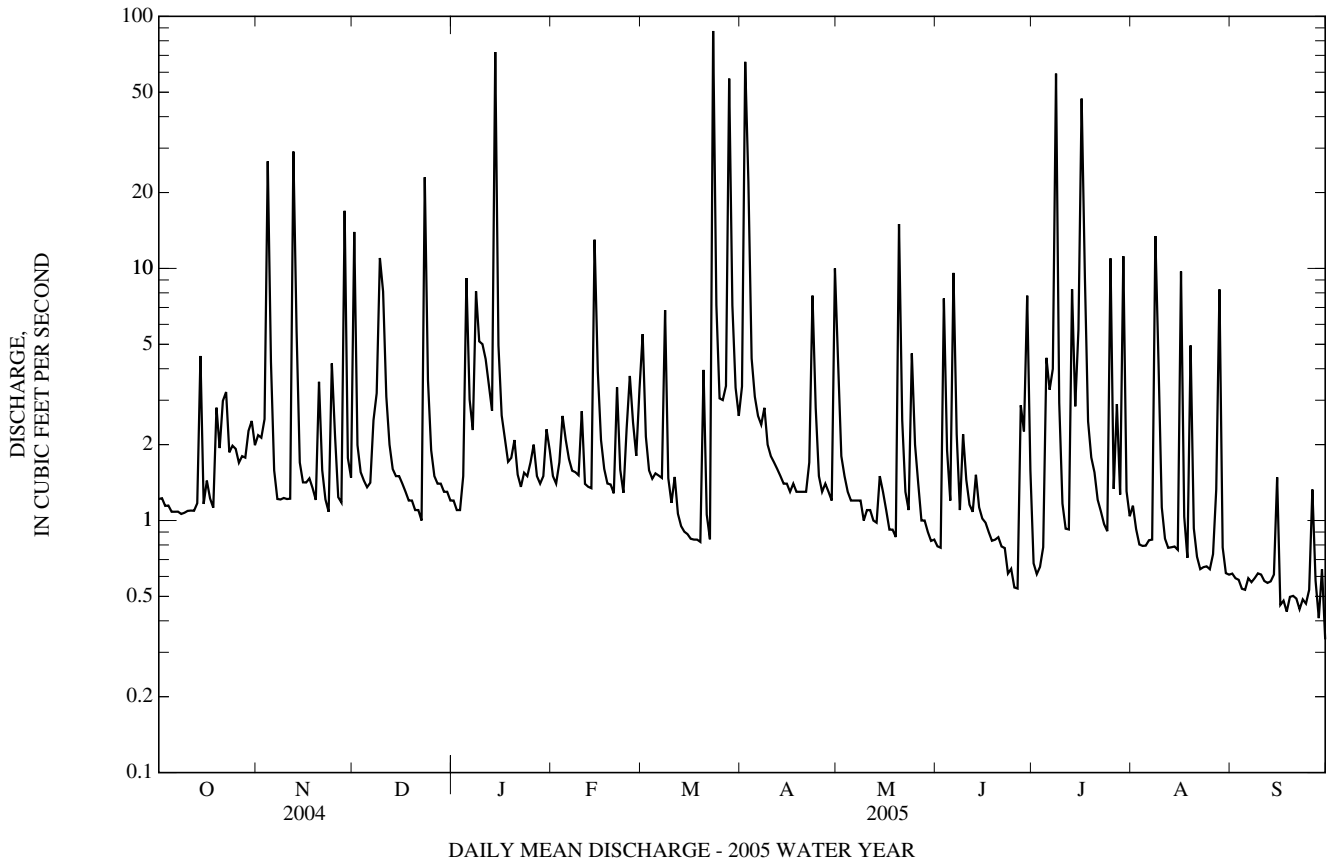
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1957 - 1989, 1999 - 2005, BY WATER YEAR (WY)

	2.33	2.89	3.37	3.31	4.04	4.31	3.73	3.49	3.08	2.98	3.04	3.57
MEAN	2.33	2.89	3.37	3.31	4.04	4.31	3.73	3.49	3.08	2.98	3.04	3.57
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	0.59
(WY)	(2001)	(1982)	(1981)	(1981)	(2002)	(1981)	(1985)	(1986)	(1986)	(1966)	(1982)	(2005)

01589100 EAST BRANCH HERBERT RUN AT ARBUTUS, MD—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1957 - 1989, 1999 - 2005	
	ANNUAL TOTAL	1,316.56		1,255.10		3.34
ANNUAL MEAN	3.60		3.44		6.85	
HIGHEST ANNUAL MEAN					1.87	
LOWEST ANNUAL MEAN					200	
HIGHEST DAILY MEAN	68	Jul 27	87	Mar 23	200	Jun 22, 1972
LOWEST DAILY MEAN	0.92	Jul 17	0.34	Sep 30	0.21	Aug 10, 1999
ANNUAL SEVEN-DAY MINIMUM	1.0	Aug 31	0.47	Sep 16	0.24	Aug 6, 1999
MAXIMUM PEAK FLOW			(a)533	Mar 28	(b)2,460	Sep 6, 1979
MAXIMUM PEAK STAGE			4.56	Mar 28	(c)13.70	Sep 6, 1979
INSTANTANEOUS LOW FLOW			0.33	(d)	0.16	(f)
ANNUAL RUNOFF (CFSM)	1.46		1.39		1.35	
ANNUAL RUNOFF (INCHES)	19.83		18.90		18.37	
10 PERCENT EXCEEDS	6.8		5.3		6.0	
50 PERCENT EXCEEDS	1.6		1.4		1.5	
90 PERCENT EXCEEDS	1.1		0.64		0.62	

- a March 28, July 8.
- b From rating curve extended above 280 ft³/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.
- c From floodmarks.
- d Sept. 28-30.
- f Aug. 7, 10, 1999.



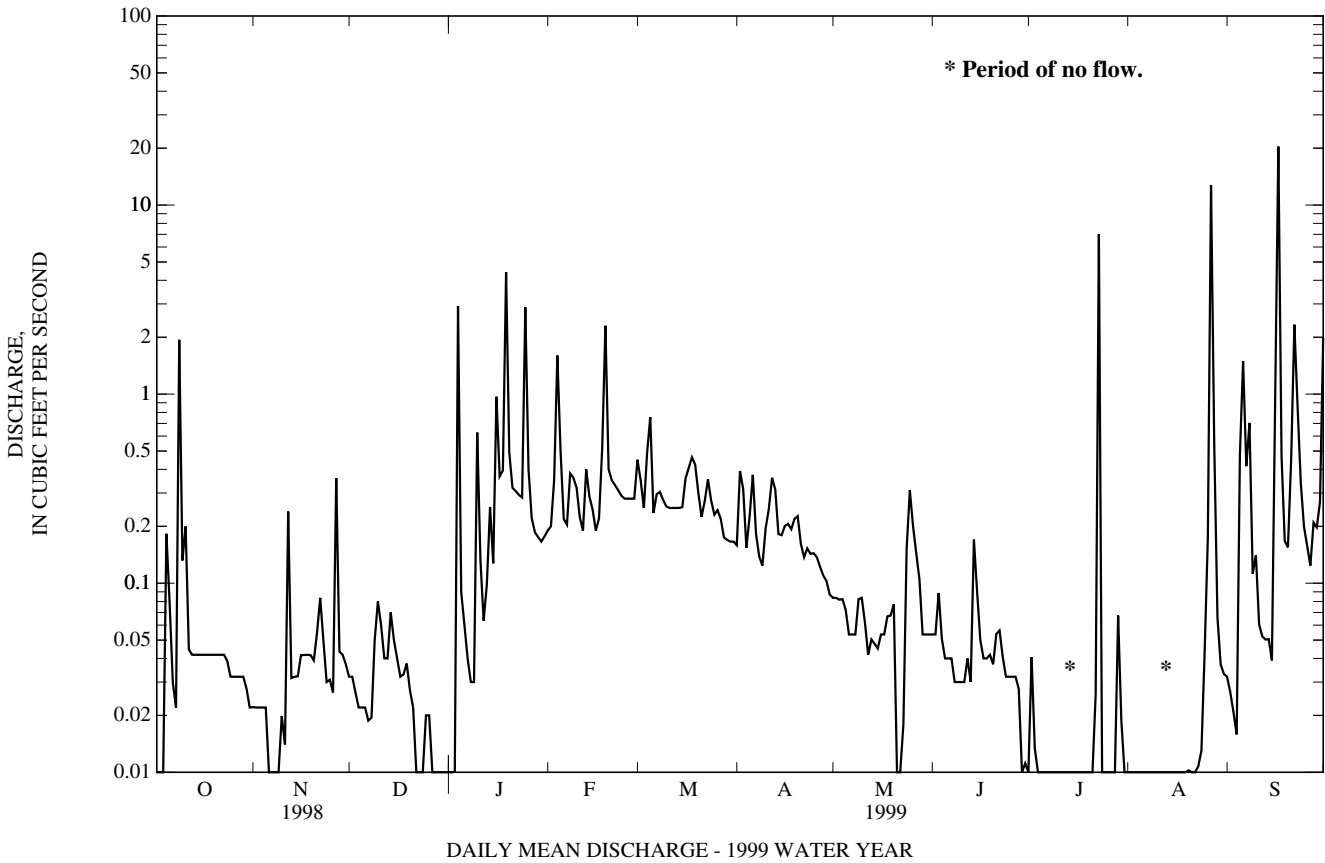
01589180 GWYNNS FALLS AT GLYNDON, MD—Continued

SUMMARY STATISTICS

FOR 1999 WATER YEAR

ANNUAL TOTAL	106.44	
ANNUAL MEAN	0.29	
HIGHEST DAILY MEAN	20	Sep 16
LOWEST DAILY MEAN	0.00	(a)
ANNUAL SEVEN-DAY MINIMUM	0.00	Jul 3
MAXIMUM PEAK FLOW	(b)233	Aug 26
MAXIMUM PEAK STAGE	3.59	Aug 26
INSTANTANEOUS LOW FLOW	0.00	(c)
ANNUAL RUNOFF (CFSM)	0.911	
ANNUAL RUNOFF (INCHES)	12.37	
10 PERCENT EXCEEDS	0.38	
50 PERCENT EXCEEDS	0.05	
90 PERCENT EXCEEDS	0.00	

- a Many days.
- b From rating curve extended above 42 ft³/s.
- c No flow at times in 1999.



01589180 GWYNN'S FALLS AT GLYNDON, MD—Continued

EXTREMES FOR 2000 WATER YEAR.--Peak discharges greater than base discharge of 100 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 14	1300	*56	*2.22	No peak greater than base discharge.			

Minimum discharge, 0.01 ft³/s, on several days.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.18	e0.08	0.15	0.14	e0.09	0.29	0.24	0.17	0.10	0.03	0.22	0.07
2	0.22	e0.40	0.14	0.14	e0.09	0.25	0.22	0.14	0.08	0.03	0.08	0.18
3	0.14	e0.05	0.14	0.14	e0.09	0.22	0.26	0.11	0.08	0.02	0.05	0.06
4	1.5	e0.04	0.10	0.48	e0.09	0.20	0.64	0.10	0.07	0.02	0.05	0.04
5	0.54	e0.04	0.10	0.24	e0.08	0.19	0.24	0.12	0.08	0.03	0.04	0.03
6	e0.19	e0.04	0.94	0.17	e0.09	0.18	0.21	0.15	0.29	0.02	0.18	0.03
7	e0.16	e0.04	0.25	0.15	e0.09	0.16	0.19	0.12	0.09	0.03	0.05	0.03
8	e0.15	0.04	0.20	0.14	e0.10	0.16	1.3	0.12	0.07	0.02	0.05	0.03
9	e0.15	0.04	0.19	0.14	e0.12	0.15	0.98	0.11	0.06	0.02	0.04	0.03
10	e3.5	0.04	1.8	1.2	0.28	0.15	0.30	0.37	0.05	0.02	0.04	0.02
11	e0.22	0.04	0.31	0.32	0.73	1.1	0.25	0.13	0.05	0.02	0.03	0.02
12	e0.10	0.04	0.23	0.23	0.48	0.55	0.24	0.10	0.09	0.02	0.03	0.09
13	e0.09	0.04	1.0	0.22	0.27	0.23	0.22	0.17	0.06	0.14	0.30	0.25
14	e0.08	0.04	7.5	0.16	1.4	0.21	0.20	0.11	0.05	0.19	0.05	0.03
15	e0.08	0.04	0.70	0.14	0.54	0.18	0.19	0.08	0.77	0.35	0.04	0.04
16	e0.08	0.04	0.37	e0.12	0.56	0.31	0.25	0.08	0.17	0.09	0.04	0.02
17	e0.09	0.04	0.30	e0.11	0.35	0.46	1.8	0.09	0.06	0.04	0.03	0.02
18	e0.10	0.05	0.26	e0.11	1.2	0.21	3.1	0.08	0.05	0.10	0.03	0.01
19	e0.09	0.05	0.25	0.12	4.3	0.19	0.52	0.15	0.05	0.35	0.03	1.5
20	e0.11	0.05	0.54	e0.10	0.57	0.19	0.35	0.11	0.05	0.10	0.03	0.14
21	e0.10	0.05	0.32	e0.11	0.38	9.7	0.80	0.11	0.77	0.04	0.03	0.05
22	e0.10	0.04	0.24	e0.10	0.33	2.2	0.54	0.50	0.47	0.03	0.02	0.04
23	e0.09	0.04	0.22	0.10	0.30	0.51	0.35	0.16	0.07	0.02	0.02	0.04
24	e0.09	0.04	0.20	0.10	0.28	0.37	0.28	0.27	0.04	0.04	0.02	0.04
25	e0.09	0.04	0.17	e0.10	0.30	0.43	0.25	0.35	0.18	0.03	0.02	1.7
26	e0.08	3.4	0.17	e0.10	0.26	0.33	0.23	0.11	0.19	0.67	0.02	1.3
27	e0.07	1.4	0.16	e0.09	0.90	1.4	0.22	0.21	0.05	0.07	0.82	0.16
28	e0.07	0.26	0.14	e0.09	2.0	1.2	0.22	0.46	0.05	0.46	0.10	0.09
29	e0.07	0.19	0.14	e0.08	0.34	0.36	0.20	0.20	0.05	0.14	0.14	0.07
30	e0.08	0.18	0.14	e0.09	---	0.30	0.18	0.13	0.04	0.05	0.05	0.07
31	e0.08	---	0.14	e0.09	---	0.26	---	0.11	---	0.28	0.13	---
TOTAL	8.69	6.88	17.51	5.62	16.61	22.64	14.97	5.22	4.28	3.47	2.78	6.20
MEAN	0.28	0.23	0.56	0.18	0.57	0.73	0.50	0.17	0.14	0.11	0.09	0.21
MAX	3.5	3.4	7.5	1.2	4.3	9.7	3.1	0.50	0.77	0.67	0.82	1.7
MIN	0.07	0.04	0.10	0.08	0.08	0.15	0.18	0.08	0.04	0.02	0.02	0.01
CFSM	0.88	0.72	1.77	0.57	1.79	2.28	1.56	0.53	0.45	0.35	0.28	0.65
IN.	1.01	0.80	2.04	0.65	1.93	2.63	1.74	0.61	0.50	0.40	0.32	0.72

e Estimated

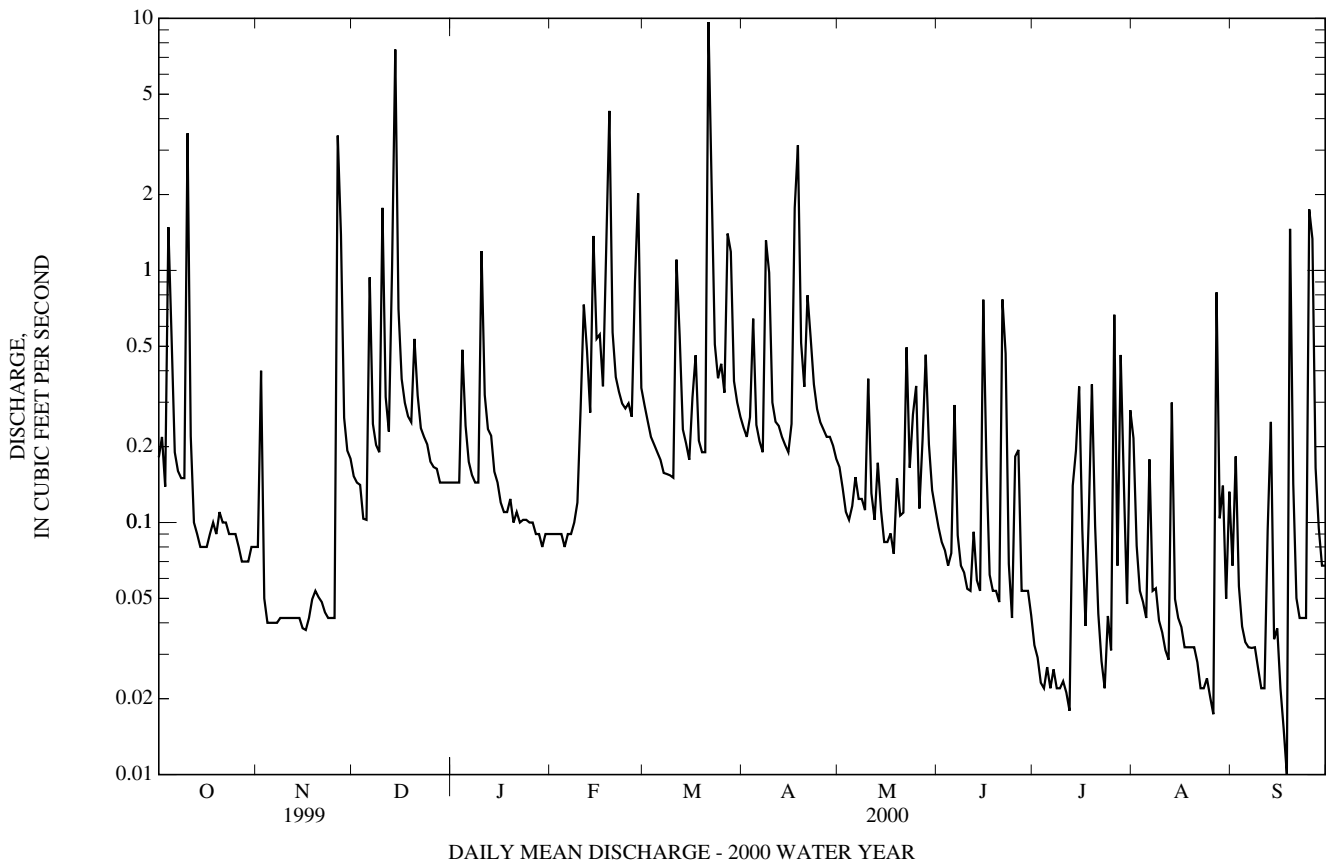
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2000, BY WATER YEAR (WY)

MEAN	0.19	0.14	0.30	0.36	0.50	0.51	0.35	0.12	0.09	0.17	0.27	0.64
MAX	0.28	0.23	0.56	0.54	0.57	0.73	0.50	0.17	0.14	0.23	0.45	1.08
(WY)	(2000)	(2000)	(2000)	(1999)	(2000)	(2000)	(2000)	(2000)	(2000)	(1999)	(1999)	(1999)
MIN	0.11	0.05	0.03	0.18	0.43	0.29	0.19	0.07	0.04	0.11	0.09	0.21
(WY)	(1999)	(1999)	(1999)	(2000)	(1999)	(1999)	(1999)	(1999)	(1999)	(2000)	(2000)	(2000)

01589180 GWYNNS FALLS AT GLYNDON, MD—Continued

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1999 - 2000	
ANNUAL TOTAL	133.90		114.87		0.30	
ANNUAL MEAN	0.37		0.31		0.31 2000	
HIGHEST ANNUAL MEAN					0.29 1999	
LOWEST ANNUAL MEAN					20 Sep 16, 1999	
HIGHEST DAILY MEAN	20	Sep 16	9.7	Mar 21	0.00	(a)
LOWEST DAILY MEAN	0.00	(a)	0.01	Sep 18	0.00	(a)
ANNUAL SEVEN-DAY MINIMUM	0.00	Jul 3	0.02	Jul 6	0.00	Jul 3, 1999
MAXIMUM PEAK FLOW			56	Dec 14	(b)233	Aug 26, 1999
MAXIMUM PEAK STAGE			2.22	Dec 14	3.59	Aug 26, 1999
INSTANTANEOUS LOW FLOW			0.01	(c)	0.00	(d)
ANNUAL RUNOFF (CFSM)	1.15		0.981		0.946	
ANNUAL RUNOFF (INCHES)	15.57		13.35		12.85	
10 PERCENT EXCEEDS	0.45		0.55		0.46	
50 PERCENT EXCEEDS	0.12		0.13		0.10	
90 PERCENT EXCEEDS	0.00		0.03		0.01	

- a Many days.
- b From rating curve extended above 42 ft³/s.
- c Sept. 17-19.
- d No flow at times in 1999.



01589180 GWYNN'S FALLS AT GLYNDON, MD—Continued

EXTREMES FOR 2001 WATER YEAR.--Peak discharges greater than base discharge of 100 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 17	0745	*95	*2.64	No peak greater than base discharge.			

Minimum discharge, 0.00 ft³/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	0.07	0.03	0.07	e0.06	0.39	0.20	0.35	0.14	0.29	0.30	0.02	0.01
2	0.06	0.03	0.05	e0.06	0.34	0.19	0.28	0.07	0.16	0.06	0.02	0.01
3	0.05	0.03	0.05	e0.06	0.24	0.18	0.23	0.04	0.13	0.04	0.02	0.01
4	0.04	0.03	0.04	e0.06	0.20	0.56	0.21	0.05	0.06	0.04	0.01	0.01
5	0.04	0.03	0.05	e0.06	0.72	0.69	0.19	0.05	0.03	0.05	0.02	0.01
6	0.04	0.03	0.04	0.07	0.50	0.29	0.20	0.05	0.14	0.04	0.02	0.01
7	0.04	0.02	0.04	0.07	0.37	0.22	0.19	0.04	1.1	0.03	0.01	0.01
8	0.04	0.02	0.04	0.08	0.27	0.20	0.17	0.03	0.14	0.38	0.01	0.01
9	0.04	0.06	e0.04	0.07	0.28	0.18	0.45	0.12	0.10	0.11	0.00	0.01
10	0.04	0.44	e0.04	e0.06	0.30	0.17	0.28	0.07	0.06	0.53	0.01	0.01
11	0.04	0.04	e0.04	e0.06	0.21	0.15	0.86	0.04	0.04	0.07	3.7	0.01
12	0.04	0.04	e0.04	0.07	0.19	0.23	0.37	0.05	0.13	0.04	0.93	0.01
13	0.04	0.04	e0.04	0.07	0.19	0.85	0.27	0.05	0.05	0.04	1.1	0.01
14	0.04	0.15	1.7	e0.06	0.24	0.26	0.22	0.06	0.02	0.04	0.12	0.01
15	0.05	0.04	0.19	0.07	0.27	0.25	0.29	0.06	0.02	0.05	0.05	0.01
16	0.06	0.04	0.30	0.08	0.60	0.57	0.53	0.04	3.1	0.04	0.03	0.01
17	0.08	0.03	11	0.07	0.50	0.44	0.34	0.04	0.42	0.02	0.03	0.01
18	0.23	0.03	0.38	0.07	0.20	0.27	0.46	0.03	0.13	0.03	0.03	0.01
19	0.06	0.03	e0.19	1.8	0.17	0.21	0.28	0.01	0.10	0.03	0.03	0.00
20	0.05	0.03	e0.14	1.0	0.17	0.19	0.21	0.07	0.08	0.02	0.07	0.03
21	0.05	0.03	e0.10	0.36	0.17	7.3	0.18	0.88	0.07	0.02	0.03	0.01
22	0.05	0.04	e0.09	e0.23	0.16	0.78	0.17	1.2	0.07	0.02	0.03	0.01
23	0.05	0.04	e0.08	e0.18	0.20	0.30	0.10	0.36	0.17	0.02	0.02	0.00
24	0.04	0.04	e0.08	e0.15	0.15	0.24	0.04	0.13	0.14	0.02	0.02	1.5
25	0.04	0.19	e0.07	e0.13	0.54	0.20	0.03	0.16	0.08	0.03	0.02	0.56
26	0.04	0.46	e0.07	e0.11	0.38	0.18	0.03	2.5	e0.04	0.02	0.02	0.03
27	0.04	0.11	e0.06	e0.10	0.22	0.17	0.03	1.2	e0.04	0.02	0.05	0.02
28	0.04	0.07	e0.06	e0.08	0.22	0.14	0.02	0.25	0.04	0.02	0.02	0.02
29	0.04	0.12	e0.06	0.15	---	2.1	0.01	0.17	0.03	0.02	0.02	0.02
30	0.04	0.07	e0.06	1.8	---	5.9	0.05	0.13	0.03	0.03	0.05	0.02
31	0.04	---	e0.06	0.72	---	0.70	---	0.11	---	0.02	0.02	---
TOTAL	1.62	2.36	15.27	8.01	8.39	24.31	7.04	8.20	7.01	2.20	6.53	2.40
MEAN	0.05	0.08	e0.49	0.26	0.30	0.78	0.23	0.26	0.23	0.07	0.21	0.08
MAX	0.23	0.46	11	1.8	0.72	7.3	0.86	2.5	3.1	0.53	3.7	1.5
MIN	0.04	0.02	0.04	0.06	0.15	0.14	0.01	0.01	0.02	0.02	0.00	0.00
CFSM	0.16	0.25	1.54	0.81	0.94	2.45	0.73	0.83	0.73	0.22	0.66	0.25
IN.	0.19	0.27	1.78	0.93	0.98	2.83	0.82	0.95	0.81	0.26	0.76	0.28

e Estimated

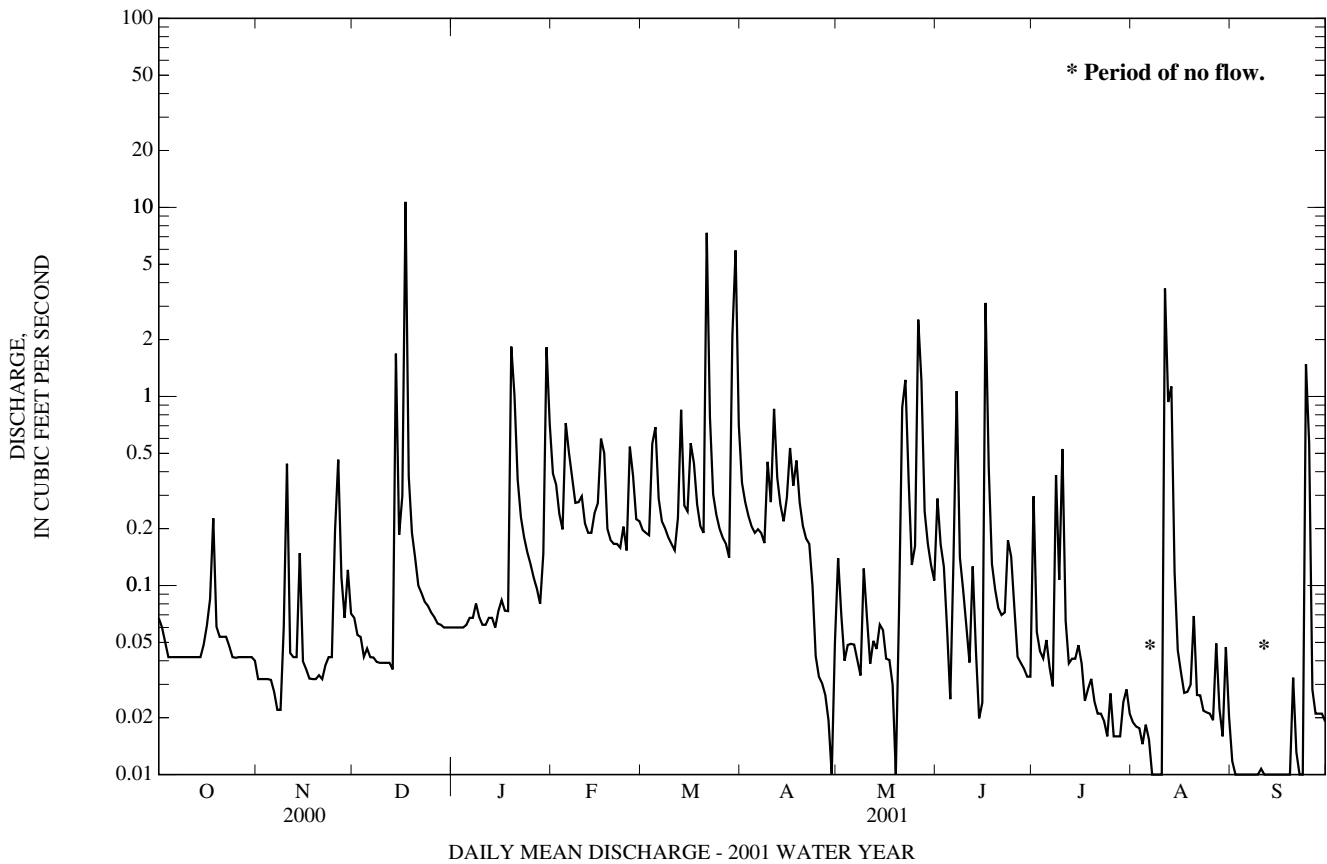
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2001, BY WATER YEAR (WY)

MEAN	0.15	0.12	0.36	0.33	0.43	0.60	0.31	0.17	0.14	0.14	0.25	0.46
MAX	0.28	0.23	0.56	0.54	0.57	0.78	0.50	0.26	0.23	0.23	0.45	1.08
(WY)	(2000)	(2000)	(2000)	(1999)	(2000)	(2001)	(2000)	(2001)	(2001)	(1999)	(1999)	(1999)
MIN	0.05	0.05	0.03	0.18	0.30	0.29	0.19	0.07	0.04	0.07	0.09	0.08
(WY)	(2001)	(1999)	(1999)	(2000)	(2001)	(1999)	(1999)	(1999)	(1999)	(2001)	(2000)	(2001)

01589180 GWYNNS FALLS AT GLYNDON, MD—Continued

SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR		FOR 2001 WATER YEAR		WATER YEARS 1999 - 2001	
ANNUAL TOTAL	101.04		93.34		0.29	
ANNUAL MEAN	0.28		0.26		0.31 2000	
HIGHEST ANNUAL MEAN					0.26 2001	
LOWEST ANNUAL MEAN					20 Sep 16, 1999	
HIGHEST DAILY MEAN	11	Dec 17	11	Dec 17		
LOWEST DAILY MEAN	0.01	Sep 18	0.00	(a)	0.00 (b)	
ANNUAL SEVEN-DAY MINIMUM	0.02	Jul 6	0.01	Sep 13	0.00 Jul 3, 1999	
MAXIMUM PEAK FLOW			95	Dec 17	(c)233	Aug 26, 1999
MAXIMUM PEAK STAGE			2.64	Dec 17	3.59 Aug 26, 1999	
INSTANTANEOUS LOW FLOW			0.00	(b)	0.00 (d)	
ANNUAL RUNOFF (CFSM)	0.863		0.799		0.897	
ANNUAL RUNOFF (INCHES)	11.75		10.85		12.19	
10 PERCENT EXCEEDS	0.48		0.45		0.46	
50 PERCENT EXCEEDS	0.09		0.06		0.08	
90 PERCENT EXCEEDS	0.03		0.02		0.02	

- a Aug. 9, Sept. 19, 23.
- b Many days.
- c From rating curve extended above 42 ft³/s.
- d No flow at times in 1999, 2001.



01589180 GWYNNS FALLS AT GLYNDON, MD—Continued

EXTREMES FOR 2002 WATER YEAR.--Peak discharges greater than base discharge of 100 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
May 2	0630	*44	*2.24	No peak greater than base discharge.			

Minimum discharge, 0.00 ft³/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	0.02	0.01	0.03	e0.02	0.14	0.13	0.16	0.15	0.07	0.03	0.00	0.45
2	0.02	0.01	0.03	e0.02	0.09	0.52	0.13	2.9	0.05	0.02	0.00	0.04
3	0.01	0.01	0.03	0.02	0.08	0.73	0.13	0.21	0.04	0.03	0.00	0.04
4	0.01	0.01	0.03	0.02	0.08	0.14	0.12	0.15	0.05	0.01	0.00	0.03
5	0.01	0.01	0.03	0.02	0.06	0.11	0.11	0.13	0.05	0.01	0.00	0.03
6	0.01	0.01	0.03	0.29	0.06	0.10	0.10	0.10	0.42	0.02	0.00	0.03
7	0.01	0.01	0.03	0.15	0.07	0.10	0.10	0.08	0.09	0.02	0.00	0.03
8	0.01	0.01	0.25	0.06	0.07	0.09	0.10	0.07	0.07	0.02	0.00	0.01
9	0.01	0.01	0.06	0.04	0.06	0.09	0.22	0.08	0.05	0.38	0.00	0.01
10	0.01	0.01	0.03	0.07	0.06	0.18	0.11	0.08	0.05	0.04	0.00	0.01
11	0.01	0.01	0.15	0.51	0.08	0.08	0.08	0.06	0.04	0.02	0.00	0.01
12	0.02	0.01	0.04	0.11	0.08	0.09	0.07	0.09	0.04	0.01	0.00	0.07
13	0.01	0.04	0.04	0.07	0.09	0.68	0.07	0.08	0.25	0.02	0.00	0.11
14	0.19	0.08	0.18	0.06	0.06	0.17	0.20	0.06	0.39	0.06	0.00	0.03
15	0.04	0.01	0.05	0.05	0.06	0.13	0.32	0.05	0.13	0.02	0.00	0.02
16	0.07	0.01	0.04	0.05	0.06	0.12	0.12	0.05	0.05	0.01	0.00	0.01
17	0.02	0.01	0.13	0.04	0.06	0.15	0.11	0.10	0.04	0.01	0.00	0.01
18	0.02	0.01	0.20	0.04	0.06	0.68	0.21	1.0	0.05	0.00	0.00	0.00
19	0.02	0.01	0.04	0.05	0.05	0.19	0.22	0.10	0.04	0.00	0.00	0.00
20	0.02	0.01	0.04	0.08	0.04	3.0	0.13	0.08	0.03	0.00	0.00	0.00
21	0.02	0.02	0.03	0.08	0.04	0.39	0.14	0.07	0.03	0.02	0.00	0.00
22	0.01	0.02	0.03	0.08	0.05	0.21	0.35	0.07	0.03	0.00	0.00	0.00
23	0.01	0.02	0.05	0.13	0.05	0.16	0.12	0.07	0.03	0.03	0.00	0.03
24	0.01	0.04	0.11	0.76	0.05	0.14	0.10	0.05	0.03	0.00	1.1	0.00
25	0.01	1.9	0.04	0.17	0.05	0.13	0.12	0.05	0.03	0.00	0.00	0.00
26	0.01	0.23	e0.03	0.11	0.07	0.77	0.09	0.20	0.02	0.33	0.00	0.92
27	0.01	0.04	e0.02	0.10	0.14	0.51	0.09	1.3	0.02	0.02	0.00	0.69
28	0.01	0.03	e0.02	0.09	0.13	0.21	2.3	1.4	0.03	0.01	0.95	0.16
29	0.01	0.03	e0.02	0.08	---	0.18	0.25	0.28	0.03	0.00	0.49	0.01
30	0.01	0.04	e0.02	0.10	---	0.15	0.17	0.14	0.04	0.00	0.04	0.00
31	0.01	---	e0.02	0.18	---	0.20	---	0.10	---	0.00	0.03	---
TOTAL	0.66	2.67	1.85	3.65	1.99	10.53	6.54	9.35	2.29	1.14	2.61	2.75
MEAN	0.02	0.09	0.06	0.12	0.07	0.34	0.22	0.30	0.08	0.04	0.08	0.09
MAX	0.19	1.9	0.25	0.76	0.14	3.0	2.3	2.9	0.42	0.38	1.1	0.92
MIN	0.01	0.01	0.02	0.02	0.04	0.08	0.07	0.05	0.02	0.00	0.00	0.00
CFSM	0.07	0.28	0.19	0.37	0.22	1.06	0.68	0.94	0.24	0.11	0.26	0.29
IN.	0.08	0.31	0.22	0.42	0.23	1.22	0.76	1.09	0.27	0.13	0.30	0.32

e Estimated

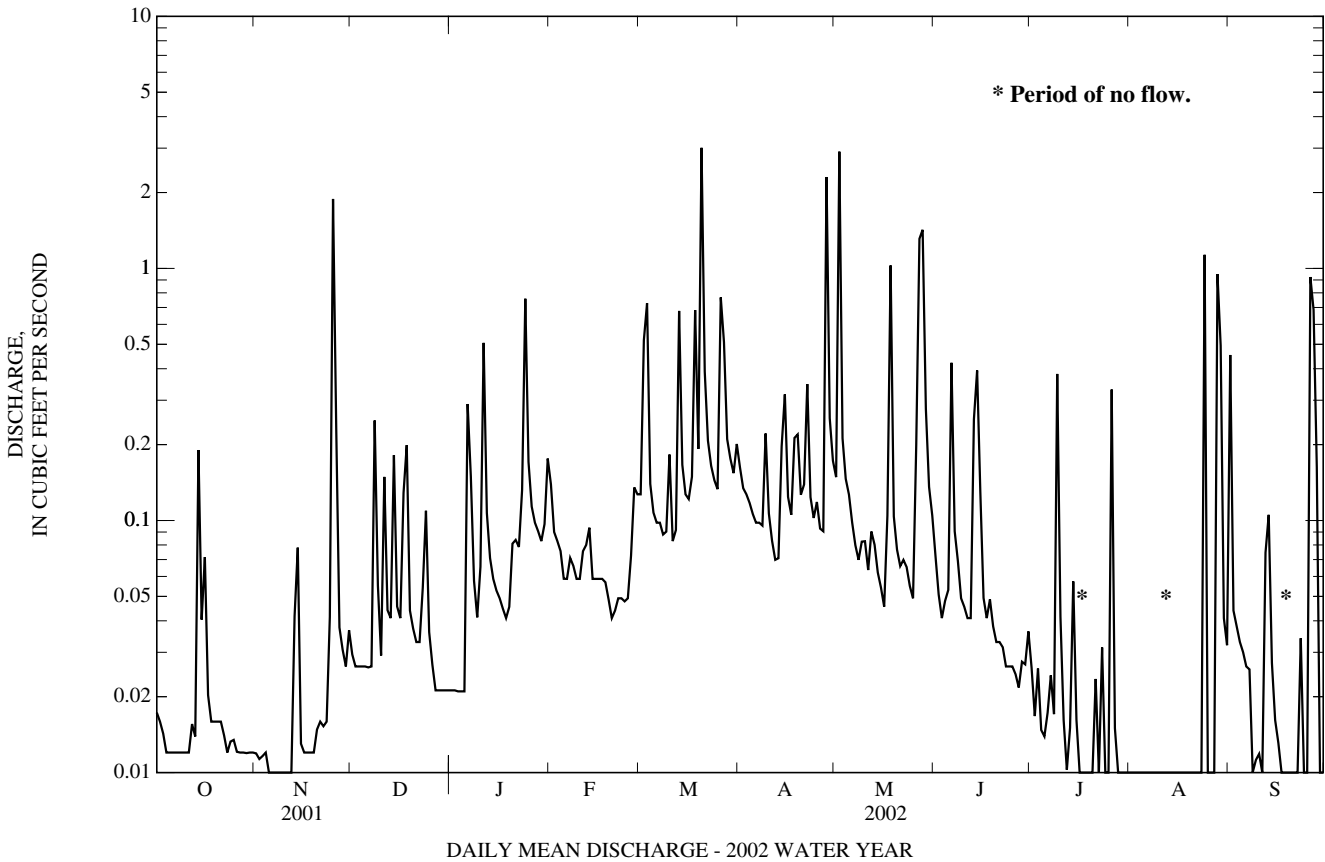
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2002, BY WATER YEAR (WY)

MEAN	0.11	0.11	0.29	0.27	0.34	0.54	0.29	0.20	0.12	0.11	0.21	0.37
MAX	0.28	0.23	0.56	0.54	0.57	0.78	0.50	0.30	0.23	0.23	0.45	1.08
(WY)	(2000)	(2000)	(2000)	(1999)	(2000)	(2001)	(2000)	(2002)	(2001)	(1999)	(1999)	(1999)
MIN	0.02	0.05	0.03	0.12	0.07	0.29	0.19	0.07	0.04	0.04	0.08	0.08
(WY)	(2002)	(1999)	(1999)	(2002)	(2002)	(1999)	(1999)	(1999)	(1999)	(2002)	(2002)	(2001)

01589180 GWYNNS FALLS AT GLYNDON, MD—Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1999 - 2002	
ANNUAL TOTAL	79.27		46.03		0.25	
ANNUAL MEAN	0.22		0.13		0.31 2000	
HIGHEST ANNUAL MEAN					0.13 2002	
LOWEST ANNUAL MEAN					20 Sep 16, 1999	
HIGHEST DAILY MEAN	7.3	Mar 21	3.0	Mar 20		
LOWEST DAILY MEAN	0.00	(a)	0.00	(b)	0.00 (b)	
ANNUAL SEVEN-DAY MINIMUM	0.01	Sep 13	0.00	Jul 29	0.00 Jul 3, 1999	
MAXIMUM PEAK FLOW			44	May 2	(c)233 Aug 26, 1999	
MAXIMUM PEAK STAGE			2.24	May 2	3.59 Aug 26, 1999	
INSTANTANEOUS LOW FLOW			0.00	(b)	0.00 (d)	
ANNUAL RUNOFF (CFSM)	0.679		0.394		0.771	
ANNUAL RUNOFF (INCHES)	9.22		5.35		10.48	
10 PERCENT EXCEEDS	0.43		0.21		0.40	
50 PERCENT EXCEEDS	0.05		0.04		0.07	
90 PERCENT EXCEEDS	0.01		0.00		0.01	

- a Aug. 9, Sept. 19, 23.
- b Many days.
- c From rating curve extended above 42 ft³/s.
- d No flow at times in 1999, 2001, 2002.



01589180 GWYNN'S FALLS AT GLYNDON, MD—Continued

EXTREMES FOR 2003 WATER YEAR.--Peak discharges greater than base discharge of 100 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Sep 4	0800	*128	*2.92	Sep 23	0345	108	2.77

Minimum discharge, 0.01 ft³/s, Oct. 1, 2, 5-9, Jan. 28, Feb. 16.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.01	0.15	0.12	6.6	0.08	0.23	0.35	0.14	0.59	0.11	0.06	0.16
2	0.01	0.12	0.11	1.3	0.03	1.3	0.27	0.14	0.24	0.37	0.04	0.26
3	0.02	0.10	0.10	3.5	0.03	0.79	0.23	0.13	0.70	1.8	0.06	0.72
4	0.06	0.08	0.34	0.62	0.27	0.39	0.21	0.11	4.8	0.26	0.04	7.5
5	0.02	0.34	0.10	0.30	0.06	1.1	0.20	0.18	2.2	0.15	0.08	0.87
6	0.01	0.51	0.10	0.31	0.04	2.4	0.18	0.15	0.34	0.14	0.05	0.68
7	0.01	0.14	0.09	0.26	0.05	0.65	0.95	0.13	4.0	0.12	0.04	0.66
8	0.01	0.12	0.09	0.42	0.04	0.90	0.39	0.19	0.60	0.10	0.07	0.64
9	0.01	0.10	0.10	0.40	0.04	2.2	1.3	0.64	0.49	0.13	0.14	0.55
10	0.51	0.09	0.10	0.27	0.05	0.61	0.39	0.35	0.25	0.12	0.09	0.48
11	1.7	0.22	3.2	0.22	0.04	0.35	0.75	0.19	0.21	0.11	4.8	0.45
12	0.11	0.91	1.3	0.19	0.04	0.58	0.34	0.14	0.28	0.49	0.38	0.50
13	0.05	0.24	2.1	0.17	0.04	1.7	0.24	0.12	0.72	0.14	0.14	1.4
14	0.04	0.15	2.0	0.17	0.04	0.80	0.21	0.11	0.53	0.09	0.10	0.75
15	0.04	0.13	0.42	0.16	0.04	0.63	0.19	0.10	0.26	0.07	0.08	0.71
16	2.9	2.7	0.26	0.13	e0.08	0.66	0.18	8.5	0.17	0.07	1.00	0.69
17	0.20	2.5	0.20	0.13	e0.16	0.71	0.26	0.81	0.31	0.06	1.1	0.67
18	0.11	0.82	0.17	0.11	e0.50	0.40	0.34	0.40	0.28	0.05	0.16	2.4
19	0.08	0.23	0.17	0.10	e0.34	0.30	0.22	0.27	6.8	0.06	0.13	2.7
20	0.07	0.20	0.95	0.09	0.14	6.9	0.18	0.20	5.2	0.05	0.09	0.62
21	0.06	0.41	0.25	0.07	0.32	1.4	0.16	0.35	0.62	0.04	0.08	0.54
22	0.06	0.29	0.20	0.05	5.3	0.46	0.17	0.21	0.32	0.42	0.16	0.81
23	0.05	0.19	0.17	0.04	2.9	0.35	0.14	0.28	0.24	0.66	0.09	13
24	0.05	0.17	0.17	0.04	0.93	0.28	0.13	0.55	0.18	0.11	0.06	0.35
25	0.17	0.15	1.5	0.03	0.41	0.26	0.23	0.93	0.15	0.06	0.05	0.50
26	0.38	0.14	0.50	0.03	0.28	0.66	1.7	3.2	0.14	0.05	0.21	0.34
27	0.08	0.17	0.25	0.02	0.24	0.36	0.28	0.38	0.13	0.04	0.21	0.24
28	0.07	0.14	0.22	0.02	0.26	0.27	0.20	0.78	0.13	0.06	0.08	0.26
29	0.76	0.14	0.23	0.02	---	0.43	0.17	0.31	0.11	0.05	0.05	0.16
30	0.51	0.14	0.22	e0.02	---	1.8	0.15	0.21	0.13	0.03	0.06	0.15
31	0.31	---	0.38	e0.02	---	0.53	---	2.9	---	0.04	0.05	---
TOTAL	8.47	11.79	16.11	15.81	12.75	30.40	10.71	23.10	31.12	6.05	9.75	39.76
MEAN	0.27	0.39	0.52	0.51	0.46	0.98	0.36	0.75	1.04	0.20	0.31	1.33
MAX	2.9	2.7	3.2	6.6	5.3	6.9	1.7	8.5	6.8	1.8	4.8	13
MIN	0.01	0.08	0.09	0.02	0.03	0.23	0.13	0.10	0.11	0.03	0.04	0.15
CFSM	0.85	1.23	1.62	1.59	1.42	3.06	1.12	2.33	3.24	0.61	0.98	4.14
IN.	0.98	1.37	1.87	1.84	1.48	3.53	1.25	2.69	3.62	0.70	1.13	4.62

e Estimated

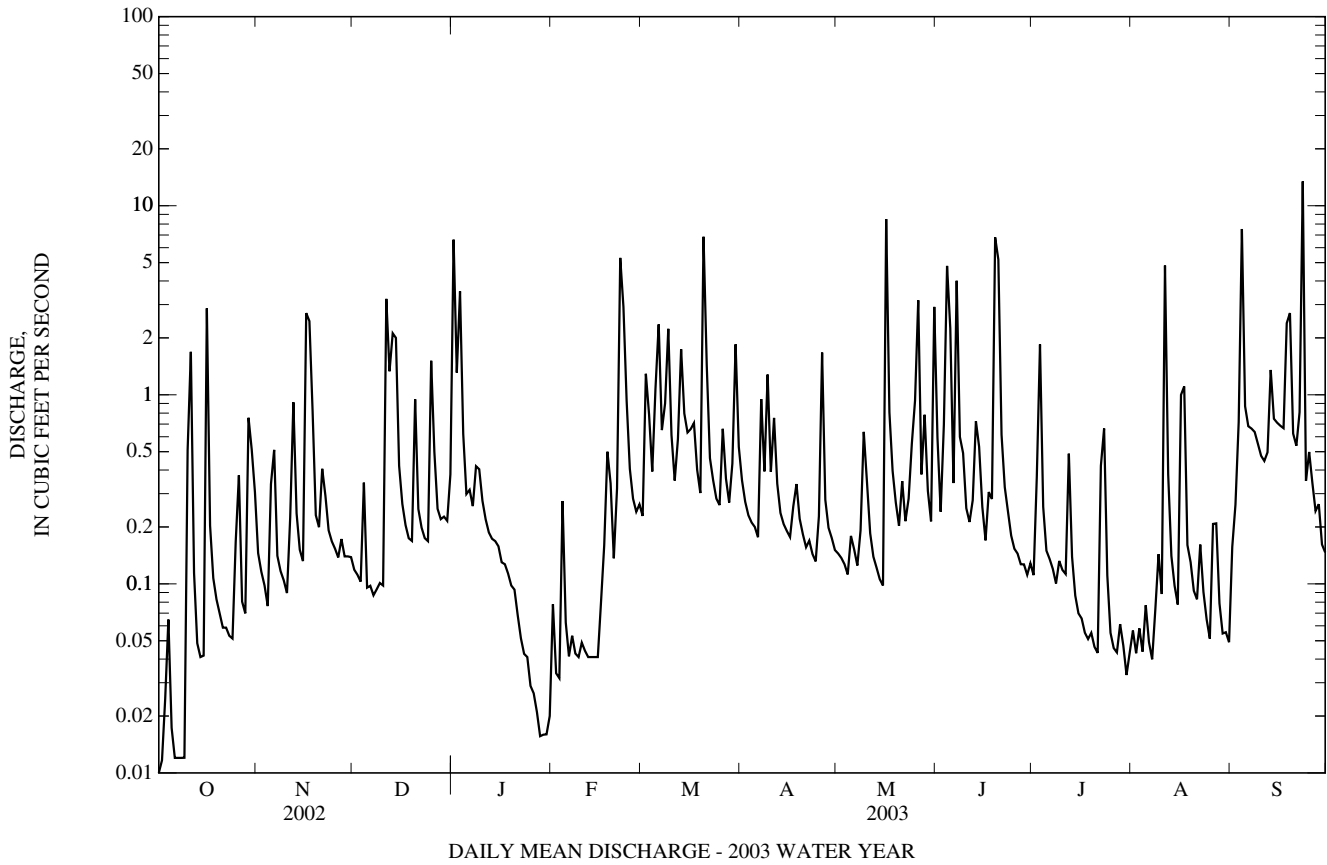
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2003, BY WATER YEAR (WY)

MEAN	0.15	0.17	0.33	0.32	0.37	0.63	0.30	0.31	0.31	0.13	0.23	0.56
MAX	0.28	0.39	0.56	0.54	0.57	0.98	0.50	0.75	1.04	0.23	0.45	1.33
(WY)	(2000)	(2003)	(2000)	(1999)	(2000)	(2003)	(2000)	(2003)	(2003)	(1999)	(1999)	(2003)
MIN	0.02	0.05	0.03	0.12	0.07	0.29	0.19	0.07	0.04	0.04	0.08	0.08
(WY)	(2002)	(1999)	(1999)	(2002)	(2002)	(1999)	(1999)	(1999)	(1999)	(2002)	(2002)	(2001)

01589180 GWYNNS FALLS AT GLYNDON, MD—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1999 - 2003	
ANNUAL TOTAL	77.22		215.82		0.32	
ANNUAL MEAN	0.21		0.59		0.59 2003	
HIGHEST ANNUAL MEAN					0.13 2002	
LOWEST ANNUAL MEAN					20 Sep 16, 1999	
HIGHEST DAILY MEAN	3.2	Dec 11	13	Sep 23		
LOWEST DAILY MEAN	0.00	(a)	0.01	(b)	0.00 (a)	
ANNUAL SEVEN-DAY MINIMUM	0.00	Jul 29	0.02	Oct 1	0.00 Jul 3, 1999	
MAXIMUM PEAK FLOW			128	Sep 4	(c)233 Aug 26, 1999	
MAXIMUM PEAK STAGE			2.92	Sep 4	3.59 Aug 26, 1999	
INSTANTANEOUS LOW FLOW			0.01	(d)	0.00 (f)	
ANNUAL RUNOFF (CFSM)	0.661		1.85		0.987	
ANNUAL RUNOFF (INCHES)	8.98		25.09		13.41	
10 PERCENT EXCEEDS	0.47		1.3		0.55	
50 PERCENT EXCEEDS	0.08		0.21		0.09	
90 PERCENT EXCEEDS	0.00		0.05		0.01	

- a Many days.
- b Oct. 1, 2, 6-9.
- c From rating curve extended above 42 ft³/s.
- d Oct. 1, 2, 5-9, Jan. 28, Feb. 16.
- f No flow at times in 1999, 2001, 2002.



01589180 GWYNN'S FALLS AT GLYNDON, MD—Continued

EXTREMES FOR 2004 WATER YEAR.--Peak discharges greater than base discharge of 100 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
July 7	1415	*80	*2.58	No peak greater than base discharge.			

Minimum discharge, 0.01 ft³/s, July 6, 7, 30, 31, Aug. 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	0.17	0.30	0.23	0.14	e0.08	e0.21	e4.0	0.18	0.11	0.03	0.72	e0.02
2	0.20	0.27	0.19	0.27	0.08	e0.24	e1.4	0.47	0.06	0.02	0.15	0.02
3	0.19	0.24	0.16	0.17	0.15	e0.22	e0.70	0.66	0.05	0.02	0.11	0.02
4	0.38	0.21	0.15	0.15	0.36	e0.20	e0.34	0.31	0.04	0.03	0.36	0.02
5	0.20	0.50	0.22	0.55	0.28	e0.19	e0.20	0.27	2.8	0.04	0.14	0.02
6	e0.14	0.48	0.30	0.18	7.4	e2.4	e0.18	0.20	0.92	0.02	0.06	0.02
7	e0.11	0.33	0.28	0.11	2.3	e0.80	e0.17	0.16	0.27	2.9	0.05	0.02
8	e0.11	0.21	0.23	0.09	0.62	e0.46	e0.17	0.14	0.16	0.43	0.05	0.08
9	e0.12	0.18	0.25	0.09	0.29	e0.33	e0.19	0.14	0.09	0.10	0.04	0.27
10	e0.12	0.16	1.8	0.05	0.77	e0.29	e0.17	0.15	0.17	0.07	0.02	0.03
11	e0.13	0.15	15	0.05	0.47	e0.26	e0.16	0.11	0.66	0.06	0.71	0.02
12	e0.15	1.2	0.71	0.06	0.32	e0.24	e1.4	0.09	0.23	0.05	0.83	0.02
13	e0.44	0.27	0.35	0.08	0.36	e0.22	e0.70	0.09	0.08	0.05	0.23	0.02
14	e2.4	0.19	1.6	0.08	0.32	e0.20	e0.38	0.09	0.22	0.07	e0.03	0.03
15	e0.80	0.17	1.6	0.07	0.28	e0.19	e0.27	0.27	0.09	0.06	e0.03	0.03
16	0.31	0.17	0.73	0.04	0.21	e0.50	e0.25	0.20	0.05	0.04	e0.02	0.03
17	0.28	0.16	3.6	0.04	0.18	e0.30	e0.23	0.81	0.04	0.04	e0.02	0.86
18	0.26	0.15	0.73	0.28	0.18	e0.26	e0.18	0.44	0.05	0.10	e0.02	1.7
19	0.23	6.4	0.38	0.08	0.29	e0.38	e0.17	0.64	0.03	0.05	e0.02	0.10
20	0.18	1.3	0.28	0.07	0.44	e0.24	0.18	0.23	0.02	0.04	e0.02	0.05
21	0.15	0.38	0.21	e0.08	0.50	e0.26	0.17	0.74	0.03	0.03	0.12	0.04
22	0.12	0.29	0.20	e0.08	0.29	e0.23	0.16	0.24	0.03	0.05	e0.02	0.06
23	0.11	0.23	0.19	e0.08	0.23	e0.21	0.96	0.13	0.03	0.09	e0.02	0.03
24	0.09	0.42	2.4	e0.08	0.33	e0.21	0.47	0.08	0.02	0.03	e0.02	0.03
25	0.08	0.36	0.50	e0.08	0.23	e0.23	0.31	0.53	0.02	0.02	e0.02	0.02
26	0.56	0.19	0.29	e0.08	0.21	e0.21	2.1	0.27	0.02	0.04	e0.02	0.02
27	7.1	0.17	0.24	e0.08	e0.22	e0.30	0.64	0.15	0.02	0.25	e0.02	0.03
28	0.81	3.2	0.19	e0.08	e0.21	e0.24	0.32	0.08	0.04	0.03	e0.02	4.1
29	4.1	0.87	0.18	e0.08	e0.20	e0.22	0.23	0.04	0.08	0.03	e0.02	0.57
30	0.57	0.30	0.18	e0.08	---	e0.22	0.20	0.04	0.02	0.02	e0.02	0.13
31	0.37	---	0.15	e0.08	---	e0.21	---	0.07	---	e0.02	e0.02	---
TOTAL	20.98	19.45	33.52	3.53	17.80	10.67	17.00	8.02	6.45	4.83	3.95	8.41
MEAN	0.68	0.65	1.08	0.11	0.61	0.34	0.57	0.26	0.21	0.16	0.13	0.28
MAX	7.1	6.4	15	0.55	7.4	2.4	4.0	0.81	2.8	2.9	0.83	4.1
MIN	0.08	0.15	0.15	0.04	0.08	0.19	0.16	0.04	0.02	0.02	0.02	0.02
CFSM	2.11	2.03	3.38	0.36	1.92	1.08	1.77	0.81	0.67	0.49	0.40	0.88
IN.	2.44	2.26	3.90	0.41	2.07	1.24	1.98	0.93	0.75	0.56	0.46	0.98

e Estimated

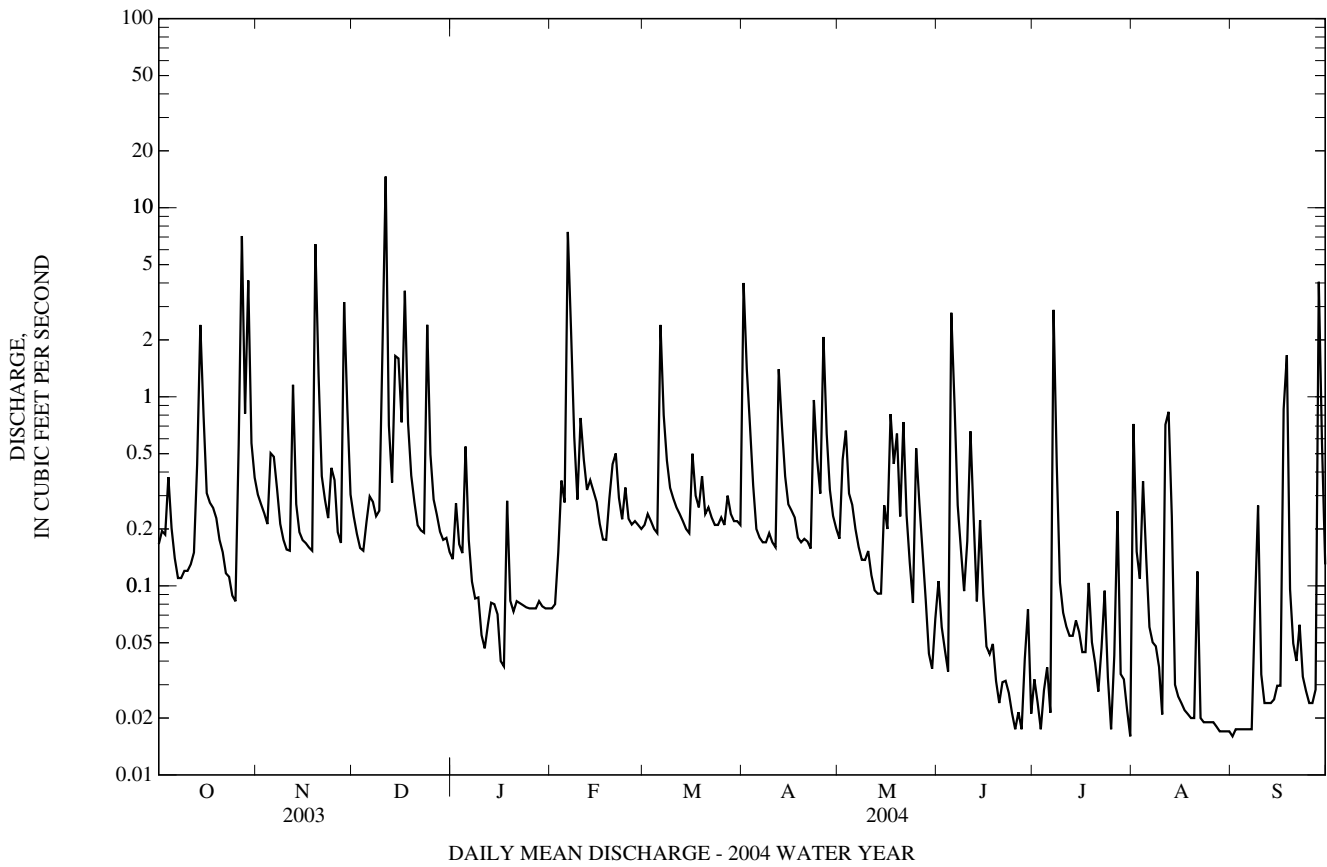
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2004, BY WATER YEAR (WY)

MEAN	0.24	0.25	0.46	0.29	0.41	0.58	0.34	0.30	0.29	0.13	0.21	0.51
MAX	0.68	0.65	1.08	0.54	0.61	0.98	0.57	0.75	1.04	0.23	0.45	1.33
(WY)	(2004)	(2004)	(2004)	(1999)	(2004)	(2003)	(2004)	(2003)	(2003)	(1999)	(1999)	(2003)
MIN	0.02	0.05	0.03	0.11	0.07	0.29	0.19	0.07	0.04	0.04	0.08	0.08
(WY)	(2002)	(1999)	(1999)	(2004)	(2002)	(1999)	(1999)	(1999)	(1999)	(2002)	(2002)	(2001)

01589180 GWYNNS FALLS AT GLYNDON, MD—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1999 - 2004	
ANNUAL TOTAL	253.40		154.61		0.33	
ANNUAL MEAN	0.69		0.42		0.59 2003	
HIGHEST ANNUAL MEAN					0.13 2002	
LOWEST ANNUAL MEAN					20 Sep 16, 1999	
HIGHEST DAILY MEAN	15	Dec 11	15	Dec 11		
LOWEST DAILY MEAN	0.02	(a)	0.02	(b)	0.00 (b)	
ANNUAL SEVEN-DAY MINIMUM	0.02	Jan 25	0.02	Aug 22	0.00 Jul 3, 1999	
MAXIMUM PEAK FLOW			80	Jul 7	(c)233 Aug 26, 1999	
MAXIMUM PEAK STAGE			2.58	Jul 7	3.59 Aug 26, 1999	
INSTANTANEOUS LOW FLOW			0.01	(d)	0.00 (f)	
ANNUAL RUNOFF (CFSM)	2.17		1.32		1.04	
ANNUAL RUNOFF (INCHES)	29.46		17.97		14.16	
10 PERCENT EXCEEDS	1.4		0.73		0.60	
50 PERCENT EXCEEDS	0.24		0.18		0.10	
90 PERCENT EXCEEDS	0.05		0.02		0.02	

- a Jan. 27-31.
- b Many days.
- c From rating curve extended above 42 ft³/s.
- d July 6, 7, 30, 31, Aug. 10.
- f No flow at times in 1999, 2001, 2002.



01589180 GWYNN'S FALLS AT GLYNDON, MD—Continued

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 100 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
July 8	0545	*62	*2.43	No peak greater than base discharge.			

Minimum discharge, 0.00 ft³/s, on many days.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.09	0.12	1.8	0.12	0.07	0.31	0.37	0.31	0.04	0.02	0.03	0.01
2	0.08	0.11	0.26	0.12	0.06	0.19	8.5	0.18	0.04	0.01	0.02	0.00
3	0.10	0.10	0.19	0.11	0.06	0.16	1.8	0.17	0.53	0.01	0.02	0.00
4	0.10	0.94	0.14	0.11	0.11	0.15	0.55	0.14	0.10	0.01	0.02	0.00
5	0.10	0.27	0.12	0.69	0.11	0.15	0.39	0.13	0.07	0.78	0.02	0.00
6	0.09	0.16	0.11	0.50	0.14	0.24	0.31	0.13	0.37	0.26	0.04	0.00
7	0.08	0.15	0.24	0.24	0.19	0.41	0.27	0.12	0.13	0.19	0.02	0.00
8	0.08	0.13	0.17	0.54	0.40	0.87	1.4	0.12	0.05	9.2	0.55	0.00
9	0.08	0.11	1.8	0.25	0.52	0.22	0.33	0.11	0.05	0.19	0.06	0.00
10	0.08	0.10	1.6	0.21	0.53	0.17	0.26	0.10	0.05	0.07	0.03	0.00
11	0.09	0.10	0.42	0.19	0.19	0.21	0.23	0.09	0.03	0.05	0.03	0.00
12	0.10	1.4	0.21	0.19	0.15	0.20	0.21	0.09	0.03	0.04	0.02	0.00
13	0.10	0.56	0.16	0.20	0.15	0.17	0.20	0.09	0.02	0.04	0.01	0.00
14	0.38	0.15	0.12	9.0	1.0	0.15	0.17	0.10	0.02	0.25	0.01	0.00
15	0.15	0.12	0.11	0.51	0.59	0.13	0.17	0.13	0.02	0.09	0.01	0.00
16	0.18	0.11	0.10	0.33	0.30	0.13	0.17	0.12	0.01	0.74	0.17	0.00
17	0.13	0.09	0.09	0.26	0.24	0.13	0.17	0.10	0.01	0.22	0.03	0.00
18	0.12	0.09	0.09	0.18	0.19	0.12	0.16	0.09	0.01	0.08	0.03	0.00
19	0.17	0.09	0.09	0.17	0.15	0.12	0.15	0.09	0.01	0.07	0.11	0.00
20	0.18	0.13	0.06	0.15	0.15	0.29	0.15	1.2	0.01	0.06	0.03	0.00
21	0.23	0.11	0.05	0.13	0.24	0.15	0.15	0.17	0.01	0.05	0.02	0.00
22	0.18	0.08	0.05	0.10	0.20	0.13	0.34	0.13	0.01	0.05	0.02	0.00
23	0.14	0.08	3.1	0.10	0.18	9.9	0.74	0.13	0.01	0.04	0.01	0.00
24	0.13	0.24	0.50	0.10	0.17	1.1	0.33	0.37	0.01	0.04	0.01	0.00
25	0.12	0.25	0.22	0.10	0.24	0.41	0.25	0.14	0.00	0.43	0.01	0.00
26	0.12	0.11	0.17	0.09	0.18	0.37	0.19	0.11	0.00	0.06	0.01	0.00
27	0.12	0.09	0.14	0.09	0.18	0.49	0.15	0.09	0.03	0.35	0.02	0.00
28	0.12	1.3	0.12	0.08	0.19	6.4	0.14	0.07	0.97	0.07	0.17	0.00
29	0.12	0.19	0.12	0.08	---	1.1	0.13	0.07	0.52	0.04	0.01	0.00
30	0.12	0.17	0.12	0.08	---	0.41	1.0	0.07	0.06	0.04	0.01	0.00
31	0.12	---	0.12	0.08	---	0.29	---	0.06	---	0.04	0.01	---
TOTAL	4.00	7.65	12.59	15.10	6.88	25.27	19.38	5.02	3.22	13.59	1.56	0.01
MEAN	0.13	0.26	0.41	0.49	0.25	0.82	0.65	0.16	0.11	0.44	0.05	0.00
MAX	0.38	1.4	3.1	9.0	1.0	9.9	8.5	1.2	0.97	9.2	0.55	0.01
MIN	0.08	0.08	0.05	0.08	0.06	0.12	0.13	0.06	0.00	0.01	0.01	0.00
CFSM	0.40	0.80	1.27	1.52	0.77	2.55	2.02	0.51	0.34	1.37	0.16	0.00
IN.	0.47	0.89	1.46	1.76	0.80	2.94	2.25	0.58	0.37	1.58	0.18	0.00

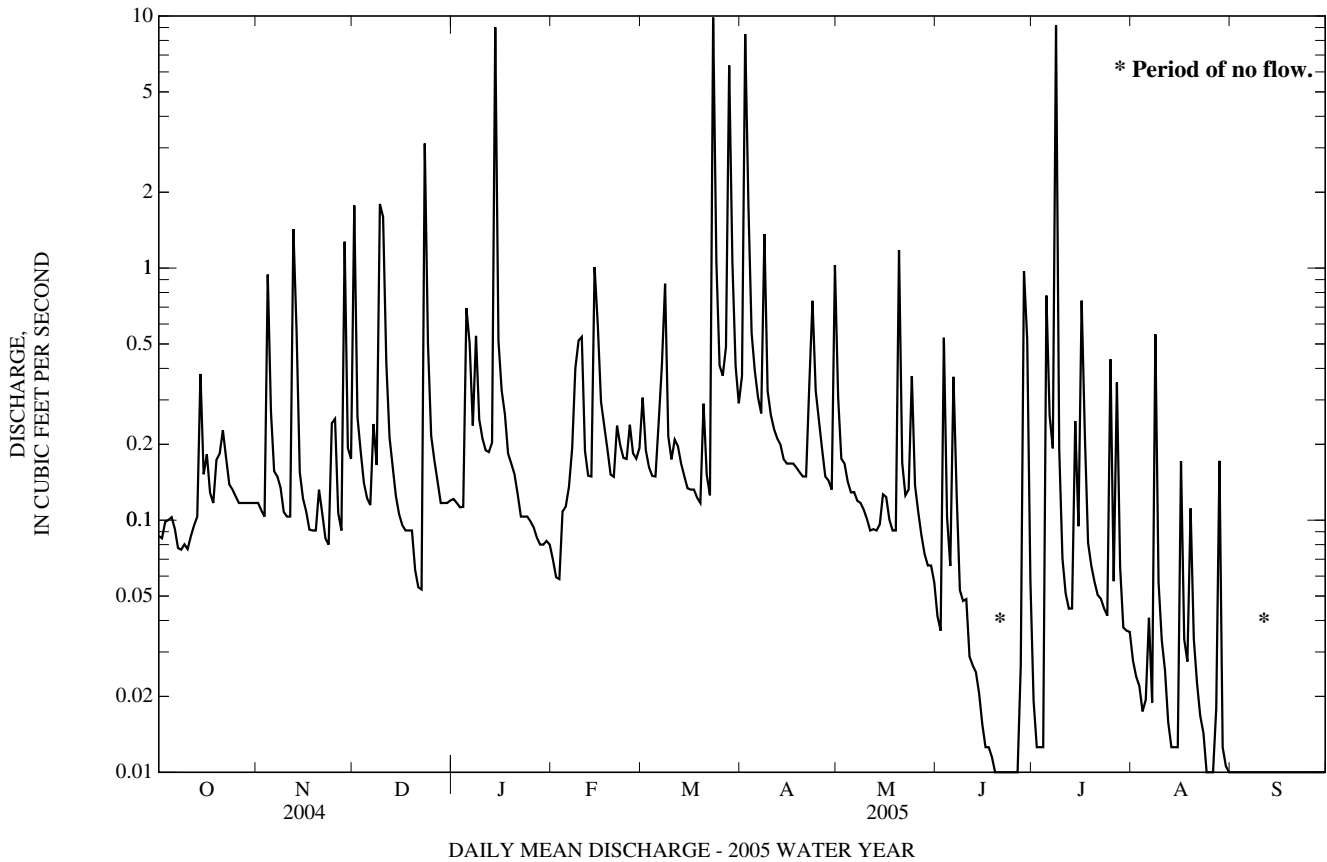
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2005, BY WATER YEAR (WY)

MEAN	0.22	0.25	0.45	0.32	0.39	0.61	0.39	0.28	0.27	0.18	0.19	0.44
MAX	0.68	0.65	1.08	0.54	0.61	0.98	0.65	0.75	1.04	0.44	0.45	1.33
(WY)	(2004)	(2004)	(2004)	(1999)	(2004)	(2003)	(2005)	(2003)	(2003)	(2005)	(1999)	(2003)
MIN	0.02	0.05	0.03	0.11	0.07	0.29	0.19	0.07	0.04	0.04	0.05	0.00
(WY)	(2002)	(1999)	(1999)	(2004)	(2002)	(1999)	(1999)	(1999)	(1999)	(2002)	(2005)	(2005)

01589180 GWYNNS FALLS AT GLYNDON, MD—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1999 - 2005	
ANNUAL TOTAL	104.90		114.27		0.33	
ANNUAL MEAN	0.29		0.31		0.59 2003	
HIGHEST ANNUAL MEAN					0.13 2002	
LOWEST ANNUAL MEAN					20 Sep 16, 1999	
HIGHEST DAILY MEAN	7.4	Feb 6	9.9	Mar 23		
LOWEST DAILY MEAN	0.02	(a)	0.00	(a)	0.00 (a)	
ANNUAL SEVEN-DAY MINIMUM	0.02	Aug 22	0.00	Sep 2	0.00 Jul 3, 1999	
MAXIMUM PEAK FLOW			62	Jul 8	(b)233 Aug 26, 1999	
MAXIMUM PEAK STAGE			2.43	Jul 8	3.59 Aug 26, 1999	
INSTANTANEOUS LOW FLOW			0.00	(a)	0.00 (c)	
ANNUAL RUNOFF (CFSM)	0.896		0.978		1.03	
ANNUAL RUNOFF (INCHES)	12.19		13.28		14.04	
10 PERCENT EXCEEDS	0.56		0.50		0.56	
50 PERCENT EXCEEDS	0.12		0.12		0.11	
90 PERCENT EXCEEDS	0.02		0.01		0.01	

- a Many days.
- b From rating curve extended above 42 ft³/s.
- c No flow at times in 1999, 2001, 2002, 2005.



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 mi².

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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan 14	0530	472	4.81	Mar 28	1400	393	4.35
Mar 23	0945	357	4.13	Apr 2	1400	497	4.95
Mar 23	1600	411	4.46	Jul 8	0715	*559	*5.28

Minimum discharge, 1.0 ft³/s, Sept. 5, 11-14, 17-19, 28-30.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.0	2.4	18	e2.6	e2.9	5.1	4.3	5.4	3.0	1.8	2.0	1.2
2	2.6	2.4	4.3	e2.5	3.0	3.5	121	3.8	2.3	1.7	1.9	1.3
3	2.5	2.4	3.4	e2.5	3.1	3.3	20	3.6	7.6	1.6	1.8	1.2
4	2.4	13	3.1	2.7	e3.4	3.2	6.9	3.4	3.1	1.5	1.7	1.3
5	2.2	3.9	3.3	7.1	e3.6	3.3	5.5	3.3	2.6	9.7	1.7	1.2
6	2.2	2.8	3.2	5.3	e3.6	3.5	4.9	3.2	6.0	5.9	2.2	1.2
7	2.2	2.6	4.2	3.5	e4.0	4.0	4.7	3.2	4.4	2.6	1.7	1.2
8	2.1	2.5	3.3	6.6	4.8	7.9	9.4	3.1	2.4	110	2.3	1.1
9	2.1	2.4	18	3.6	5.2	3.9	4.6	3.1	2.4	5.2	2.1	1.1
10	2.1	2.4	16	3.3	6.1	3.4	4.3	3.1	2.5	3.4	1.8	1.2
11	2.1	2.4	5.8	3.2	3.7	3.7	4.1	3.0	2.2	2.8	1.6	1.1
12	2.2	17	3.8	3.0	3.4	3.5	4.0	3.0	2.1	2.6	1.6	1.1
13	2.3	8.2	3.4	3.2	3.3	3.2	3.9	2.9	2.1	2.5	1.5	1.1
14	4.2	3.3	3.1	123	8.9	3.1	3.8	3.0	2.1	3.0	1.5	1.1
15	2.4	2.9	3.0	7.0	6.4	3.0	3.7	3.1	1.9	2.9	1.4	1.1
16	2.6	2.7	e2.8	4.6	4.2	3.0	3.6	3.0	1.8	16	3.2	1.1
17	2.3	2.7	e2.8	3.8	3.7	3.0	3.6	2.8	1.8	4.7	1.6	1.2
18	2.1	2.6	e2.7	3.4	3.4	3.0	3.6	2.8	1.7	2.9	1.3	1.1
19	3.2	2.6	e2.6	3.2	3.2	2.9	3.5	2.7	1.7	2.5	2.5	1.1
20	2.7	3.5	2.6	e3.1	3.1	5.0	3.4	16	1.8	2.3	1.4	1.1
21	3.7	3.2	2.6	e3.0	4.1	3.4	3.3	3.5	1.7	2.2	1.3	1.1
22	2.7	2.6	2.6	e2.9	3.5	3.0	4.4	2.6	1.8	2.2	1.2	1.1
23	2.4	2.9	36	e2.9	3.3	118	9.4	2.7	1.7	2.0	1.2	1.1
24	2.4	4.5	6.2	e3.0	3.4	9.7	4.4	6.5	1.6	1.9	1.2	1.1
25	2.3	4.9	3.9	3.1	4.4	5.4	3.7	3.4	1.5	7.5	1.2	1.1
26	2.3	2.9	3.3	e3.0	3.6	4.6	3.4	2.7	1.5	2.2	1.1	1.5
27	2.3	2.6	2.9	e3.0	3.3	5.0	3.4	2.5	2.1	6.3	1.2	1.4
28	2.3	17	2.8	e2.9	3.7	74	3.3	2.6	5.9	2.8	2.9	1.1
29	2.4	3.7	e2.8	2.9	---	11	3.3	2.5	6.8	2.1	1.3	1.1
30	2.4	3.2	e2.7	e3.1	---	5.6	12	2.4	2.8	2.1	1.2	1.1
31	2.4	---	e2.6	e2.9	---	4.5	---	2.4	---	2.0	1.2	---
TOTAL	77.1	132.2	177.8	229.9	112.3	318.7	273.4	111.3	82.9	218.9	51.8	34.8
MEAN	2.49	4.41	5.74	7.42	4.01	10.3	9.11	3.59	2.76	7.06	1.67	1.16
MAX	4.2	17	36	123	8.9	118	121	16	7.6	110	3.2	1.5
MIN	2.1	2.4	2.6	2.5	2.9	2.9	3.3	2.4	1.5	1.5	1.1	1.1
CFSM	0.59	1.04	1.36	1.75	0.95	2.43	2.15	0.85	0.65	1.67	0.40	0.27
IN.	0.68	1.16	1.56	2.02	0.99	2.80	2.40	0.98	0.73	1.93	0.46	0.31

e Estimated

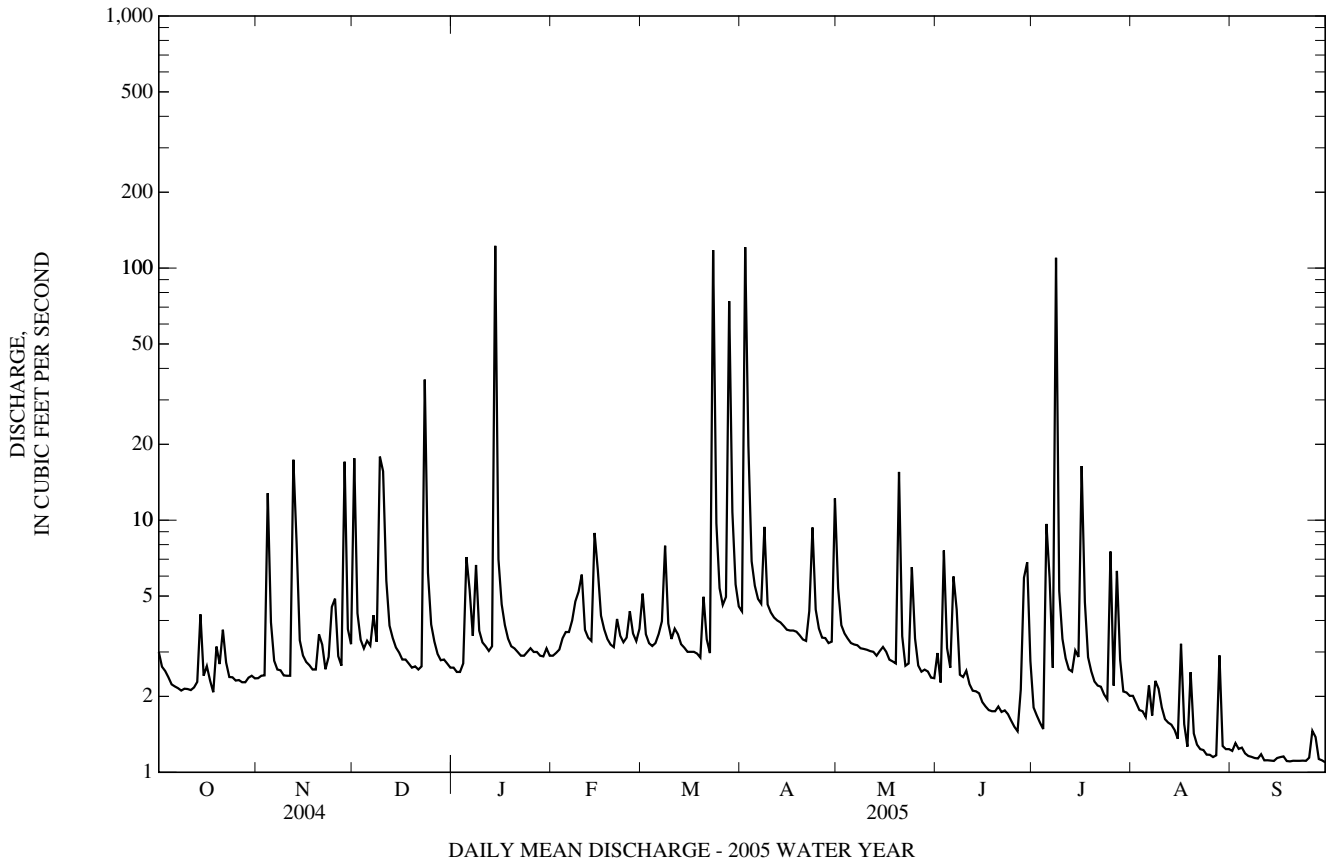
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2005, BY WATER YEAR (WY)

MEAN	3.94	4.40	5.92	5.02	5.44	7.05	5.84	4.51	4.75	4.09	3.72	5.80
MAX	10.1	9.63	13.2	7.92	11.2	10.3	9.11	9.49	12.4	7.06	6.79	11.8
(WY)	(2004)	(2004)	(2004)	(1999)	(2004)	(2005)	(2005)	(2003)	(2003)	(2005)	(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	1.16
(WY)	(2002)	(1999)	(2002)	(2000)	(2002)	(2002)	(2002)	(1999)	(2002)	(2002)	(2002)	(2005)

01589197 GWYNNNS FALLS NEAR DELIGHT, MD—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1999 - 2005	
ANNUAL TOTAL	2,075.1		1,821.1		5.04	
ANNUAL MEAN	5.67		4.99		7.58 2003	
HIGHEST ANNUAL MEAN					2.20 2002	
LOWEST ANNUAL MEAN					161 Dec 11, 2003	
HIGHEST DAILY MEAN	133	Feb 6	123	Jan 14		
LOWEST DAILY MEAN	1.5	(a)	1.1	(b)	(e)0.25 (c)	
ANNUAL SEVEN-DAY MINIMUM	1.5	Aug 31	1.1	Sep 18	0.27 Aug 16, 2002	
MAXIMUM PEAK FLOW			559	Jul 8	(d)856 Jul 22, 1999	
MAXIMUM PEAK STAGE			5.28	Jul 8	6.65 Jul 22, 1999	
INSTANTANEOUS LOW FLOW			1.0	(f)	UNKNOWN	
ANNUAL RUNOFF (CFSM)	1.34		1.18		1.19	
ANNUAL RUNOFF (INCHES)	18.25		16.02		16.18	
10 PERCENT EXCEEDS	8.1		6.0		7.5	
50 PERCENT EXCEEDS	3.6		2.9		2.9	
90 PERCENT EXCEEDS	2.0		1.3		1.3	

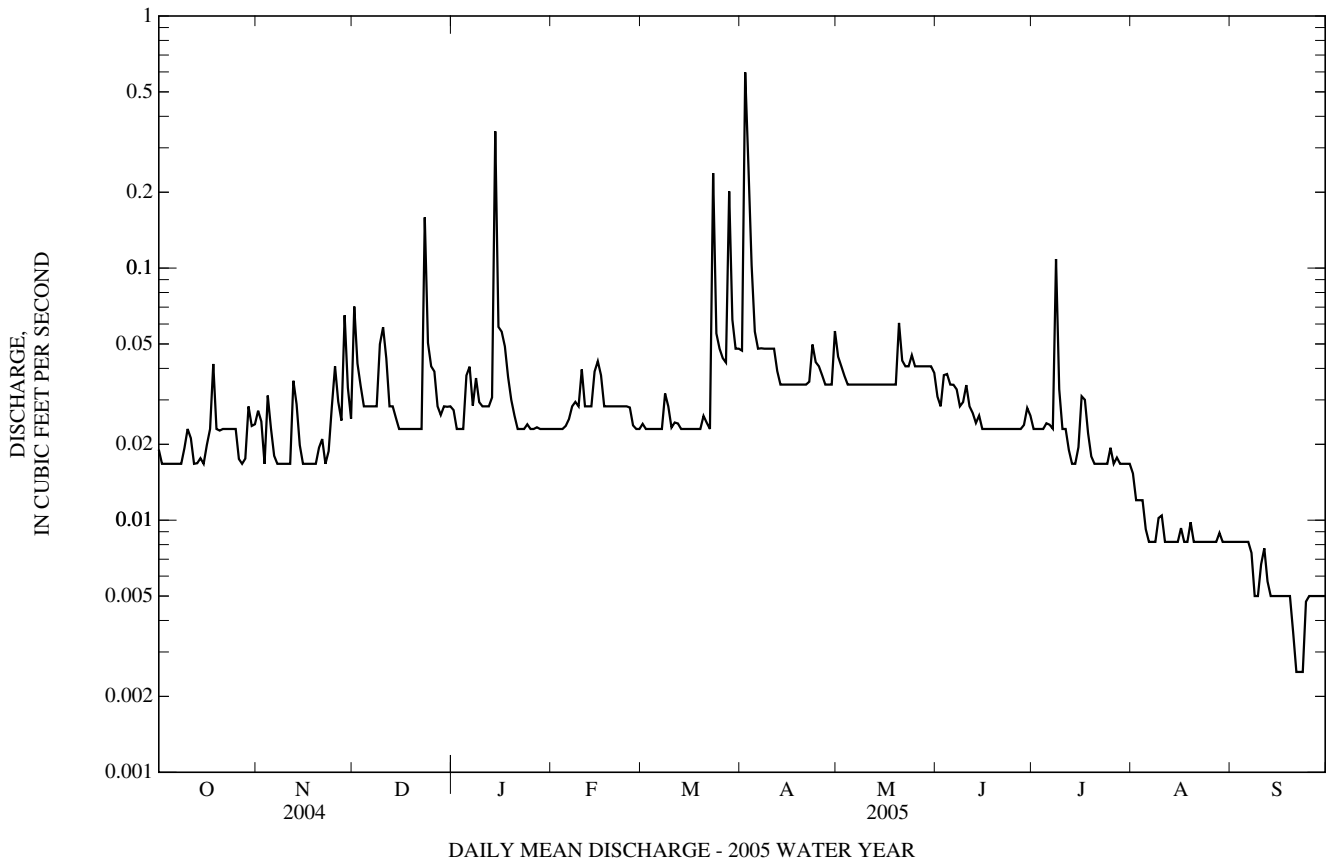
- a Sept. 1-6.
- b Aug. 26, Sept. 8, 9, 11-16, 18-25, 28-30.
- e Estimated
- c Aug. 20-22, 2002.
- d From rating curve extended above 380 ft³/s.
- f Sept. 5, 11-14, 17-19, 28-30.



01589238 GWYNNNS FALLS TRIBUTARY AT MCDONOGH, MD—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 2000 - 2005	
ANNUAL TOTAL	14.118		11.102		0.03	
ANNUAL MEAN	0.04		0.03		0.05 2003	
HIGHEST ANNUAL MEAN					0.01 2002	
LOWEST ANNUAL MEAN					0.90 Feb 6, 2004	
HIGHEST DAILY MEAN	0.90	Feb 6	0.60	Apr 2	0.90	Feb 6, 2004
LOWEST DAILY MEAN	0.005	(a)	0.003	(b)	0.000	(c)
ANNUAL SEVEN-DAY MINIMUM	0.01	Sep 10	0.00	Sep 17	0.00	Aug 5, 2002
MAXIMUM PEAK FLOW			4.7	Apr 2	(d)25	Sep 28, 2004
MAXIMUM PEAK STAGE			0.85	Apr 2	1.20	Sep 28, 2004
INSTANTANEOUS LOW FLOW			0.001	Sep 20	0.00	(f)
ANNUAL RUNOFF (CFSM)	1.29		1.01		1.02	
ANNUAL RUNOFF (INCHES)	17.51		13.77		13.86	
10 PERCENT EXCEEDS	0.05		0.04		0.05	
50 PERCENT EXCEEDS	0.03		0.02		0.02	
90 PERCENT EXCEEDS	0.01		0.01		0.00	

- a Sept. 11-12.
- b Sept. 21-23.
- c Aug. 2, 5-23, 25-27, 30, 31, Sept.21-25, 28-30, 2002, Oct. 1-10, 14, 15, 2002.
- d From rating curve extended above 2.10 ft³/s.
- f July 31 to Sept. 30, 2002, Oct. 1-10, 13-15, 2002.



PATAPSCO RIVER BASIN

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 mi².

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 fair except those for estimated daily discharges (ice effect and missing record), which are poor. 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 ft³/s on basis of contracted-opening measurement.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 900 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan 14	1015	*1,760	*7.08	Apr 3	0045	1,150	5.61
Mar 23	1500	1,540	6.57	Jun 28	1845	1,030	5.29
Mar 28	1830	1,200	5.75	Jul 8	0815	1,510	6.50
Apr 2	1545	1,420	6.29				

Minimum discharge, 6.0 ft³/s, Sept. 18, 19, 28, 30.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28	21	e160	23	e20	41	41	59	18	18	16	8.8
2	23	22	e76	22	e20	33	706	36	18	15	16	7.7
3	20	23	32	22	24	27	340	32	72	13	15	7.7
4	19	116	27	22	28	25	77	29	32	13	14	7.7
5	18	57	26	48	31	26	56	28	27	29	17	7.5
6	17	27	27	45	34	28	49	27	29	78	15	6.9
7	17	23	35	29	36	31	45	27	44	21	13	6.7
8	17	21	36	51	40	63	54	26	20	644	14	6.5
9	16	19	89	33	45	33	40	24	24	59	17	6.6
10	16	19	166	27	53	27	37	24	27	30	14	7.0
11	14	20	66	26	31	28	35	24	19	22	13	7.5
12	15	134	38	25	27	29	34	23	17	19	12	7.3
13	15	106	32	25	27	25	33	22	17	19	11	7.9
14	26	32	29	791	58	24	33	23	17	28	10	8.4
15	18	26	e28	79	68	23	30	24	15	28	10	8.2
16	21	24	e26	42	30	23	29	22	15	114	21	8.6
17	23	22	e25	32	26	24	30	21	15	61	16	8.2
18	18	21	24	e26	23	24	29	21	15	26	11	7.6
19	27	21	e23	e25	21	24	29	20	15	22	20	6.5
20	24	23	e22	e23	21	35	29	168	15	21	16	7.4
21	30	29	e21	22	28	31	29	43	15	19	13	7.6
22	23	21	20	e22	25	23	31	27	15	19	11	7.6
23	19	20	263	e22	21	744	86	23	15	19	10	7.5
24	19	37	86	e22	23	129	52	59	14	16	9.6	7.2
25	20	52	37	e24	31	54	33	37	13	63	9.1	8.0
26	20	30	29	e22	29	43	30	25	13	21	9.3	8.9
27	20	25	26	e22	26	42	29	22	15	21	10	11
28	19	157	26	e22	28	490	27	20	97	30	36	6.5
29	20	39	24	e22	---	147	27	19	69	16	12	7.2
30	20	29	24	e22	---	58	118	18	42	16	9.1	7.0
31	21	---	24	e21	---	46	---	18	---	16	8.9	---
TOTAL	623	1,216	1,567	1,659	874	2,400	2,218	991	779	1,536	429.0	229.2
MEAN	20.1	40.5	50.5	53.5	31.2	77.4	73.9	32.0	26.0	49.5	13.8	7.64
MAX	30	157	263	791	68	744	706	168	97	644	36	11
MIN	14	19	20	21	20	23	27	18	13	13	8.9	6.5
CFSM	0.62	1.25	1.56	1.65	0.96	2.38	2.27	0.98	0.80	1.52	0.43	0.24
IN.	0.71	1.39	1.79	1.90	1.00	2.75	2.54	1.13	0.89	1.76	0.49	0.26

e Estimated

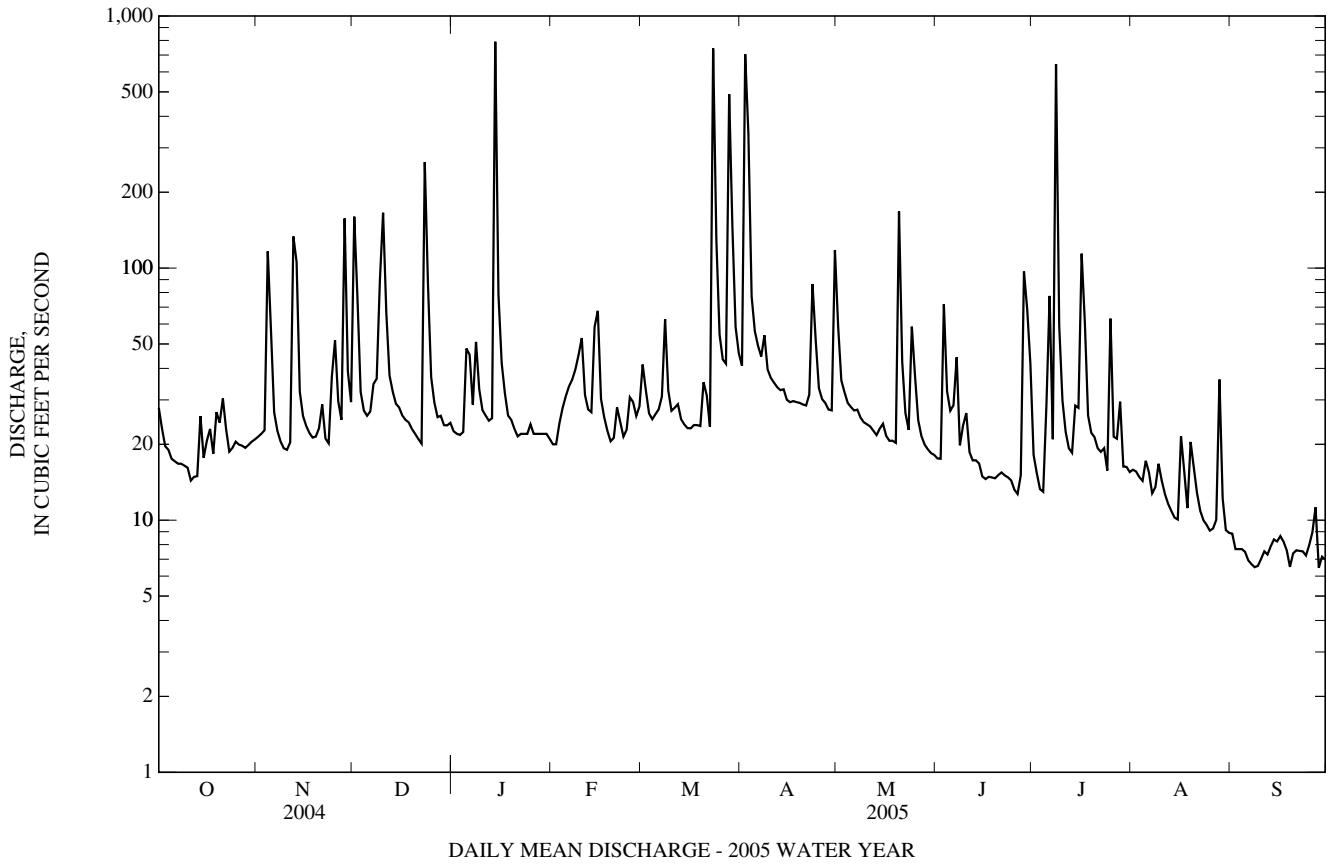
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1957 - 1988, 1996 - 2005, BY WATER YEAR (WY).

MEAN	27.2	34.7	43.8	44.3	52.9	57.2	51.0	42.7	37.3	27.2	28.7	34.6
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 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1957 - 1988, 1996 - 2005	
ANNUAL TOTAL	17,162		14,521.2			
ANNUAL MEAN	46.9		39.8		40.2	
HIGHEST ANNUAL MEAN					76.8	1972
LOWEST ANNUAL MEAN					20.0	2002
HIGHEST DAILY MEAN	758	Feb 6	791	Jan 14	5,000	Jun 22, 1972
LOWEST DAILY MEAN	11	Sep 2	6.5	(a)	1.7	Sep 7, 1966
ANNUAL SEVEN-DAY MINIMUM	11	Aug 31	6.9	Sep 6	2.0	Aug 17, 2002
MAXIMUM PEAK FLOW			1,760	Jan 14	(b)16,200	Jun 22, 1972
MAXIMUM PEAK STAGE			7.08	Jan 14	(c)21.50	Jun 22, 1972
INSTANTANEOUS LOW FLOW			6.0	(d)	1.7	(f)
ANNUAL RUNOFF (CFSM)	1.44		1.22		1.24	
ANNUAL RUNOFF (INCHES)	19.64		16.62		16.83	
10 PERCENT EXCEEDS	77		58		68	
50 PERCENT EXCEEDS	29		24		23	
90 PERCENT EXCEEDS	16		10		10	

- a Sept. 8, 19, 28,
- b From rating curve extended above 4,200 ft³/s on basis of contracted-opening measurement of peak flow.
- c From floodmarks.
- d Sept. 18, 19, 28, 30.
- f Sept. 7, 8, 1966.



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 Franklinton, 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 mi².

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 ft³/s and fair below, except those for estimated daily discharges (missing record and 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.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 650 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec 23	1530	1,440	6.32	Jun 28	1910	*1,850	*7.28
Mar 23	0850	999	5.23	Jul 8	0325	941	5.09
Mar 28	1310	760	4.63	Jul 8	0700	1,570	6.66
Mar 28	1815	701	4.44	Jul 13	2020	789	4.72
Apr 2	1310	1,220	5.75	Jul 16	1135	864	4.91
Jun 6	2200	1,120	5.49	Aug 28	0245	688	4.40

Minimum discharge, 0.40 ft³/s, Sept. 18, 19, 28, 29, 30.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.9	1.6	50	1.7	3.5	13	8.1	10	1.2	6.0	1.4	1.5
2	1.5	1.6	4.6	1.6	3.4	5.2	202	3.0	1.2	6.7	1.4	1.4
3	1.2	2.1	2.8	e1.6	4.0	3.3	44	2.2	37	1.9	1.5	1.2
4	1.1	67	2.2	e3.0	9.0	3.0	8.0	2.0	4.0	1.5	1.1	1.1
5	1.0	5.2	1.9	e19	7.6	3.9	5.3	1.9	1.9	23	19	1.1
6	0.88	4.5	1.9	e6.3	6.6	4.4	4.3	1.9	57	16	10	1.1
7	0.88	1.4	11	e4.7	6.0	4.6	4.2	1.9	13	8.4	1.8	0.70
8	0.84	1.1	16	e17	6.7	17	4.7	1.8	2.4	243	5.8	1.0
9	0.88	0.94	46	e11	6.9	3.4	3.0	1.6	10	5.9	5.3	1.0
10	0.87	0.87	27	e3.9	10	2.6	2.6	1.7	3.5	3.4	1.6	1.0
11	0.95	0.87	9.6	e3.7	3.7	3.3	2.5	1.7	1.8	2.4	1.3	1.0
12	0.95	84	4.6	e3.5	3.3	3.2	2.5	1.5	1.7	2.1	1.0	0.98
13	0.76	15	3.5	e3.6	2.9	2.5	2.3	1.4	1.7	39	0.97	0.89
14	1.9	2.6	2.8	e130	34	2.0	2.2	3.2	1.7	16	0.97	1.0
15	1.1	1.8	2.5	11	10	2.0	2.2	2.8	1.5	23	0.86	0.78
16	11	1.6	2.2	6.5	5.6	2.1	2.2	1.8	1.3	90	13	1.1
17	1.8	1.4	2.1	4.6	3.3	1.9	2.2	1.4	1.3	17	1.9	0.99
18	1.0	1.3	1.8	3.5	2.4	1.9	2.1	1.4	1.1	4.4	1.00	0.53
19	6.7	1.2	1.7	3.1	2.1	1.7	2.1	1.2	0.98	3.1	7.7	0.45
20	3.1	3.3	1.7	3.4	2.0	8.0	2.0	93	1.0	2.5	1.6	0.71
21	5.7	2.4	1.8	2.8	8.7	2.6	2.0	5.1	1.0	2.2	1.0	0.69
22	3.7	1.2	1.8	2.5	3.6	1.8	3.0	2.4	1.1	2.3	0.85	0.67
23	1.1	1.1	114	3.3	2.3	260	36	2.0	0.97	2.1	0.83	0.81
24	1.5	13	9.5	e2.9	4.2	14	4.8	20	1.7	1.7	0.78	0.98
25	1.1	8.0	4.1	e2.6	8.6	6.8	2.3	3.7	1.3	33	0.80	0.63
26	0.92	1.9	2.9	e3.7	5.4	6.1	1.9	1.9	1.1	2.5	0.73	2.5
27	1.0	1.4	2.2	3.2	4.3	8.8	2.1	1.7	0.98	7.6	1.6	1.5
28	1.1	61	1.9	e2.7	6.7	156	1.9	1.8	138	2.9	46	0.51
29	1.4	4.1	1.9	e2.4	---	16	1.9	1.5	32	3.3	1.7	0.69
30	1.6	2.8	1.9	6.5	---	6.7	45	1.4	6.7	1.8	1.4	0.50
31	1.4	---	1.8	4.8	---	4.8	---	1.4	---	1.5	1.6	---
TOTAL	60.83	296.28	339.7	280.1	176.8	572.6	409.4	180.3	330.13	576.2	136.49	29.01
MEAN	1.96	9.88	11.0	9.04	6.31	18.5	13.6	5.82	11.0	18.6	4.40	0.97
MAX	11	84	114	130	34	260	202	93	138	243	46	2.5
MIN	0.76	0.87	1.7	1.6	2.0	1.7	1.9	1.2	0.97	1.5	0.73	0.45
CFSM	0.36	1.79	1.99	1.64	1.14	3.35	2.47	1.05	1.99	3.37	0.80	0.18
IN.	0.41	2.00	2.29	1.89	1.19	3.86	2.76	1.22	2.22	3.88	0.92	0.20

e Estimated

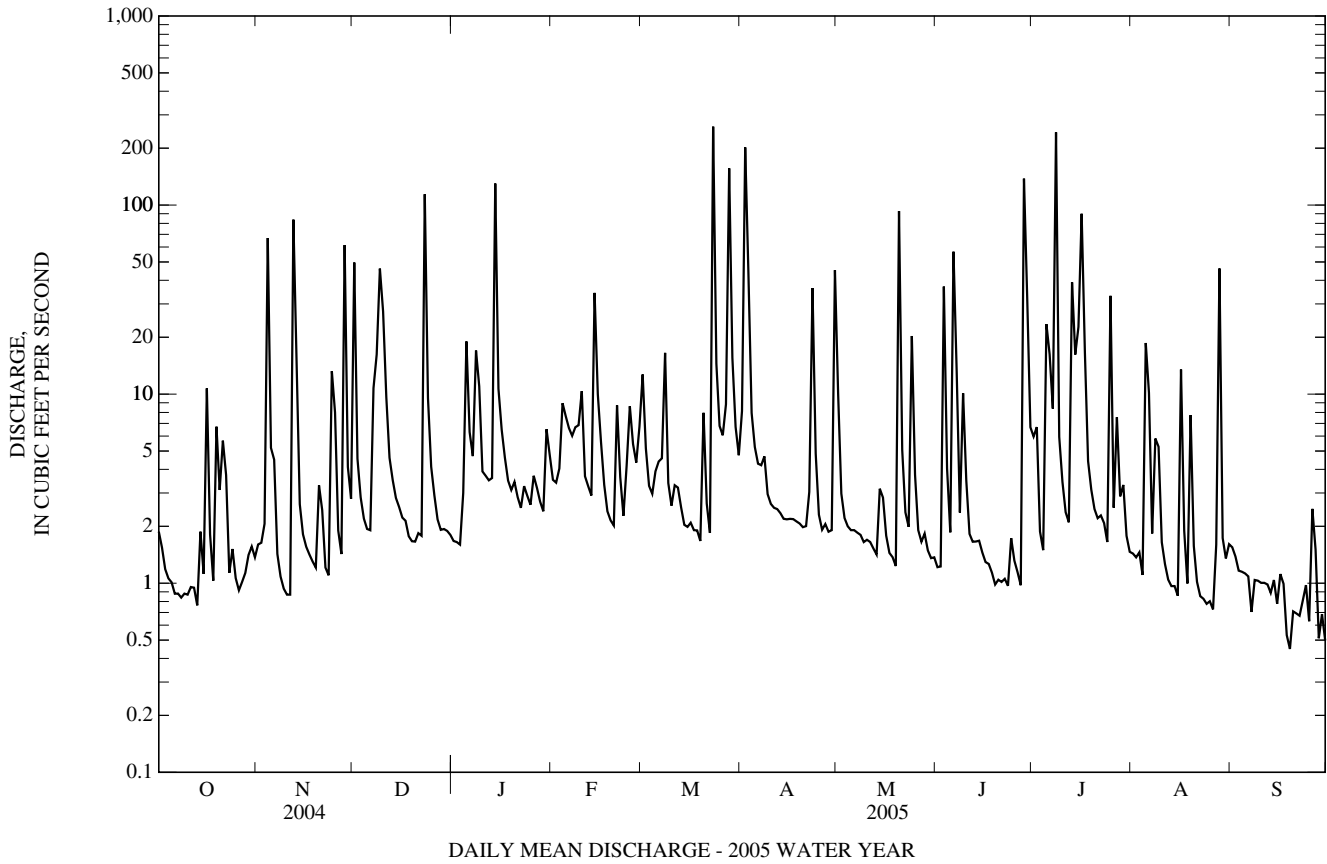
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1960 - 2005, BY WATER YEAR (WY)

	5.55	6.73	8.77	8.81	10.8	11.1	9.20	7.64	7.07	5.96	6.71	8.72
MEAN	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 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1960 - 2005	
ANNUAL TOTAL	3,384.34		3,387.84			
ANNUAL MEAN	9.25		9.28		8.10	
HIGHEST ANNUAL MEAN					15.5	1979
LOWEST ANNUAL MEAN					3.78	1963
HIGHEST DAILY MEAN	450	Jul 7	260	Mar 23	800	Aug 13, 1984
LOWEST DAILY MEAN	0.76	Oct 13	0.45	Sep 19	0.17	Aug 22, 2002
ANNUAL SEVEN-DAY MINIMUM	0.88	Oct 7	0.69	Sep 18	0.20	Aug 24, 1966
MAXIMUM PEAK FLOW			1,850	Jun 28	(a)8,700	Jul 7, 2004
MAXIMUM PEAK STAGE			7.28	Jun 28	(b)12.76	Jul 7, 2004
INSTANTANEOUS LOW FLOW			0.40	(c)	0.10	(d)
ANNUAL RUNOFF (CFSM)	1.68		1.68		1.47	
ANNUAL RUNOFF (INCHES)	22.81		22.83		19.93	
10 PERCENT EXCEEDS	15		16		15	
50 PERCENT EXCEEDS	2.6		2.2		2.0	
90 PERCENT EXCEEDS	1.1		0.98		0.70	

- a From rating curve extended above 1,600 ft³/s on basis of contracted-opening measurement of peak flow at bridge 0.6 mi downstream, adjusted for flow from intervening area.
- b From floodmarks.
- c Sept. 18, 19, 28, 29, 30.
- d Sept. 11, 12, 1966.



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 mi².

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. 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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov 4	1645	*13	*0.90	No other peak greater than base discharge.			

Minimum discharge, 0.000 ft³/s, on many days.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.000	0.000	0.097	0.002	e0.008	0.003	0.064	0.013	e0.000	e0.032	e0.001	e0.000
2	0.000	0.000	0.000	0.006	e0.008	0.000	0.48	0.000	e0.000	e0.035	e0.000	e0.000
3	0.000	0.000	0.000	0.011	e0.009	0.000	0.039	0.000	e0.20	e0.016	e0.000	e0.000
4	0.000	0.23	0.000	0.011	0.036	0.001	0.005	0.000	e0.050	e0.007	e0.000	e0.000
5	0.000	0.000	0.000	0.077	0.030	0.001	0.004	0.000	e0.010	e0.12	e0.10	e0.000
6	0.012	0.000	0.000	0.010	0.015	0.002	0.003	e0.000	e0.31	0.001	e0.053	e0.000
7	0.000	0.000	0.052	e0.008	0.004	0.000	0.008	e0.000	e0.070	0.052	e0.008	e0.000
8	0.000	0.000	0.000	e0.027	0.003	0.049	0.005	e0.000	e0.013	0.20	e0.029	0.000
9	0.000	0.000	0.15	e0.017	0.024	0.000	0.003	e0.000	e0.050	0.000	e0.026	0.000
10	0.000	0.000	0.046	0.010	0.000	0.000	0.003	e0.000	0.000	0.000	e0.007	0.000
11	0.000	0.000	0.008	0.008	0.000	0.000	0.003	0.000	0.000	0.000	e0.000	0.000
12	0.002	0.28	0.007	0.002	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000
13	0.002	0.003	0.008	0.055	0.11	0.000	0.002	0.000	0.001	0.018	0.000	0.000
14	0.036	0.000	0.010	0.36	0.042	0.000	0.023	0.012	0.005	0.011	0.000	0.000
15	0.000	0.000	0.009	0.001	0.011	0.000	0.004	0.006	0.000	0.034	0.000	0.000
16	0.014	0.000	0.004	0.001	0.000	0.000	0.003	0.007	0.000	0.14	0.016	0.000
17	0.000	0.000	0.000	0.001	0.000	0.000	0.003	0.000	0.000	0.001	0.000	0.000
18	0.012	0.000	0.000	0.013	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000
19	0.014	0.000	0.001	0.13	0.000	0.000	0.000	0.000	0.000	0.000	0.033	0.000
20	0.007	0.009	0.000	0.033	0.032	0.029	0.000	0.25	0.000	0.000	0.000	0.000
21	0.001	0.000	0.000	0.002	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22	0.001	0.000	0.000	0.018	0.000	0.000	0.011	0.000	0.000	0.000	0.000	0.000
23	0.000	0.000	0.12	0.004	0.003	0.70	0.071	0.000	0.000	0.000	0.000	0.000
24	0.000	0.037	0.000	0.000	0.028	0.001	0.000	0.030	0.005	0.000	0.000	0.000
25	0.000	0.001	0.000	0.005	0.011	0.001	0.000	0.000	0.001	e0.044	0.000	0.000
26	0.000	0.000	0.001	0.014	0.002	0.007	0.000	0.000	0.000	e0.003	0.000	0.015
27	0.000	0.004	0.001	0.001	0.006	0.051	0.001	0.000	0.015	e0.010	0.002	0.000
28	0.000	0.12	0.000	0.000	0.045	0.40	0.000	0.005	e0.77	e0.004	0.076	0.000
29	0.000	0.000	0.000	0.033	---	0.002	0.000	0.000	e0.20	e0.005	0.000	0.000
30	0.000	0.000	0.000	0.012	---	0.002	0.22	0.000	e0.050	e0.002	0.000	0.000
31	0.000	---	0.000	0.011	---	0.001	---	0.000	---	e0.002	0.000	---
TOTAL	0.101	0.684	0.514	0.883	0.428	1.250	0.959	0.323	1.750	0.737	0.351	0.015
MEAN	0.00	0.02	0.02	0.03	0.02	0.04	0.03	0.01	0.06	0.02	0.01	0.00
MAX	0.036	0.28	0.15	0.36	0.11	0.70	0.48	0.25	0.77	0.20	0.10	0.015
MIN	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
CFSM	0.11	0.76	0.55	0.95	0.51	1.34	1.07	0.35	1.94	0.79	0.38	0.02
IN.	0.13	0.85	0.64	1.09	0.53	1.55	1.19	0.40	2.17	0.91	0.44	0.02

e Estimated

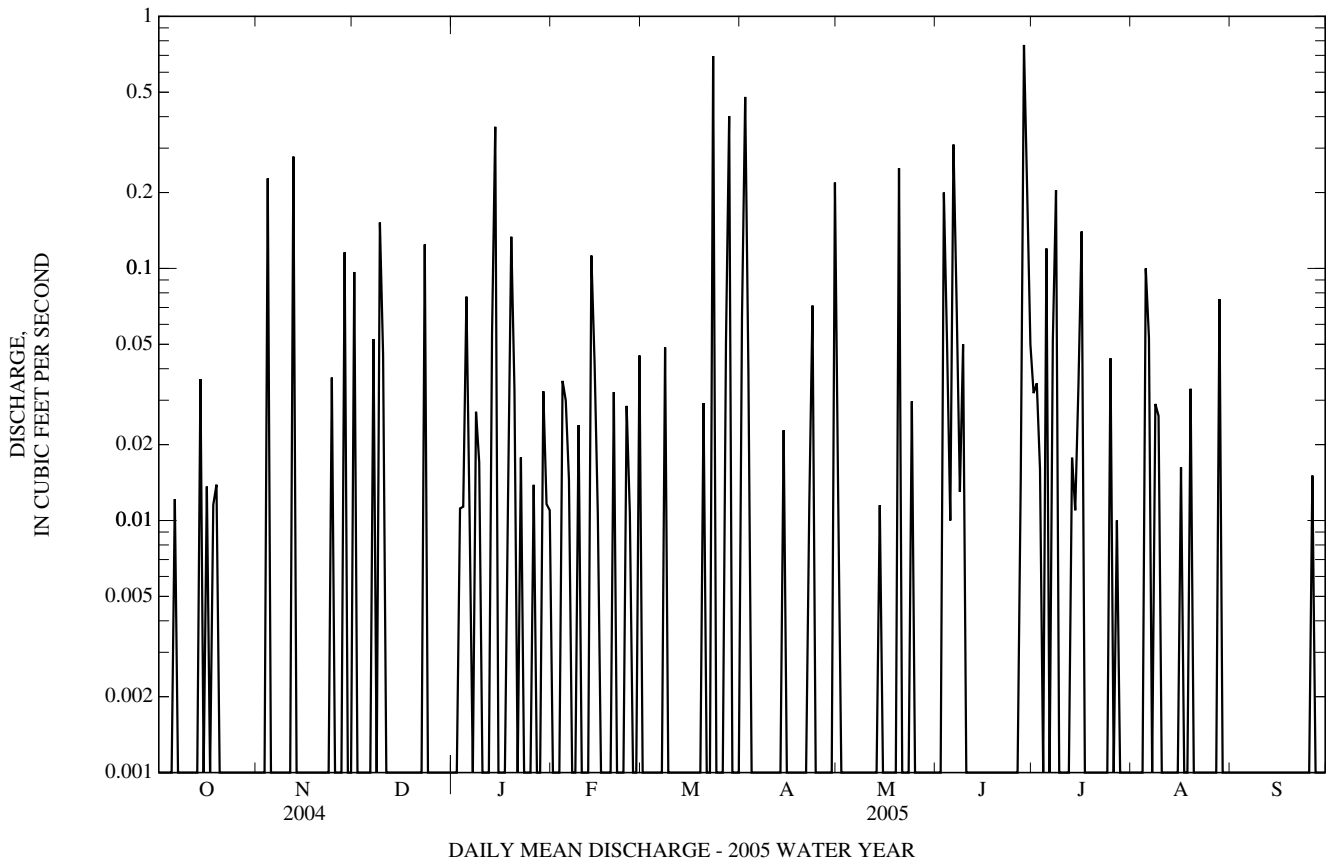
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2005, BY WATER YEAR (WY)

MEAN	0.02	0.02	0.02	0.02	0.06	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	0.06	0.05	0.06	0.07
(WY)	(2003)	(2004)	(2004)	(1999)	(2001)	(2001)	(2004)	(2003)	(2005)	(2004)	(1999)	(1999)
MIN	0.00	0.01	0.00	0.01	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.00
(WY)	(2001)	(2001)	(1999)	(2002)	(2002)	(1999)	(2001)	(1999)	(2002)	(2001)	(2003)	(2005)

01589340 ROGNEL HEIGHTS STORM SEWER OUTFALL AT BALTIMORE, MD—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1999 - 2005	
ANNUAL TOTAL	7.494		7.995		0.02	
ANNUAL MEAN	0.02		0.02		0.04 2001	
HIGHEST ANNUAL MEAN					0.01 2002	
LOWEST ANNUAL MEAN					4.7 Feb 22, 2001	
HIGHEST DAILY MEAN	0.70	Jul 27	(e)0.77	Jun 28	0.00 (a)	
LOWEST DAILY MEAN	0.000	(a)	0.000	(a)	0.00 (a)	
ANNUAL SEVEN-DAY MINIMUM	0.00	Sep 18	0.00	Oct 23	0.00 Aug 19, 2000	
MAXIMUM PEAK FLOW			13	Nov 4	(b)37 Jul 7, 2004	
MAXIMUM PEAK STAGE			0.90	Nov 4	1.62 Jul 7, 2004	
INSTANTANEOUS LOW FLOW			0.00	(a)	0.00 (c)	
ANNUAL RUNOFF (CFSM)	0.683		0.730		0.826	
ANNUAL RUNOFF (INCHES)	9.29		9.91		11.22	
10 PERCENT EXCEEDS	0.04		0.05		0.05	
50 PERCENT EXCEEDS	0.00		0.00		0.00	
90 PERCENT EXCEEDS	0.00		0.00		0.00	

- e Estimated.
- a Many days.
- b From rating curve extended above 0.8 ft³/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.



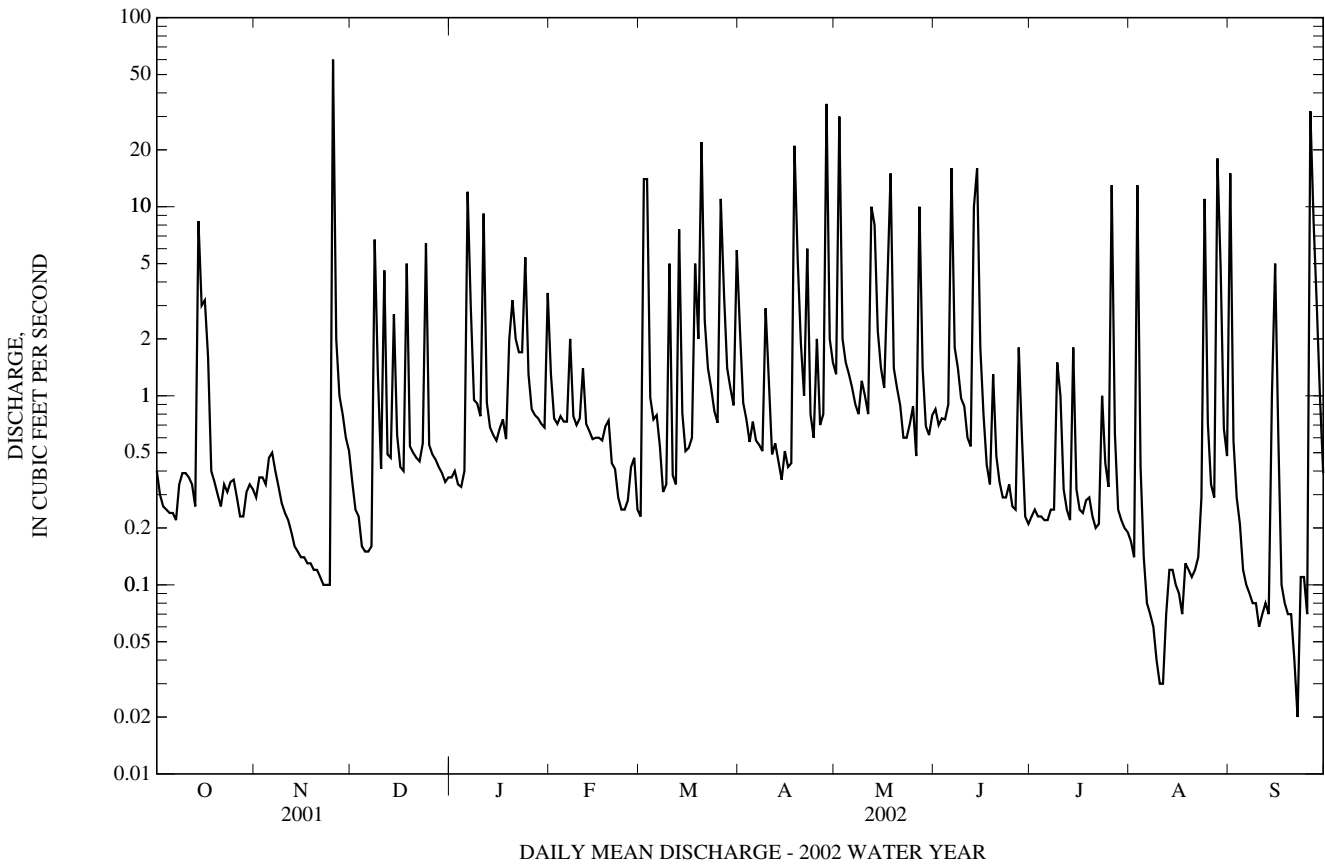
01589351 MAIDENS CHOICE RUN AT WILKINS AVE AT BALTIMORE, MD—Continued

SUMMARY STATISTICS

FOR 2002 WATER YEAR

ANNUAL TOTAL	719.79	
ANNUAL MEAN	1.97	
HIGHEST DAILY MEAN	(e)60	Nov 25
LOWEST DAILY MEAN	0.02	Sep 22
ANNUAL SEVEN-DAY MINIMUM	0.05	Aug 6
MAXIMUM PEAK FLOW	(a)1,650	Nov 25
MAXIMUM PEAK STAGE	(b)6.20	Nov 25
INSTANTANEOUS LOW FLOW	0.00	(c)
ANNUAL RUNOFF (CFSM)	0.446	
ANNUAL RUNOFF (INCHES)	6.06	
10 PERCENT EXCEEDS	4.8	
50 PERCENT EXCEEDS	0.51	
90 PERCENT EXCEEDS	0.12	

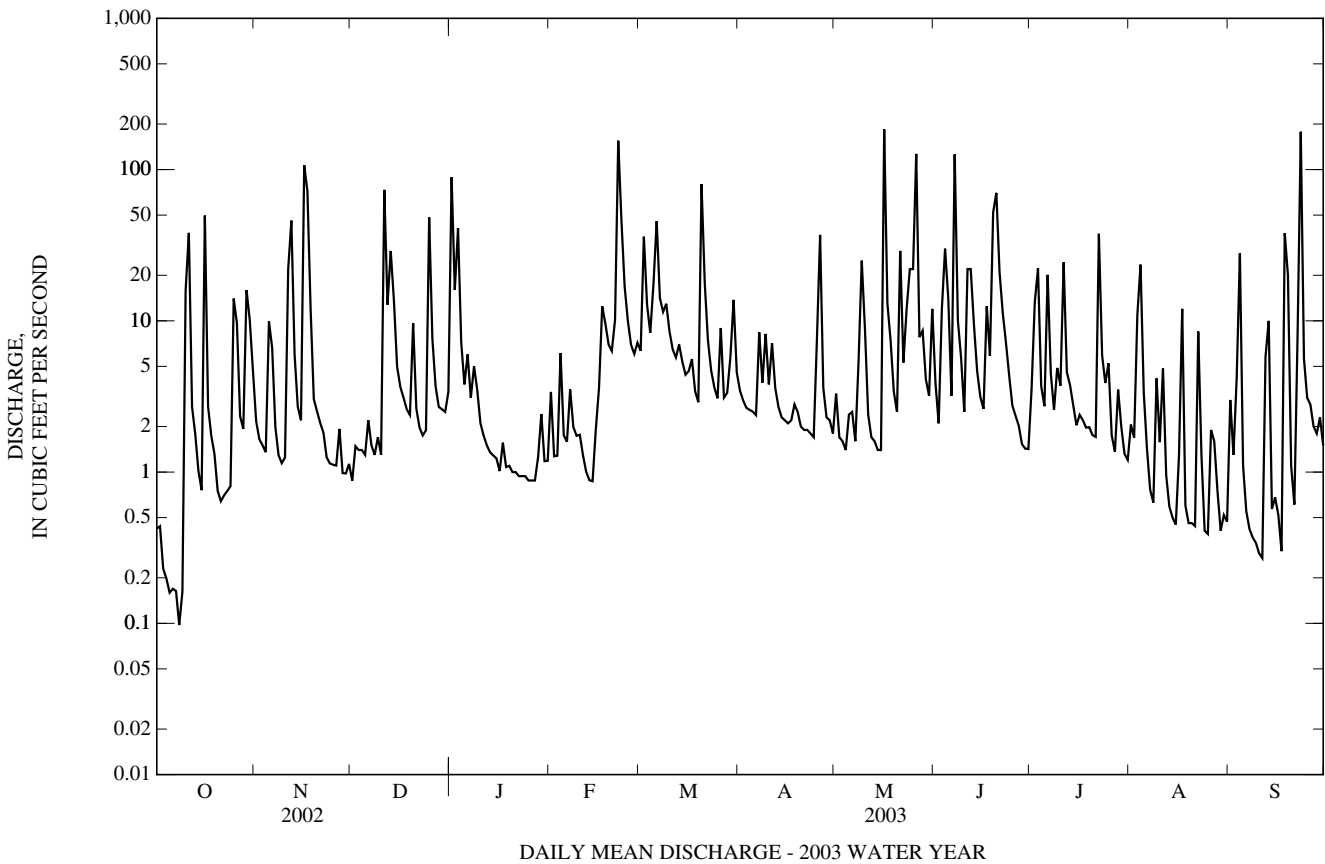
- e Estimated.
- a Discharge from slope-area indirect discharge computation.
- b Gage height from high-water mark on staff gage.
- c Sept. 13, 22-23.



01589351 MAIDENS CHOICE RUN AT WILKINS AVE AT BALTIMORE, MD—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 2002 - 2003	
ANNUAL TOTAL	1,334.89		3,385.02			
ANNUAL MEAN	3.66		9.27		5.62	
HIGHEST ANNUAL MEAN					9.27	2003
LOWEST ANNUAL MEAN					1.97	2002
HIGHEST DAILY MEAN	(e)107	Nov 16	(e)185	May 16	(e)185	May 16, 2003
LOWEST DAILY MEAN	0.02	Sep 22	0.10	Oct 8	0.02	Sep 22, 2002
ANNUAL SEVEN-DAY MINIMUM	0.05	Aug 6	0.17	Oct 3	0.05	Aug 6, 2002
MAXIMUM PEAK FLOW			(a)1,890	Sep 23	(a)1,890	Sep 23, 2003
MAXIMUM PEAK STAGE			(b)6.25	Sep 23	(b)6.25	Sep 23, 2003
INSTANTANEOUS LOW FLOW			0.04	Oct 8	0.00	(c)
ANNUAL RUNOFF (CFSM)	0.827		2.10		1.27	
ANNUAL RUNOFF (INCHES)	11.23		28.49		17.29	
10 PERCENT EXCEEDS	9.9		21		12	
50 PERCENT EXCEEDS	0.79		2.6		1.3	
90 PERCENT EXCEEDS	0.14		0.75		0.22	

- e Estimated.
- a Discharge from slope-area indirect discharge computation.
- b Gage height from high-water mark on staff gage.
- c Sept. 13, 22-23, 2002.



01589351 MAIDENS CHOICE RUN AT WILKINS AVE AT BALTIMORE, MD—Continued

EXTREMES FOR 2004 WATER YEAR.--Peak discharges greater than base discharge of 800 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov 19	1445	955	5.43	Jul 7	Unknown	1,155	(b)5.68
Dec 11	0540	1,550	6.07	Jul 27	2040	(a)*3,770	(b)*7.54

(a) From rating curve extended above 1,900 ft³/s on basis of slope-area measurements at gage heights of 6.20 and 6.25 ft.

(b) Gage height from high-water mark on staff gage.

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	e1.3	e2.2	3.9	1.7	e1.3	1.5	38	1.6	1.6	e5.2	17	0.40
2	e1.4	e2.2	3.8	3.8	e1.3	1.9	33	8.7	1.1	e2.4	1.6	0.32
3	e1.6	e2.0	3.2	1.8	23	1.4	9.7	9.8	0.95	e1.2	1.3	0.29
4	e2.6	e2.0	3.0	1.7	5.7	2.1	8.4	2.5	0.98	e8.0	7.2	0.27
5	e1.4	19	6.8	7.1	2.4	1.3	4.1	2.0	36	e1.8	0.87	0.26
6	e1.4	e7.0	5.7	2.0	78	35	3.4	2.0	3.3	e1.3	0.55	0.27
7	e1.5	e2.2	4.5	1.7	20	6.2	3.2	2.8	1.9	e80	0.48	0.29
8	e1.4	e1.1	4.2	1.5	5.7	3.6	2.8	2.1	2.0	e14	0.46	0.44
9	e1.5	e1.0	4.0	1.5	4.4	2.6	2.5	2.0	2.0	e3.6	0.44	6.2
10	e1.4	e0.90	11	1.4	5.1	2.5	2.2	2.7	4.2	e2.7	0.50	0.43
11	e1.4	e0.90	104	1.6	3.7	2.3	1.9	1.7	5.9	e2.3	12	0.30
12	e1.3	12	8.3	1.4	3.2	2.2	31	1.7	2.0	e4.2	31	0.23
13	e1.5	e3.1	4.4	1.4	3.0	1.9	19	1.7	1.2	e2.9	3.6	0.23
14	e65	e3.2	25	1.3	2.8	1.8	7.4	1.4	1.1	e13	1.5	7.4
15	e13	e2.7	11	1.3	2.6	1.8	4.0	3.3	1.3	e1.4	1.1	0.84
16	e2.1	e2.5	5.3	1.3	2.4	7.3	3.4	2.1	14	e1.1	0.90	0.43
17	e1.6	e2.4	31	1.3	2.3	2.1	3.1	2.5	3.1	e1.1	0.85	4.2
18	e1.4	e2.3	7.3	6.7	2.3	2.5	2.7	2.4	3.3	e6.4	8.1	25
19	e1.2	71	4.7	1.6	2.4	4.1	2.6	6.4	2.0	e1.3	0.85	0.81
20	e1.2	8.5	3.7	1.4	2.3	1.8	2.2	1.7	1.4	e1.2	0.64	0.62
21	e1.3	5.3	3.1	1.3	2.2	1.6	2.0	1.9	1.3	e1.8	1.4	0.52
22	e2.3	4.7	2.9	1.2	1.9	1.3	2.0	e2.0	0.97	e3.0	0.88	0.35
23	e1.7	4.6	2.6	1.3	1.8	1.4	7.5	e1.7	0.88	e9.0	0.85	0.26
24	e1.3	5.0	16	1.6	2.2	1.4	2.2	e1.6	0.79	e2.7	0.76	0.26
25	e1.3	4.2	3.4	2.1	1.8	1.8	1.8	e8.3	4.6	e1.1	0.55	0.22
26	6.0	3.6	2.7	6.8	1.7	1.4	12	e2.7	0.95	e0.93	0.53	0.16
27	72	3.3	2.6	5.5	1.7	2.7	2.6	e1.6	0.78	92	0.45	0.18
28	5.5	23	2.3	3.2	1.7	1.4	2.1	e1.5	0.76	5.0	0.47	45
29	27	5.3	2.2	2.2	1.5	1.2	1.8	1.3	e1.2	0.67	0.56	1.8
30	4.7	4.0	2.8	1.5	---	4.6	1.7	1.2	e1.0	0.45	0.92	0.78
31	e2.6	---	1.9	e1.4	---	3.0	---	2.1	---	0.41	0.70	---
TOTAL	230.9	211.20	297.3	71.6	190.4	107.7	220.3	87.0	102.56	272.16	99.01	98.76
MEAN	7.45	7.04	9.59	2.31	6.57	3.47	7.34	2.81	3.42	8.78	3.19	3.29
MAX	72	71	104	71	78	35	38	9.8	36	92	31	45
MIN	1.2	0.90	1.9	1.2	1.3	1.2	1.7	1.2	0.76	0.41	0.44	0.16
CFSM	1.69	1.59	2.17	0.52	1.49	0.79	1.66	0.63	0.77	1.99	0.72	0.74
IN.	1.94	1.78	2.50	0.60	1.60	0.91	1.85	0.73	0.86	2.29	0.83	0.83

e Estimated

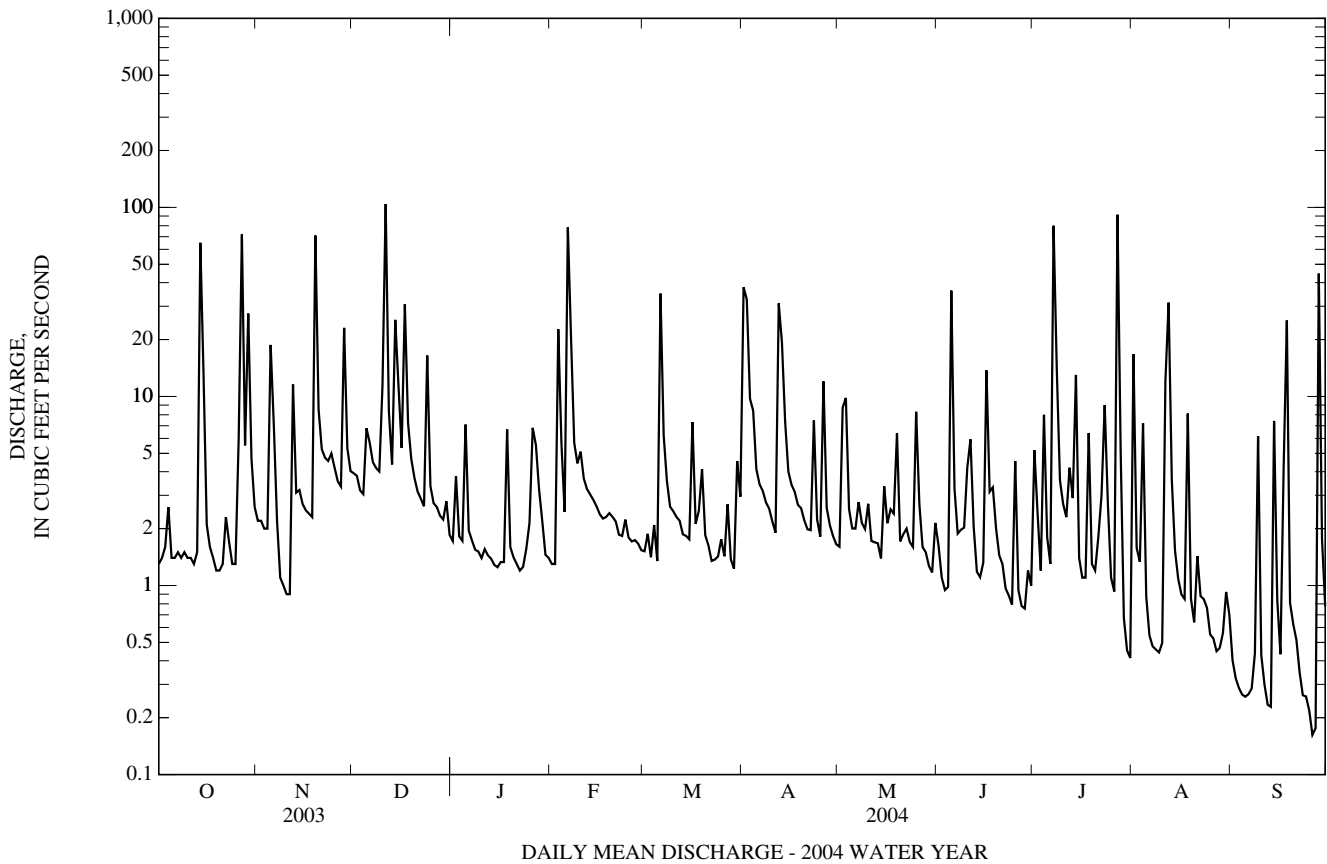
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2002 - 2004, BY WATER YEAR (WY)

MEAN	4.69	6.66	6.26	3.57	6.31	6.35	4.95	7.71	7.03	5.29	2.59	5.45
MAX	7.45	10.6	9.59	6.52	11.7	12.1	7.34	17.0	15.6	8.78	3.19	10.8
(WY)	(2004)	(2003)	(2004)	(2003)	(2003)	(2003)	(2004)	(2003)	(2003)	(2004)	(2004)	(2003)
MIN	0.79	2.35	1.18	1.87	0.67	3.45	3.09	2.81	2.06	0.81	1.67	2.30
(WY)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2004)	(2002)	(2002)	(2002)	(2002)

01589351 MAIDENS CHOICE RUN AT WILKINS AVE AT BALTIMORE, MD—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 2002 - 2004	
ANNUAL TOTAL	3,377.82		1,988.89		5.56	
ANNUAL MEAN	9.25		5.43		1.97	
HIGHEST ANNUAL MEAN					9.27	2003
LOWEST ANNUAL MEAN					1.97	2002
HIGHEST DAILY MEAN	(e)185	May 16	104	Dec 11	(e)185	May 16, 2003
LOWEST DAILY MEAN	0.27	Sep 11	0.16	Sep 26	0.02	Sep 22, 2002
ANNUAL SEVEN-DAY MINIMUM	0.48	Sep 5	0.28	Sep 21	0.05	Aug 6, 2002
MAXIMUM PEAK FLOW			(a)3,770	Jul 27	(a)3,770	Jul 27, 2004
MAXIMUM PEAK STAGE			(b)7.54	Jul 27	(b)7.54	Jul 27, 2004
INSTANTANEOUS LOW FLOW			Unknown		0.00	(c)
ANNUAL RUNOFF (CFSM)	2.09		1.23		1.26	
ANNUAL RUNOFF (INCHES)	28.43		16.74		17.09	
10 PERCENT EXCEEDS	20		9.2		12	
50 PERCENT EXCEEDS	3.1		2.0		1.6	
90 PERCENT EXCEEDS	0.95		0.74		0.26	

- e Estimated.
- a From rating curve extended above 1,900 ft³/s on basis of slope-area measurements at gage heights of 6.20 and 6.25 ft.
- b Gage height from high-water mark on staff gage.
- c Sept. 13, 22-23, 2002.



01589351 MAIDENS CHOICE RUN AT WILKINS AVE AT BALTIMORE, MD—Continued

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 800 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec 23	1500	1,070	5.58	Jul 16	2145	*1,380	*5.91
Jul 8	0625	1,210	5.74				

Minimum discharge, 0.12 ft³/s, Oct. 10, Aug. 24.DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.62	0.30	17	1.4	2.2	e10	e6.2	4.1	e0.60	e1.2	0.25	e0.43
2	0.52	0.26	2.6	1.3	2.1	e4.0	e116	2.3	e0.60	e1.1	0.26	e0.40
3	0.31	0.28	2.0	1.4	2.1	e2.5	e25	2.0	e19	e1.2	0.25	e0.34
4	0.27	27	1.7	1.3	2.8	e2.3	e8.2	1.7	e2.0	e1.4	0.23	e0.31
5	0.21	2.5	1.5	e8.2	2.7	e2.3	e5.4	1.5	e0.95	7.1	0.24	e0.30
6	0.19	1.4	1.3	e2.7	2.6	e2.3	e4.4	1.5	e29	5.1	0.79	e0.29
7	0.19	1.1	4.5	e2.1	2.4	e2.3	e4.3	1.5	e6.5	4.0	0.25	e0.28
8	0.17	0.88	4.5	e7.4	e2.3	e10	e4.8	1.3	e1.2	78	11	e0.22
9	0.16	0.64	18	e4.7	e2.2	e2.3	e3.7	1.2	e5.0	1.7	2.9	e0.16
10	0.14	0.53	10	e4.6	e4.0	e1.8	3.5	1.1	e1.8	1.2	0.63	e0.17
11	0.16	0.52	4.3	e4.0	e2.1	e2.3	3.2	1.0	e0.90	0.97	0.36	e0.16
12	0.16	33	2.6	e3.2	e2.1	e1.7	3.0	1.1	e0.85	0.81	0.32	e0.17
13	0.21	6.1	2.2	e2.5	e2.0	e1.5	2.9	1.0	e0.85	14	0.45	e0.19
14	2.8	1.8	1.8	e89	e2.0	e1.4	2.7	1.9	e0.85	1.9	0.42	e0.66
15	0.24	1.5	1.6	7.5	e6.0	e1.4	2.5	2.0	e0.75	3.8	0.52	e0.33
16	0.53	1.3	1.5	5.3	e3.4	e1.3	2.5	2.7	e0.65	54	5.2	e0.23
17	0.33	1.1	1.4	4.1	e2.6	e1.3	2.4	0.86	e0.65	5.0	0.70	e0.20
18	0.22	0.93	1.3	3.5	e2.3	e1.3	2.3	0.85	e0.55	1.4	0.57	e0.20
19	1.6	0.69	1.2	3.3	e2.3	e1.2	2.3	0.78	e0.49	1.1	3.4	e0.17
20	0.57	2.9	1.2	2.9	e2.1	e6.2	2.2	47	e0.50	0.78	0.59	e0.17
21	0.92	1.4	1.2	2.5	e5.5	e1.7	2.1	2.8	e0.50	0.63	0.41	e0.17
22	0.60	0.73	1.3	3.2	e2.6	e1.3	2.6	1.9	e0.55	0.55	0.33	e0.17
23	0.28	0.69	45	2.5	e2.1	e135	12	1.6	e0.49	0.46	0.18	e0.16
24	0.30	5.3	5.2	2.7	e3.7	e11	2.8	7.7	e0.85	0.41	0.17	e0.16
25	0.35	2.4	3.3	2.4	e6.0	e4.7	2.0	1.8	e0.65	11	0.78	e0.18
26	0.23	1.1	2.8	2.9	e3.9	e4.5	1.7	1.4	e0.55	0.68	e0.21	e0.71
27	0.22	1.0	2.3	2.2	e2.9	e5.1	1.8	0.86	e0.49	1.3	e0.46	e0.31
28	0.22	21	2.1	2.2	e5.3	e86	1.6	1.3	e69	0.51	e13	e0.20
29	0.22	2.2	2.3	2.1	---	e11	1.6	0.82	e16	2.2	e0.49	e0.17
30	0.26	1.8	1.6	3.8	---	e5.1	19	0.70	e3.4	0.45	e0.40	e0.17
31	0.29	---	1.6	2.7	---	e3.7	---	0.66	---	0.27	e0.46	---
TOTAL	13.49	122.35	150.9	189.6	84.3	328.5	254.7	98.93	166.17	204.22	46.22	7.78
MEAN	0.44	4.08	4.87	6.12	3.01	10.6	8.49	3.19	5.54	6.59	1.49	0.26
MAX	2.8	33	45	89	6.0	135	116	47	69	78	13	0.71
MIN	0.14	0.26	1.2	1.3	2.0	1.2	1.6	0.66	0.49	0.27	0.17	0.16
CFSM	0.10	0.92	1.10	1.38	0.68	2.40	1.92	0.72	1.25	1.49	0.34	0.06
IN.	0.11	1.03	1.27	1.60	0.71	2.76	2.14	0.83	1.40	1.72	0.39	0.07

e Estimated

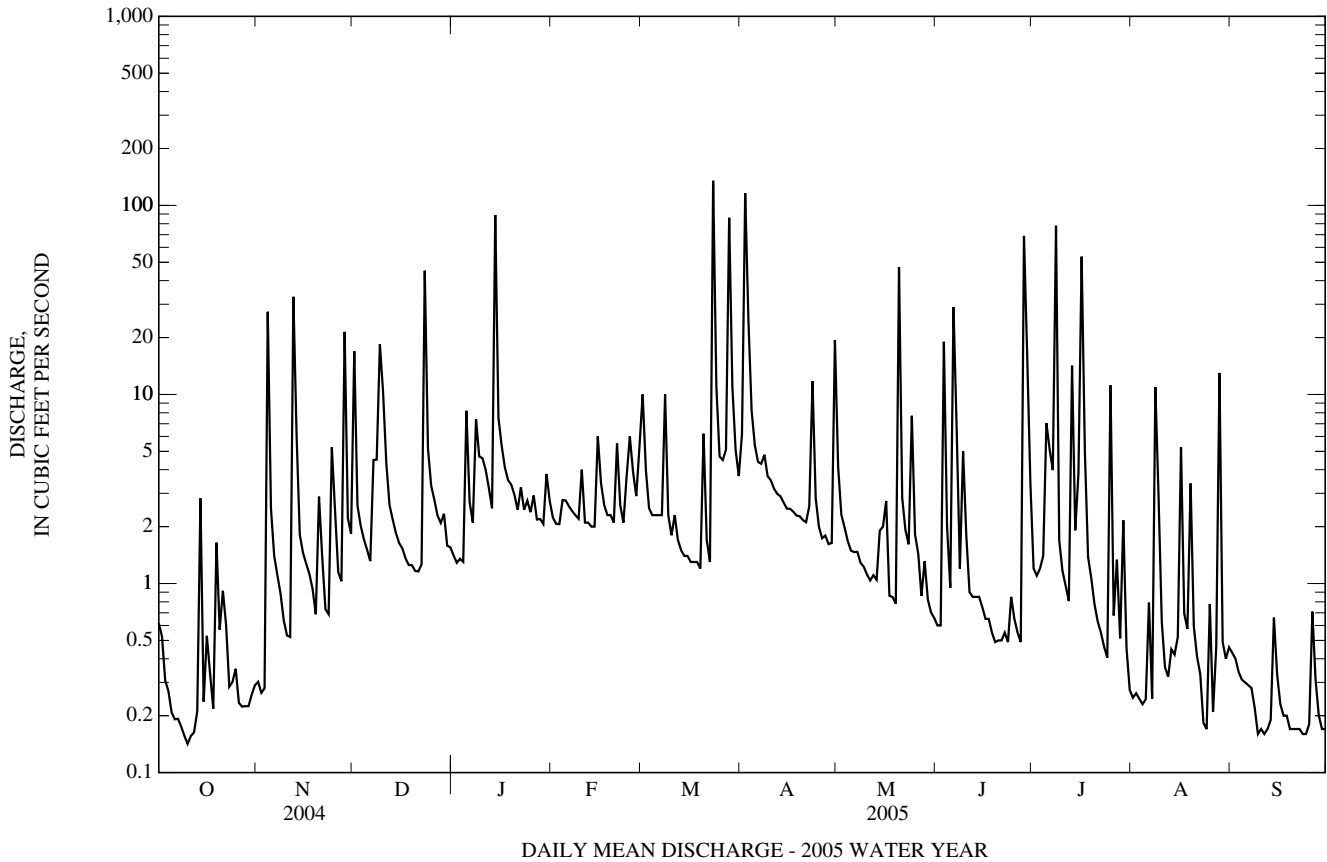
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2002 - 2005, BY WATER YEAR (WY)

MEAN	3.62	6.01	5.91	4.20	5.49	7.41	5.83	6.58	6.66	5.61	2.31	4.15
MAX	7.45	10.6	9.59	6.52	11.7	12.1	8.49	17.0	15.6	8.78	3.19	10.8
(WY)	(2004)	(2003)	(2004)	(2003)	(2003)	(2003)	(2005)	(2003)	(2003)	(2004)	(2004)	(2003)
MIN	0.44	2.35	1.18	1.87	0.67	3.45	3.09	2.81	2.06	0.81	1.49	0.26
(WY)	(2005)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2004)	(2002)	(2002)	(2005)	(2005)

01589351 MAIDENS CHOICE RUN AT WILKINS AVE AT BALTIMORE, MD—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 2002 - 2005	
ANNUAL TOTAL	1,536.23		1,667.16			
ANNUAL MEAN	4.20		4.57		5.31	
HIGHEST ANNUAL MEAN					9.27	
LOWEST ANNUAL MEAN					1.97	
HIGHEST DAILY MEAN	92	Jul 27	(e)135	Mar 23	(e)185	May 16, 2003
LOWEST DAILY MEAN	0.14	Oct 10	0.14	Oct 10	0.02	Sep 22, 2002
ANNUAL SEVEN-DAY MINIMUM	0.17	Oct 6	0.17	Oct 6	0.05	Aug 6, 2002
MAXIMUM PEAK FLOW			1,380	Jul 16	(a)3,770	Jul 27, 2004
MAXIMUM PEAK STAGE			5.91	Jul 16	(b)7.54	Jul 27, 2004
INSTANTANEOUS LOW FLOW			0.12	(c)	0.00	(d)
ANNUAL RUNOFF (CFSM)	0.950		1.03		1.20	
ANNUAL RUNOFF (INCHES)	12.93		14.03		16.33	
10 PERCENT EXCEEDS	7.4		6.3		10	
50 PERCENT EXCEEDS	1.7		1.5		1.6	
90 PERCENT EXCEEDS	0.31		0.23		0.25	

- e Estimated.
- a From rating curve extended above 1,900 ft³/s on basis of slope-area measurements at gage heights of 6.20 and 6.25 ft.
- b Gage height from high-water mark on staff gage.
- c Oct. 10, Aug. 24.
- d Sept. 13, 22-23, 2002.



PATAPSCO RIVER BASIN

0158935180 GWYNNNS 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 mi².

PERIOD OF RECORD.--October 2001 to September 2005 (discontinued).

GAGE.--Water-stage recorder and crest-stage-gage. 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, backwater), 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 1,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec 23	1440	1,150	7.02	Jun 6	2125	1,240	7.16
Jan 14	0350	1,010	6.78	Jul 8	Unknown	2,320	8.55
Mar 23	Unknown	Unknown	Unknown				

Minimum discharge, 0.81 ft³/s, Oct. 14.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.8	1.5	17	1.9	2.0	e7.2	e3.0	e5.0	e0.90	e1.4	1.3	1.2
2	1.9	1.4	1.8	1.9	1.8	e2.0	e7.0	e1.8	1.7	e1.4	1.4	1.3
3	1.9	1.5	1.8	1.8	e1.5	e1.6	e1.0	e1.6	17	e1.6	1.5	1.3
4	1.5	34	1.8	1.9	e2.0	e1.4	e3.4	e1.4	1.8	e2.0	1.5	1.2
5	1.5	1.6	1.7	7.1	e3.0	e1.5	e2.6	e1.2	1.8	e18	3.2	1.2
6	1.4	1.8	1.7	2.5	e2.2	e1.5	e1.8	e1.2	51	e4.0	1.3	1.3
7	1.4	1.8	6.2	2.0	e1.9	e1.6	e2.0	e1.0	3.0	e5.0	1.9	1.3
8	1.4	1.5	e2.4	7.7	e1.7	e7.4	2.3	e1.0	2.7	e50	19	1.4
9	1.9	1.4	e12	1.8	e1.6	e1.6	2.2	e0.94	3.0	e4.0	1.7	1.4
10	1.7	1.4	e5.0	1.8	e3.8	e1.3	2.1	e0.94	1.9	e2.2	1.4	e1.1
11	1.8	1.4	e2.6	1.8	e1.4	e2.0	2.1	e0.94	2.3	e1.8	1.7	e1.0
12	1.9	36	e1.8	1.8	e1.2	e1.6	2.1	e0.94	2.1	1.9	1.7	e0.90
13	1.6	2.9	e1.6	4.7	e1.1	e1.4	2.0	e0.94	1.9	1.7	1.7	e0.90
14	5.1	2.2	e1.5	82	e12	e1.3	1.9	e1.2	3.0	2.2	1.6	e1.1
15	1.8	1.8	e1.5	2.3	e2.6	e1.3	1.9	e1.0	2.2	3.9	e1.4	2.6
16	3.2	1.7	e1.4	1.8	e1.8	e1.2	1.9	e4.0	1.7	28	e2.4	1.8
17	1.7	1.5	e1.4	1.7	e1.4	e1.2	1.9	e1.2	1.7	2.8	e1.4	e1.2
18	e1.4	1.4	e1.3	1.7	e1.3	e1.2	1.8	e1.0	e1.4	1.9	e1.0	e20
19	3.4	1.5	e1.3	e1.2	e1.2	e1.4	1.8	e0.94	e1.4	e1.8	e2.0	e1.4
20	1.8	3.3	e1.2	e1.4	e1.1	e6.0	1.8	e30	e1.2	e1.6	e1.2	e1.2
21	2.0	1.5	e1.2	e1.2	e4.0	e1.6	1.8	e2.2	e2.0	e1.6	e1.0	e1.0
22	1.8	1.5	e1.2	e1.1	e1.7	e1.2	2.4	e1.6	e1.6	e1.5	e2.0	e0.90
23	1.6	1.5	35	e1.2	e1.8	e100	12	e1.2	e1.2	e1.5	e1.4	e1.1
24	1.8	5.7	2.0	e1.2	e2.0	e4.0	1.7	e5.0	e1.4	e1.4	e1.1	e1.0
25	1.6	1.9	1.6	e1.4	e5.0	e2.4	1.6	e1.6	e2.2	e10	1.2	e0.90
26	1.5	1.6	1.6	e3.0	e2.0	e2.0	1.6	e1.2	e1.4	1.7	1.2	e2.4
27	1.8	2.2	1.6	e1.8	e1.7	e3.0	1.7	e1.0	e2.0	5.2	1.6	e1.6
28	1.5	25	1.6	e1.5	e2.0	e80	e1.0	e1.4	e3.0	1.3	10	e1.3
29	1.5	1.5	1.6	1.7	---	e4.0	e1.0	e1.2	e1.8	3.3	1.2	e1.2
30	1.4	1.7	1.7	2.9	---	e2.6	e12	e1.0	e1.6	1.4	1.4	e1.1
31	1.8	---	1.8	2.2	---	e2.2	---	e0.94	---	1.2	1.3	---
TOTAL	58.4	145.7	117.9	150.0	66.8	248.7	155.4	76.58	121.90	167.3	73.7	57.30
MEAN	1.88	4.86	3.80	4.84	2.39	8.02	5.18	2.47	4.06	5.40	2.38	1.91
MAX	5.1	36	35	82	12	100	70	30	51	50	19	20
MIN	1.4	1.4	1.2	1.1	1.1	1.2	1.0	0.94	0.90	1.2	1.0	0.90
CFSM	0.75	1.94	1.52	1.94	0.95	3.21	2.07	0.99	1.63	2.16	0.95	0.76
IN.	0.87	2.17	1.75	2.23	0.99	3.70	2.31	1.14	1.81	2.49	1.10	0.85

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2002 - 2005, BY WATER YEAR (WY)

MEAN	6.37	7.38	7.69	6.69	6.71	8.75	9.27	10.2	7.75	7.99	4.98	7.32
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	1.88	4.86	3.80	4.84	2.39	6.65	5.18	2.47	4.06	3.93	2.38	1.91
(WY)	(2005)	(2005)	(2005)	(2005)	(2005)	(2004)	(2005)	(2005)	(2005)	(2002)	(2005)	(2005)

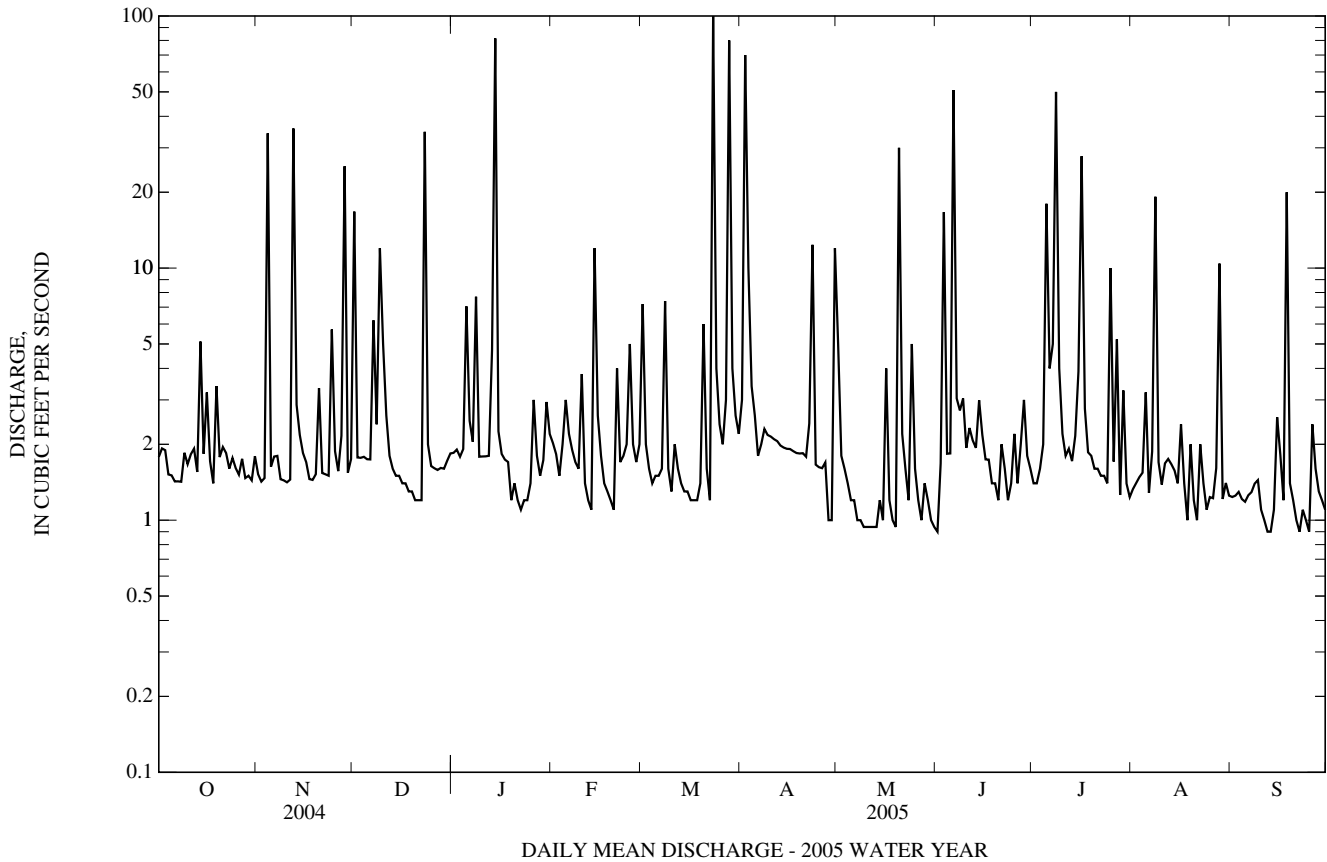
0158935180 GWYNNS RUN AT BALTIMORE, MD—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 2002 - 2005	
ANNUAL TOTAL	2,842.37		1,439.68			
ANNUAL MEAN	7.77		3.94		7.59	
HIGHEST ANNUAL MEAN					11.7	2003
LOWEST ANNUAL MEAN					3.94	2005
HIGHEST DAILY MEAN	(e)230	Jul 7	(e)100	Mar 23	(e)230	Jul 7, 2004
LOWEST DAILY MEAN	0.85	Sep 6	0.90	(a)	0.85	Sep 6, 2004
ANNUAL SEVEN-DAY MINIMUM	0.96	Sep 1	0.96	May 7	0.96	May 7, 2005
MAXIMUM PEAK FLOW			Unknown		(b)4,250	Jul 7, 2004
MAXIMUM PEAK STAGE			Unknown		10.27	Jul 7, 2004
INSTANTANEOUS LOW FLOW			0.81	Oct 14	0.50	Aug 16, 2004
ANNUAL RUNOFF (CFSM)	3.11		1.58		3.04	
ANNUAL RUNOFF (INCHES)	42.29		21.42		41.27	
10 PERCENT EXCEEDS	18		5.0		17	
50 PERCENT EXCEEDS	3.9		1.7		4.1	
90 PERCENT EXCEEDS	1.2		1.2		1.4	

e Estimated.

a June 1, Sept. 12, 13, 22, 25.

b From rating curve extended above 90 ft³/s on basis of slope-area measurements at gage heights of 7.8 and 8.9 ft.



01589352 GWYNN'S 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 mi².

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 fair except those for estimated daily discharges (missing record), which are poor. Frequent diurnal fluctuations from changes in inflows from unknown sources above 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 2,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec 23	1522	3,020	7.49	Jun 28	2015	3,570	8.17
Jan 14	0910	4,090	8.75	Jul 8	0805	*4,820	*9.53
Jun 6	2210	2,560	6.86	Jul 16	2157	4,500	9.20

Minimum discharge, 12 ft³/s, Sept. 29, 30.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	55	28	e360	e42	e51	e103	e84	e121	e38	33	22	17
2	47	28	e100	e42	e48	e70	e1,530	e73	28	35	22	16
3	43	29	e67	e42	e46	e53	e710	e65	177	23	21	15
4	36	375	e58	43	e48	e51	e160	e59	66	21	20	14
5	32	136	e56	106	e50	e53	e116	e57	41	49	21	14
6	30	53	e58	92	e54	e56	e101	e55	285	190	70	14
7	29	39	e75	59	e58	e63	e92	e55	136	42	25	e16
8	29	33	e78	115	e65	e131	e114	e51	40	1,470	78	e15
9	29	31	e208	72	74	e66	e81	e49	48	97	49	e16
10	29	31	e369	54	97	e55	e75	e48	52	48	25	e17
11	26	e39	e143	49	58	e57	e72	e47	32	35	22	e18
12	26	e295	e87	47	50	e58	e69	e45	29	25	20	e17
13	26	e223	e71	49	48	e51	e67	e43	28	76	19	e18
14	71	e64	59	1,760	e144	e48	e67	e46	31	74	18	e19
15	33	e50	54	162	e162	e46	e61	e48	27	82	17	e19
16	60	e46	e51	e104	e77	e46	e60	e43	24	438	49	e21
17	45	e42	e49	e81	e66	e48	e60	e41	23	143	33	e20
18	28	e41	e47	e67	e59	e48	e60	e41	23	46	20	e18
19	63	e41	e45	e60	e54	e47	e59	e41	22	35	45	e15
20	47	e45	43	e52	e56	e72	e58	e355	22	32	e32	e17
21	63	e56	42	e51	e72	e63	e58	e86	23	28	e27	e18
22	50	e40	43	e50	e64	e47	e64	e54	22	27	e23	e18
23	34	e39	666	e50	e56	e1,780	e181	e48	22	28	e21	e19
24	32	e74	192	e50	e60	e275	e106	e128	22	23	e20	e18
25	32	e104	80	e54	e79	e112	e68	e78	21	148	16	e20
26	29	e58	62	e50	e75	e89	e61	e51	22	38	15	e23
27	29	e48	54	e50	e67	e86	e59	e44	33	36	17	23
28	28	e345	47	e50	e72	e1,170	e55	e41	424	45	180	15
29	27	e77	e47	e50	---	e317	e55	e40	141	35	28	13
30	28	e58	e46	e56	---	e121	e247	e39	91	25	19	13
31	29	---	e45	e53	---	e94	---	e39	---	23	18	---
TOTAL	1,165	2,568	3,402	3,662	1,910	5,376	4,650	2,031	1,993	3,450	1,012	516
MEAN	37.6	85.6	110	118	68.2	173	155	65.5	66.4	111	32.6	17.2
MAX	71	375	666	1,760	162	1,780	1,530	355	424	1,470	180	23
MIN	26	28	42	42	46	46	55	39	21	21	15	13
CFSM	0.57	1.30	1.67	1.79	1.04	2.63	2.35	0.99	1.01	1.69	0.50	0.26
IN.	0.66	1.45	1.92	2.07	1.08	3.03	2.62	1.15	1.13	1.95	0.57	0.29

e Estimated

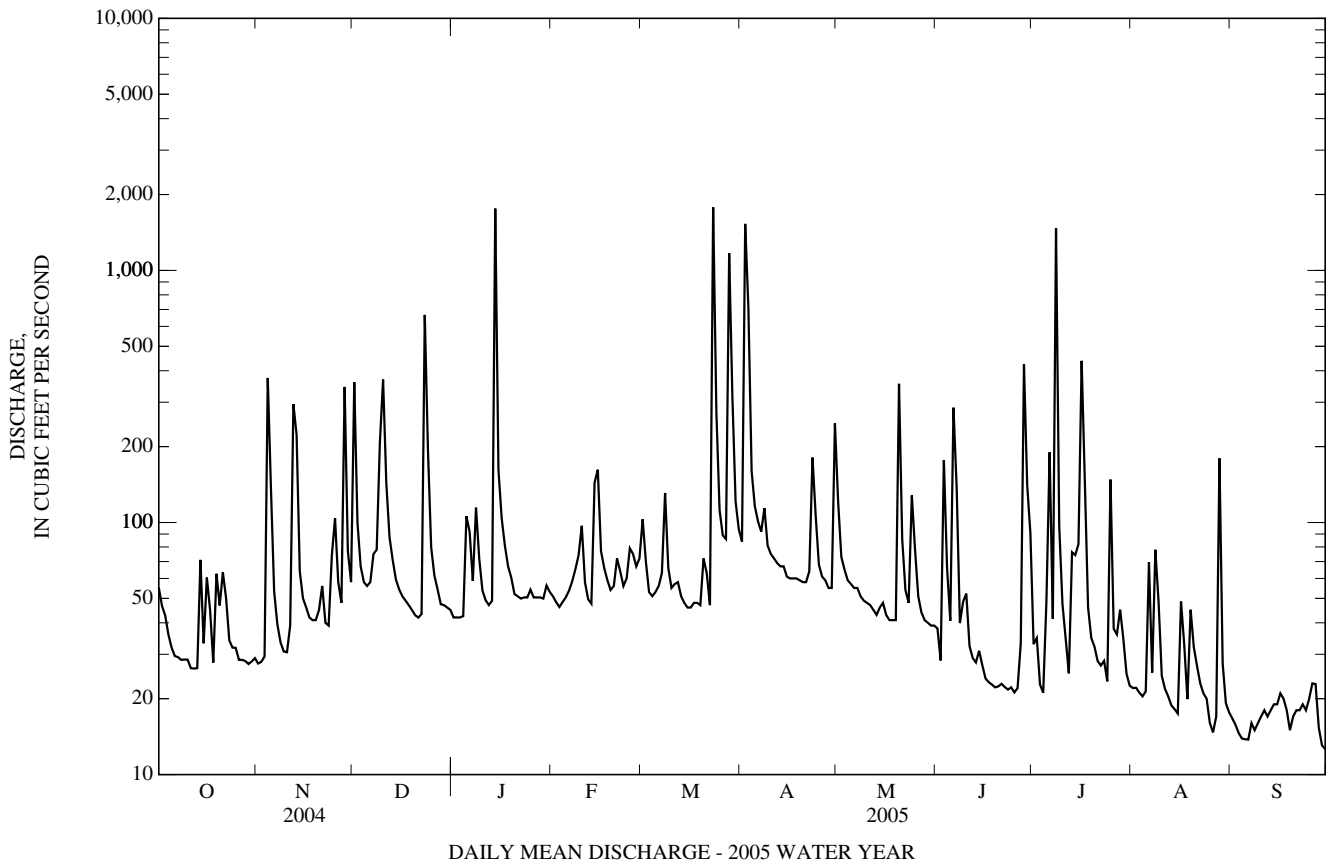
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2005, BY WATER YEAR (WY)

MEAN	63.8	72.5	97.6	84.3	94.4	132	111	87.2	86.1	84.3	67.2	109
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	32.6	17.2
(WY)	(2002)	(1999)	(2002)	(2002)	(2002)	(2002)	(2001)	(1999)	(2002)	(2002)	(2005)	(2005)

01589352 GWYNN'S FALLS AT WASHINGTON BOULEVARD AT BALTIMORE, MD—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1999 - 2005	
ANNUAL TOTAL	36,557		31,735		90.7	
ANNUAL MEAN	99.9		86.9		139	
HIGHEST ANNUAL MEAN					47.5	
LOWEST ANNUAL MEAN					2002	
HIGHEST DAILY MEAN	2,400	Jul 7	(e)1,780	Mar 23	3,520	Sep 16, 1999
LOWEST DAILY MEAN	19	(a)	13	(b)	8.7	Aug 18, 2002
ANNUAL SEVEN-DAY MINIMUM	21	Sep 2	15	Sep 2	9.7	Aug 16, 2002
MAXIMUM PEAK FLOW			4,820	Jul 8	(c)23,900	Aug 26, 1999
MAXIMUM PEAK STAGE			9.53	Jul 8	20.03	Aug 26, 1999
INSTANTANEOUS LOW FLOW			12	(b)	6.5	Aug 18, 2002
ANNUAL RUNOFF (CFSM)	1.52		1.32		1.38	
ANNUAL RUNOFF (INCHES)	20.64		17.91		18.71	
10 PERCENT EXCEEDS	168		133		167	
50 PERCENT EXCEEDS	56		49		48	
90 PERCENT EXCEEDS	29		20		22	

e Estimated.
 a Sept. 6, 7.
 b Sept. 29, 30.
 c From rating curve extended above 6,200 ft³/s on basis of slope-area measurement of peak flow.



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 mi².

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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec 23	1545	611	6.66	Apr 2	1500	1,020	7.69
Jan 14	0930	*1,120	*7.92	Apr 3	0115	839	7.28
Mar 23	1530	779	7.13	Jul 8	0700	876	7.37
Mar 28	1445	771	7.11				

Minimum discharge, 4.7 ft³/s, Sept. 13, 14, 18-22, 24.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	13	78	23	23	30	37	45	21	17	10	7.0
2	21	13	34	22	23	26	430	36	21	16	9.5	6.1
3	20	13	28	22	23	25	230	34	43	15	8.7	5.7
4	19	41	25	22	25	24	66	33	30	15	8.3	5.6
5	18	23	24	31	26	25	55	32	25	17	8.1	5.5
6	18	15	23	31	28	26	52	32	25	24	8.5	5.6
7	17	13	27	25	30	28	50	31	32	16	8.6	5.6
8	17	12	27	32	32	35	51	31	27	247	11	5.4
9	16	11	44	27	34	26	45	30	30	24	12	5.7
10	17	11	71	25	35	25	43	29	26	17	9.7	5.8
11	16	12	41	24	27	25	42	28	22	15	8.6	5.3
12	16	45	30	23	26	25	41	27	21	14	7.8	5.2
13	16	38	27	23	24	23	40	26	20	13	7.3	5.0
14	20	17	25	441	40	23	39	26	19	17	7.0	5.0
15	16	15	23	56	45	22	37	27	18	16	6.7	5.4
16	18	13	23	42	31	22	37	25	17	41	9.6	5.4
17	17	13	23	36	28	22	37	25	17	50	9.2	5.1
18	15	13	22	33	26	22	37	24	16	18	7.5	4.9
19	19	12	22	e31	25	21	36	24	16	15	10	4.8
20	18	13	21	e29	24	25	35	75	16	13	9.6	4.8
21	19	15	20	e28	28	24	35	36	16	12	8.1	4.9
22	17	13	21	e28	26	21	36	29	16	12	7.0	5.0
23	16	12	154	e28	24	342	64	28	16	11	6.7	5.1
24	15	17	48	e29	26	67	46	35	15	10	6.4	4.9
25	15	21	30	e28	27	41	37	31	14	22	6.0	5.5
26	14	14	26	e27	25	36	35	28	14	13	6.1	6.8
27	13	13	24	26	25	34	34	25	15	11	6.1	7.9
28	13	75	23	25	27	266	32	25	38	12	24	6.2
29	14	30	24	25	---	78	31	24	31	11	8.9	6.4
30	14	25	23	25	---	45	63	23	23	11	8.4	5.7
31	13	---	23	25	---	39	---	23	---	11	8.0	---
TOTAL	519	591	1,054	1,292	783	1,493	1,853	947	660	756	273.4	167.3
MEAN	16.7	19.7	34.0	41.7	28.0	48.2	61.8	30.5	22.0	24.4	8.82	5.58
MAX	22	75	154	441	45	342	430	75	43	247	24	7.9
MIN	13	11	20	22	23	21	31	23	14	10	6.0	4.8
CFSM	0.66	0.78	1.35	1.65	1.11	1.91	2.45	1.21	0.87	0.97	0.35	0.22
IN.	0.77	0.87	1.56	1.91	1.16	2.20	2.74	1.40	0.97	1.12	0.40	0.25

e Estimated

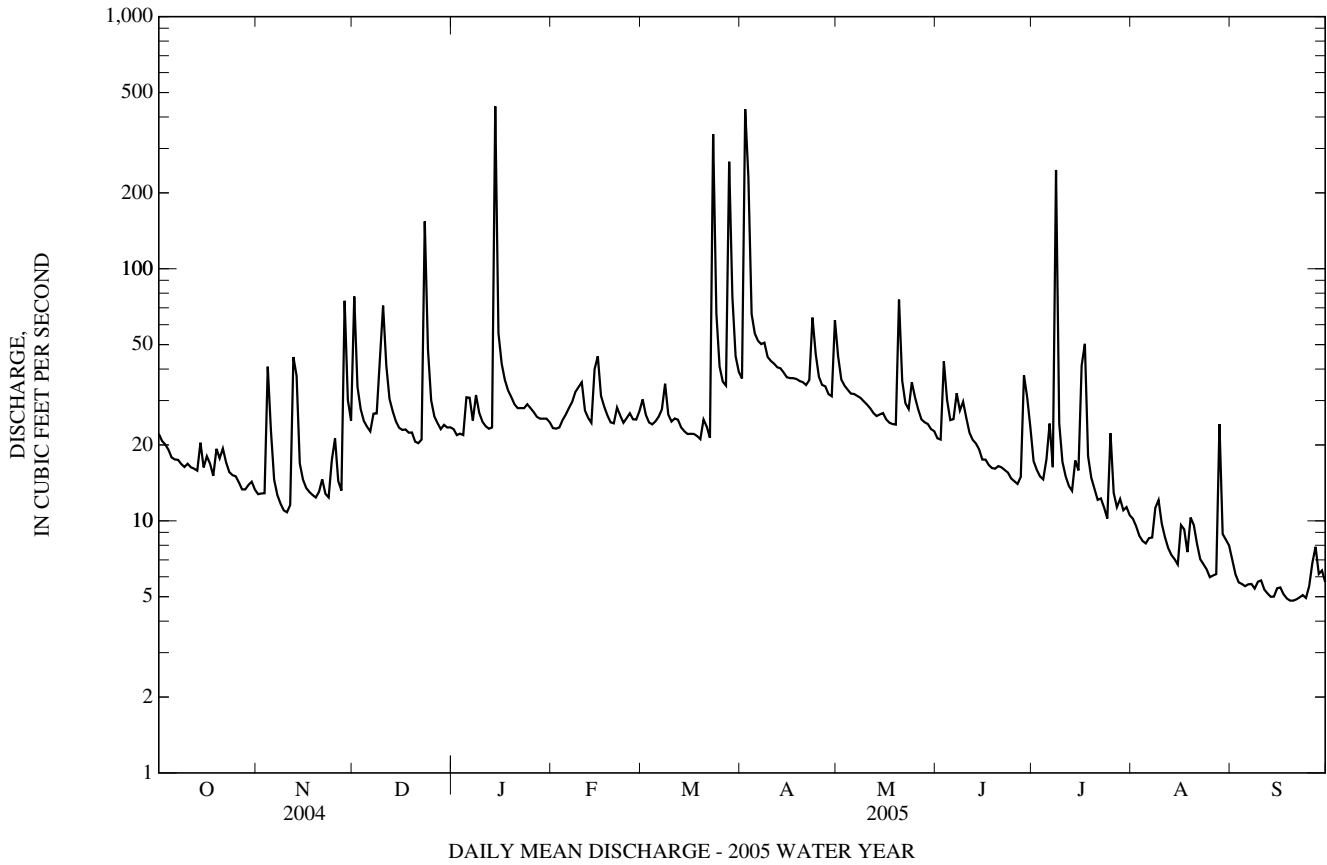
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 1988, 1997 - 2005, BY WATER YEAR (WY)

MEAN	23.3	26.5	34.6	34.7	39.4	43.3	41.0	33.9	30.5	24.2	21.6	26.8
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	5.58
(WY)	(1987)	(1982)	(2002)	(1981)	(2002)	(2002)	(2002)	(1969)	(2002)	(2002)	(2002)	(2005)

01589440 JONES FALLS AT SORRENTO, MD—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1966 - 1988, 1997 - 2005	
	ANNUAL TOTAL	12,269.8		10,388.7		
ANNUAL MEAN	33.5		28.5		31.9	
HIGHEST ANNUAL MEAN					62.5	1972
LOWEST ANNUAL MEAN					10.1	2002
HIGHEST DAILY MEAN	516	Feb 6	441	Jan 14	2,600	Jun 22, 1972
LOWEST DAILY MEAN	9.9	(a)	4.8	(b)	1.4	(c)
ANNUAL SEVEN-DAY MINIMUM	10	Sep 1	4.9	Sep 18	1.4	Aug 14, 2002
MAXIMUM PEAK FLOW			1,120	Jan 14	(d)13,800	Jun 22, 1972
MAXIMUM PEAK STAGE			7.92	Jan 14	(f)18.11	Jun 22, 1972
INSTANTANEOUS LOW FLOW			4.7	(g)	1.3	(h)
ANNUAL RUNOFF (CFSM)	1.33		1.13		1.26	
ANNUAL RUNOFF (INCHES)	18.11		15.34		17.18	
10 PERCENT EXCEEDS	47		41		53	
50 PERCENT EXCEEDS	26		23		22	
90 PERCENT EXCEEDS	13		7.0		9.4	

- a Sept. 5, 6.
- b Sept. 19, 20.
- c Aug. 14, 15, 18-22, 2002.
- d From rating curve extended above 1,400 ft³/s on basis of slope-area measurement of peak flow.
- f From floodmarks.
- g Sept. 13, 14, 18-22, 24.
- h Aug. 14, 15, 2002.



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 mi².

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.--Records good except those for estimated daily discharges (ice effect), which are fair. 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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan 14	1130	74	3.30	Jun 7	0115	40	2.68
Mar 23	1630	*88	*3.51	Jul 8	0930	47	2.81
Mar 28	1630	65	3.14	Jul 17	0015	46	2.79
Apr 3	0300	70	3.23	Jul 29	1815	45	2.78
May 20	1400	36	2.61				

Minimum discharge, 2.5 ft³/s, June 23.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.5	4.3	9.7	4.5	e5.4	7.9	7.2	14	5.0	5.1	6.0	3.9
2	6.6	4.3	6.8	4.5	5.5	6.9	22	7.6	5.0	4.3	5.4	3.8
3	6.1	4.4	5.7	4.5	5.5	5.7	39	7.1	10	4.0	4.8	3.7
4	5.4	12	5.1	4.5	5.9	5.5	13	7.2	7.9	3.9	4.9	3.7
5	4.7	13	4.8	7.4	6.2	5.6	9.3	7.2	6.0	4.1	4.6	3.6
6	4.5	5.9	4.8	6.3	6.1	5.7	8.9	6.2	8.8	5.4	4.6	3.5
7	4.6	5.0	6.3	5.2	6.0	5.7	8.9	6.2	24	4.5	4.4	3.5
8	4.5	4.6	7.9	6.3	5.9	8.2	10	6.0	7.9	26	7.9	3.5
9	4.5	4.4	7.7	5.4	5.9	6.4	8.2	5.8	6.1	9.3	9.1	3.5
10	4.5	4.3	13	4.9	5.9	5.6	7.5	5.6	5.8	5.5	6.0	3.5
11	4.5	4.5	8.3	4.6	5.4	5.6	7.3	5.7	5.4	4.6	5.0	3.4
12	4.5	14	6.4	4.5	5.3	5.5	7.5	5.5	5.0	4.2	4.7	3.4
13	4.5	17	5.7	4.6	5.1	5.1	7.5	5.4	5.1	4.2	4.4	3.4
14	7.2	6.8	5.0	38	7.4	5.1	7.2	5.7	4.8	4.2	4.3	3.7
15	5.4	5.5	4.6	15	9.2	4.9	6.9	5.8	4.6	18	4.2	6.4
16	5.0	5.1	4.6	7.7	6.4	4.8	6.8	5.4	4.5	21	6.6	4.4
17	4.5	5.1	4.8	6.6	5.7	4.9	6.8	5.1	4.5	26	5.4	3.9
18	4.5	5.1	4.6	5.7	5.4	5.0	6.8	5.1	4.4	9.0	4.4	3.6
19	4.7	5.0	5.1	5.7	5.1	4.8	6.8	5.1	4.4	6.3	4.6	3.5
20	4.9	5.1	5.0	e5.7	5.1	5.2	6.8	26	4.6	5.6	4.7	3.5
21	5.9	5.6	4.4	e5.7	6.0	5.0	6.8	13	4.6	6.6	4.4	3.5
22	5.1	4.9	4.6	5.7	5.6	4.8	7.0	7.0	4.6	6.8	4.1	3.5
23	4.7	4.6	11	e5.6	5.2	44	8.9	6.6	4.3	4.8	4.1	3.5
24	4.7	5.1	12	5.5	5.5	22	8.4	7.5	4.3	4.4	4.1	3.4
25	4.6	6.6	5.9	5.6	6.2	8.6	7.0	7.4	4.1	7.1	4.3	3.4
26	4.5	5.1	5.1	e5.4	6.1	7.1	6.5	6.5	4.0	5.0	4.0	3.6
27	4.5	4.5	4.8	e5.2	6.1	6.5	6.5	5.9	4.3	9.5	4.4	3.6
28	4.4	16	4.5	5.0	6.3	30	6.3	5.6	4.4	11	10	3.4
29	4.5	7.3	4.6	5.1	---	23	6.2	5.4	5.0	16	4.8	3.5
30	4.5	5.7	4.6	e5.2	---	9.5	13	5.1	8.4	16	4.3	3.3
31	4.4	---	4.5	e5.4	---	7.5	---	5.3	---	6.9	4.2	---
TOTAL	152.4	200.8	191.9	211.0	165.4	282.1	281.0	223.0	181.8	269.3	158.7	110.1
MEAN	4.92	6.69	6.19	6.81	5.91	9.10	9.37	7.19	6.06	8.69	5.12	3.67
MAX	7.2	17	13	38	9.2	44	39	26	24	26	10	6.4
MIN	4.4	4.3	4.4	4.5	5.1	4.8	6.2	5.1	4.0	3.9	4.0	3.3
CFSM	0.99	1.35	1.25	1.37	1.19	1.83	1.88	1.45	1.22	1.75	1.03	0.74
IN.	1.14	1.50	1.44	1.58	1.24	2.11	2.10	1.67	1.36	2.02	1.19	0.82

e Estimated

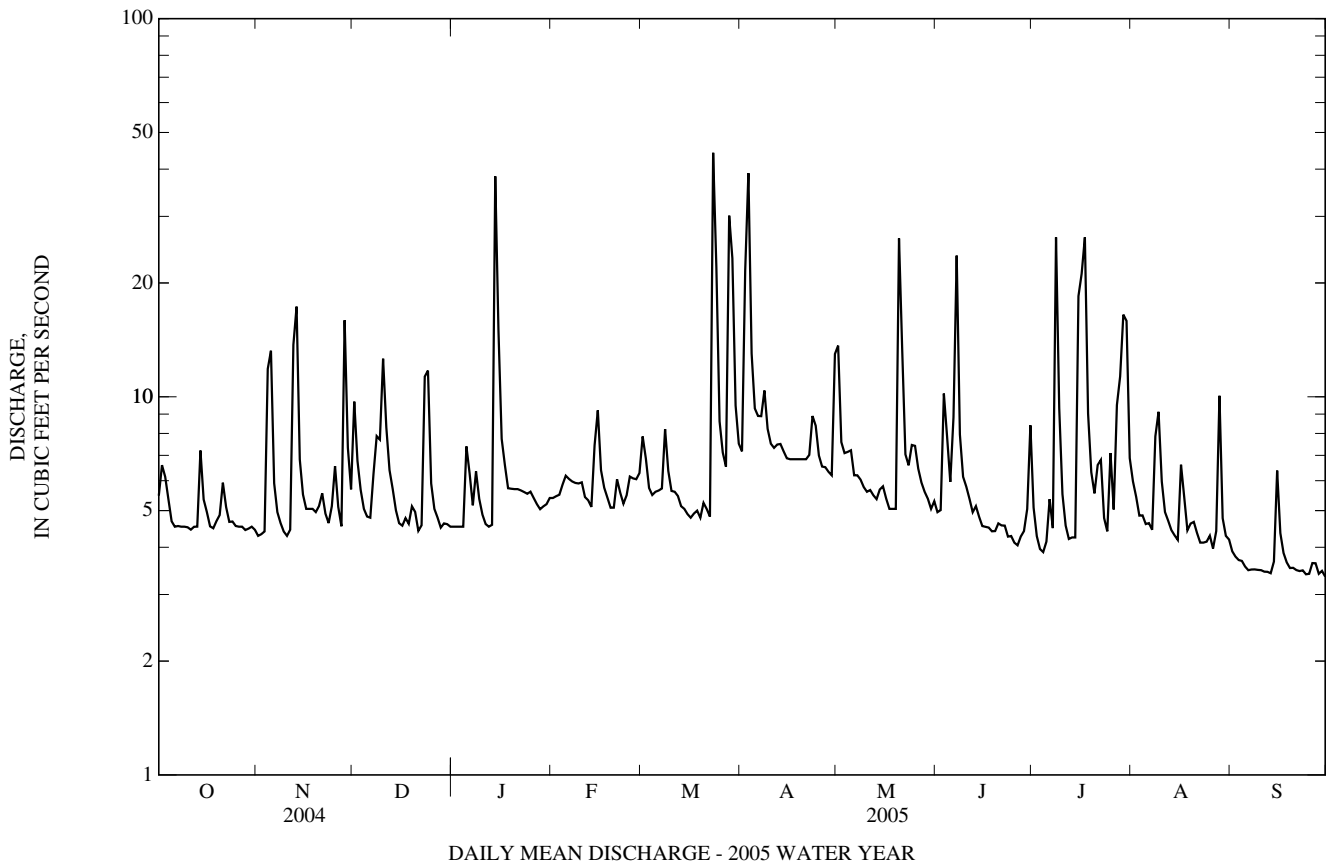
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1944 - 1952, 1983 - 2005, BY WATER YEAR (WY)

	3.84	4.45	4.90	5.11	5.34	6.32	5.99	5.89	5.33	4.90	4.55	4.81
MEAN	3.84	4.45	4.90	5.11	5.34	6.32	5.99	5.89	5.33	4.90	4.55	4.81
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 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1944 - 1952, 1983 - 2005	
	ANNUAL TOTAL	2,823.2		2,427.5		5.11
ANNUAL MEAN	7.71		6.65		11.0 1949	
HIGHEST ANNUAL MEAN					0.43 1986	
LOWEST ANNUAL MEAN					155 Sep 16, 1999	
HIGHEST DAILY MEAN	74	Jul 28	44	Mar 23	0.01 (b)	
LOWEST DAILY MEAN	4.3	(a)	3.3	Sep 30	0.01	Jul 25, 1986
ANNUAL SEVEN-DAY MINIMUM	4.4	Oct 28	3.5	Sep 7	(c)294	Sep 16, 1999
MAXIMUM PEAK FLOW			88	Mar 23	5.74	Sep 16, 1999
MAXIMUM PEAK STAGE			3.51	Mar 23	0.00	(d)
INSTANTANEOUS LOW FLOW			2.5	Jun 23	1.03	
ANNUAL RUNOFF (CFSM)	1.55		1.34		13.96	
ANNUAL RUNOFF (INCHES)	21.13		18.17		9.4	
10 PERCENT EXCEEDS	12		9.3		4.3	
50 PERCENT EXCEEDS	6.6		5.4		0.68	
90 PERCENT EXCEEDS	4.7		4.1			

- a Nov. 1, 2, 10.
- b Many days in 1985-1987.
- c From rating curve extended above 75 ft³/s on basis of Culvert Type IV measurement of peak flow.
- d Sept. 6, 7, 1985, July 29, Aug. 2, 1986.



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 mi².

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, (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.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 20 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan 14	0920	43	5.28	Apr 3	0120	38	5.20
Mar 28	1420	*62	*5.54				

Minimum discharge, 0.24 ft³/s, Sept. 7, 8.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.53	0.45	0.87	0.50	e0.38	0.63	0.61	0.98	0.45	0.45	0.45	e0.36
2	0.55	0.45	0.54	0.50	e0.38	0.49	4.7	0.56	0.45	0.45	0.45	0.31
3	0.53	0.45	0.50	0.50	e0.42	0.41	8.2	0.56	0.57	0.43	0.45	0.31
4	0.50	1.4	0.48	0.50	0.46	0.40	0.84	0.50	0.48	0.40	0.45	0.31
5	0.47	0.68	0.45	0.55	0.56	0.40	0.69	0.45	0.45	0.41	0.43	0.31
6	0.45	0.50	0.45	0.46	0.61	0.40	0.60	0.45	1.1	0.44	0.40	0.31
7	0.45	0.47	0.52	0.42	0.59	0.40	0.56	0.45	1.1	0.43	0.40	0.29
8	0.45	0.45	0.65	0.43	0.57	0.70	0.60	0.45	0.47	1.4	0.67	0.29
9	0.45	0.48	0.85	0.41	0.55	0.42	0.56	0.45	0.45	0.47	0.46	0.27
10	0.45	0.46	1.2	0.37	0.53	0.40	0.53	0.45	0.45	0.45	0.39	0.27
11	0.45	0.45	0.78	0.36	0.40	0.40	0.50	0.45	0.45	0.45	0.36	0.27
12	0.45	1.8	0.65	0.40	0.40	0.42	0.50	0.45	0.45	0.45	0.36	0.27
13	0.45	1.6	0.61	0.39	0.37	0.38	0.50	0.45	0.45	0.45	0.36	0.27
14	0.49	0.56	0.58	12	0.63	0.36	0.50	0.46	0.45	0.45	0.36	0.27
15	0.46	0.50	0.56	0.95	0.74	0.36	0.49	0.45	0.43	0.53	0.36	0.28
16	0.45	0.49	0.56	0.70	0.48	0.35	0.45	0.45	0.42	0.90	0.42	0.27
17	0.45	0.47	0.56	0.63	0.45	0.36	0.44	0.45	0.42	0.48	0.36	0.27
18	0.45	0.45	0.53	0.56	0.43	0.33	0.44	0.45	0.41	0.45	0.36	0.27
19	0.45	0.45	0.50	0.50	0.40	0.31	0.43	0.45	0.40	0.45	0.38	0.27
20	0.52	0.45	0.50	0.49	0.40	0.31	0.43	3.9	0.40	0.45	0.36	0.27
21	0.45	0.45	0.50	0.52	0.40	0.31	0.45	0.67	0.40	0.44	0.36	0.27
22	0.45	0.45	0.50	0.46	0.40	0.31	0.45	0.50	0.41	0.43	0.36	0.27
23	0.45	0.45	1.6	e0.42	0.38	e14	0.88	0.50	0.42	0.40	0.36	0.27
24	0.45	0.45	0.83	e0.43	0.36	1.4	0.62	0.51	0.42	0.40	0.34	0.27
25	0.45	0.45	0.59	e0.42	0.39	0.66	0.53	0.50	0.40	0.47	0.33	0.27
26	0.45	0.45	0.56	e0.40	0.44	0.58	0.50	0.50	0.40	0.43	0.31	0.27
27	0.45	0.45	0.53	e0.38	0.44	0.56	0.47	0.50	0.43	0.77	0.31	0.27
28	0.45	1.5	0.50	e0.38	0.44	14	0.45	0.50	0.42	0.47	0.42	0.27
29	0.45	0.54	0.50	e0.38	---	1.7	0.45	0.47	0.45	0.55	0.36	0.27
30	0.45	0.50	0.50	e0.39	---	0.77	1.0	0.47	0.46	0.48	0.36	0.27
31	0.45	---	0.50	e0.38	---	0.65	---	0.47	---	0.45	e0.37	---
TOTAL	14.40	18.70	19.45	26.18	13.00	43.17	28.37	18.85	14.46	15.68	12.11	8.44
MEAN	0.46	0.62	0.63	0.84	0.46	1.39	0.95	0.61	0.48	0.51	0.39	0.28
MAX	0.55	1.8	1.6	12	0.74	14	8.2	3.9	1.1	1.4	0.67	0.36
MIN	0.45	0.45	0.45	0.36	0.36	0.31	0.43	0.45	0.40	0.40	0.31	0.27
CFSM	0.46	0.62	0.63	0.84	0.46	1.39	0.95	0.61	0.48	0.51	0.39	0.28
IN.	0.54	0.70	0.72	0.97	0.48	1.61	1.06	0.70	0.54	0.58	0.45	0.31

e Estimated

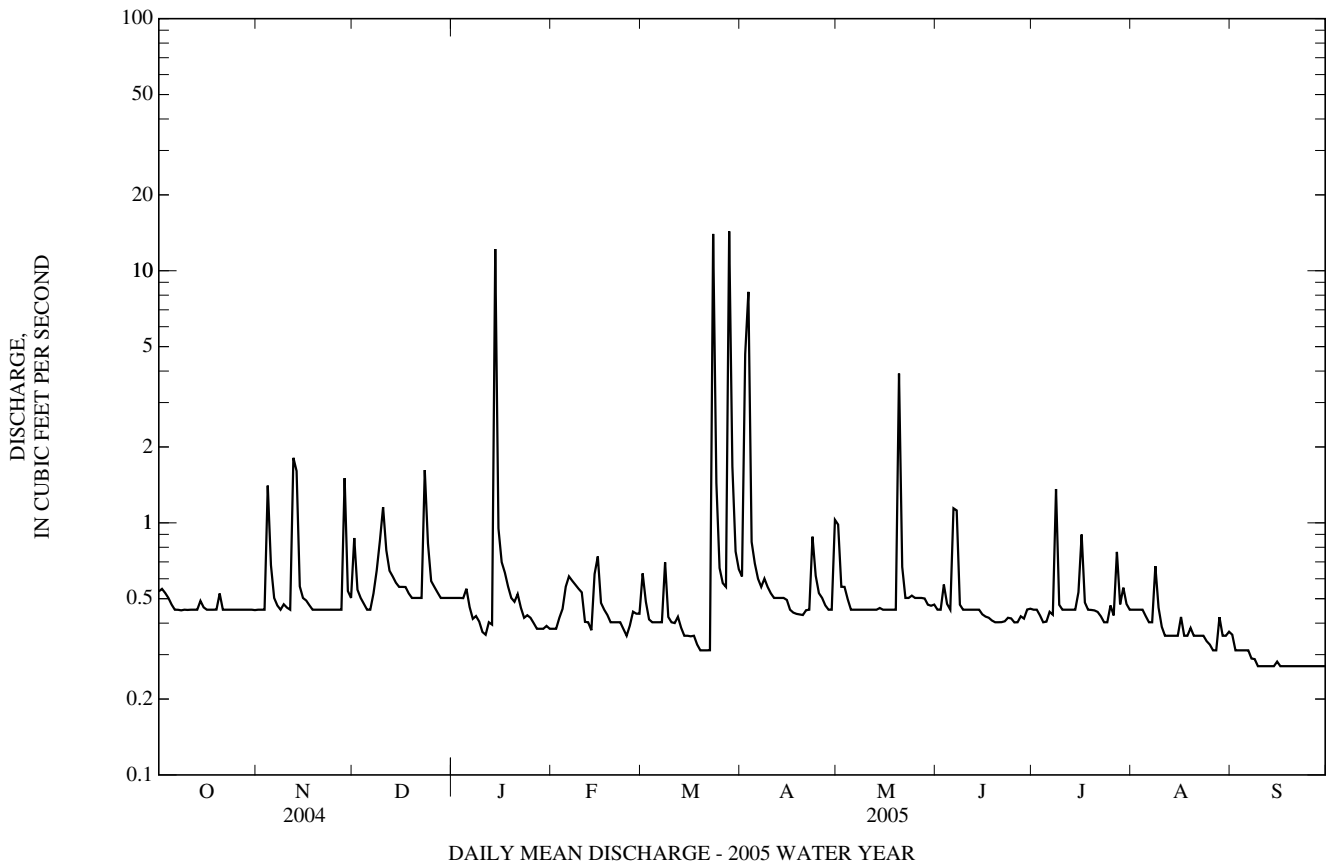
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 1990, 1997 - 2005, BY WATER YEAR (WY)

MEAN	0.37	0.44	0.56	0.60	0.75	0.79	0.58	0.50	0.63	0.41	0.37	0.82
MAX	0.59	0.77	1.39	1.60	2.01	1.47	0.95	0.80	2.21	0.65	0.52	3.23
(WY)	(2004)	(1998)	(2004)	(1998)	(1998)	(1998)	(2005)	(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 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1989 - 1990, 1997 - 2005	
ANNUAL TOTAL	244.95		232.81			
ANNUAL MEAN	0.67		0.64		0.57	
HIGHEST ANNUAL MEAN					0.93	2003
LOWEST ANNUAL MEAN					0.21	2002
HIGHEST DAILY MEAN	17	Jun 5	14	Mar 23	82	Sep 16, 1999
LOWEST DAILY MEAN	0.31	(a)	0.27	(b)	0.10	Aug 17, 2002
ANNUAL SEVEN-DAY MINIMUM	0.34	May 29	0.27	Sep 16	0.11	Aug 14, 2002
MAXIMUM PEAK FLOW			62	Mar 28	(c)496	Sep 18, 2003
MAXIMUM PEAK STAGE			5.54	Mar 28	7.46	Sep 18, 2003
INSTANTANEOUS LOW FLOW			0.24	(d)	0.05	Aug 17, 2002
ANNUAL RUNOFF (CFSM)	0.669		0.638		0.572	
ANNUAL RUNOFF (INCHES)	9.11		8.66		7.77	
10 PERCENT EXCEEDS	0.74		0.66		0.65	
50 PERCENT EXCEEDS	0.45		0.45		0.36	
90 PERCENT EXCEEDS	0.40		0.33		0.15	

- a June 2, 3.
- b Sept. 9-14, 16-30.
- c From rating curve extended above 22 ft³/s.
- d Sept. 7, 8.



PATUXENT RIVER BASIN

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 mi².

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 for estimated daily discharges (ice effect, equipment malfunction), which are fair. Records. 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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan 14	1130	1,120	6.07	Apr 2	1815	1,430	6.69
Mar 23	1900	1,240	6.31	Jun 10	0115	*1,760	*7.25
Mar 28	2200	803	5.36	Jul 8	1015	1,540	6.88

Minimum discharge, 11 ft³/s, on several days.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	13	47	23	e22	33	66	55	21	20	e20	e13
2	14	13	33	22	22	30	501	44	21	18	e18	e12
3	14	13	25	21	22	28	244	40	29	16	e17	e11
4	13	31	22	21	23	27	115	38	28	15	e16	e10
5	12	33	20	26	27	29	92	36	24	16	e15	e9.6
6	12	18	20	29	31	29	80	35	26	48	e15	e9.6
7	12	16	22	25	34	31	75	34	31	21	e15	e9.0
8	11	15	27	28	39	41	81	32	23	501	e15	e8.8
9	11	14	30	28	46	35	69	30	162	58	e17	e8.6
10	11	13	106	25	50	32	62	29	229	38	e17	e8.2
11	11	13	69	24	36	33	59	29	39	e30	e15	e8.0
12	11	50	41	23	32	33	55	28	30	e26	e14	e7.8
13	12	61	33	23	30	30	52	27	27	e28	e13	e7.6
14	13	28	28	425	36	29	50	28	25	e40	e13	e7.4
15	13	22	26	96	53	27	47	28	22	e30	e12	e7.6
16	14	20	24	63	40	27	44	27	20	e100	e20	e7.6
17	14	18	24	51	35	27	43	26	19	e240	e18	e7.4
18	12	18	22	43	31	26	43	25	18	e42	e15	e7.2
19	13	17	22	e40	29	25	41	24	18	36	e16	e7.2
20	15	18	20	38	28	27	41	54	18	e32	e18	e7.2
21	22	18	19	34	33	26	41	37	18	e28	e15	e7.0
22	16	17	20	e33	32	24	43	29	20	e26	e15	e6.8
23	14	17	80	e32	29	427	63	29	22	e33	e13	e7.0
24	14	18	60	31	29	140	55	35	18	e26	e12	e7.2
25	14	23	34	e30	29	80	44	37	17	e26	e11	e8.0
26	13	19	e27	e28	28	67	41	30	16	e23	e12	e9.0
27	13	17	26	e26	29	59	39	26	16	e21	e14	e11
28	13	22	e25	25	30	325	36	25	17	e24	e17	e9.4
29	13	20	24	24	---	167	35	24	27	e23	e15	e9.8
30	13	18	24	e24	---	92	66	23	33	e23	e14	e10
31	13	---	24	e23	---	75	---	23	---	e20	e14	---
TOTAL	412	633	1,024	1,384	905	2,081	2,323	987	1,034	1,628	471	260.0
MEAN	13.3	21.1	33.0	44.6	32.3	67.1	77.4	31.8	34.5	52.5	15.2	8.67
MAX	22	61	106	425	53	427	501	55	229	501	20	13
MIN	11	13	19	21	22	24	35	23	16	15	11	6.8
CFSM	0.38	0.61	0.95	1.28	0.93	1.93	2.23	0.91	0.99	1.51	0.44	0.25
IN.	0.44	0.68	1.09	1.48	0.97	2.22	2.48	1.06	1.11	1.74	0.50	0.28

e Estimated

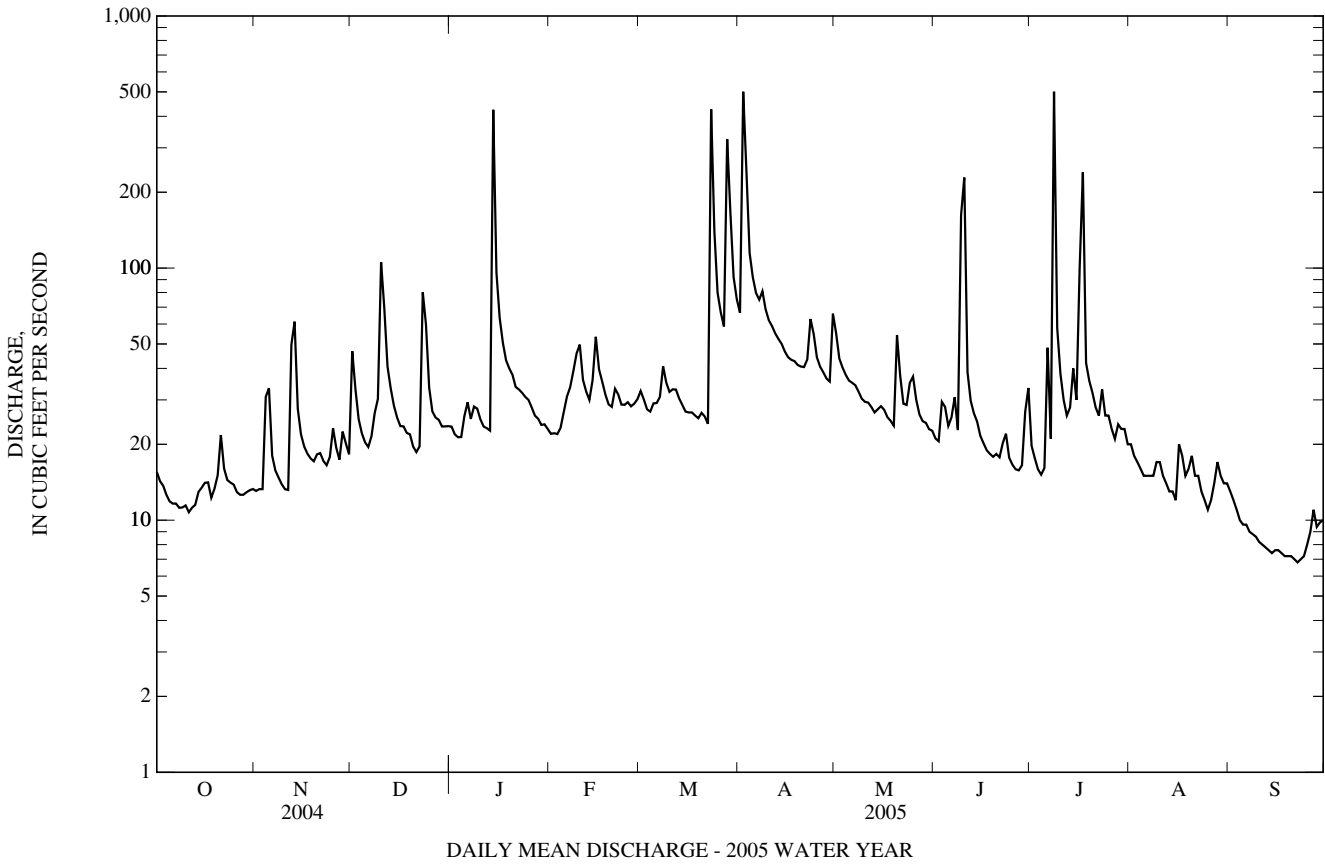
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1944 - 2005, BY WATER YEAR (WY)

MEAN	22.3	29.4	41.4	46.9	54.6	62.6	58.1	48.3	37.7	26.1	21.9	27.7
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 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1944 - 2005	
ANNUAL TOTAL	15,173.9		13,142.0		39.7	
ANNUAL MEAN	41.5		36.0		82.3	
HIGHEST ANNUAL MEAN					12.5	
LOWEST ANNUAL MEAN					1972	
HIGHEST DAILY MEAN	597	Feb 6	501	(a)	2,590	Sep 26, 1975
LOWEST DAILY MEAN	9.0	Sep 6	(e)6.8	Sep 22	0.20	(b)
ANNUAL SEVEN-DAY MINIMUM	9.4	Sep 1	7.1	Sep 18	0.23	Aug 9, 1999
MAXIMUM PEAK FLOW			1,760	Jun 10	(c)21,800	Sep 11, 1971
MAXIMUM PEAK STAGE			7.25	Jun 10	18.60	Sep 11, 1971
INSTANTANEOUS LOW FLOW			Unknown		0.20	(d)
ANNUAL RUNOFF (CFSM)	1.19		1.03		1.14	
ANNUAL RUNOFF (INCHES)	16.22		14.05		15.51	
10 PERCENT EXCEEDS	73		56		72	
50 PERCENT EXCEEDS	34		25		26	
90 PERCENT EXCEEDS	13		12		9.0	

- a Apr. 2, July 8.
- e Estimated.
- b Sept. 10, 11, 1966.
- c From rating curve extended above 1,800 ft³/s on basis of slope-area measurement at gage height 13.00 ft.
- d Sept. 10-12, 1966.



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 mi².

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 equipment malfunction), which are poor. 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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan 14	0845	917	5.47	Jun 9	2300	*2,210	*8.09
Mar 23	1700	924	5.49	Jul 8	0845	1,230	6.23
Mar 28	1600	680	4.78	Jul 17	0130	780	5.09
Apr 2	1700	1,100	5.93				

Minimum discharge, 4.5 ft³/s, Sept. 21, 22.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	10	e31	16	18	22	33	34	15	15	13	8.5
2	11	10	e22	16	e17	20	345	27	15	13	12	7.8
3	11	10	e16	16	17	18	115	24	20	11	11	7.1
4	10	e24	e14	16	18	18	47	22	19	11	10	6.8
5	9.7	e26	e13	19	20	19	40	21	16	11	9.5	6.6
6	9.4	e12	e13	21	23	19	38	21	16	30	9.6	6.5
7	9.1	e9.0	e14	18	24	20	36	20	19	15	9.5	6.2
8	8.9	e8.0	e17	20	27	27	38	19	15	382	9.6	5.8
9	8.8	e7.5	e19	19	30	23	35	18	257	33	11	5.7
10	9.0	e7.5	e66	17	30	21	32	18	242	21	11	5.6
11	8.6	e7.5	e44	16	23	20	31	17	30	18	9.8	5.4
12	8.7	e40	e26	16	21	20	30	17	22	16	9.3	5.3
13	8.7	e48	e21	16	20	19	29	16	19	17	8.8	5.1
14	9.5	e22	e17	288	24	18	28	17	17	26	8.4	5.0
15	9.7	e17	e15	42	34	17	27	17	16	19	8.0	5.2
16	11	e15	14	31	25	17	26	16	15	80	13	5.2
17	12	e14	14	26	23	17	26	16	15	165	12	5.1
18	9.9	e14	14	22	20	16	25	16	14	29	9.8	4.8
19	9.9	e13	14	21	18	16	25	16	13	23	11	4.8
20	11	e14	13	21	18	16	24	34	13	21	12	4.8
21	14	e14	12	20	22	17	24	24	12	18	10	4.7
22	13	e13	14	e20	21	16	26	19	13	16	9.5	4.6
23	11	e13	78	e19	19	294	38	18	14	22	8.7	4.9
24	11	e14	38	19	19	62	33	22	12	16	8.2	5.0
25	11	e18	22	19	20	36	27	24	11	17	7.6	5.4
26	11	e15	18	19	19	32	25	19	11	15	8.0	6.0
27	11	e14	17	18	20	30	23	17	10	14	9.3	7.3
28	11	e18	e16	e18	20	255	21	16	11	16	11	6.2
29	11	e16	16	18	---	76	21	16	27	15	10	6.4
30	11	e14	16	18	---	41	41	15	26	15	9.4	7.0
31	11	---	16	18	---	36	---	16	---	13	9.3	---
TOTAL	323.9	477.5	680	883	610	1,278	1,309	612	955	1,133	309.3	174.8
MEAN	10.4	15.9	21.9	28.5	21.8	41.2	43.6	19.7	31.8	36.5	9.98	5.83
MAX	14	48	78	288	34	294	345	34	257	382	13	8.5
MIN	8.6	7.5	12	16	17	16	21	15	10	11	7.6	4.6
CFSM	0.46	0.70	0.96	1.24	0.95	1.80	1.91	0.86	1.39	1.60	0.44	0.25
IN.	0.53	0.78	1.10	1.43	0.99	2.08	2.13	0.99	1.55	1.84	0.50	0.28

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1978 - 2005, BY WATER YEAR (WY)

MEAN	18.0	22.0	28.8	31.4	36.4	39.1	34.6	29.3	24.1	16.9	13.8	17.4
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

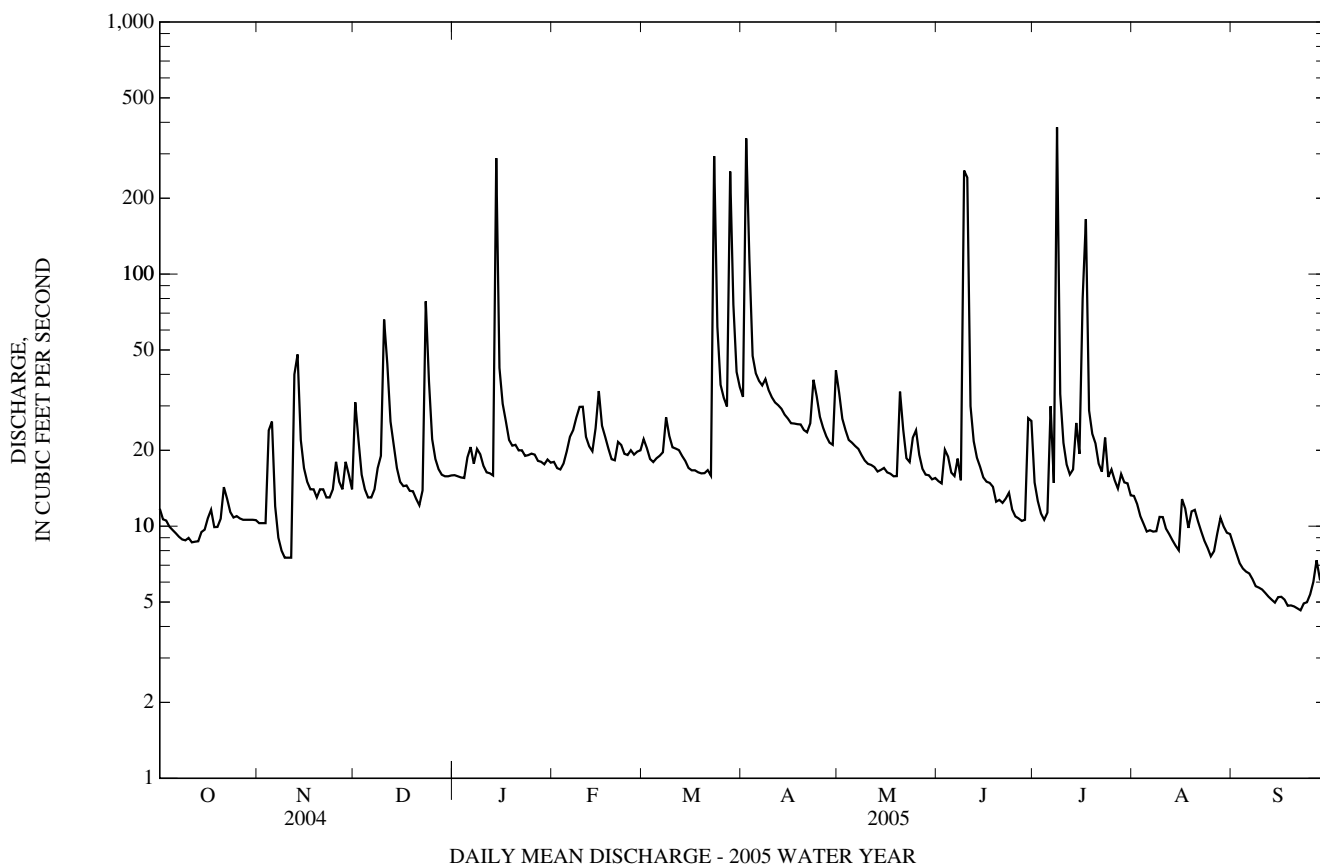
SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1978 - 2005	
ANNUAL TOTAL	10,183.5		8,745.5		25.8	
ANNUAL MEAN	27.8		24.0		8.82	
HIGHEST ANNUAL MEAN					42.9	2003
LOWEST ANNUAL MEAN					8.82	2002
HIGHEST DAILY MEAN	610	Feb 6	382	Jul 8	1,230	Jan 19, 1996
LOWEST DAILY MEAN	7.2	Sep 6	4.6	Sep 22	(e)0.09	Aug 23, 2002
ANNUAL SEVEN-DAY MINIMUM	7.4	Sep 1	4.8	Sep 18	0.21	Aug 17, 2002
MAXIMUM PEAK FLOW			2,210	Jun 9	(a)3,450	Sep 6, 1979
MAXIMUM PEAK STAGE			8.09	Jun 9	9.86	Sep 6, 1979
INSTANTANEOUS LOW FLOW			4.5	(b)	0.07	(c)
ANNUAL RUNOFF (CFSM)	1.22		1.05		1.13	
ANNUAL RUNOFF (INCHES)	16.54		14.21		15.33	
10 PERCENT EXCEEDS	45		32		43	
50 PERCENT EXCEEDS	22		16		17	
90 PERCENT EXCEEDS	9.0		8.1		6.5	

e Estimated.

a From rating curve extended above 175 ft³/s on basis of contracted-opening and flow-over-road measurement at gage height of 8.41 ft.

b Sept. 21, 22.

c Aug. 14, 19, 20, 1999.



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 mi².

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 (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 ft³/s. Data provided by Washington Suburban Sanitary Commission.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 599 ft³/s, Apr. 3, gage height, 3.44 ft; minimum discharge, 39 ft³/s, Mar. 2, 4.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	50	50	47	51	151	41	268	54	53	54	53	50
2	51	49	46	51	114	41	158	54	53	54	53	50
3	51	47	46	51	43	41	573	54	54	54	53	50
4	50	47	46	50	43	41	416	54	54	54	54	50
5	50	47	46	50	44	41	179	54	54	54	54	50
6	50	46	46	50	42	41	204	54	54	55	54	50
7	50	46	46	51	42	41	265	55	54	121	54	e50
8	51	45	46	51	42	41	197	56	54	244	54	e50
9	51	45	45	51	42	41	135	55	54	320	53	e50
10	50	45	46	52	43	41	134	55	265	315	53	e50
11	50	45	47	52	42	41	134	55	344	310	53	e50
12	50	46	47	52	42	42	133	55	336	137	54	e50
13	49	46	47	52	41	42	133	55	137	55	52	e50
14	49	46	47	107	41	70	132	55	54	55	52	e50
15	50	45	46	139	133	149	117	55	54	55	52	e50
16	50	45	46	49	320	148	96	55	54	56	52	47
17	51	45	46	47	304	147	97	55	54	56	51	47
18	50	45	47	47	190	114	96	54	77	56	51	47
19	50	46	47	47	145	59	96	105	54	55	51	46
20	50	47	47	47	142	59	99	146	54	54	51	46
21	50	47	46	47	109	58	122	143	54	54	51	46
22	50	46	48	47	44	47	101	134	54	55	51	46
23	51	46	51	47	44	53	46	133	54	55	51	49
24	50	46	51	86	43	79	46	132	54	54	51	49
25	51	47	51	182	42	78	46	132	54	55	51	49
26	52	47	51	172	41	78	46	130	54	55	50	49
27	52	47	51	159	41	138	106	128	54	55	50	49
28	52	47	51	158	41	262	80	100	54	e110	50	49
29	51	47	51	157	---	408	54	52	54	e190	50	49
30	51	46	51	153	---	392	54	52	54	180	50	49
31	51	---	51	152	---	384	---	52	---	118	50	---
TOTAL	1,564	1,389	1,480	2,507	2,411	3,258	4,363	2,423	2,507	3,195	1,609	1,467
MEAN	50.5	46.3	47.7	80.9	86.1	105	145	78.2	83.6	103	51.9	48.9
MAX	52	50	51	182	320	408	573	146	344	320	54	50
MIN	49	45	45	47	41	41	46	52	53	54	50	46
(†)	4,440	4,580	5,180	5,560	5,250	5,800	5,800	5,660	5,470	5,470	5,020	4,290

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1981 - 2005, BY WATER YEAR (WY)

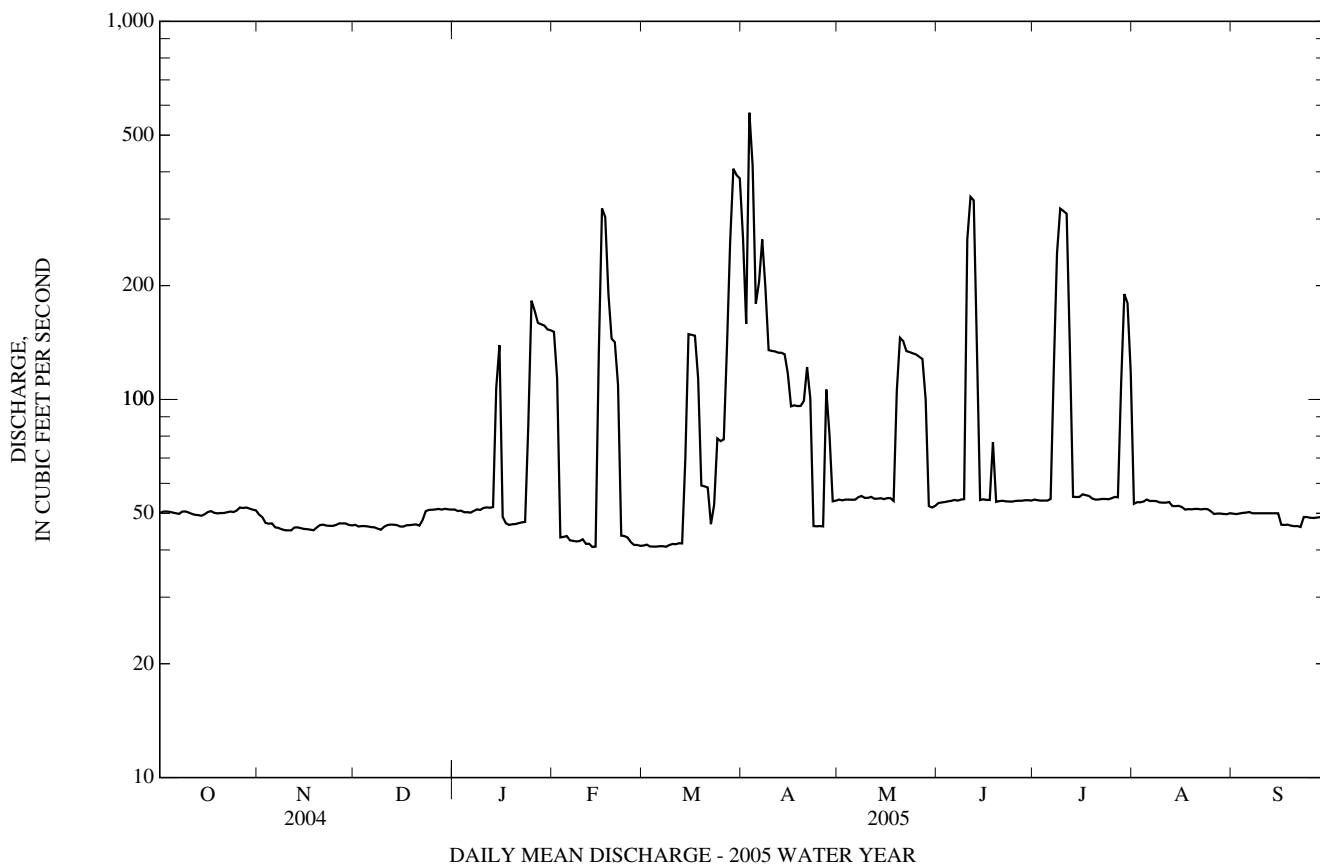
MEAN	65.3	61.4	90.9	73.7	86.9	119	125	93.0	84.5	65.0	65.2	78.8
MAX	161	186	373	183	256	320	304	229	313	135	143	261
(WY)	(2004)	(2004)	(1984)	(1991)	(1994)	(1993)	(1993)	(1989)	(2003)	(1996)	(1996)	(2003)
MIN	7.87	17.1	14.9	9.33	9.57	8.90	8.49	8.63	22.4	30.3	18.1	17.8
(WY)	(1987)	(1989)	(1992)	(1982)	(1999)	(1981)	(1981)	(1981)	(1981)	(1995)	(1987)	(2002)

† Monthend contents, in millions of gallons, in Triadelphia Reservoir (contents on Sept. 30, 2004, 4,800,000,000 gal). Records provided by Washington Suburban Sanitary Commission.

01591610 PATUXENT RIVER BELOW BRIGHTON DAM NEAR BRIGHTON, MD—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1981 - 2005	
ANNUAL TOTAL	31,816		28,173			
ANNUAL MEAN	86.9		77.2		84.0	
ANNUAL MEAN‡	86.9		75.0			
HIGHEST ANNUAL MEAN					134	1984
LOWEST ANNUAL MEAN					38.2	2002
HIGHEST DAILY MEAN	653	Feb 7	573	Apr 3	1,790	Dec 11, 2003
LOWEST DAILY MEAN	14	(a)	41	(b)	2.1	(c)
ANNUAL SEVEN-DAY MINIMUM	22	May 19	41	Feb 26	4.0	Oct 16, 1980
MAXIMUM PEAK FLOW			599	Apr 3	(d)4,800	Dec 11, 2003
MAXIMUM PEAK STAGE			3.44	Apr 3	11.03	Dec 11, 2003
INSTANTANEOUS LOW FLOW			39	(f)	1.2	Dec 3, 1985
ANNUAL RUNOFF (CFSM)	1.11		0.982		1.07	
ANNUAL RUNOFF (INCHES)	15.06		13.33		14.52	
10 PERCENT EXCEEDS	181		145		175	
50 PERCENT EXCEEDS	53		51		54	
90 PERCENT EXCEEDS	45		45		11	

‡ Adjusted for change in reservoir contents.
 a May 21-24.
 b Feb. 13, 14, 26-28, Mar. 1-11.
 c Jan. 27, 28, 1983.
 d From rating curve extended above 2,900 ft³/s.
 f Mar. 2,4.



PATUXENT RIVER BASIN

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 mi².

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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan 14	1015	846	4.39	Apr 2	1630	*1,010	*4.81
Mar 23	1845	752	4.15	Jul 8	0715	896	4.52

Minimum discharge, 2.0 ft³/s, Sept. 14, 15.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	14	48	19	e19	29	39	47	18	14	14	5.7
2	9.5	14	31	18	e19	28	478	33	17	11	12	5.7
3	9.3	14	23	18	e19	24	259	30	25	9.8	10	5.3
4	8.7	35	20	18	e20	23	77	28	24	8.9	9.1	4.7
5	7.8	35	19	21	24	23	55	26	19	9.0	8.2	4.5
6	7.5	14	18	23	28	24	47	25	24	22	8.3	4.3
7	7.4	11	20	21	30	24	44	25	56	11	8.3	3.8
8	7.0	10	29	23	33	40	44	23	25	382	8.2	3.7
9	6.9	9.2	34	23	37	33	40	22	25	52	14	3.7
10	6.9	8.5	86	21	37	29	37	21	27	24	12	3.5
11	6.9	8.3	53	19	28	27	35	21	19	17	9.4	3.4
12	6.5	62	31	19	25	27	34	20	17	14	8.4	3.4
13	6.3	74	25	19	23	25	33	19	15	13	7.6	3.0
14	6.6	27	22	409	28	24	32	19	16	14	7.2	2.4
15	7.0	20	19	78	45	22	31	21	14	15	6.7	2.1
16	8.2	17	17	44	32	22	29	19	13	118	7.4	2.2
17	8.6	16	17	34	28	22	29	19	12	71	9.2	2.6
18	8.0	15	17	32	24	21	28	18	12	27	7.3	2.5
19	8.7	14	17	e31	22	21	28	18	11	20	12	2.2
20	12	15	17	e30	22	22	28	78	11	16	11	2.2
21	16	16	16	e28	25	26	27	42	11	13	9.3	2.2
22	14	15	15	e27	24	22	28	28	11	12	7.8	2.2
23	12	15	118	e26	22	341	39	25	15	30	6.5	2.4
24	12	15	73	e25	23	112	39	38	11	15	6.4	2.4
25	12	20	36	e24	24	53	31	40	9.9	13	5.8	2.5
26	12	18	28	e23	24	42	28	28	9.4	12	5.8	2.9
27	12	15	24	e22	25	37	26	23	9.3	20	6.5	3.6
28	12	21	e22	e21	25	202	24	21	9.6	18	8.1	3.3
29	12	19	21	e20	---	115	24	20	20	45	8.0	3.1
30	13	17	20	e20	---	54	55	19	25	25	7.1	2.9
31	14	---	20	e20	---	43	---	20	---	16	6.7	---
TOTAL	301.8	604.0	956	1,176	735	1,557	1,748	836	531.2	1,087.7	268.3	98.4
MEAN	9.74	20.1	30.8	37.9	26.2	50.2	58.3	27.0	17.7	35.1	8.65	3.28
MAX	16	74	118	409	45	341	478	78	56	382	14	5.7
MIN	6.3	8.3	15	18	19	21	24	18	9.3	8.9	5.8	2.1
CFSM	0.36	0.75	1.14	1.41	0.97	1.86	2.16	1.00	0.66	1.30	0.32	0.12
IN.	0.42	0.83	1.32	1.62	1.01	2.15	2.41	1.15	0.73	1.50	0.37	0.14

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1978 - 2005, BY WATER YEAR (WY)

MEAN	20.6	28.3	34.7	37.5	43.2	48.9	41.6	35.4	31.0	17.3	13.1	19.8
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

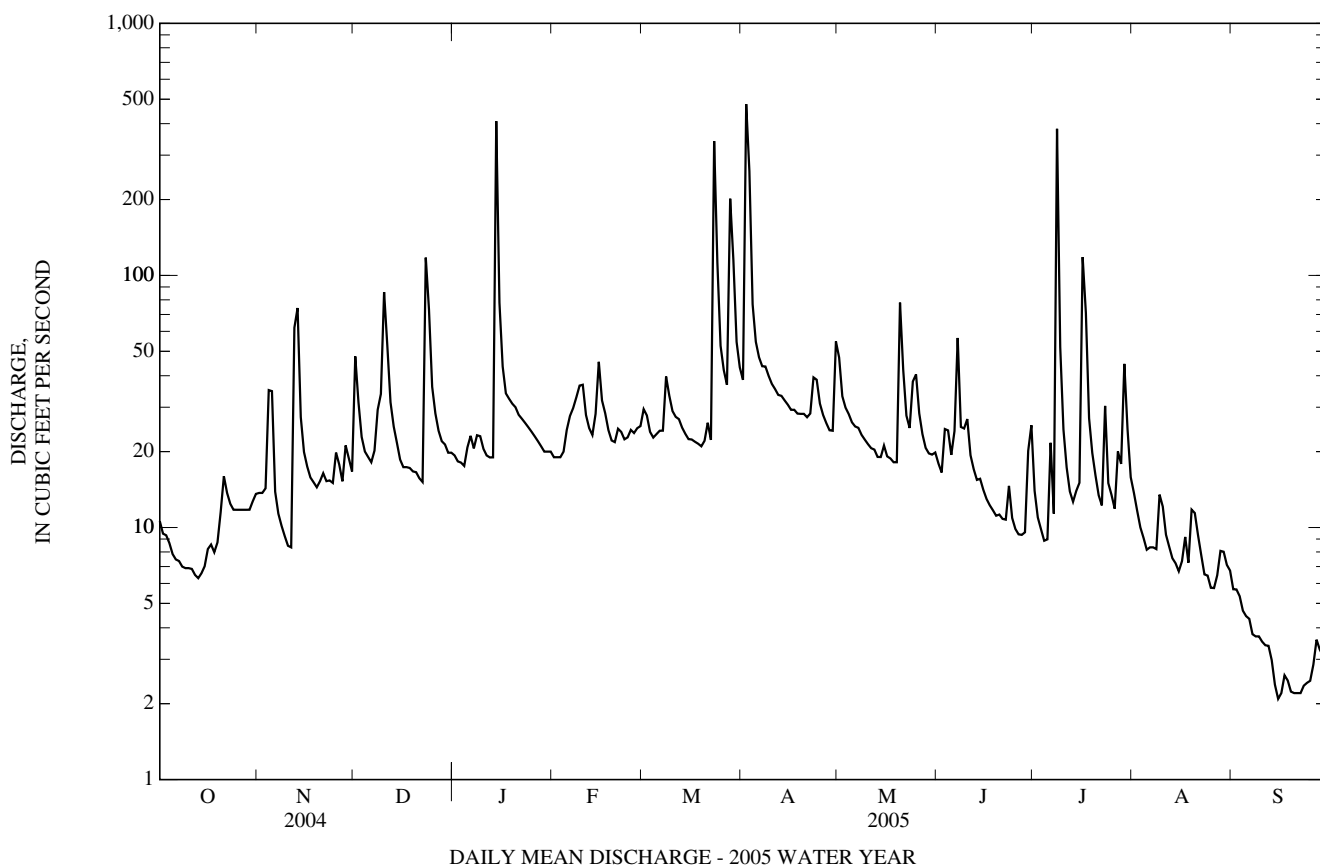
SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1978 - 2005	
ANNUAL TOTAL	11,295.2		9,899.4		30.8	
ANNUAL MEAN	30.9		27.1		52.9	
HIGHEST ANNUAL MEAN					11.0	
LOWEST ANNUAL MEAN					1996	
HIGHEST DAILY MEAN	457	Feb 6	478	Apr 2	1,840	Jan 19, 1996
LOWEST DAILY MEAN	6.1	(a)	2.1	Sep 15	0.14	Aug 23, 2002
ANNUAL SEVEN-DAY MINIMUM	6.3	Sep 1	2.3	Sep 15	0.30	Aug 20, 2002
MAXIMUM PEAK FLOW			1,010	Apr 2	(b)5,180	Jan 19, 1996
MAXIMUM PEAK STAGE			4.81	Apr 2	9.24	Jan 19, 1996
INSTANTANEOUS LOW FLOW			2.0	(c)	0.12	(d)
ANNUAL RUNOFF (CFSM)	1.14		1.00		1.14	
ANNUAL RUNOFF (INCHES)	15.56		13.64		15.50	
10 PERCENT EXCEEDS	53		41		53	
50 PERCENT EXCEEDS	24		20		19	
90 PERCENT EXCEEDS	8.3		6.5		5.6	

a Sept. 2-5, 2004.

b From rating curve extended above 1,300 ft³/s on basis of contracted-opening and flow-over-road measurement of peak flow.

c Sept. 14, 15.

d Aug. 23, 24, 2002.



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 mi².

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, 973 ft³/s, Apr. 1, gage height, 7.55 ft; minimum discharge, 20 ft³/s, April 28, 29, May 6, Sept. 4, 7-12, 15-30.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26	23	23	23	92	92	896	22	24	40	90	22
2	26	23	23	23	92	91	430	22	23	21	102	21
3	26	23	23	23	92	92	813	22	24	21	103	21
4	26	23	23	23	92	92	819	22	23	21	102	21
5	26	22	23	23	92	91	612	22	24	21	105	21
6	31	22	23	23	92	91	147	53	53	21	102	21
7	22	22	23	23	91	91	148	85	121	89	105	21
8	22	22	23	23	92	74	148	85	147	152	60	20
9	22	22	23	23	91	86	148	85	112	152	25	20
10	22	22	23	23	91	91	148	85	137	152	24	21
11	22	22	23	23	91	91	148	85	155	135	46	21
12	23	23	23	23	91	91	147	85	143	102	43	21
13	23	22	23	23	91	91	127	85	106	101	43	21
14	23	22	23	186	91	91	148	85	100	102	54	21
15	22	22	23	368	91	91	148	85	119	106	73	21
16	22	22	23	341	91	91	148	85	102	90	23	21
17	22	22	23	30	92	91	93	85	87	90	22	21
18	22	23	23	66	92	96	86	85	87	106	22	21
19	22	23	23	96	92	91	88	85	86	107	22	21
20	22	23	23	96	92	90	85	86	87	90	22	21
21	22	23	23	95	92	91	84	86	87	104	22	21
22	22	23	22	96	92	91	85	86	87	104	22	21
23	22	22	23	95	92	98	85	128	86	105	22	21
24	22	22	23	95	92	137	76	154	86	106	22	21
25	22	22	22	95	89	125	84	154	86	103	22	21
26	22	22	22	84	92	130	84	153	86	106	21	21
27	22	22	22	96	92	129	79	151	86	122	22	21
28	22	22	22	94	90	136	43	137	105	137	22	21
29	22	22	23	92	---	149	22	86	105	89	22	21
30	22	22	23	92	---	486	22	86	105	89	35	21
31	22	---	23	92	---	490	---	42	---	90	37	---
TOTAL	714	670	708	2,508	2,562	3,867	6,191	2,617	2,679	2,874	1,457	629
MEAN	23.0	22.3	22.8	80.9	91.5	125	206	84.4	89.3	92.7	47.0	21.0
MAX	31	23	23	368	92	490	896	154	155	152	105	22
MIN	22	22	22	23	89	74	22	22	23	21	21	20
(†)	8490	8750	9890	10680	10220	11250	10960	10690	9900	10220	9060	7660
(‡)	55.6	59.8	54.8	56.6	68.1	64.6	73.2	65.8	72.3	73.0	71.0	73.3

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1945 - 2005, BY WATER YEAR (WY)

MEAN	45.5	50.9	80.2	100	116	137	140	110	91.7	59.9	49.2	66.0
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)

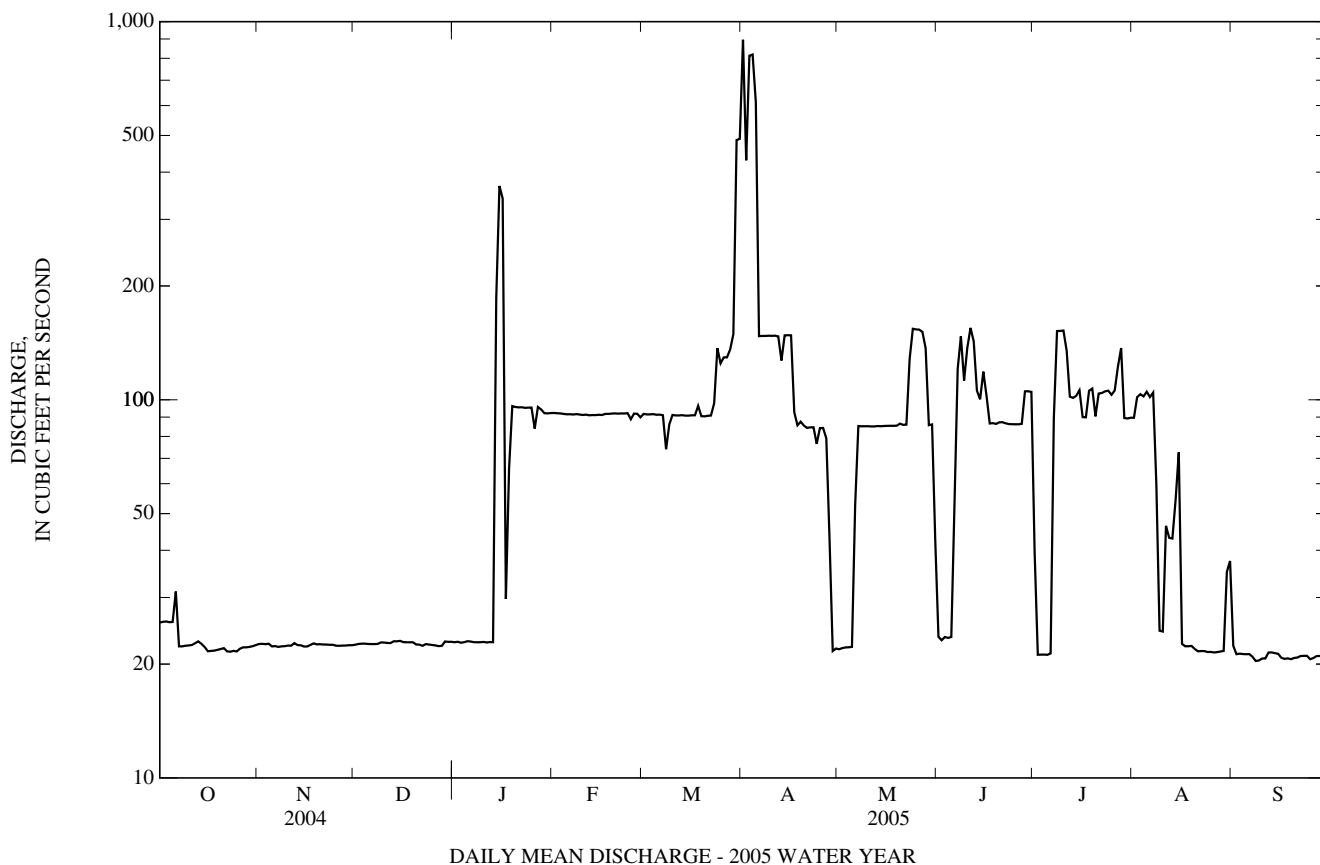
† Combined month-end total contents, in millions of gallons, in Tridelphia and T. Howard Duckett Reservoirs (contents on Sept. 30, 2004, 9,000,000,000 gal). Records provided by Washington Suburban Sanitary Commission.

‡ 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 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1945 - 2005	
ANNUAL TOTAL	36,578		27,476			
ANNUAL MEAN	99.9		75.3		87.0	
ANNUAL MEAN‡	158		140			
HIGHEST ANNUAL MEAN					241	1972
LOWEST ANNUAL MEAN					9.09	1966
HIGHEST DAILY MEAN	736	Feb 11	896	Apr 1	13,000	Jun 22, 1972
LOWEST DAILY MEAN	22	(a)	20	(b)	1.1	Jun 26, 1956
ANNUAL SEVEN-DAY MINIMUM	22	Jul 16	21	Sep 3	3.7	Aug 29, 1966
MAXIMUM PEAK FLOW			973	Apr 1	(c)26,000	Jun 22, 1972
MAXIMUM PEAK STAGE			7.55	Apr 1	(d)25.00	Jun 22, 1972
INSTANTANEOUS LOW FLOW			20	(f)	(g)0.05	Jul 18, 1985
ANNUAL RUNOFF (CFSM)	0.757		0.570		0.659	
ANNUAL RUNOFF (INCHES)	10.31		7.74		8.95	
10 PERCENT EXCEEDS	271		135		190	
50 PERCENT EXCEEDS	82		73		22	
90 PERCENT EXCEEDS	22		22		12	

- ‡ Adjusted for diversions.
- a Many days.
- b Sept. 8, 9.
- c From rating curve extended above 6,600 ft³/s on basis of contracted-opening measurement of peak flow.
- d From floodmarks.
- f April 28, 29, May 6, Sept. 4, 7-12, 15-30.
- g Valve closed for repair.



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 mi².

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. 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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan 14	1045	*1,510	*8.76	Apr 3	0045	1,280	8.10
Mar 23	1745	1,260	8.02	Jul 8	1645	1,140	7.57
Mar 28	2215	1,170	7.70				

Minimum discharge, 3.5 ft³/s, Sept. 25.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	16	111	27	30	52	48	83	21	23	15	9.9
2	26	15	62	25	29	44	594	43	20	17	14	9.0
3	23	15	37	25	28	35	604	36	82	14	13	8.6
4	21	80	31	25	32	32	92	33	46	14	12	6.8
5	20	101	28	47	37	33	60	31	29	14	12	6.9
6	15	30	26	42	40	34	53	30	56	44	12	7.1
7	15	22	34	33	40	36	50	29	182	23	11	7.1
8	15	20	51	52	42	76	51	28	41	662	19	6.1
9	14	18	44	41	45	47	45	27	27	120	41	6.2
10	14	17	193	35	50	37	42	26	35	30	18	6.2
11	13	19	137	38	38	35	41	26	27	19	14	6.2
12	13	117	64	39	33	35	40	25	22	15	13	5.8
13	13	181	41	35	31	32	40	23	20	15	12	5.9
14	24	47	31	902	56	29	39	25	20	47	11	5.3
15	17	32	26	151	97	29	36	32	17	151	11	5.7
16	17	27	23	63	47	28	35	25	16	126	30	5.1
17	20	25	22	49	41	27	36	22	16	132	26	e5.0
18	15	25	21	39	36	24	36	22	14	37	13	5.0
19	20	24	20	e38	31	24	35	21	15	21	36	5.0
20	22	29	21	37	30	29	34	211	15	17	21	e4.6
21	30	31	18	35	40	35	34	76	15	16	14	4.6
22	21	25	17	e33	36	25	38	38	15	22	12	4.3
23	18	23	162	e32	32	632	58	33	15	27	11	4.3
24	18	30	236	29	32	241	80	50	13	15	10	4.0
25	19	53	50	30	40	61	45	49	13	42	11	3.6
26	17	33	35	31	38	51	39	34	13	20	9.2	4.3
27	16	25	30	e31	38	46	40	28	13	30	11	8.0
28	16	78	e28	e30	38	475	37	25	15	62	45	6.5
29	16	43	27	27	---	393	36	25	47	77	15	6.0
30	16	30	27	e30	---	71	137	24	64	47	12	5.4
31	17	---	27	e31	---	53	---	23	---	18	11	---
TOTAL	571	1,231	1,680	2,082	1,107	2,801	2,555	1,203	944	1,917	515.2	178.5
MEAN	18.4	41.0	54.2	67.2	39.5	90.4	85.2	38.8	31.5	61.8	16.6	5.95
MAX	30	181	236	902	97	632	604	211	182	662	45	9.9
MIN	13	15	17	25	28	24	34	21	13	14	9.2	3.6
CFSM	0.48	1.08	1.43	1.77	1.04	2.38	2.24	1.02	0.83	1.63	0.44	0.16
IN.	0.56	1.21	1.64	2.04	1.08	2.74	2.50	1.18	0.92	1.88	0.50	0.17

e Estimated

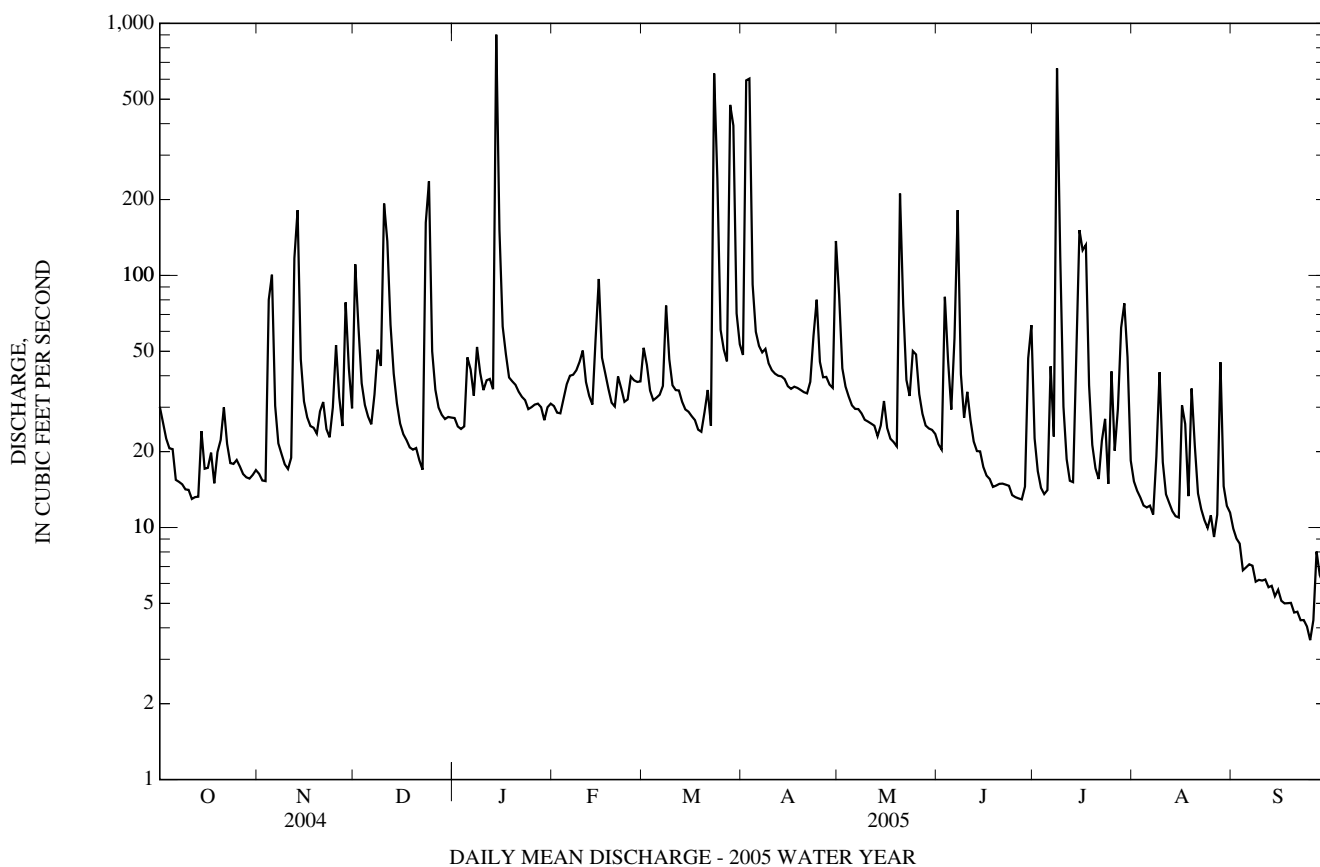
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1932 - 2005, BY WATER YEAR (WY)

MEAN	26.8	38.2	46.2	52.9	60.6	66.9	58.7	49.3	39.4	29.9	27.5	32.4
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 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1932 - 2005	
ANNUAL TOTAL	17,296		16,784.7			
ANNUAL MEAN	47.3		46.0		44.1	
HIGHEST ANNUAL MEAN					93.7	1972
LOWEST ANNUAL MEAN					18.9	2002
HIGHEST DAILY MEAN	569	Feb 7	902	Jan 14	4,680	Jun 22, 1972
LOWEST DAILY MEAN	10	Sep 6	3.6	Sep 25	0.00	Sep 8, 1966
ANNUAL SEVEN-DAY MINIMUM	11	Sep 2	4.2	Sep 20	0.73	Sep 6, 1966
MAXIMUM PEAK FLOW			1,510	Jan 14	(a)12,400	Jun 22, 1972
MAXIMUM PEAK STAGE			8.76	Jan 14	(b)18.38	Jun 22, 1972
INSTANTANEOUS LOW FLOW			3.5	Sep 25	0.00	(c)
ANNUAL RUNOFF (CFSM)	1.24		1.21		1.16	
ANNUAL RUNOFF (INCHES)	16.93		16.43		15.77	
10 PERCENT EXCEEDS	93		64		74	
50 PERCENT EXCEEDS	34		29		26	
90 PERCENT EXCEEDS	15		11		10	

- a From rating curve extended above 1,800 ft³/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. 6-12, 1966.



PATUXENT RIVER BASIN

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 mi².

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), which are fair. 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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan 14	1100	*4,550	*11.61	Apr 2	1830	3,150	10.20
Mar 23	1800	2,920	9.94	Apr 3	0200	3,490	10.57
Mar 28	2130	2,890	9.90	Jul 8	1100	4,420	11.49

Minimum discharge, 12 ft³/s, Sept. 24, 25.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	67	39	237	79	103	130	160	207	64	66	63	32
2	59	39	141	76	104	119	1,390	122	61	51	57	28
3	54	39	95	74	92	100	1,420	107	144	43	49	27
4	47	183	81	74	92	93	291	97	115	39	43	23
5	45	233	74	106	103	95	206	93	79	38	47	22
6	38	80	71	107	109	96	178	90	104	99	41	22
7	37	63	88	91	113	100	163	88	342	58	36	23
8	37	56	121	114	117	173	167	85	102	1,970	49	20
9	36	50	120	107	126	134	148	80	76	246	145	20
10	36	48	357	91	135	106	138	78	125	105	73	19
11	33	49	215	93	107	101	129	77	84	77	51	19
12	31	297	126	92	94	101	123	75	71	66	43	19
13	32	395	103	88	89	93	119	71	64	59	38	18
14	56	120	87	1,980	123	88	116	73	64	127	35	17
15	43	87	79	361	219	85	110	86	56	289	33	18
16	44	76	75	190	125	82	105	74	51	366	56	19
17	48	70	73	151	113	82	105	70	48	365	81	17
18	38	66	72	119	98	79	105	68	45	128	51	17
19	46	64	73	117	88	78	104	66	44	94	85	16
20	56	72	66	e112	86	79	104	436	45	77	85	15
21	70	77	e70	109	106	99	98	185	46	68	57	15
22	59	65	68	109	102	79	105	100	45	74	45	14
23	49	62	463	e110	92	1,420	137	86	46	89	38	13
24	46	72	410	e105	92	538	175	107	40	60	35	13
25	48	115	137	e110	107	196	112	130	38	96	36	12
26	45	82	105	e112	103	158	99	95	37	72	31	15
27	42	67	93	106	104	139	95	79	37	99	40	21
28	40	152	e87	104	103	1,140	89	73	39	158	106	17
29	38	94	84	108	---	796	87	71	120	192	53	14
30	40	75	81	114	---	233	276	70	185	143	41	13
31	41	---	80	110	---	176	---	70	---	72	38	---
TOTAL	1,401	2,987	4,032	5,419	3,045	6,988	6,654	3,209	2,417	5,486	1,681	558
MEAN	45.2	99.6	130	175	109	225	222	104	80.6	177	54.2	18.6
MAX	70	395	463	1,980	219	1,420	1,420	436	342	1,970	145	32
MIN	31	39	66	74	86	78	87	66	37	38	31	12
CFSM	0.46	1.01	1.32	1.78	1.11	2.29	2.25	1.05	0.82	1.80	0.55	0.19
IN.	0.53	1.13	1.52	2.05	1.15	2.64	2.52	1.21	0.91	2.07	0.64	0.21

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1958, 1976 - 1980, 1985 - 2005, BY WATER YEAR (WY)

MEAN	72.2	100	123	146	145	171	142	126	99.3	77.3	64.0	73.9
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 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1940 - 1958, 1976 - 1980 1985 - 2005	
ANNUAL TOTAL	45,454		43,877			
ANNUAL MEAN	124		120		112	
HIGHEST ANNUAL MEAN					196	1979
LOWEST ANNUAL MEAN					43.8	2002
HIGHEST DAILY MEAN	1,580	Feb 6	1,980	Jan 14	5,250	Sep 6, 1979
LOWEST DAILY MEAN	(e)30	(a)	12	Sep 25	1.1	Aug 22, 2002
ANNUAL SEVEN-DAY MINIMUM	31	Sep 2	14	Sep 20	2.1	Aug 17, 2002
MAXIMUM PEAK FLOW			4,550	Jan 14	(b)35,400	Jun 22, 1972
MAXIMUM PEAK STAGE			11.61	Jan 14	(c)25.40	Jun 22, 1972
INSTANTANEOUS LOW FLOW			12	(d)	1.1	(f)
ANNUAL RUNOFF (CFSM)	1.26		1.22		1.14	
ANNUAL RUNOFF (INCHES)	17.18		16.59		15.43	
10 PERCENT EXCEEDS	226		177		192	
50 PERCENT EXCEEDS	96		82		73	
90 PERCENT EXCEEDS	39		35		27	

e Estimated.

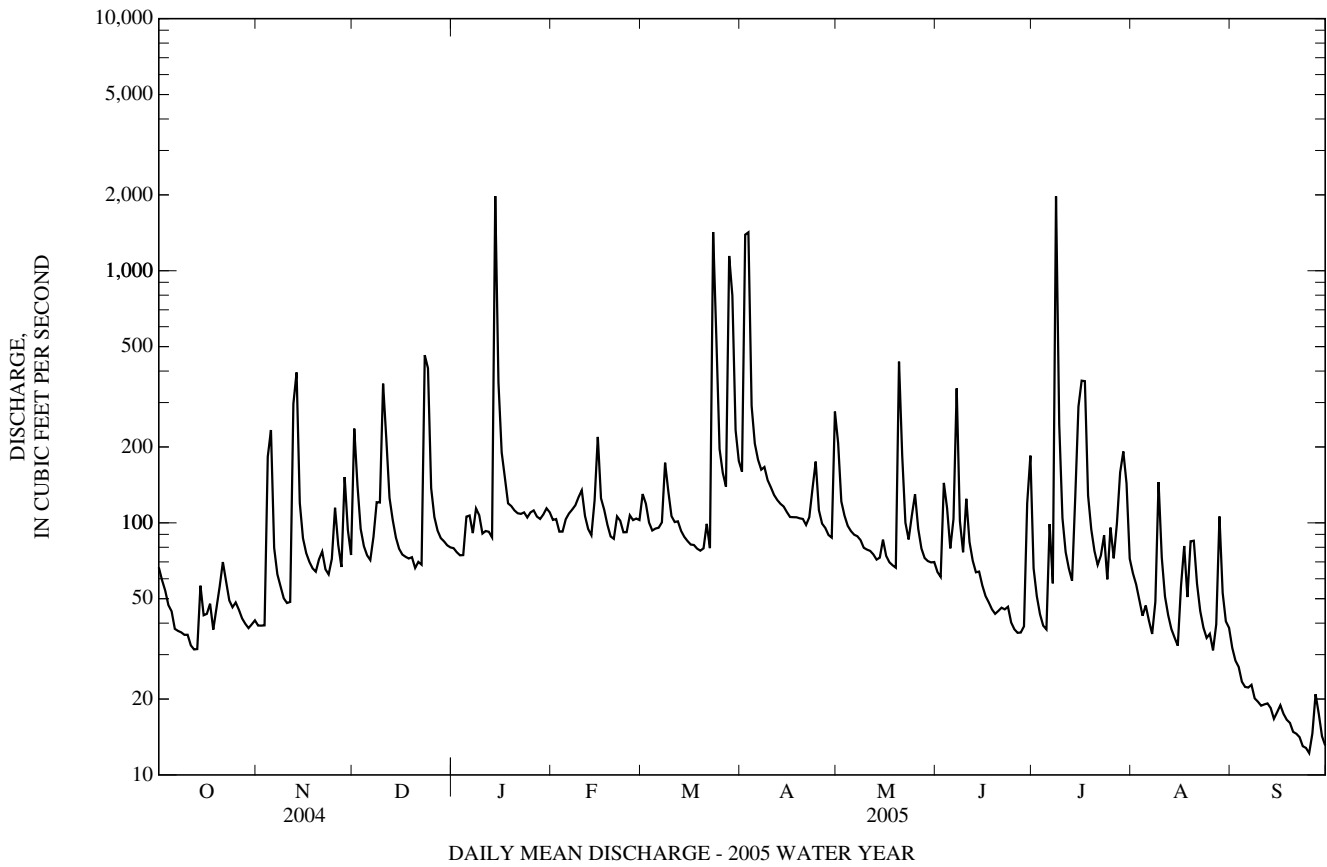
a Sept. 4-7.

b From rating curve extended above 11,000 ft³/s on basis of contracted-opening measurement of peak flow.

c From floodmarks.

d Sept. 24, 25.

f Aug. 21, 22, 2002.



PATUXENT RIVER BASIN

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 mi².

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 (ice effect, missing record), 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, 5,210 ft³/s, Apr. 3, gage height, 13.42 ft; minimum discharge, 96 ft³/s, Sept. 24, 30.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	275	163	380	242	348	440	942	922	233	321	294	146
2	270	158	573	226	334	457	1,500	449	204	184	267	124
3	241	162	331	221	335	379	4,510	336	304	148	260	116
4	202	276	271	221	341	352	2,780	301	422	137	246	113
5	181	997	241	279	380	348	1,460	278	278	141	236	109
6	168	424	223	356	410	354	1,210	268	255	197	258	111
7	166	269	261	298	413	362	603	295	1,230	198	231	109
8	154	226	412	291	409	461	569	315	717	896	250	107
9	151	200	364	353	410	543	540	306	397	2,750	499	106
10	151	188	783	280	419	393	487	299	372	660	374	106
11	152	183	757	255	391	366	e467	295	388	395	215	106
12	150	375	454	262	349	370	e450	291	360	331	198	108
13	144	1,590	341	244	337	345	e430	282	327	294	176	108
14	167	752	296	1,250	363	331	e425	282	300	381	165	105
15	174	350	252	3,960	675	319	420	315	278	862	180	106
16	165	287	236	1,270	479	313	409	296	281	631	229	108
17	162	253	228	828	404	309	400	273	259	1,460	321	107
18	160	229	221	414	363	305	361	265	224	741	183	106
19	156	215	221	368	338	306	352	260	216	390	174	e106
20	190	209	239	395	327	306	350	955	217	341	265	e104
21	224	253	191	392	344	317	342	1,640	217	297	178	e101
22	220	225	212	346	369	306	357	489	212	294	151	100
23	183	203	313	e340	340	953	395	371	211	299	133	99
24	172	200	1,460	e340	335	3,770	522	412	204	290	128	99
25	176	291	632	e355	377	1,160	391	508	200	300	124	100
26	168	282	342	362	381	586	349	432	197	325	122	105
27	162	211	297	358	382	503	335	393	201	270	121	111
28	158	443	242	317	375	988	320	366	208	533	274	107
29	159	415	260	e300	---	3,440	272	335	265	363	230	103
30	159	276	253	349	---	1,340	437	298	479	718	154	99
31	e166	---	248	363	---	997	---	319	---	354	153	---
TOTAL	5,526	10,305	11,534	15,835	10,728	21,719	22,385	12,846	9,656	15,501	6,789	3,235
MEAN	178	344	372	511	383	701	746	414	322	500	219	108
MAX	275	1,590	1,460	3,960	675	3,770	4,510	1,640	1,230	2,750	499	146
MIN	144	158	191	221	327	305	272	260	197	137	121	99
CFSM	0.51	0.99	1.07	1.47	1.10	2.01	2.14	1.19	0.92	1.44	0.63	0.31
IN.	0.59	1.10	1.23	1.69	1.15	2.32	2.39	1.37	1.03	1.66	0.73	0.35

e Estimated

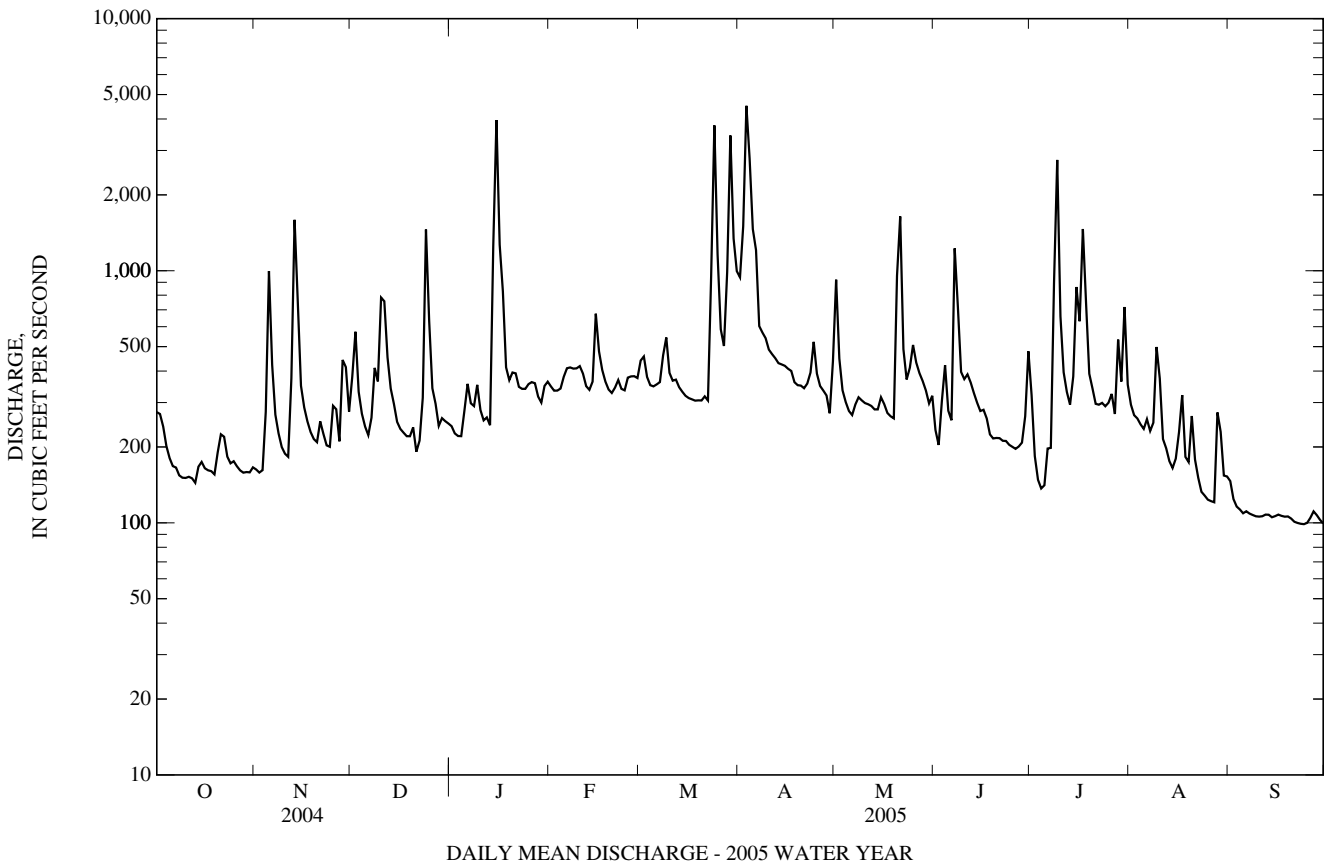
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1977 - 2005, BY WATER YEAR (WY)

MEAN	253	320	421	476	486	610	517	460	363	237	210	273
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 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1977 - 2005	
ANNUAL TOTAL	157,951		146,059			
ANNUAL MEAN	432		400		386	
HIGHEST ANNUAL MEAN					648 2003	
LOWEST ANNUAL MEAN					170 2002	
HIGHEST DAILY MEAN	4,390	Feb 7	4,510	Apr 3	8,860	Jan 27, 1978
LOWEST DAILY MEAN	128	Sep 6	99	(a)	56	(b)
ANNUAL SEVEN-DAY MINIMUM	132	Sep 2	101	Sep 20	57	Sep 15, 1986
MAXIMUM PEAK FLOW			5,210	Apr 3	(c)31,100	Jun 22, 1972
MAXIMUM PEAK STAGE			13.42	Apr 3	(d)27.90	Jun 22, 1972
INSTANTANEOUS LOW FLOW			96	(f)	32	Aug 9, 1966
ANNUAL RUNOFF (CFSM)	1.24		1.15		1.11	
ANNUAL RUNOFF (INCHES)	16.88		15.61		15.08	
10 PERCENT EXCEEDS	786		643		795	
50 PERCENT EXCEEDS	342		298		233	
90 PERCENT EXCEEDS	155		143		105	

- a Sept. 23, 24, 30.
- b Sept. 17-19, 1986.
- c From rating curve extended above 9,200 ft³/s on basis of contracted-opening measurement of peak flow.
- d From floodmarks.
- f Sept. 24, 30.



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 2004 TO SEPTEMBER 2005

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)	Specific conductance, wat unf uS/cm 25 degC (00095)
OCT												
07...	0730	Environmental	1028	80020	175	40	--	771	9.0	87	7.5	321
NOV												
02...	0915	Environmental	1028	80020	157	40	--	763	8.2	79	7.5	337
DEC												
10...	0815	Environmental	1028	80020	660	40	--	751	10.7	96	7.5	249
15...	0930	Environmental	1028	80020	251	40	--	772	13.9	108	7.5	299
JAN												
13...	1110	Blank	1028	80020	--	--	--	--	--	--	--	--
13...	1115	Environmental	1028	80020	240	40	--	762	11.2	96	7.4	304
FEB												
23...	1045	Environmental	1028	80020	338	40	--	767	11.4	92	8.0	343
MAR												
15...	1220	Environmental	1028	80020	318	40	--	764	11.5	93	7.1	382
APR												
20...	0925	Blank	1028	80020	--	--	--	--	--	--	--	--
20...	1015	Environmental	1028	80020	350	40	--	759	9.0	92	7.3	296
MAY												
10...	0930	Environmental	1028	80020	297	40	--	763	8.8	88	7.4	312
JUN												
13...	1000	Environmental	1028	80020	342	40	--	756	7.5	88	7.3	257
JUL												
08...	1430	Environmental	1028	80020	932	40	--	758	--	--	--	--
18...	1130	Environmental	1028	80020	605	40	--	760	7.0	84	7.0	215
AUG												
10...	1015	Environmental	1028	80020	382	40	43	764	6.9	81	7.2	232
SEP												
15...	0915	Environmental	1028	80020	104	40	--	764	7.1	81	7.4	362

Agency collecting sample: 1028 - U.S. Geological Survey

Agency analyzing sample: 80020 - USGS-National Water Quality Lab, Denver, CO

Sampling method: 40 - Multiple verticals

01594440 PATUXENT RIVER NEAR BOWIE, MD—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO ₃ (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 CaCO ₃ (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 07...	8.5	14.4	77	22.1	5.22	5.34	28.6	56	44.3	.3	11.0	18.5	182
NOV 02...	16.5	14.2	--	--	--	--	--	--	--	--	9.6	--	--
DEC 10...	10.5	9.7	--	--	--	--	--	--	--	--	8.3	--	--
DEC 15...	1.0	5.1	--	--	--	--	--	--	--	--	10.1	--	--
JAN 13...	--	--	--	<i>E.01</i>	<i><.008</i>	<i><.16</i>	<i><.20</i>	<i><2</i>	<i><.20</i>	<i><.1</i>	<i><.04</i>	<i><.2</i>	<i><.10</i>
JAN 13...	19.0	8.7	77	22.0	5.47	4.49	26.6	51	44.6	.2	10.5	17.2	172
FEB 23...	7.0	6.4	--	--	--	--	--	--	--	--	8.1	--	--
MAR 15...	7.5	6.3	--	--	--	--	--	--	--	--	6.7	--	--
APR 20...	--	--	--	<i><.02</i>	<i><.008</i>	<i><.16</i>	<i><.20</i>	--	<i><.20</i>	<i><.1</i>	<i>E.03</i>	<i><.2</i>	<i><.10</i>
APR 20...	28.0	16.2	73	19.9	5.57	3.61	25.3	--	45.3	.2	4.94	13.5	163
MAY 10...	19.5	15.9	--	--	--	--	--	--	--	--	5.5	--	--
JUN 13...	29.5	22.7	--	--	--	--	--	--	--	--	7.2	--	--
JUL 08...	26.0	--	--	--	--	--	--	--	--	--	5.6	--	--
JUL 18...	32.5	24.4	56	16.2	3.74	3.61	17.1	--	28.0	.2	8.27	11.6	132
AUG 10...	27.0	23.3	--	--	--	--	--	--	--	--	6.5	--	--
SEP 15...	27.5	22.3	--	--	--	--	--	--	--	--	9.2	--	--

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, 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)	Total nitrogen, wat flt by analysis, mg/L (62854)	Ortho-phosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, fltrd, mg/L (00666)	Phosphorus, water, unfltrd mg/L (00665)	Total carbon, suspnd sediment total, mg/L (00694)
OCT 07...	--	<10	<10	.06	1.39	1.39	.005	.06	1.71	.027	.049	.100	.6
NOV 02...	--	<10	<10	<i>E.04</i>	1.02	1.03	.009	.05	1.42	.022	.036	.075	.4
DEC 10...	--	61	<10	.07	1.02	1.03	.007	.21	1.43	.010	.020	.150	2.0
DEC 15...	--	<10	<10	.12	1.35	1.38	.021	.05	1.77	.012	.022	.054	.3
JAN 13...	--	<i><.10</i>	<i><.10</i>	<i><.04</i>	--	<i><.06</i>	<i><.002</i>	<i><.02</i>	<i><.06</i>	<i><.006</i>	<i><.004</i>	<i><.004</i>	<i><.1</i>
JAN 13...	--	<10	<10	.08	1.57	1.60	.024	.04	1.95	.011	.018	.051	.3
FEB 23...	--	<10	<10	.07	1.60	1.61	.011	.06	1.96	<i>E.004</i>	.012	.041	.5
MAR 15...	--	<10	<10	.06	1.50	1.52	.024	.05	1.73	<i>E.005</i>	.010	.037	.5
APR 20...	--	<i><.10</i>	<i><.10</i>	<i><.04</i>	--	<i><.06</i>	<i><.002</i>	<i><.02</i>	<i><.06</i>	<i><.006</i>	<i><.004</i>	<i><.004</i>	<i><.1</i>
APR 20...	--	<10	<10	<i>E.04</i>	1.26	1.26	.009	.10	1.55	<i>E.004</i>	.011	.048	.8
MAY 10...	--	<10	<10	.09	1.44	1.46	.018	.10	1.77	.006	.016	.055	.7
JUN 13...	--	27	<10	.07	1.21	1.24	.024	.10	1.57	.013	.022	.085	1.1
JUL 08...	254	294	40	.15	.68	.70	.012	1.15	1.38	.009	.027	.39	11.7
JUL 18...	26	37	11	.08	.66	.67	.011	.23	1.07	.019	.033	.128	1.9
AUG 10...	31	43	12	.06	.71	.71	.008	.20	1.16	.023	.039	.134	1.8
SEP 15...	--	14	<10	.05	1.21	1.22	.017	.08	1.62	.023	.042	.101	.7

PATUXENT RIVER BASIN

01594440 PATUXENT RIVER NEAR BOWIE, MD—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Inor- ganic carbon, suspnd total, mg/L (00688)	Organic carbon, suspnd total, mg/L (00689)	Organic carbon, water, fltrd, mg/L (00681)	Iron, water, fltrd, ug/L (01046)	Mangan- ese, water, fltrd, ug/L (01056)	Sus- pended sedi- ment concen- tration mg/L (80154)	Sus- pended sedi- ment dis- charge, tons/d (80155)	Sampler type, code (84164)
OCT 07...	<.1	.6	3.4	289	157	8	3.8	3060
NOV 02...	<.1	.4	3.6	--	--	6	2.5	3060
DEC 10...	<.1	2.0	3.7	--	--	75	134	3060
DEC 15...	<.1	.3	2.9	--	--	5	3.4	3060
JAN 13...	<.1	<.1	.8	<6	<.6	--	--	--
JAN 13...	<.1	.3	2.8	229	159	6	3.9	3060
FEB 23...	<.1	.5	2.7	--	--	7	6.4	3060
MAR 15...	<.1	.5	2.5	--	--	5	4.3	3060
APR 20...	<.1	<.1	.4	<6	<.6	--	--	--
APR 20...	<.1	.8	3.0	171	109	11	10	3060
MAY 10...	<.1	.7	2.7	--	--	16	13	3060
JUN 13...	<.1	1.1	3.1	--	--	28	26	3060
JUL 08...	<.1	11.6	--	--	--	373	939	3060
JUL 18...	<.1	1.9	5.3	136	61.0	50	82	3060
AUG 10...	<.1	1.8	5.1	--	--	48	50	3060
SEP 15...	<.1	.6	4.3	--	--	11	3.1	3060

Remark codes used in this table:

< -- Less than.
E -- Estimated.

Sampler type: 3060 - Weighted-bottle sampler

01594440 PATUXENT RIVER NEAR BOWIE, MD—Continued



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 mi².

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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov 13	1000	1,460	10.78	Mar 29	0400	1,580	11.11
Jan 15	0100	2,010	11.95	Apr 3	1200	1,700	11.42
Mar 24	0415	1,510	10.94	May 20	2315	*3,340	*13.04

Minimum discharge, 7.1 ft³/s, Sept. 13.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	123	31	161	64	91	188	147	338	56	36	16	14
2	167	29	153	60	83	168	467	159	52	77	15	12
3	110	30	104	59	81	117	1,360	99	145	30	14	9.7
4	69	190	84	60	87	97	422	80	121	23	12	9.0
5	52	630	76	76	115	93	205	72	79	33	14	8.6
6	43	146	72	82	123	89	164	66	74	86	16	8.3
7	39	84	126	71	116	87	145	64	665	34	11	8.4
8	36	65	177	77	108	274	240	59	231	464	17	8.3
9	35	54	158	77	104	231	162	52	95	262	268	8.2
10	33	49	470	66	113	131	130	49	78	79	108	9.8
11	31	48	262	60	89	108	116	49	62	47	46	7.7
12	30	403	181	82	79	108	106	47	55	36	29	7.7
13	30	1,260	119	71	73	90	100	44	49	35	21	7.7
14	37	307	97	923	102	82	96	82	49	36	18	7.9
15	33	128	80	1,220	253	75	88	280	40	38	16	8.4
16	35	96	72	256	139	70	83	88	36	58	16	8.8
17	31	82	68	159	105	70	81	61	33	156	30	8.9
18	29	77	64	115	85	67	80	53	31	59	19	14
19	37	72	65	100	73	65	78	49	29	39	55	10
20	82	69	81	102	70	68	76	1,230	29	30	57	8.6
21	76	71	e62	101	80	85	74	1,610	29	23	27	8.7
22	54	65	62	83	154	67	96	271	28	20	20	8.2
23	42	64	151	e90	92	575	131	149	28	29	15	8.2
24	39	68	394	e88	95	1,200	186	148	25	19	12	9.0
25	38	87	128	86	134	285	105	188	23	31	11	8.9
26	35	83	89	91	116	179	80	123	22	e31	10	9.2
27	33	67	76	96	125	137	71	93	22	e22	10	11
28	33	277	67	84	124	534	65	79	26	e26	83	12
29	34	161	67	95	---	1,140	62	72	23	19	33	10
30	33	97	68	88	---	280	214	63	82	24	20	9.0
31	32	---	65	98	---	178	---	61	---	19	17	---
TOTAL	1,531	4,890	3,899	4,780	3,009	6,938	5,430	5,878	2,317	1,921	1,056	280.2
MEAN	49.4	163	126	154	107	224	181	190	77.2	62.0	34.1	9.34
MAX	167	1,260	470	1,220	253	1,200	1,360	1,610	665	464	268	14
MIN	29	29	62	59	70	65	62	44	22	19	10	7.7
CFSM	0.55	1.82	1.40	1.72	1.20	2.50	2.02	2.11	0.86	0.69	0.38	0.10
IN.	0.63	2.03	1.62	1.98	1.25	2.88	2.25	2.44	0.96	0.80	0.44	0.12

e Estimated

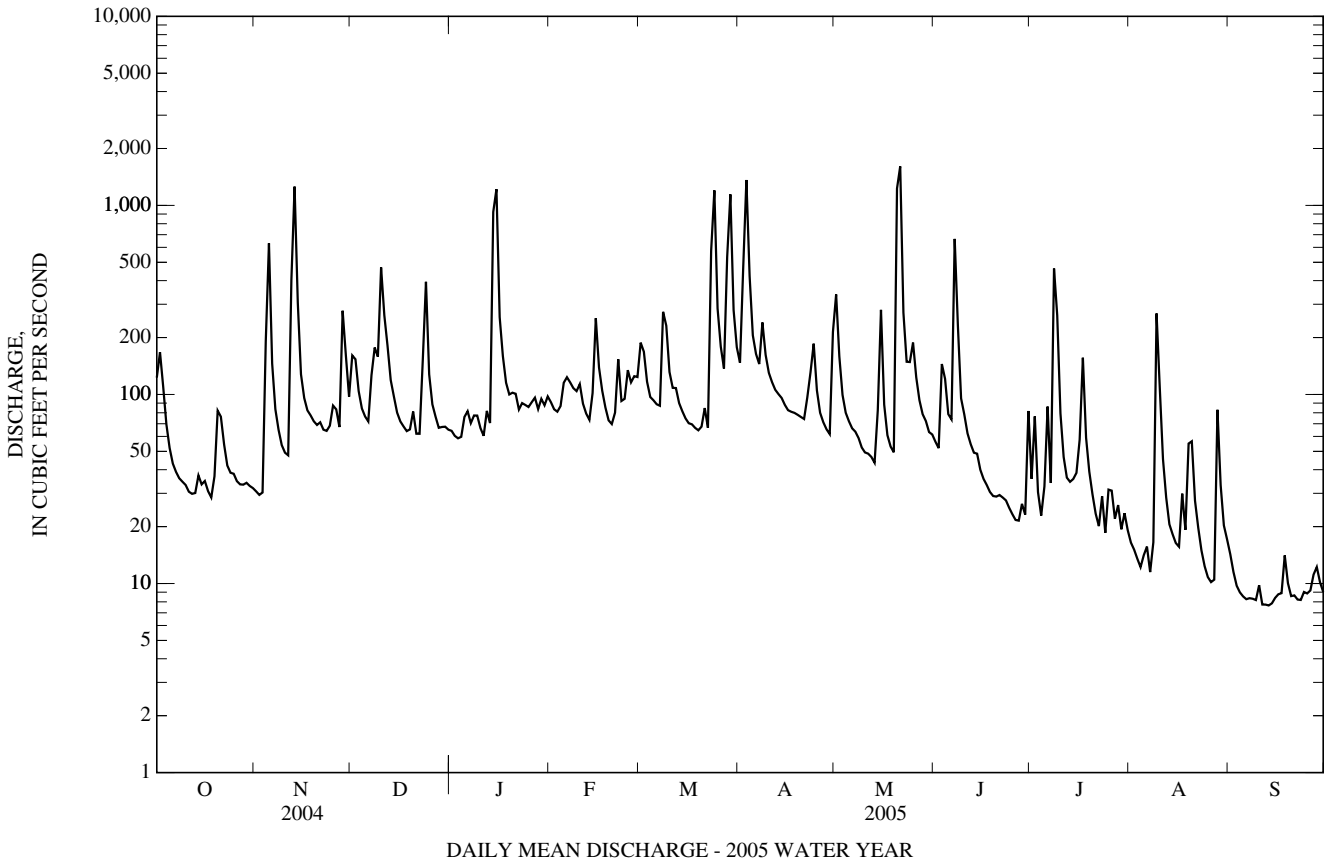
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1986 - 1989, 1992 - 2005, BY WATER YEAR (WY)

	50.0	92.1	108	120	140	180	119	97.3	76.6	63.6	47.5	71.4
MEAN	50.0	92.1	108	120	140	180	119	97.3	76.6	63.6	47.5	71.4
MAX	145	190	274	260	333	445	191	190	339	175	95.5	322
(WY)	(1996)	(2004)	(2004)	(1996)	(1998)	(1994)	(1993)	(2005)	(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	9.34
(WY)	(1999)	(1999)	(1999)	(2002)	(2002)	(2002)	(1995)	(1999)	(1986)	(1999)	(1995)	(2005)

01594526 WESTERN BRANCH AT UPPER MARLBORO, MD—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1986 - 1989, 1992 - 2005	
	ANNUAL TOTAL	43,217		41,929.2		
ANNUAL MEAN	118		115		98.8	
HIGHEST ANNUAL MEAN					175	2003
LOWEST ANNUAL MEAN					31.9	2002
HIGHEST DAILY MEAN	1,660	Feb 7	1,610	May 21	4,090	Sep 16, 1999
LOWEST DAILY MEAN	18	(a)	7.7	(b)	1.1	Aug 21, 2002
ANNUAL SEVEN-DAY MINIMUM	19	Sep 2	8.2	Sep 11	1.3	Aug 15, 2002
MAXIMUM PEAK FLOW			3,340	May 20	(c)10,400	Sep 16, 1999
MAXIMUM PEAK STAGE			13.04	May 20	15.39	Sep 16, 1999
INSTANTANEOUS LOW FLOW			7.1	Sep 13	0.32	Sep 21, 2002
ANNUAL RUNOFF (CFSM)	1.32		1.28		1.10	
ANNUAL RUNOFF (INCHES)	17.92		17.39		14.97	
10 PERCENT EXCEEDS	215		196		205	
50 PERCENT EXCEEDS	76		71		54	
90 PERCENT EXCEEDS	31		14		9.8	

- a Sept. 5-7.
- b Sept. 11-13.
- c From rating curve extended above 2,400 ft³/s.



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 mi².

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 values (ice effect), which are poor. Records good above 0.5 ft³/s and fair below. Several measurements of water temperature were made during the year. Water-quality records for some prior years have been collected at this location. Low flows affected by local mining.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 40 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar 29	0015	*94	*3.95	Jul 19	1130	42	3.30
Jul 13	1900	74	3.72				

Minimum discharge, 0.00 ft³/s, Sept. 24-26.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.67	2.0	17	e1.9	1.2	e2.5	7.2	6.2	1.8	0.13	0.72	1.1
2	0.61	1.8	8.5	2.1	1.2	e2.3	12	5.0	1.6	0.12	0.49	0.74
3	1.1	3.7	6.6	3.0	1.2	e2.1	8.6	4.4	1.6	0.08	0.50	1.2
4	0.61	14	5.3	10	1.3	2.0	10	3.6	1.4	0.09	0.43	2.0
5	0.47	13	4.4	21	1.4	2.0	8.6	3.0	1.1	0.28	0.31	2.5
6	0.48	7.0	4.0	18	1.7	2.4	6.8	2.7	1.1	0.55	0.48	2.5
7	0.47	5.2	6.1	12	2.2	8.4	6.3	2.6	1.9	0.32	0.25	1.6
8	0.44	3.9	5.3	15	4.3	21	6.4	2.2	0.98	6.8	0.49	0.78
9	0.40	3.1	5.6	10	13	8.0	4.9	1.8	0.91	1.7	0.34	1.0
10	0.37	2.6	7.5	7.6	17	6.1	4.2	1.7	0.84	0.65	0.30	1.3
11	0.32	2.4	8.7	9.1	8.6	5.2	3.5	1.8	1.1	0.38	0.34	1.0
12	0.37	4.8	7.2	17	6.3	4.4	3.1	3.0	0.87	0.32	0.20	0.47
13	0.32	3.6	6.5	8.9	5.1	3.8	2.8	1.9	0.66	12	0.29	0.31
14	0.40	2.9	5.3	13	13	3.2	2.5	1.7	0.66	5.5	0.36	0.21
15	0.43	2.6	4.5	8.0	10	3.1	2.2	2.7	0.78	2.3	0.30	0.11
16	0.93	2.4	3.8	6.7	9.0	3.0	1.8	1.8	0.68	1.6	0.26	0.06
17	0.99	2.3	3.5	5.5	7.2	2.9	1.6	1.8	0.80	2.1	0.28	0.20
18	0.53	2.7	3.2	4.5	6.4	3.7	1.5	1.8	0.47	2.3	0.32	0.23
19	0.82	3.9	e2.9	4.0	5.6	4.8	1.9	1.7	0.36	11	0.58	0.06
20	1.5	4.4	e2.7	3.5	5.0	6.0	1.9	12	0.35	5.1	1.7	0.01
21	3.5	4.2	e2.5	3.0	6.9	5.0	1.8	5.8	0.33	3.0	7.9	0.03
22	1.8	3.4	e2.3	e2.6	5.1	4.7	3.2	4.2	0.40	2.3	0.86	0.02
23	1.5	3.2	e2.4	e2.2	4.3	13	5.1	5.5	0.33	2.0	0.51	0.01
24	2.8	4.8	e2.5	e1.9	4.0	14	3.6	7.0	0.24	1.5	0.48	0.00
25	2.1	14	e2.3	e1.7	3.9	9.6	5.4	5.3	0.22	1.3	0.41	0.00
26	1.6	7.9	e2.1	e1.6	3.2	7.9	6.8	4.1	0.20	1.3	0.47	0.01
27	1.4	6.3	e2.0	e1.5	2.8	7.0	6.1	3.4	0.15	1.00	1.6	0.15
28	1.4	6.0	e1.9	e1.4	e2.6	24	4.8	3.4	0.33	1.1	2.6	0.08
29	2.5	4.7	e1.7	e1.4	---	43	4.1	2.8	0.23	0.66	0.91	0.40
30	4.5	4.1	e1.7	e1.3	---	15	6.1	2.4	0.18	0.69	0.86	0.18
31	2.5	---	e1.8	1.2	---	9.7	---	2.1	---	0.78	0.93	---
TOTAL	37.83	146.9	141.8	200.6	153.5	249.8	144.8	109.4	22.57	68.95	26.47	18.26
MEAN	1.22	4.90	4.57	6.47	5.48	8.06	4.83	3.53	0.75	2.22	0.85	0.61
MAX	4.5	14	17	21	17	43	12	12	1.9	12	7.9	2.5
MIN	0.32	1.8	1.7	1.2	1.2	2.0	1.5	1.7	0.15	0.08	0.20	0.00
CFSM	0.64	2.56	2.39	3.39	2.87	4.22	2.53	1.85	0.39	1.16	0.45	0.32
IN.	0.74	2.86	2.76	3.91	2.99	4.87	2.82	2.13	0.44	1.34	0.52	0.36

e Estimated

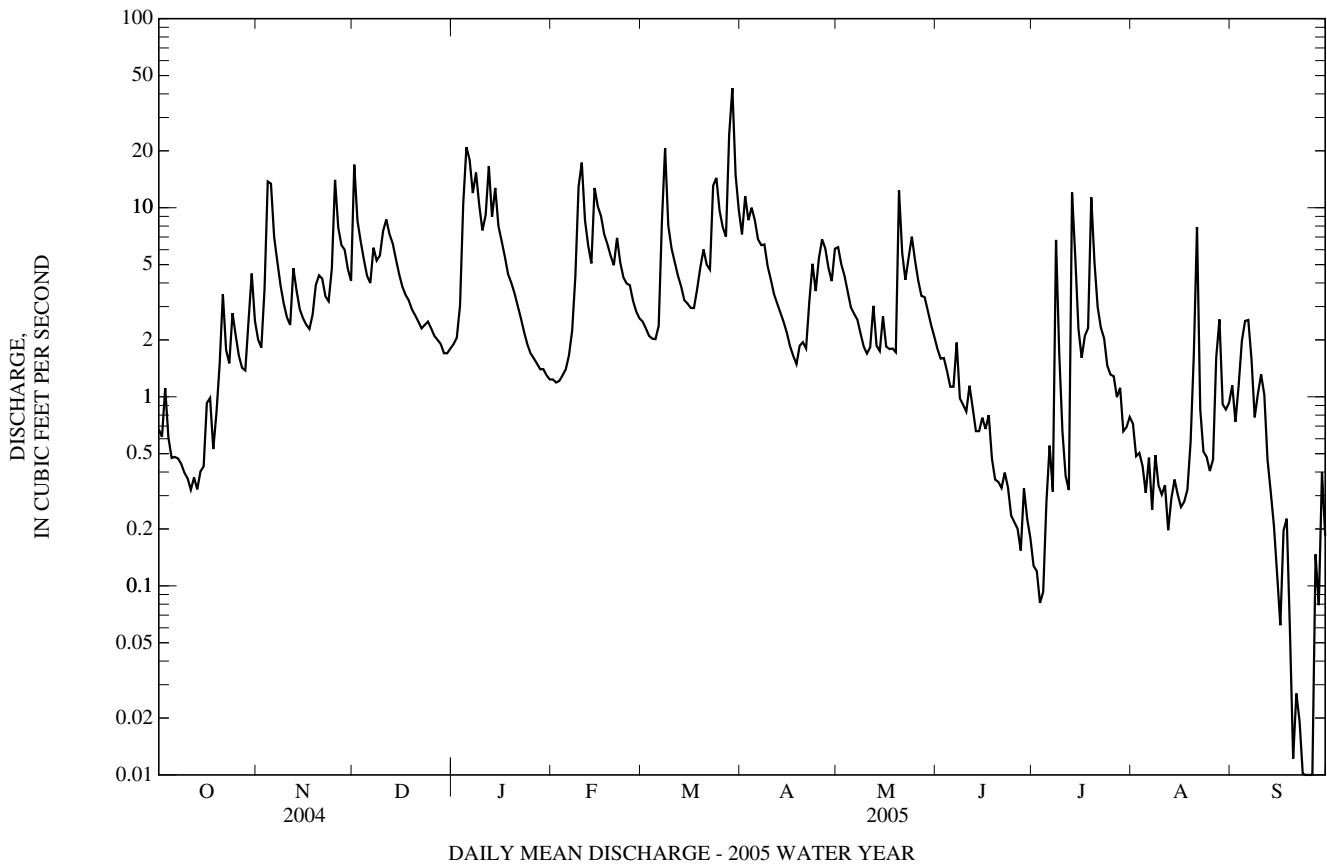
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1980 - 2005, BY WATER YEAR (WY)

MEAN	1.54	4.23	5.15	5.36	7.24	8.64	6.63	5.43	3.36	3.41	2.06	1.94
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 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1980 - 2005	
ANNUAL TOTAL	1,653.47		1,320.88		4.54	
ANNUAL MEAN	4.52		3.62		7.72	
HIGHEST ANNUAL MEAN					2.74	
LOWEST ANNUAL MEAN					1996	
HIGHEST DAILY MEAN	62	Feb 6	43	Mar 29	141	Feb 9, 1994
LOWEST DAILY MEAN	0.28	(a)	0.00	(b)	0.00	(b)
ANNUAL SEVEN-DAY MINIMUM	0.37	Oct 9	0.01	Sep 20	0.01	Sep 20, 2005
MAXIMUM PEAK FLOW			94	Mar 29	(c)895	May 31, 1985
MAXIMUM PEAK STAGE			3.95	Mar 29	10.47	May 31, 1985
INSTANTANEOUS LOW FLOW			0.00	(d)	0.00	(d)
ANNUAL RUNOFF (CFSM)	2.37		1.89		2.38	
ANNUAL RUNOFF (INCHES)	32.20		25.73		32.28	
10 PERCENT EXCEEDS	10		8.5		10	
50 PERCENT EXCEEDS	2.9		2.3		2.8	
90 PERCENT EXCEEDS	0.52		0.32		0.42	

- a July 25, 26.
- b Sept. 24, 25.
- c From rating curve extended above 90 ft³/s on basis of contracted-opening measurement of peak-flow.
- d Sept. 24-26.



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 mi².

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

REVISED RECORDS.--WDR MD-DE-95-1: 1988, 1991-93 (M).

GAGE.--Water-stage recorder and sacrete 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 and missing 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 40 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov 4	1500	41	2.21	Mar 29	0000	*101	*3.52
Feb 9	2300	42	2.26	Jul 13	1730	88	3.27
Mar 28	1200	40	2.20				

Minimum discharge, 0.10 ft³/s, on several days.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.61	3.3	19	e2.4	e1.5	e3.4	11	7.2	2.8	0.23	0.42	0.46
2	0.58	2.8	13	2.7	e1.4	e3.1	15	6.2	2.5	0.21	0.37	0.28
3	0.67	4.6	9.7	3.1	e1.4	e2.9	12	5.3	2.3	0.20	0.35	0.23
4	0.48	15	7.9	10	e1.4	e2.7	12	4.7	2.1	0.20	0.33	0.22
5	0.42	16	6.4	24	1.4	2.7	12	4.4	1.9	0.39	0.27	0.20
6	0.36	9.9	5.5	22	1.5	2.7	11	4.0	1.9	0.50	0.23	0.20
7	0.35	7.5	6.9	e14	2.1	7.4	9.8	3.7	2.2	0.62	0.30	0.20
8	0.35	5.8	6.5	e16	4.5	22	9.2	3.3	1.6	5.6	0.35	0.20
9	0.35	4.8	6.7	e13	16	11	7.4	3.0	1.4	1.3	0.39	0.20
10	0.28	4.2	9.0	e9.5	21	8.7	6.4	2.8	1.3	0.67	0.30	0.18
11	0.26	3.8	10	e10	11	7.5	5.7	2.8	1.4	0.47	0.21	0.16
12	0.26	5.9	9.5	19	8.6	6.4	5.3	3.4	1.1	0.36	0.19	0.16
13	0.24	5.2	8.4	13	6.9	5.4	4.5	2.6	1.1	9.8	0.18	0.16
14	0.23	4.3	7.1	15	14	4.7	3.9	2.4	0.95	6.0	0.18	0.16
15	0.24	3.9	6.0	11	14	4.5	3.4	3.0	0.94	2.7	0.17	0.13
16	0.58	3.7	5.3	9.4	12	4.2	3.1	2.3	0.94	2.3	0.16	0.10
17	0.61	3.4	4.8	8.1	10	4.0	2.8	2.1	1.1	2.8	0.16	0.10
18	0.35	3.8	4.4	7.4	8.0	4.3	2.5	2.0	0.76	2.3	0.16	0.10
19	0.38	4.9	4.1	6.2	6.6	5.6	2.2	2.2	0.66	6.2	0.19	0.10
20	1.1	5.6	e3.7	5.1	5.8	7.4	1.9	13	0.56	4.8	2.0	0.10
21	3.6	5.6	e3.4	4.6	8.7	7.1	1.8	7.5	0.53	2.9	4.4	0.10
22	2.2	5.1	e3.0	e4.0	7.3	6.8	3.9	5.8	0.52	2.2	0.63	0.10
23	1.6	4.7	e3.2	e3.4	6.3	19	5.3	6.9	0.47	1.7	0.41	0.11
24	2.6	6.1	e3.1	e2.9	5.8	20	4.1	8.6	0.43	1.4	0.29	0.11
25	2.3	16	e3.0	e2.5	5.2	14	5.5	7.1	0.37	1.1	0.25	0.10
26	1.8	12	e2.8	e2.3	4.7	12	7.5	6.1	0.33	1.0	0.22	0.12
27	1.5	9.5	e2.6	e2.1	e4.3	11	7.2	5.2	0.28	0.81	1.00	0.12
28	1.5	8.8	e2.4	e2.0	e3.8	33	5.9	4.9	0.51	0.80	1.6	0.11
29	3.3	7.3	e2.2	e1.9	---	51	5.2	4.2	0.34	0.68	0.55	0.21
30	6.9	6.4	e2.1	e1.7	---	23	6.6	3.7	0.27	0.59	0.48	0.12
31	4.1	---	e2.2	e1.6	---	15	---	3.1	---	0.50	0.44	---
TOTAL	40.10	199.9	183.9	249.9	195.2	332.5	194.1	143.5	33.56	61.33	17.18	4.84
MEAN	1.29	6.66	5.93	8.06	6.97	10.7	6.47	4.63	1.12	1.98	0.55	0.16
MAX	6.9	16	19	24	21	51	15	13	2.8	9.8	4.4	0.46
MIN	0.23	2.8	2.1	1.6	1.4	2.7	1.8	2.0	0.27	0.20	0.16	0.10
CFSM	0.56	2.90	2.58	3.50	3.03	4.66	2.81	2.01	0.49	0.86	0.24	0.07
IN.	0.65	3.23	2.97	4.04	3.16	5.38	3.14	2.32	0.54	0.99	0.28	0.08

e Estimated

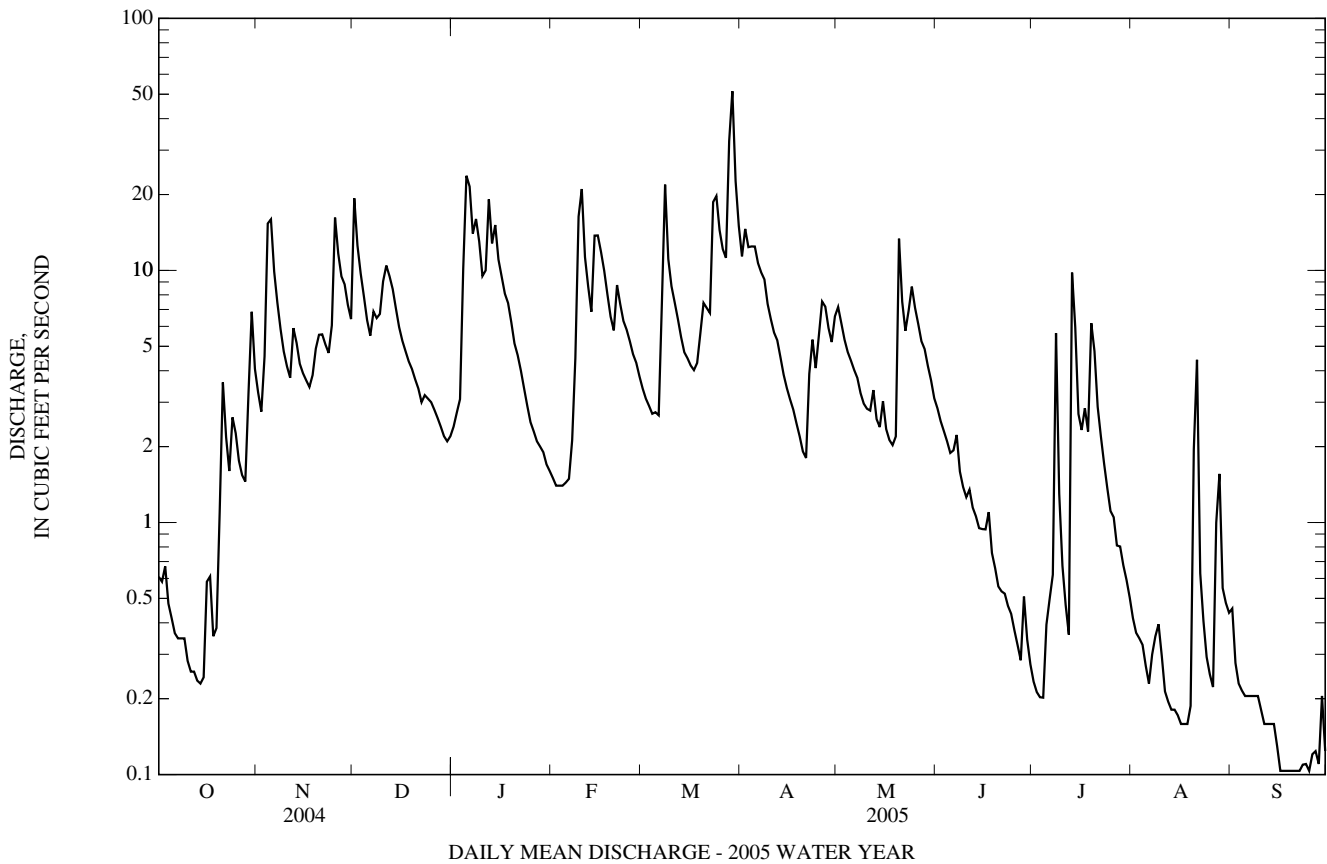
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 2005, BY WATER YEAR (WY)

MEAN	1.35	3.72	5.02	6.40	7.32	9.61	6.86	5.77	2.59	3.14	1.91	2.15
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 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1987 - 2005	
ANNUAL TOTAL	1,878.82		1,656.01		4.64	
ANNUAL MEAN	5.13		4.54		2.73	
HIGHEST ANNUAL MEAN					8.05	2003
LOWEST ANNUAL MEAN					2.73	1999
HIGHEST DAILY MEAN	50	Feb 6	51	Mar 29	130	Sep 4, 2003
LOWEST DAILY MEAN	0.20	Sep 7	0.10	(a)	0.00	(b)
ANNUAL SEVEN-DAY MINIMUM	0.26	Sep 1	0.10	Sep 16	0.00	Aug 10, 1999
MAXIMUM PEAK FLOW			101	Mar 29	(c)534	Aug 12, 2003
MAXIMUM PEAK STAGE			3.52	Mar 29	8.23	Aug 12, 2003
INSTANTANEOUS LOW FLOW			0.10	(d)	0.00	(b)
ANNUAL RUNOFF (CFSM)	2.23		1.97		2.02	
ANNUAL RUNOFF (INCHES)	30.39		26.78		27.43	
10 PERCENT EXCEEDS	11		11		11	
50 PERCENT EXCEEDS	3.3		2.9		2.8	
90 PERCENT EXCEEDS	0.47		0.21		0.12	

- a Sept. 16-22, 25.
- b Many days in 1999, 2002.
- c From rating curve extended above 71 ft³/s based on runoff comparison with Shields Run (adjacent stream, slope-area measurement, storm of Aug. 12, 2003).
- d Sept. 15-26, 28, 29.



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 mi².

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 (recorder malfunction, 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 ft³/s, from rating curve extended above 3,000 ft³/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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar 29	0045	*2,380	*6.35	No other peak greater than base discharge.			

Minimum discharge, 11 ft³/s, Sept. 18, 23, 26.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	68	118	595	e95	92	e125	314	277	106	51	58	72
2	49	105	377	121	88	e112	451	227	98	48	54	55
3	61	162	282	135	87	e105	384	205	99	48	51	35
4	56	459	232	337	86	e97	371	179	95	68	50	28
5	61	523	202	701	88	e102	376	154	88	100	43	23
6	58	309	188	658	91	119	295	142	81	64	46	35
7	54	224	235	448	106	273	270	131	137	50	49	36
8	46	181	228	512	184	733	320	127	88	330	58	29
9	37	146	223	386	515	345	247	115	89	150	59	33
10	37	126	305	302	803	259	208	108	137	87	52	30
11	35	116	332	315	365	230	193	121	187	65	40	18
12	35	195	294	599	272	203	170	225	160	133	37	29
13	34	185	263	352	227	180	156	147	107	186	36	32
14	37	144	228	482	451	160	138	132	95	209	37	30
15	37	127	200	346	478	147	125	147	97	121	36	31
16	61	119	e180	287	397	138	117	121	88	142	37	19
17	84	112	e160	251	340	134	111	110	94	189	31	14
18	62	124	e142	e220	269	154	106	103	77	186	30	14
19	65	138	e128	e195	229	203	101	100	70	345	30	26
20	95	165	e117	e168	197	259	100	507	67	262	28	31
21	207	162	e105	e148	311	229	99	304	65	167	238	30
22	105	145	e95	e138	257	213	137	222	65	128	72	30
23	86	132	e99	e130	216	591	233	211	66	105	57	17
24	117	173	e101	e122	201	618	169	275	58	89	45	16
25	110	436	e95	e117	188	414	236	244	54	85	42	16
26	94	305	e87	e110	166	350	291	203	52	87	43	26
27	90	245	e81	e104	151	312	269	170	53	75	62	34
28	86	231	e75	e97	e141	820	222	160	58	80	155	29
29	167	198	e70	e95	---	1,550	192	148	66	71	73	26
30	329	172	e73	e95	---	624	244	127	54	64	59	25
31	154	---	e75	e93	---	415	---	117	---	60	61	---
TOTAL	2,617	5,977	5,867	8,159	6,996	10,214	6,645	5,559	2,651	3,845	1,769	869
MEAN	84.4	199	189	263	250	329	222	179	88.4	124	57.1	29.0
MAX	329	523	595	701	803	1,550	451	507	187	345	238	72
MIN	34	105	70	93	86	97	99	100	52	48	28	14
CFSM	1.15	2.73	2.59	3.60	3.42	4.51	3.03	2.45	1.21	1.70	0.78	0.40
IN.	1.33	3.04	2.99	4.15	3.56	5.20	3.38	2.83	1.35	1.96	0.90	0.44

e Estimated

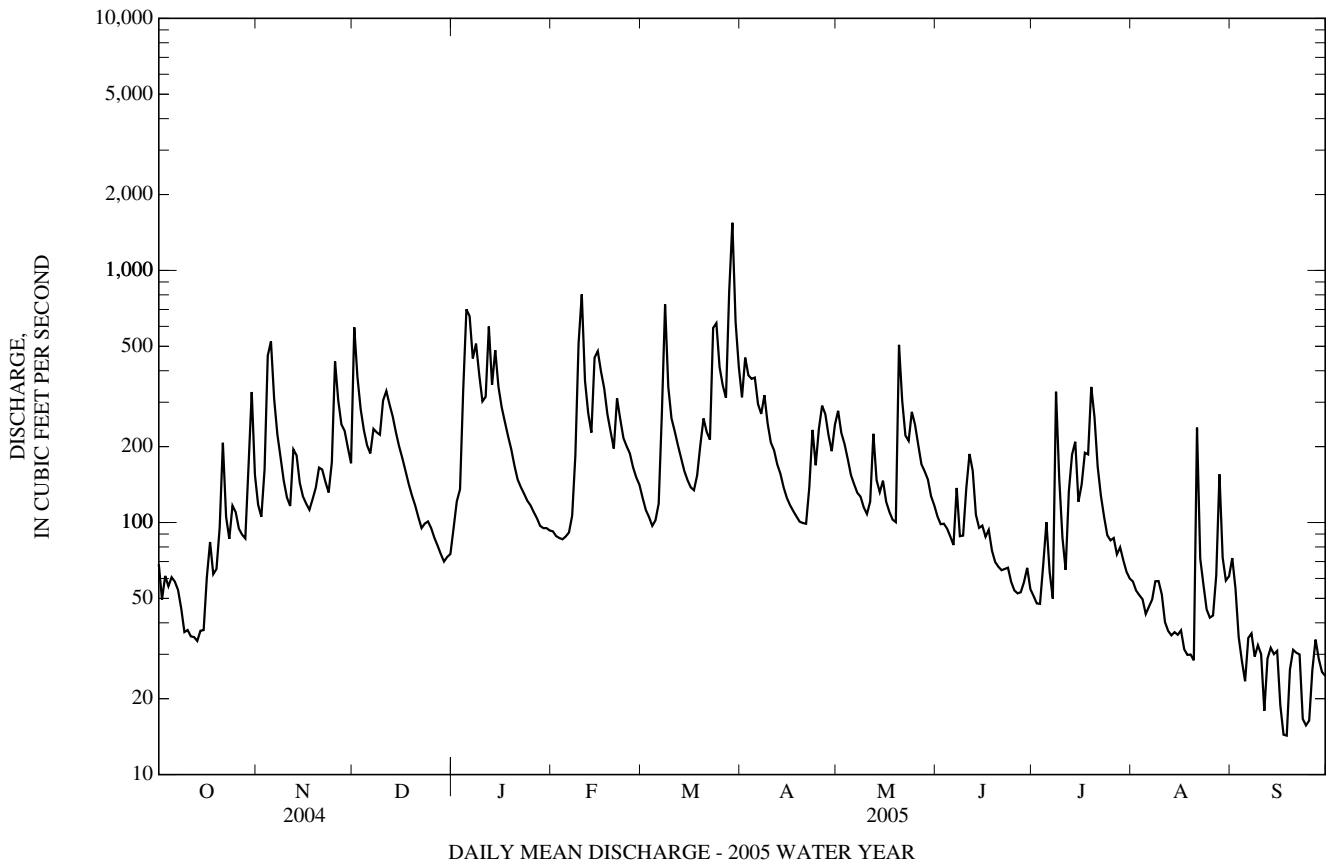
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1956 - 2005, BY WATER YEAR (WY)

MEAN	72.5	140	218	231	262	344	276	199	122	103	79.8	63.9
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 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1956 - 2005	
ANNUAL TOTAL	67,302		61,168		175	
ANNUAL MEAN	184		168		115	
HIGHEST ANNUAL MEAN					297 1996	
LOWEST ANNUAL MEAN					115 1959	
HIGHEST DAILY MEAN	1,490	Mar 6	1,550	Mar 29	4,530	Feb 9, 1994
LOWEST DAILY MEAN	26	Sep 5	14	(a)	3.1	Sep 9, 1965
ANNUAL SEVEN-DAY MINIMUM	34	Sep 1	23	Sep 17	3.6	Sep 23, 1959
MAXIMUM PEAK FLOW			2,380	Mar 29	(b)11,500	Nov 5, 1985
MAXIMUM PEAK STAGE			6.35	Mar 29	13.14	Nov 5, 1985
INSTANTANEOUS LOW FLOW			11	(c)	2.7	Aug 18, 1999
ANNUAL RUNOFF (CFSM)	2.52		2.29		2.40	
ANNUAL RUNOFF (INCHES)	34.25		31.13		32.56	
10 PERCENT EXCEEDS	386		342		386	
50 PERCENT EXCEEDS	124		121		107	
90 PERCENT EXCEEDS	53		36		22	

- a Sept. 17, 18.
- b From rating curve extended above 3,000 ft³/s on basis of slope-area measurement at gage height of 10.30 ft.
- c Sept. 18, 23, 26.



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 mi².

WATER-DISCHARGE RECORDS

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.--Water-discharge records good except those for periods of estimated daily discharges (ice effect, no gage-height record), 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.

PEAK DISCHARGE FOR CURRENT YEAR.--Maximum discharge, 1,680 ft³/s, Mar. 29, gage height, 6.65 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	68	125	283	84	e20	e31	344	e250	21	11	9.8	14
2	57	93	274	88	e20	e30	426	e180	22	12	8.1	9.7
3	56	117	203	86	19	e34	425	138	24	11	8.3	7.5
4	42	254	157	123	19	e32	e400	101	20	25	7.8	5.6
5	22	335	100	240	19	e30	e280	80	19	63	6.6	4.7
6	21	234	39	322	20	69	222	71	20	25	5.4	5.1
7	20	156	53	252	29	e170	174	60	35	20	83	7.9
8	18	126	76	224	49	e250	153	57	34	347	77	8.1
9	17	75	98	190	161	e190	129	56	68	285	139	7.7
10	17	35	158	122	308	e160	128	54	61	160	88	7.1
11	19	33	188	112	232	122	126	64	58	90	30	3.9
12	20	68	181	215	147	111	126	77	37	56	22	3.0
13	17	76	161	188	117	101	85	77	21	22	18	6.4
14	17	96	138	234	186	93	e32	55	18	17	16	6.9
15	17	90	119	202	133	67	e29	53	20	16	13	5.9
16	18	76	101	170	149	31	e29	53	20	87	13	5.9
17	21	66	84	108	137	33	e45	39	23	64	12	3.3
18	15	81	76	61	135	36	44	25	20	50	12	2.7
19	23	86	72	52	111	64	23	28	20	82	11	2.5
20	41	89	52	e45	101	115	21	294	16	66	10	4.0
21	154	84	29	e38	116	123	25	323	14	53	39	6.7
22	92	82	34	e34	148	133	63	241	14	39	13	5.7
23	94	77	84	e26	147	375	115	158	13	33	11	5.5
24	110	88	77	e28	148	497	84	175	11	28	10	3.3
25	116	135	66	e31	124	417	69	221	9.7	27	9.5	2.5
26	100	138	69	e27	103	304	83	189	9.0	23	8.7	2.5
27	79	122	83	e25	66	244	69	137	8.1	15	12	6.2
28	72	146	77	e21	33	667	e130	113	50	15	33	6.6
29	115	147	67	e23	---	1,210	e240	95	95	13	13	7.0
30	264	135	71	e22	---	480	e370	56	23	12	10	5.6
31	189	---	78	e21	---	363	---	24	---	11	14	---
TOTAL	1,931	3,465	3,348	3,414	2,997	6,582	4,489	3,544	823.8	1,778	763.2	173.5
MEAN	62.3	116	108	110	107	212	150	114	27.5	57.4	24.6	5.78
MAX	264	335	283	322	308	1,210	426	323	95	347	139	14
MIN	15	33	29	21	19	30	21	24	8.1	11	5.4	2.5

e Estimated.

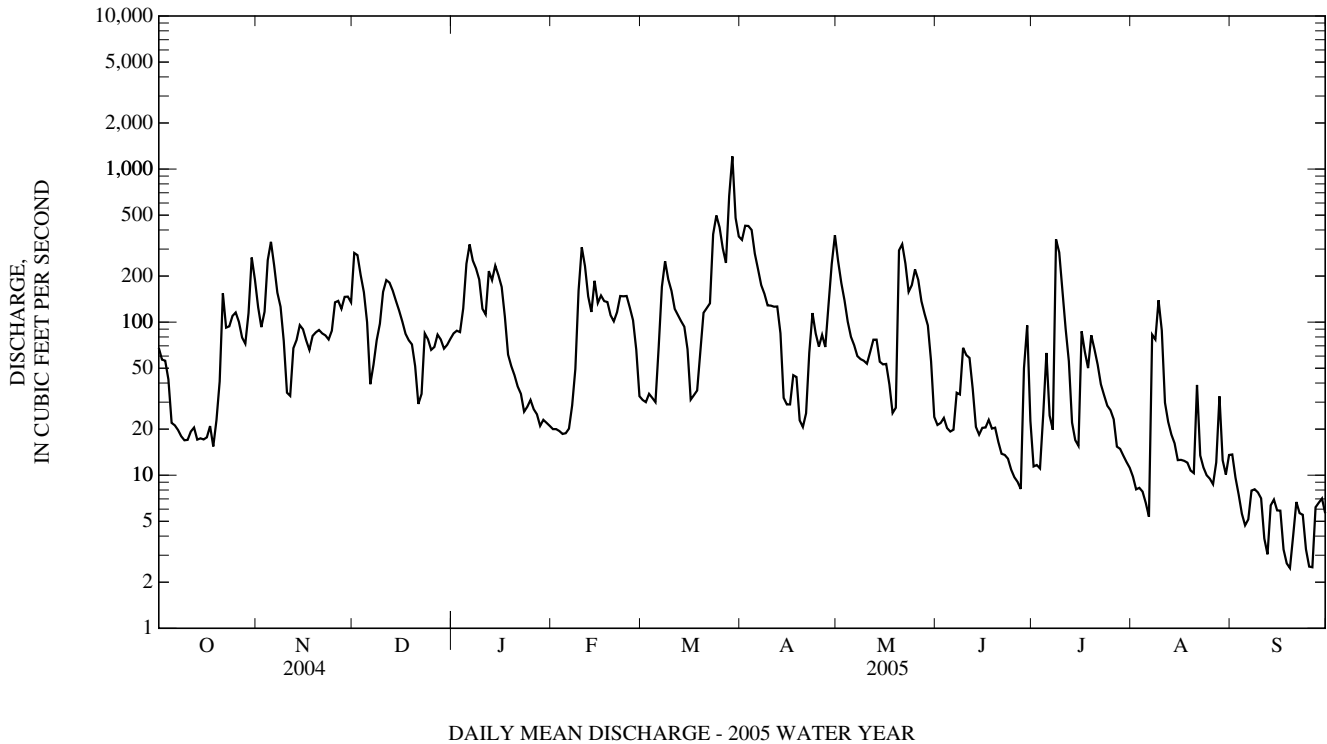
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1962 - 2005, BY WATER YEAR (WY)

MEAN	45.6	86.9	105	112	140	221	160	122	69.4	48.2	35.4	42.8
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 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1962 - 2005	
ANNUAL TOTAL	43,486.7		33,308.5		98.8	
ANNUAL MEAN	119		91.3		166	
HIGHEST ANNUAL MEAN					42.0	1964
LOWEST ANNUAL MEAN					9,880	Nov 5, 1985
HIGHEST DAILY MEAN	950	Mar 4	1,210	Mar 29	1.3	Aug 28, 1988
LOWEST DAILY MEAN	6.7	Sep 5	2.5	(a)	1.7	Aug 28, 1988
ANNUAL SEVEN-DAY MINIMUM	8.4	Sep 1	4.3	Sep 19	(b)14,000	Nov 5, 1985
MAXIMUM PEAK FLOW			1,680	Mar 29	(c)16.41	Nov 5, 1985
MAXIMUM PEAK STAGE			6.65	Mar 29	1.3	(f)
INSTANTANEOUS LOW FLOW			2.4	(d)		
10 PERCENT EXCEEDS	275		223		232	
50 PERCENT EXCEEDS	80		61		49	
90 PERCENT EXCEEDS	16		9.3		8.4	

- a Sept. 19, 25, 26.
- b From rating curve extended above 7,500 ft³/s on basis of slope-area measurement of peak flow.
- c From floodmarks.
- d Sept. 19, 20, 25, 26.
- f Aug. 22, 23, 28, 29, 1988.



WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1962 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: December 1961 to March 1974, September 1974 to September 1995, October 1996 to current year.

INSTRUMENTATION.--Temperature recorder (continuous ethyl alcohol-actuated thermograph) December 1961 to October 2001. Satellite telemetry installed Oct. 22, 2001.

REMARKS.--Upstream reservoir regulation defined on the discharge manuscript. No temperature record Mar. 7-10, Apr. 4, 5, 14-17, and Apr. 28 to May 2, due to equipment malfunction.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum, 31.3°C, Aug. 3, 2002, Aug. 14, 2003; minimum, -0.5°C, Jan. 16-20, 1999.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 27.6°C, July 9; minimum, -0.1°C, Dec. 20, 21.

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19.9	16.0	11.4	10.1	3.0	2.8	13.9	---	18.2	25.2	24.2	21.0
2	19.6	17.4	12.7	10.6	1.9	1.2	11.8	---	15.3	25.2	25.1	21.7
3	18.9	16.4	11.5	11.7	2.9	1.7	9.5	13.4	14.5	23.0	25.8	20.8
4	18.1	13.9	10.3	12.4	4.2	3.3	---	14.8	18.6	24.4	26.1	19.8
5	15.8	14.6	10.3	12.5	3.4	5.5	---	15.5	22.0	22.6	24.0	19.1
6	13.4	15.1	7.2	13.5	3.8	7.0	14.8	14.9	22.8	23.7	23.3	19.7
7	13.9	15.0	8.7	11.7	4.9	---	13.6	13.7	22.4	21.0	23.7	19.3
8	14.5	13.9	8.3	11.2	3.8	---	13.1	16.8	21.4	25.7	19.2	19.3
9	15.0	10.4	8.9	11.3	7.5	---	14.7	18.3	20.4	27.6	20.7	20.1
10	15.3	7.6	11.1	10.1	8.8	---	16.4	19.6	21.4	27.2	24.0	20.4
11	13.4	9.0	11.0	10.1	8.0	6.1	16.4	20.2	20.5	26.2	23.3	20.1
12	12.6	8.4	9.8	12.3	7.9	5.9	13.1	17.8	23.0	25.9	24.4	20.3
13	11.9	7.1	9.4	13.9	8.3	6.9	14.1	19.3	23.1	24.4	25.4	20.4
14	12.8	9.1	6.9	13.1	7.5	7.1	---	20.3	24.7	22.7	24.1	18.5
15	12.5	10.2	5.9	10.0	7.3	6.8	---	19.4	21.7	23.3	23.8	20.7
16	10.5	9.8	6.7	9.5	9.3	5.4	---	16.4	19.6	21.6	22.3	21.4
17	9.1	10.9	6.3	7.1	6.5	6.6	---	18.2	18.9	21.2	23.9	22.1
18	9.3	12.9	6.7	1.3	5.7	7.2	15.5	18.9	18.9	22.4	22.0	19.8
19	10.8	13.8	6.1	1.1	5.8	6.8	16.7	17.2	18.0	21.4	22.0	20.2
20	10.6	14.1	2.2	2.0	6.5	6.3	18.3	16.4	18.4	24.0	24.5	18.7
21	13.1	13.6	1.8	2.6	7.8	7.9	14.8	21.0	20.7	23.9	22.5	20.2
22	13.5	13.6	3.8	2.9	10.2	10.4	14.2	20.5	20.4	22.8	21.5	19.9
23	14.0	13.2	5.7	1.7	8.5	8.3	14.0	19.4	22.8	23.7	20.2	20.0
24	15.0	12.9	2.8	2.1	7.1	9.6	10.8	16.4	23.2	21.9	21.0	18.9
25	16.8	12.5	2.4	3.4	7.7	10.6	9.4	16.9	24.4	23.8	20.6	20.9
26	16.6	10.9	3.5	4.6	6.3	10.1	12.8	20.8	25.2	25.1	18.2	19.4
27	15.6	11.2	2.9	2.6	6.0	10.2	12.0	20.4	25.2	25.4	17.6	19.2
28	14.7	10.2	4.6	2.0	3.8	9.0	---	18.1	21.9	22.0	21.0	18.0
29	15.9	11.8	5.5	4.3	---	11.5	---	19.0	26.7	22.3	19.3	16.9
30	18.7	12.4	7.4	5.7	---	13.5	---	16.7	27.0	24.0	19.8	14.7
31	18.1	---	9.0	5.3	---	14.1	---	18.4	---	24.3	20.5	---
MEAN	14.5	12.3	7.1	7.5	6.2	---	---	---	21.4	23.8	22.4	19.7
MAX	19.9	17.4	12.7	13.9	10.2	---	---	---	27.0	27.6	26.1	22.1
MIN	9.1	7.1	1.8	1.1	1.9	---	---	---	14.5	21.0	17.6	14.7

01595200 STONY RIVER NEAR MOUNT STORM, WV—Continued

 TEMPERATURE, WATER, DEGREES CELSIUS
 WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
 DAILY MINIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16.6	15.1	9.1	8.9	0.5	0.7	10.6	---	12.3	20.4	18.5	17.3
2	18.3	14.1	10.2	8.8	0.4	0.6	9.2	---	13.6	19.8	18.8	16.9
3	17.2	13.8	9.4	10.5	1.5	0.6	7.8	10.3	13.2	18.6	19.1	15.7
4	15.6	12.2	9.0	11.4	1.3	0.6	---	10.0	13.5	18.6	19.2	14.4
5	11.7	13.0	6.9	10.8	0.4	3.3	---	9.2	15.1	18.6	19.6	14.1
6	9.3	13.7	6.0	10.9	0.4	3.6	10.9	11.0	16.7	19.9	20.2	13.7
7	9.3	13.4	7.0	10.5	1.4	---	11.8	10.1	17.1	18.3	18.2	13.3
8	10.0	10.3	6.7	9.9	3.0	---	10.7	10.1	17.6	16.7	18.0	13.1
9	11.2	6.4	6.2	9.9	3.3	---	8.7	11.0	17.3	25.0	17.7	14.2
10	12.2	4.8	8.9	7.7	6.5	---	9.9	12.7	17.1	23.9	20.3	14.9
11	10.0	6.5	9.0	7.7	6.7	4.4	10.9	14.3	17.2	22.3	19.7	14.6
12	8.5	6.8	8.8	8.6	6.4	3.9	10.0	15.8	18.7	22.3	19.5	13.9
13	9.3	5.7	6.7	11.8	6.2	4.4	10.4	14.2	19.1	20.8	20.2	14.3
14	11.1	5.5	5.4	9.0	6.6	4.0	---	15.4	19.7	20.8	20.4	14.7
15	10.5	7.4	4.6	8.8	4.7	3.4	---	15.9	19.2	19.8	20.4	15.3
16	7.6	8.4	4.4	7.1	5.1	2.1	---	13.7	16.4	19.0	20.4	16.7
17	6.4	8.9	4.8	0.8	4.8	2.8	---	12.7	14.9	18.5	18.6	17.8
18	5.7	10.5	4.1	0.2	4.0	2.3	10.1	11.5	13.8	19.6	17.5	16.5
19	9.0	12.9	2.2	0.2	3.7	2.5	10.4	13.8	15.2	20.0	19.0	14.5
20	9.9	13.2	-0.1	0.9	4.5	5.1	10.9	12.8	15.2	19.6	19.0	17.1
21	9.9	13.1	-0.1	0.9	6.1	6.0	12.4	16.4	14.5	19.9	19.6	15.8
22	12.7	12.8	1.8	0.6	7.4	4.9	11.6	17.7	16.5	20.6	17.9	14.6
23	13.2	12.3	1.9	0.3	7.1	5.7	10.8	16.4	15.1	19.9	15.9	16.3
24	12.8	12.5	0.5	0.3	5.7	7.8	5.3	15.6	16.4	18.3	16.1	17.2
25	14.2	8.7	0.2	1.2	5.6	9.5	4.6	15.7	17.2	20.2	15.2	16.4
26	13.8	8.6	1.2	2.6	5.1	9.4	7.6	16.3	17.6	19.3	16.3	17.9
27	14.5	10.2	2.0	0.3	3.8	8.7	9.6	16.8	17.9	21.2	16.6	15.8
28	13.9	9.4	1.8	0.3	0.8	6.5	---	15.8	18.0	19.4	16.9	12.7
29	13.3	9.5	4.2	1.9	---	7.7	---	14.7	20.4	17.7	17.3	13.0
30	13.8	11.2	5.2	4.3	---	10.5	---	14.6	21.3	19.1	17.8	10.0
31	16.0	---	6.7	2.2	---	11.4	---	12.3	---	18.8	18.7	---
MEAN	11.9	10.4	5.0	5.5	4.0	---	---	---	16.6	19.9	18.5	15.1
MAX	18.3	15.1	10.2	11.8	7.4	---	---	---	21.3	25.0	20.4	17.9
MIN	5.7	4.8	-0.1	0.2	0.4	---	---	---	12.3	16.7	15.2	10.0

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 mi².

PERIOD OF RECORD.--October 1949 to September 1985, October 1985 to September 2003 (operated as a partial-record station only), October 2003 to September 2004.

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), 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. 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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar 29	0100	*8,670	*8.47	No other peak greater than base discharge.			

Minimum discharge, 22 ft³/s, Sept. 18.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	240	450	1,370	e168	e200	e300	1,170	657	262	77	77	95
2	196	361	1,090	e235	e197	e260	1,570	576	236	71	72	84
3	181	454	810	322	194	e225	1,460	514	242	66	67	60
4	171	1,070	641	569	182	e220	1,240	440	237	66	63	48
5	137	1,430	540	1,510	177	e240	1,170	374	202	293	61	39
6	122	890	428	1,780	184	319	927	350	173	138	54	39
7	115	636	512	1,250	223	617	782	327	327	87	195	46
8	105	518	568	1,310	370	1,710	894	307	216	868	270	47
9	95	426	526	1,060	953	1,000	669	290	233	563	226	43
10	87	328	848	801	1,710	732	591	271	337	359	224	46
11	86	302	898	723	952	616	540	352	455	220	102	37
12	84	473	811	1,660	676	553	503	408	353	196	77	32
13	85	540	703	1,040	555	489	452	348	236	233	69	39
14	85	434	606	1,210	963	440	355	307	201	342	63	40
15	89	396	528	954	1,180	405	343	311	192	179	60	42
16	106	362	463	772	921	348	306	281	177	281	58	39
17	161	329	e430	638	828	333	301	253	196	404	55	29
18	121	362	e390	473	657	357	294	201	153	312	52	25
19	120	392	e335	e420	542	483	248	193	135	535	53	24
20	144	462	e300	e380	488	676	230	1,350	122	471	49	37
21	598	426	e260	e355	694	625	218	1,060	110	306	301	39
22	332	396	e240	e330	665	581	298	731	111	249	117	39
23	280	364	e250	e310	577	1,800	668	596	122	194	79	37
24	376	420	e260	e290	541	2,050	471	828	98	154	65	27
25	384	967	e240	e273	505	1,470	482	859	87	132	58	26
26	312	779	e215	e260	440	1,200	640	686	79	137	56	26
27	278	618	e188	e248	392	1,010	538	542	76	113	78	39
28	261	671	e168	e238	347	3,190	494	469	73	109	219	43
29	316	594	e150	e227	---	5,400	448	438	221	101	126	39
30	1,260	525	e155	e215	---	2,120	530	367	132	91	83	44
31	605	---	e160	e205	---	1,440	---	299	---	84	80	---
TOTAL	7,532	16,375	15,083	20,226	16,313	31,209	18,832	14,985	5,794	7,431	3,209	1,250
MEAN	243	546	487	652	583	1,007	628	483	193	240	104	41.7
MAX	1,260	1,430	1,370	1,780	1,710	5,400	1,570	1,350	455	868	301	95
MIN	84	302	150	168	177	220	218	193	73	66	49	24
CFSM	1.08	2.43	2.16	2.90	2.59	4.47	2.79	2.15	0.86	1.07	0.46	0.19
IN.	1.25	2.71	2.49	3.34	2.70	5.16	3.11	2.48	0.96	1.23	0.53	0.21

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1950 - 1985, 2004 - 2005, BY WATER YEAR (WY)

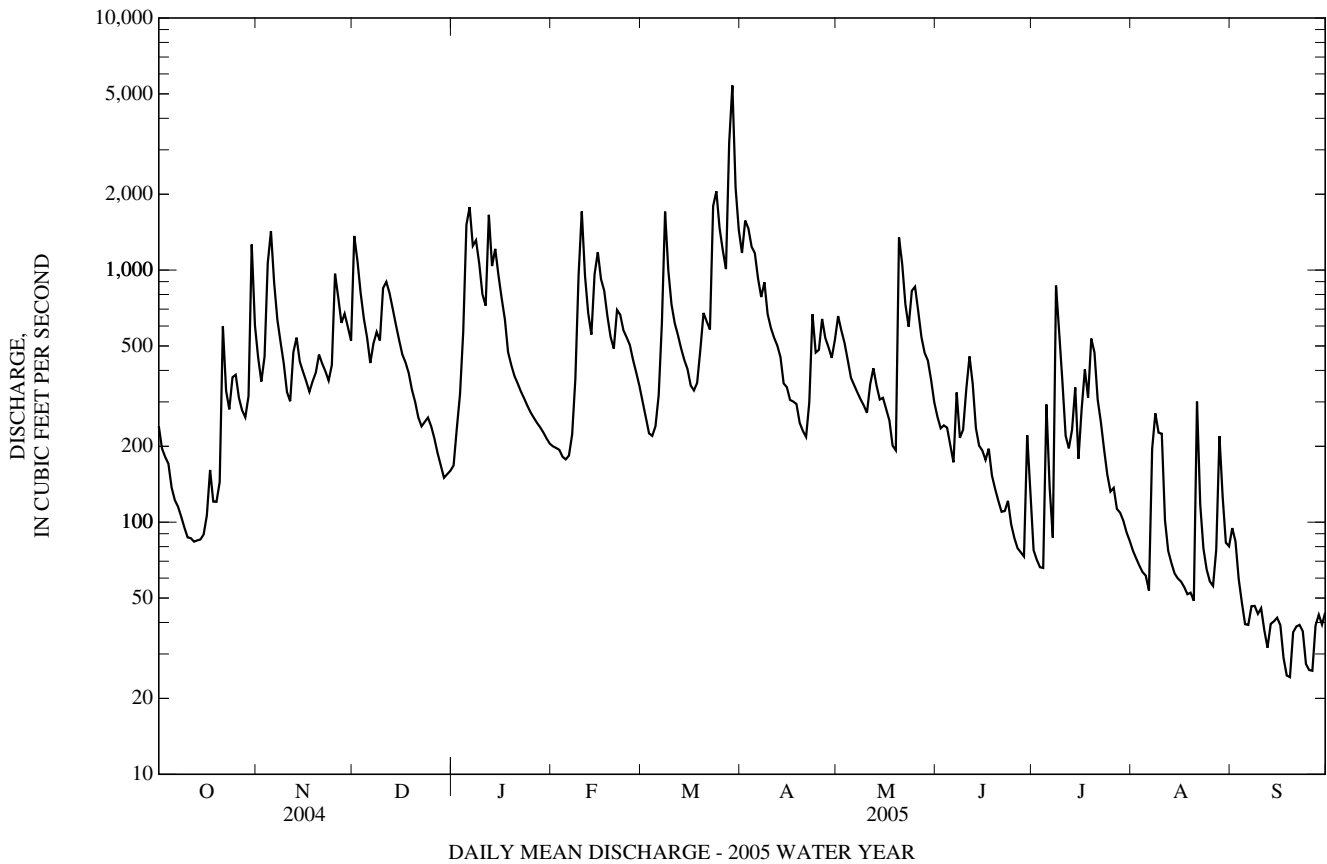
MEAN	204	306	543	566	712	1,005	793	522	329	180	184	123
MAX	908	933	1,659	1,297	1,655	2,193	1,561	1,021	1,003	867	955	513
(WY)	(1977)	(1973)	(1973)	(1952)	(1956)	(1963)	(1958)	(1967)	(1981)	(1978)	(1955)	(1971)
MIN	23.3	36.0	88.6	94.2	190	492	301	200	63.2	28.5	24.2	20.2
(WY)	(1954)	(1954)	(1966)	(1981)	(1978)	(1976)	(1968)	(1977)	(1969)	(1952)	(1965)	(1953)

01595500 NORTH BRANCH POTOMAC RIVER AT KITZMILLER, MD—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1950 - 1985, 2004 - 2005	
ANNUAL TOTAL	186,257		158,239			
ANNUAL MEAN	509		434		(a)454	
HIGHEST ANNUAL MEAN					615	1973
LOWEST ANNUAL MEAN					276	1959
HIGHEST DAILY MEAN	4,380	Mar 4	5,400	Mar 29	13,200	Aug 18, 1955
LOWEST DAILY MEAN	42	Sep 5	24	Sep 19	4.6	Oct 3, 1953
ANNUAL SEVEN-DAY MINIMUM	52	Sep 1	33	Sep 18	4.9	Oct 1, 1953
MAXIMUM PEAK FLOW			8,670	Mar 29	33,400	Oct 15, 1954
MAXIMUM PEAK STAGE			8.47	Mar 29	(b)13.73	Oct 15, 1954
INSTANTANEOUS LOW FLOW			22	Sep 18	4.6	Oct 3, 1953
ANNUAL RUNOFF (CFSM)	2.26		1.93		2.02	
ANNUAL RUNOFF (INCHES)	30.79		26.16		27.44	
10 PERCENT EXCEEDS	1,080		953		1,060	
50 PERCENT EXCEEDS	348		307		257	
90 PERCENT EXCEEDS	96		60		44	

a Adjusted for storage 1950-1985.

b From floodmarks.



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 mi².

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 Randolph 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, 4,950 ft³/s, Mar. 31, gage height, 7.31 ft; minimum discharge, 30 ft³/s, Nov. 2,

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	262	316	1,160	493	304	582	3,620	579	323	206	252	280
2	403	285	1,470	494	306	518	1,630	406	285	207	253	283
3	404	316	1,260	496	306	471	1,610	438	262	210	253	286
4	403	467	969	711	305	472	1,600	438	261	211	251	283
5	404	908	981	1,700	306	470	1,600	405	257	210	254	284
6	370	908	829	2,430	306	472	1,110	348	227	210	254	269
7	351	905	697	1,600	305	479	818	330	206	211	255	256
8	350	906	698	1,430	305	873	815	322	207	219	256	253
9	642	902	696	1,250	477	980	625	312	210	217	256	254
10	782	897	701	732	823	801	501	313	254	215	254	256
11	466	889	851	933	986	800	482	310	371	213	252	256
12	311	889	961	1,790	986	796	482	351	383	213	253	256
13	293	889	962	1,920	980	790	482	377	306	218	252	256
14	293	889	957	1,610	982	591	413	569	278	220	253	254
15	267	886	806	1,140	639	447	369	541	267	232	253	255
16	247	881	700	610	558	445	561	331	267	236	254	255
17	248	678	574	721	563	425	540	317	269	232	255	254
18	247	271	491	592	716	408	369	318	267	234	253	254
19	247	388	492	493	603	408	303	315	263	265	254	253
20	245	475	492	495	600	408	268	492	264	281	253	248
21	244	479	490	492	603	409	268	1,050	265	276	253	233
22	240	476	486	493	603	408	271	890	266	278	252	220
23	240	475	489	490	707	585	339	608	231	748	253	221
24	245	475	487	413	791	902	364	718	207	638	252	220
25	247	478	487	341	790	1,020	326	913	206	277	252	220
26	247	612	492	391	790	1,210	497	879	205	278	265	223
27	247	723	493	428	799	1,370	613	593	206	276	276	351
28	283	726	493	371	678	1,880	614	625	207	262	277	372
29	312	723	487	318	---	1,200	612	624	207	253	276	168
30	314	721	490	311	---	2,470	674	438	207	252	276	190
31	314	---	492	306	---	4,780	---	367	---	253	275	---
TOTAL	10,168	19,833	22,133	25,994	17,117	27,870	22,776	15,517	7,634	8,251	7,977	7,663
MEAN	328	661	714	839	611	899	759	501	254	266	257	255
MAX	782	908	1,470	2,430	986	4,780	3,620	1,050	383	748	277	372
MIN	240	271	486	306	304	408	268	310	205	206	251	168
(†)	85,700	83,000	77,600	75,700	78,500	97,500	94,100	94,300	91,800	91,100	82,000	69,500
CFSM	1.23	2.49	2.68	3.15	2.30	3.38	2.85	1.88	0.96	1.00	0.97	0.96
IN.	1.42	2.77	3.10	3.64	2.39	3.90	3.19	2.17	1.07	1.15	1.12	1.07

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 1985, 2004 - 2005, BY WATER YEAR (WY)

MEAN	309	423	694	600	728	1,077	867	626	433	254	221	207
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)

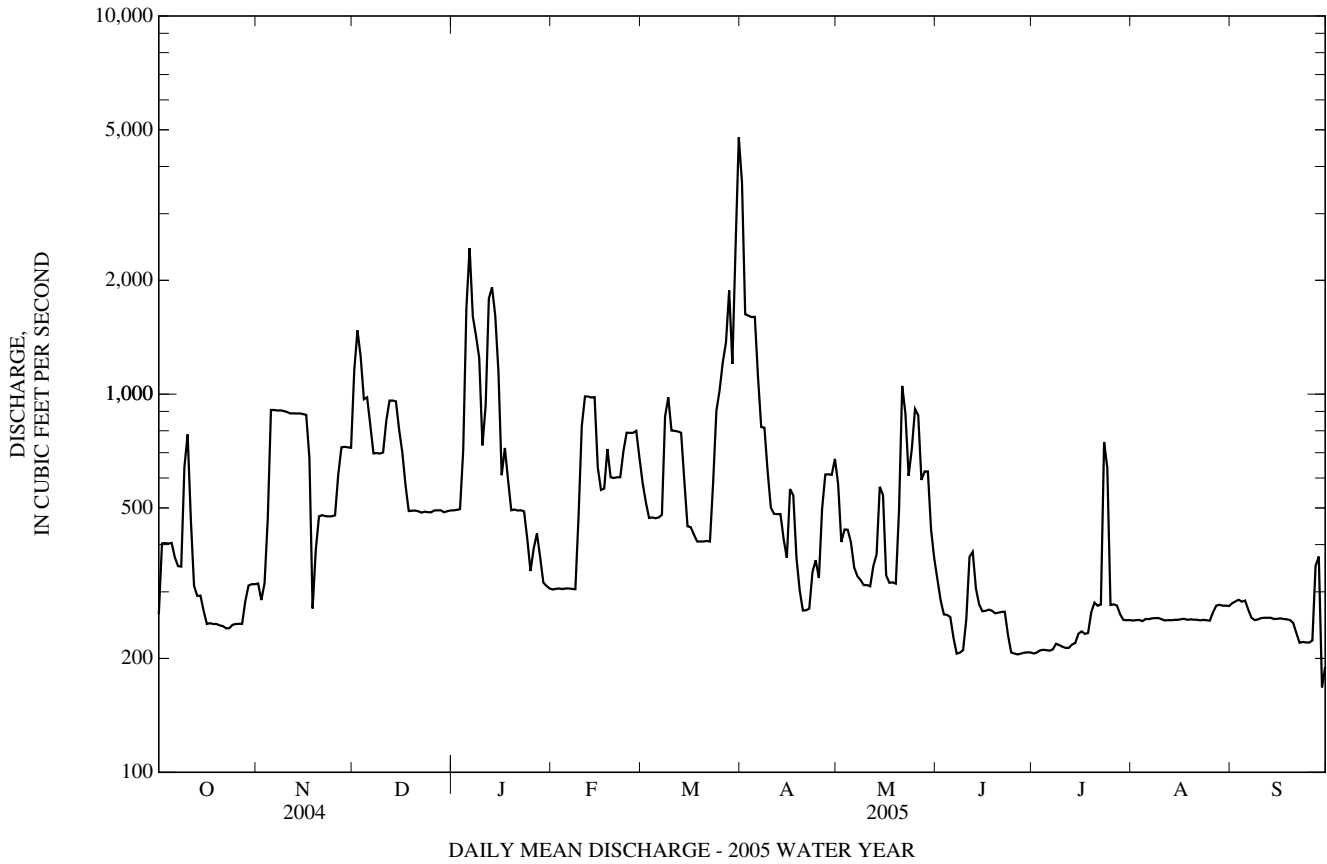
†Monthend contents, in acre-feet, in Jennings Randolph Lake (contents on Sept. 30, 2003, 84,700 acre-feet).
Records furnished by U.S. Army Corp of Engineers.

01595800 NORTH BRANCH POTOMAC RIVER AT BARNUM, WV—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1966 - 1985 2004-2005	
ANNUAL TOTAL	209,625		192,933			
ANNUAL MEAN	573		529		537	
ANNUAL MEAN‡	576		501		540	
HIGHEST ANNUAL MEAN					690 1973	
LOWEST ANNUAL MEAN					318 1969	
HIGHEST DAILY MEAN	3,030	Mar 6	4,780	Mar 31	10,900	Jul 3, 1978
LOWEST DAILY MEAN	205	Aug 10	168	Sep 29	10	Oct 1, 1968
ANNUAL SEVEN-DAY MINIMUM	211	Aug 16	206	Jun 25	11	Sep 27, 1968
MAXIMUM PEAK FLOW			4,950	Mar 31	(a)27,100	Jul 3, 1978
MAXIMUM PEAK STAGE			7.31	Mar 31	13.37	Jul 3, 1978
INSTANTANEOUS LOW FLOW			30	Nov 2	0.91	Aug 12, 1981
ANNUAL RUNOFF (CFSM)	2.15		1.99		2.02	
ANNUAL RUNOFF (CFSM)‡	2.17		1.88		2.03	
ANNUAL RUNOFF (INCHES)	29.32		26.98		27.44	
ANNUAL RUNOFF (INCHES)‡	29.42		25.60		27.57	
10 PERCENT EXCEEDS	1,140		943		1,200	
50 PERCENT EXCEEDS	458		383		323	
90 PERCENT EXCEEDS	245		234		75	

a From rating curve extended above 8,000 ft³/s on basis of slope-area measurement of peak flow.

‡ Adjusted for change in reservoir contents since October 1981.



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 mi².

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 and frozen well), 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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan 5	2059	1,160	3.84	Mar 28	2329	*2,340	*5.05

Minimum discharge, 0.72 ft³/s, Sept. 22.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26	52	246	35	e29	e50	191	58	26	7.0	2.3	6.8
2	24	47	280	36	e28	e44	224	53	24	6.1	2.1	4.3
3	22	45	203	41	e28	e40	247	48	26	5.0	2.0	3.0
4	19	59	144	55	e27	e41	221	43	29	4.2	1.8	2.4
5	17	100	110	570	e26	e43	215	37	24	4.8	1.7	2.0
6	15	96	90	823	36	36	180	33	21	7.0	1.6	1.8
7	14	83	88	475	51	87	137	31	58	6.8	1.6	1.6
8	13	70	92	361	100	290	114	29	37	7.0	8.6	1.5
9	13	57	89	311	254	211	85	26	28	29	7.6	1.4
10	12	49	189	217	340	146	68	24	44	15	4.6	1.4
11	12	43	304	209	217	112	60	23	89	9.9	3.4	1.3
12	11	57	248	614	151	89	52	21	60	8.3	2.8	1.2
13	10	69	185	395	111	70	47	19	39	7.4	2.6	1.2
14	11	63	133	265	128	59	40	19	29	7.2	2.3	1.2
15	12	62	104	174	305	53	37	21	24	7.4	2.3	1.2
16	16	60	87	136	271	48	37	18	21	6.8	2.8	1.1
17	20	55	e78	105	188	46	34	16	18	8.6	3.4	1.1
18	15	52	e70	e87	132	47	32	15	15	8.0	2.7	1.00
19	16	57	e61	e72	107	55	29	14	12	6.4	2.3	0.96
20	18	75	e56	e60	81	67	27	53	11	5.1	2.4	0.96
21	29	75	e51	e54	90	73	25	62	9.7	4.1	3.5	0.91
22	27	75	e48	e49	86	68	30	56	9.4	3.7	2.6	0.86
23	25	75	e50	e44	74	243	70	51	10	3.5	2.0	0.84
24	32	104	e51	e40	68	382	64	63	8.7	3.0	1.6	0.84
25	37	208	e45	e37	64	264	61	61	7.7	3.0	1.5	0.86
26	34	212	e39	e35	60	196	59	57	7.1	3.3	1.4	0.85
27	32	167	e35	e34	56	155	58	51	6.5	3.2	2.3	0.91
28	29	170	e33	e32	e59	642	58	45	6.5	3.2	4.9	1.1
29	29	144	e32	e31	---	1,350	58	42	7.5	3.1	5.8	0.98
30	64	128	e32	e30	---	530	58	36	8.3	2.9	4.0	1.1
31	57	---	34	e29	---	301	---	30	---	2.5	4.4	---
TOTAL	711	2,609	3,307	5,456	3,167	5,838	2,618	1,155	716.4	265.5	94.9	46.67
MEAN	22.9	87.0	107	176	113	188	87.3	37.3	23.9	8.56	3.06	1.56
MAX	64	212	304	823	340	1,350	247	63	89	70	8.6	6.8
MIN	10	43	32	29	26	36	25	14	6.5	2.5	1.4	0.84
CFSM	0.47	1.77	2.17	3.58	2.30	3.84	1.78	0.76	0.49	0.17	0.06	0.03
IN.	0.54	1.98	2.51	4.13	2.40	4.42	1.98	0.88	0.54	0.20	0.07	0.04

e Estimated

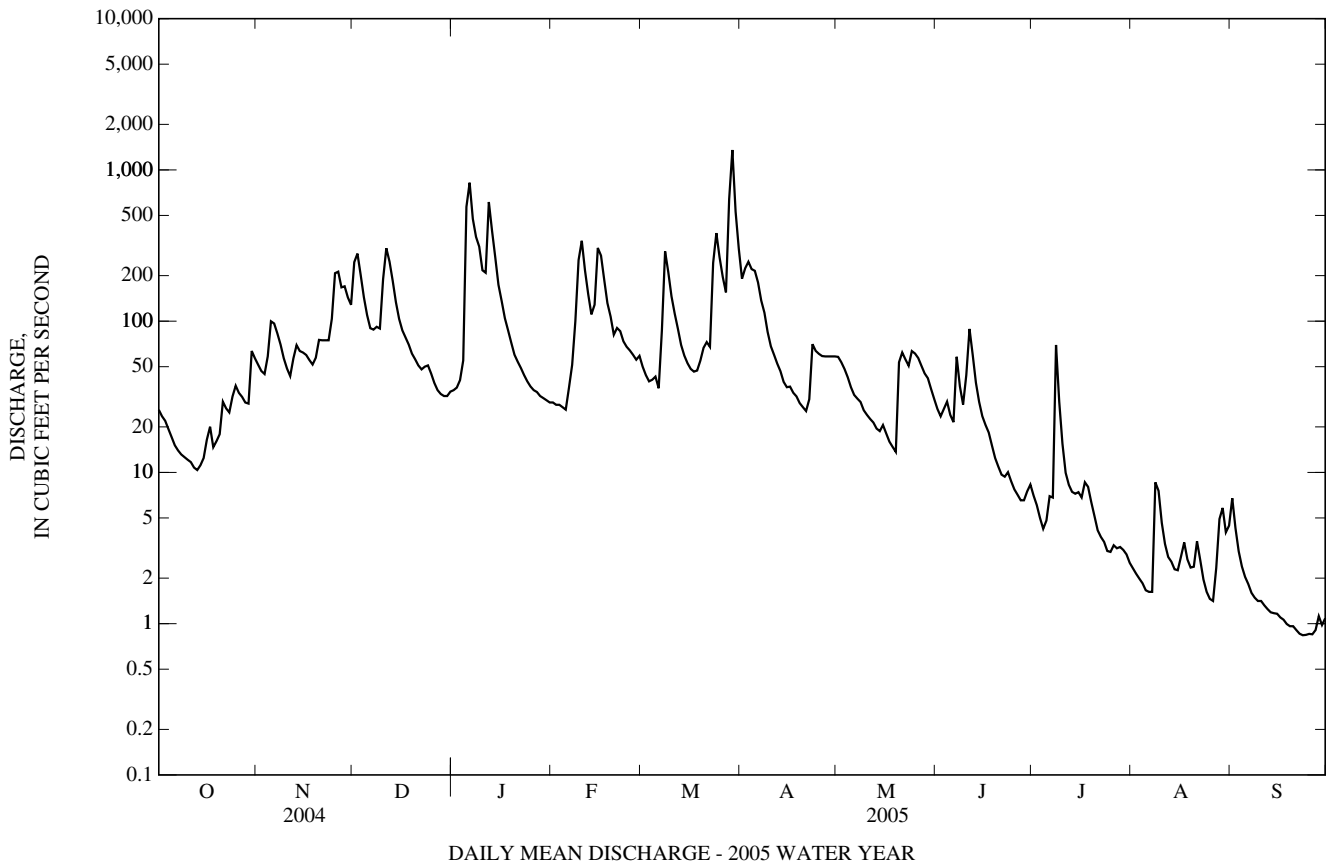
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1948 - 2005, BY WATER YEAR (WY)

MEAN	26.2	53.6	87.9	95.2	125	184	141	95.1	50.1	20.2	17.8	22.5
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	1.56
(WY)	(1964)	(1999)	(1999)	(1977)	(1954)	(1990)	(1968)	(1991)	(1965)	(1999)	(1999)	(2005)

01596500 SAVAGE RIVER NEAR BARTON, MD—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1948 - 2005	
ANNUAL TOTAL	34,005.6		25,984.47		76.3	
ANNUAL MEAN	92.9		71.2		138	
HIGHEST ANNUAL MEAN					34.9 1954	
LOWEST ANNUAL MEAN					2,180 Nov 5, 1985	
HIGHEST DAILY MEAN	1,100	Mar 6	1,350	Mar 29		
LOWEST DAILY MEAN	3.7	Jul 25	0.84	(a)	(b)	
ANNUAL SEVEN-DAY MINIMUM	5.1	Jul 19	0.87	Sep 21	0.63 Aug 29, 1966	
MAXIMUM PEAK FLOW			2,340	Mar 28	(c)7,510 Oct 15, 1954	
MAXIMUM PEAK STAGE			5.05	Mar 28	8.45 Oct 15, 1954	
INSTANTANEOUS LOW FLOW			0.72	Sep 22	0.40 (d)	
ANNUAL RUNOFF (CFSM)	1.89		1.45		1.55	
ANNUAL RUNOFF (INCHES)	25.76		19.69		21.10	
10 PERCENT EXCEEDS	204		193		188	
50 PERCENT EXCEEDS	57		36		34	
90 PERCENT EXCEEDS	7.4		2.2		3.8	

- a Sept. 23, 24.
- b Sept. 2, 3, 12, 1966.
- c From rating curve extended above 1,600 ft³/s on basis of slope-area measurement of peak flow.
- d Sept. 3, 4, 1966.



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 mi².

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, 3,530 ft³/s, Mar. 29, gage height, 5.39 ft; minimum discharge, 17 ft³/s, Sept. 22.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	221	57	289	89	97	214	674	80	75	63	34	45
2	155	58	289	89	96	150	672	80	65	63	29	45
3	155	59	392	89	89	113	671	80	65	63	36	45
4	109	60	445	89	86	113	666	80	65	63	42	45
5	78	61	442	357	86	113	663	71	65	62	42	45
6	72	61	341	874	86	113	659	66	65	62	42	45
7	72	61	287	834	86	114	653	66	65	62	43	45
8	72	81	240	963	86	207	497	66	64	65	47	45
9	72	91	197	957	86	284	431	54	64	62	44	45
10	72	91	209	505	218	284	247	47	64	62	44	45
11	72	91	345	352	303	284	164	47	65	62	44	45
12	63	91	416	765	306	284	164	47	64	62	44	45
13	59	91	416	973	306	284	133	47	64	62	44	45
14	59	91	413	964	306	166	118	47	65	62	43	44
15	59	103	285	952	308	95	118	47	65	62	43	44
16	59	110	210	685	427	95	118	47	65	61	43	44
17	59	86	208	930	481	95	118	47	64	61	43	44
18	58	46	208	729	410	95	118	47	64	61	43	44
19	57	87	208	218	310	95	104	47	64	60	43	44
20	57	113	175	113	306	95	97	50	64	60	43	44
21	57	113	157	113	305	95	84	51	64	60	42	44
22	57	113	115	113	303	173	79	50	64	60	42	46
23	57	113	92	112	303	222	80	50	63	60	42	43
24	57	230	92	112	303	369	80	93	63	60	42	43
25	57	287	92	112	245	567	80	120	63	60	42	43
26	57	287	91	112	215	632	80	120	63	60	42	43
27	57	287	91	112	214	628	80	120	63	60	42	78
28	57	287	90	110	214	648	80	120	63	49	38	78
29	57	287	89	108	---	2,220	80	120	63	44	37	104
30	57	287	89	106	---	1,260	80	120	63	44	45	84
31	57	---	89	99	---	748	---	103	---	44	45	---
TOTAL	2,307	3,880	7,102	12,736	6,581	10,855	7,888	2,230	1,933	1,841	1,295	1,499
MEAN	74.4	129	229	411	235	350	263	71.9	64.4	59.4	41.8	50.0
MAX	221	287	445	973	481	2,220	674	120	75	65	47	104
MIN	57	46	89	89	86	95	79	47	63	44	29	43
†	10200	13300	13100	13000	13100	19900	17200	19300	18200	15900	13800	10800

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 2005, BY WATER YEAR (WY)

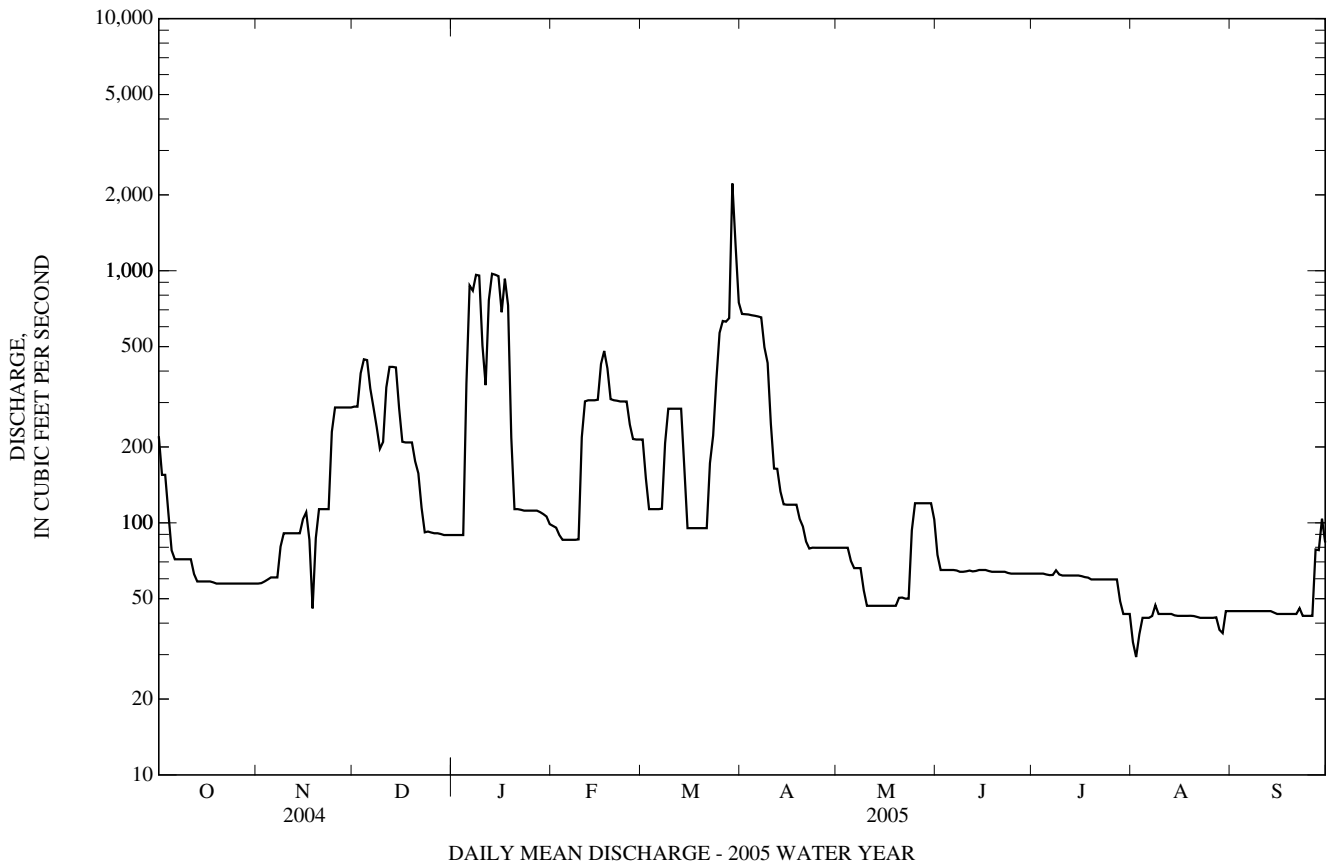
MEAN	102	125	206	215	269	338	228	204	123	70.4	72.3	97.7
MAX	446	641	655	713	633	842	813	563	494	329	262	472
(WY)	(1955)	(1986)	(1973)	(1952)	(1998)	(1994)	(1993)	(1996)	(2003)	(1990)	(1956)	(1996)
MIN	8.14	8.88	12.7	23.7	38.7	105	11.9	18.0	15.8	23.4	6.37	11.7
(WY)	(1952)	(1952)	(1954)	(1954)	(1954)	(1976)	(1954)	(1976)	(1977)	(1951)	(1951)	(1951)

†Monthend contents, in acre-feet, in Savage River Reservoir (contents on Sept. 30, 2004, 12,400 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 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1951 - 2005	
ANNUAL TOTAL	71,969		60,147			
ANNUAL MEAN	197		165		170	
ANNUAL MEAN‡	199		163		170	
HIGHEST ANNUAL MEAN					300 1996	
LOWEST ANNUAL MEAN					69.7 1954	
HIGHEST DAILY MEAN	1,480	Mar 7	2,220	Mar 29	4,320	Sep 7, 1996
LOWEST DAILY MEAN	33	Aug 3	29	Aug 2	0.60	(a)
ANNUAL SEVEN-DAY MINIMUM	54	Jul 29	38	Aug 1	0.64	Aug 4, 1951
MAXIMUM PEAK FLOW			3,530	Mar 29	9,190	Sep 7, 1996
MAXIMUM PEAK STAGE			5.39	Mar 29	10.09	Sep 7, 1996
INSTANTANEOUS LOW FLOW			17	Sep 22	0.35	Oct 27, 1966
ANNUAL RUNOFF (CFSM)	1.86		1.55		1.61	
ANNUAL RUNOFF (CFSM)‡	1.88		1.53		1.60	
ANNUAL RUNOFF (INCHES)	25.26		21.11		21.85	
ANNUAL RUNOFF (INCHES)‡	25.51		20.83		21.78	
10 PERCENT EXCEEDS	389		399		416	
50PERCENT EXCEEDS	110		80		84	
90 PERCENT EXCEEDS	61		44		26	

‡ Adjusted for change in reservoir contents since December 1950.
 a July 27-31, Aug. 5, 6, 9, 10, 1951.



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 mi².

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, 6,130 ft³/s, Mar. 31, gage height, 7.90 ft; minimum discharge, 193 ft³/s, Nov. 2.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	516	396	1,750	635	416	872	4,890	714	435	276	304	333
2	602	365	2,130	635	416	730	2,440	498	383	276	298	334
3	606	395	2,010	635	416	603	2,380	530	352	276	300	334
4	561	576	1,740	859	416	602	2,340	530	352	276	305	334
5	517	1,180	1,730	2,230	416	602	2,300	495	351	280	305	334
6	473	1,170	1,460	3,800	416	610	1,900	431	326	278	305	320
7	442	1,170	1,220	2,810	417	693	1,570	404	300	279	318	305
8	442	1,180	1,160	2,700	429	1,230	1,450	397	297	320	367	302
9	782	1,190	1,110	2,490	606	1,480	1,220	379	303	283	320	298
10	1,010	1,180	1,170	1,470	1,140	1,260	865	372	334	279	314	298
11	643	1,180	1,470	1,490	1,450	1,250	713	374	459	279	312	298
12	399	1,200	1,710	2,800	1,440	1,240	703	416	474	279	310	298
13	372	1,200	1,700	3,090	1,440	1,230	674	446	390	281	308	298
14	372	1,190	1,680	2,780	1,480	885	576	664	350	280	308	298
15	351	1,190	1,370	2,280	1,150	577	504	635	336	289	308	298
16	329	1,190	1,110	1,450	1,150	573	707	402	339	298	308	298
17	324	982	958	1,780	1,200	552	687	383	337	305	307	298
18	323	362	816	1,470	1,300	530	498	382	337	304	305	298
19	323	519	808	819	1,040	531	436	382	337	322	308	298
20	327	690	759	666	1,030	536	384	609	337	345	306	298
21	333	683	731	659	1,040	536	372	1,180	335	345	307	286
22	328	679	687	656	1,040	610	381	1,060	336	345	301	275
23	326	676	655	649	1,130	949	457	746	309	823	298	269
24	332	848	648	571	1,240	1,520	482	863	277	828	298	269
25	332	1,000	637	469	1,170	1,800	435	1,130	279	351	298	269
26	328	1,120	635	512	1,120	2,070	586	1,120	279	347	308	269
27	326	1,270	634	558	1,120	2,180	738	818	279	345	337	405
28	352	1,290	633	485	1,000	3,030	738	811	276	328	335	482
29	389	1,260	640	417	---	4,240	738	804	276	312	323	287
30	406	1,250	640	416	---	3,890	815	614	276	312	331	277
31	399	---	637	416	---	6,010	---	523	---	312	334	---
TOTAL	13,565	28,581	35,038	42,697	26,628	43,421	32,979	19,112	10,051	10,453	9,686	9,260
MEAN	438	953	1,130	1,377	951	1,401	1,099	617	335	337	312	309
MAX	1,010	1,290	2,130	3,800	1,480	6,010	4,890	1,180	474	828	367	482
MIN	323	362	633	416	416	530	372	372	276	276	298	269
CFSM	1.08	2.35	2.78	3.39	2.34	3.45	2.71	1.52	0.83	0.83	0.77	0.76
IN.	1.24	2.62	3.21	3.91	2.44	3.98	3.02	1.75	0.92	0.96	0.89	0.85

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1899 - 1906, 1950 - 2005, BY WATER YEAR (WY)

MEAN	335	480	809	901	1,071	1,540	1,212	909	553	357	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)

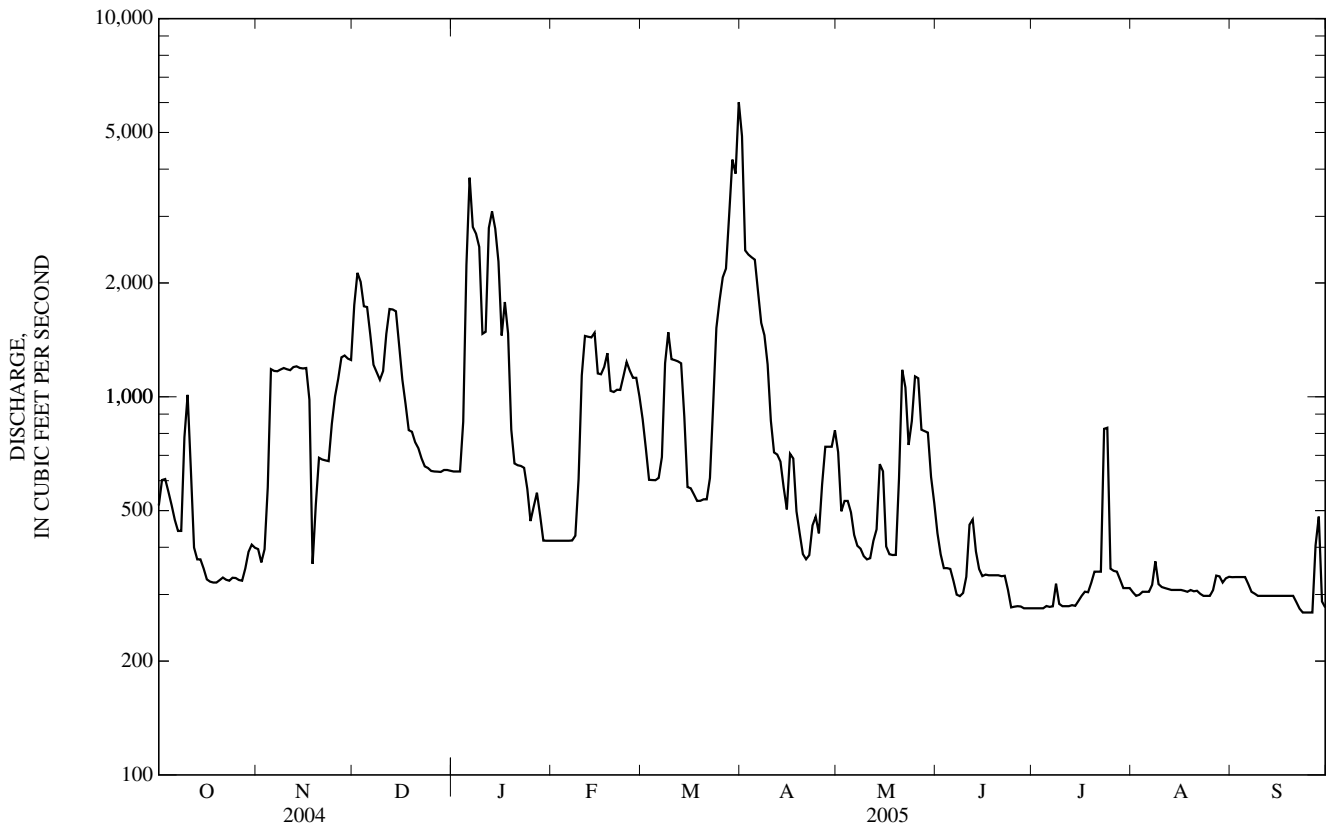
01598500 NORTH BRANCH POTOMAC RIVER AT LUKE, MD—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1899 - 1906, 1950 - 2005	
	Value	Date	Value	Date	Value	Date
ANNUAL TOTAL	330,730		281,471			
ANNUAL MEAN	904		771		735	
ANNUAL MEAN‡	909		742		736	
HIGHEST ANNUAL MEAN					1,342	1996
LOWEST ANNUAL MEAN					412	1969
HIGHEST DAILY MEAN	5,060	Mar 7	6,010	Mar 31	18,400	Aug 18, 1955
LOWEST DAILY MEAN	279	Aug 18	269	(a)	6.0	Sep 4, 1904
ANNUAL SEVEN-DAY MINIMUM	282	Aug 16	276	Jun 28	11	Aug 29, 1904
MAXIMUM PEAK FLOW			6,130	Mar 31	(b)39,400	Oct 15, 1954
MAXIMUM PEAK STAGE			7.90	Mar 31	17.15	Oct 15, 1954
INSTANTANEOUS LOW FLOW			193	Nov 2	6.0	Sep 4, 1904
ANNUAL RUNOFF (CFSM)	2.23		1.90		1.81	
ANNUAL RUNOFF (CFSM)‡	2.24		1.83		1.81	
ANNUAL RUNOFF (INCHES)	30.30		25.79		24.61	
ANNUAL RUNOFF (INCHES)‡	30.42		24.83		24.63	
10 PERCENT EXCEEDS	1,840		1,470		1,660	
50 PERCENT EXCEEDS	644		504		416	
90 PERCENT EXCEEDS	326		298		116	

‡ Adjusted for change in reservoir contents since October 1949.

a Sept. 23-26.

b From rating curve extended above 25,000 ft³/s on basis of slope-area measurement of peak flow.



DAILY MEAN DISCHARGE - 2005 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 mi².

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 affect, lagging intake), which are poor. Records include about 0.5 ft³/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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar. 29	1215	*1,180	*6.31	No other peak greater than base discharge			

Minimum discharge, 4.4 ft³/s, Sept. 28.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	61	35	277	48	e44	82	349	75	41	15	11	14
2	53	35	247	48	e43	76	405	68	38	13	10	11
3	49	34	195	46	e43	68	430	64	45	13	9.9	10
4	44	39	161	47	e42	65	357	59	46	13	9.4	9.1
5	40	98	136	388	e41	69	297	55	38	15	9.0	8.5
6	39	78	123	598	e48	71	253	53	34	21	9.1	8.1
7	34	69	134	392	52	132	220	53	51	16	10	7.7
8	31	63	141	440	77	299	209	51	35	95	17	7.5
9	29	56	120	338	131	194	170	48	31	42	15	7.2
10	28	51	204	273	172	160	146	47	34	26	13	6.7
11	27	47	242	333	121	144	130	46	84	20	11	6.5
12	27	51	214	599	106	130	117	43	53	18	10	6.2
13	26	82	185	395	95	112	108	40	38	19	9.8	6.1
14	26	70	156	345	155	99	96	40	33	22	9.0	5.8
15	26	61	131	257	280	88	87	42	29	26	9.0	5.7
16	26	57	113	208	209	83	79	38	28	20	10	5.5
17	26	55	102	175	173	80	75	35	26	32	10	5.6
18	25	53	92	e130	143	81	72	34	24	28	9.0	5.5
19	25	55	e85	e110	117	87	70	33	22	21	10	5.5
20	26	90	e72	e90	106	94	67	144	20	18	10	5.5
21	27	78	70	e80	138	92	64	86	20	16	10	5.8
22	28	71	69	e73	127	86	63	64	20	15	8.5	5.6
23	28	67	70	e65	105	337	e120	59	21	14	7.8	5.2
24	29	123	75	e60	100	407	e96	85	19	13	7.4	5.1
25	30	286	66	e56	95	289	90	83	17	14	7.2	5.3
26	30	203	e58	e52	88	256	89	67	16	14	7.9	5.8
27	30	164	e52	e50	78	228	85	58	15	12	17	5.6
28	30	219	e48	e48	83	596	78	55	15	12	20	4.9
29	29	163	48	e47	---	1,120	75	52	15	12	13	5.8
30	31	139	48	e46	---	691	81	48	18	12	13	5.7
31	35	---	48	e45	---	468	---	45	---	11	17	---
TOTAL	995	2,692	3,782	5,882	3,012	6,784	4,578	1,770	926	638	340.0	202.5
MEAN	32.1	89.7	122	190	108	219	153	57.1	30.9	20.6	11.0	6.75
MAX	61	286	277	599	280	1,120	430	144	84	95	20	14
MIN	25	34	48	45	41	65	63	33	15	11	7.2	4.9
CFSM	0.44	1.24	1.69	2.62	1.49	3.02	2.11	0.79	0.43	0.28	0.15	0.09
IN.	0.51	1.38	1.94	3.02	1.55	3.49	2.35	0.91	0.48	0.33	0.17	0.10

e Estimated

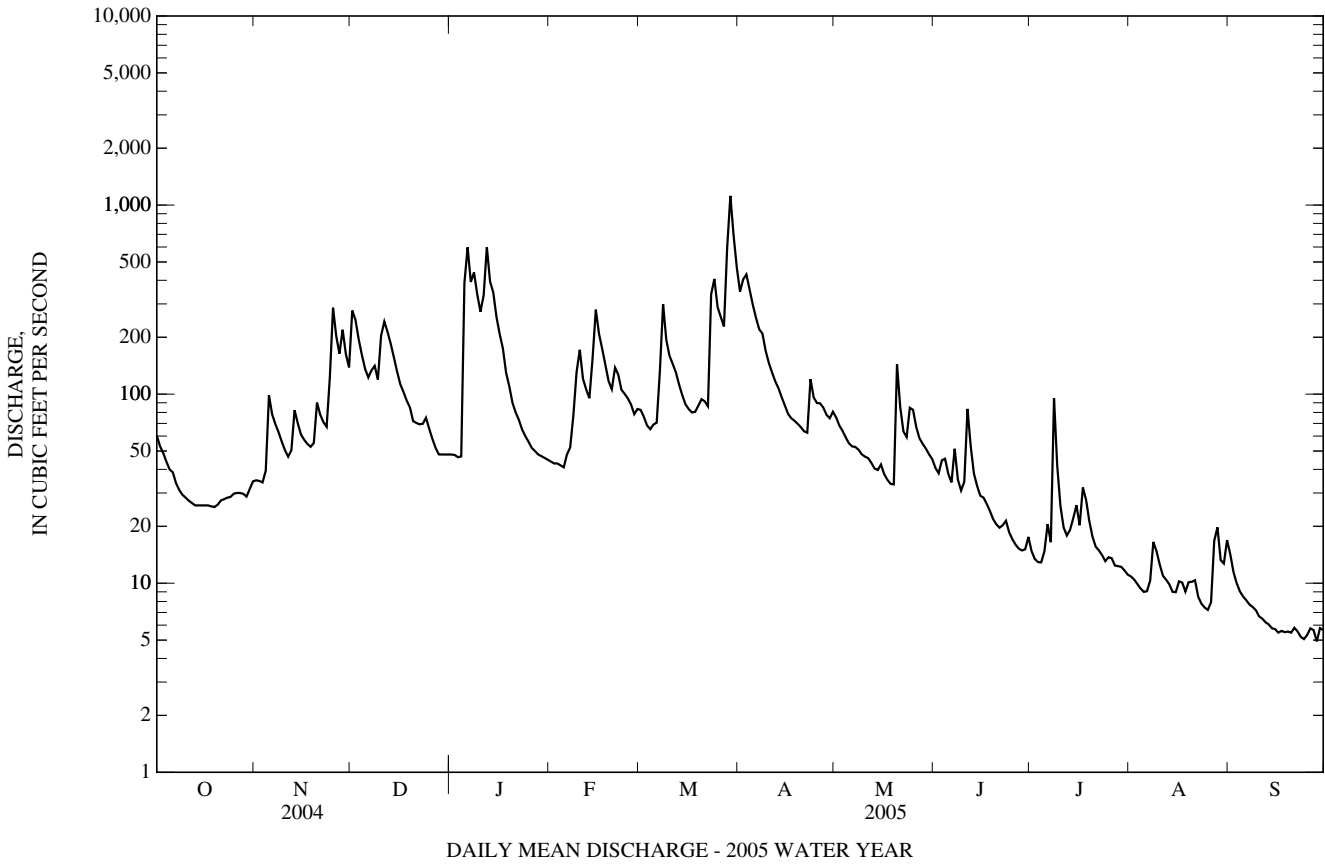
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1905 - 1906, 1930 - 2005, BY WATER YEAR (WY)

MEAN	32.3	45.0	74.4	93.3	124	208	172	121	61.6	31.1	23.7	27.8
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 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1905 - 1906, 1930 - 2005	
ANNUAL TOTAL	44,100		31,601.5		83.6	
ANNUAL MEAN	120		86.6		30.7	2003
HIGHEST ANNUAL MEAN					151	1969
LOWEST ANNUAL MEAN					30.7	1969
HIGHEST DAILY MEAN	1,410	Sep 8	1,120	Mar 29	4,130	Mar 17, 1936
LOWEST DAILY MEAN	12	Jul 25	4.9	Sep 28	1.6	(a)
ANNUAL SEVEN-DAY MINIMUM	13	Jul 19	5.4	Sep 22	1.6	Sep 29, 1930
MAXIMUM PEAK FLOW			1,180	Mar 29	(b)8,500	Mar 17, 1936
MAXIMUM PEAK STAGE			6.31	Mar 29	(c)9.60	Mar 17, 1936
INSTANTANEOUS LOW FLOW			4.4	Sep 28	1.6	(d)
ANNUAL RUNOFF (CFSM)	1.66		1.20		1.16	
ANNUAL RUNOFF (INCHES)	22.66		16.24		15.69	
10 PERCENT EXCEEDS	260		209		200	
50 PERCENT EXCEEDS	70		49		38	
90 PERCENT EXCEEDS	19		9.1		7.2	

- a Sept. 29, 30, 1930.
- b From rating curve extended above 2,000 ft³/s on basis of slope-area measurement of peak flow.
- c At site then in use.
- d Sept. 29 to Oct. 13, 1930.



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 mi².

PERIOD OF RECORD.--October 1938 to September 1985, October 1985 to September 2003 (operated as a partial-record station only), October 2003 to current year.

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 (recorder malfunction), which are fair. 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 ft³/s. Flood of March 17, 1936, reached a stage of about 23.5 ft, from floodmarks, discharge, about 50,000 ft³/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 11,800 ft³/s, Mar. 29, gage height, 11.99 ft; minimum discharge, 267 ft³/s, Sept. 23-27.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	585	511	1,900	704	549	e1,230	6,150	955	561	298	320	343
2	661	497	2,350	699	541	e1,190	3,730	696	511	294	308	343
3	662	454	2,230	692	541	939	3,630	713	466	294	306	343
4	637	527	1,850	740	541	764	3,360	699	465	294	305	342
5	575	1,270	1,780	2,020	541	794	3,170	675	450	294	307	339
6	552	1,230	1,640	4,370	541	814	2,770	603	435	307	307	339
7	493	1,190	1,340	3,710	541	1,080	2,150	550	394	301	307	321
8	490	1,160	1,330	2,640	566	1,800	2,060	544	380	516	392	309
9	598	1,140	1,240	3,090	701	2,070	e1,600	520	374	400	373	307
10	924	1,140	1,530	2,040	1,190	1,620	e1,400	503	377	334	341	307
11	789	1,120	1,750	1,730	1,580	1,530	e1,350	520	552	314	326	307
12	459	1,180	1,980	3,270	1,580	1,480	e1,180	514	606	307	321	303
13	415	1,250	1,920	3,660	1,570	1,420	971	558	513	340	316	298
14	415	1,200	1,840	3,430	1,690	1,260	884	736	426	374	316	298
15	414	1,180	1,630	2,770	1,740	819	752	769	407	360	312	295
16	375	1,170	1,250	1,850	1,510	794	916	564	402	367	312	294
17	373	1,160	1,180	1,980	1,580	781	897	488	399	366	312	294
18	367	569	992	1,810	e1,530	735	727	479	392	367	311	294
19	363	553	972	1,170	e1,430	728	658	474	385	349	307	294
20	377	858	916	961	e1,400	731	547	808	384	383	307	294
21	426	839	866	915	e1,430	734	538	1,430	381	384	307	294
22	403	815	845	878	e1,500	753	548	1,410	379	381	307	280
23	392	806	802	860	e1,450	1,230	833	1,040	379	595	307	270
24	408	992	807	806	e1,600	2,280	815	1,050	352	1,070	307	267
25	433	1,540	762	680	e1,590	2,240	706	1,420	319	407	307	267
26	416	1,380	721	684	e1,520	2,430	728	1,450	312	372	300	267
27	401	1,450	714	740	e1,480	2,480	951	1,130	308	368	322	270
28	395	1,550	695	673	e1,520	4,270	948	986	299	362	358	511
29	443	1,440	705	568	---	8,600	934	969	298	330	348	362
30	547	1,370	704	575	---	5,320	1,040	797	298	325	334	276
31	536	---	704	564	---	6,900	---	682	---	324	340	---
TOTAL	15,324	31,541	39,945	51,279	33,952	59,816	46,943	24,732	12,204	11,777	9,943	9,328
MEAN	494	1,051	1,289	1,654	1,213	1,930	1,565	798	407	380	321	311
MAX	924	1,550	2,350	4,370	1,740	8,600	6,150	1,450	606	1,070	392	511
MIN	363	454	695	564	541	728	538	474	298	294	300	267
CFSM	0.83	1.76	2.16	2.78	2.03	3.24	2.63	1.34	0.68	0.64	0.54	0.52
IN.	0.96	1.97	2.49	3.20	2.12	3.73	2.93	1.54	0.76	0.74	0.62	0.58

e Estimated

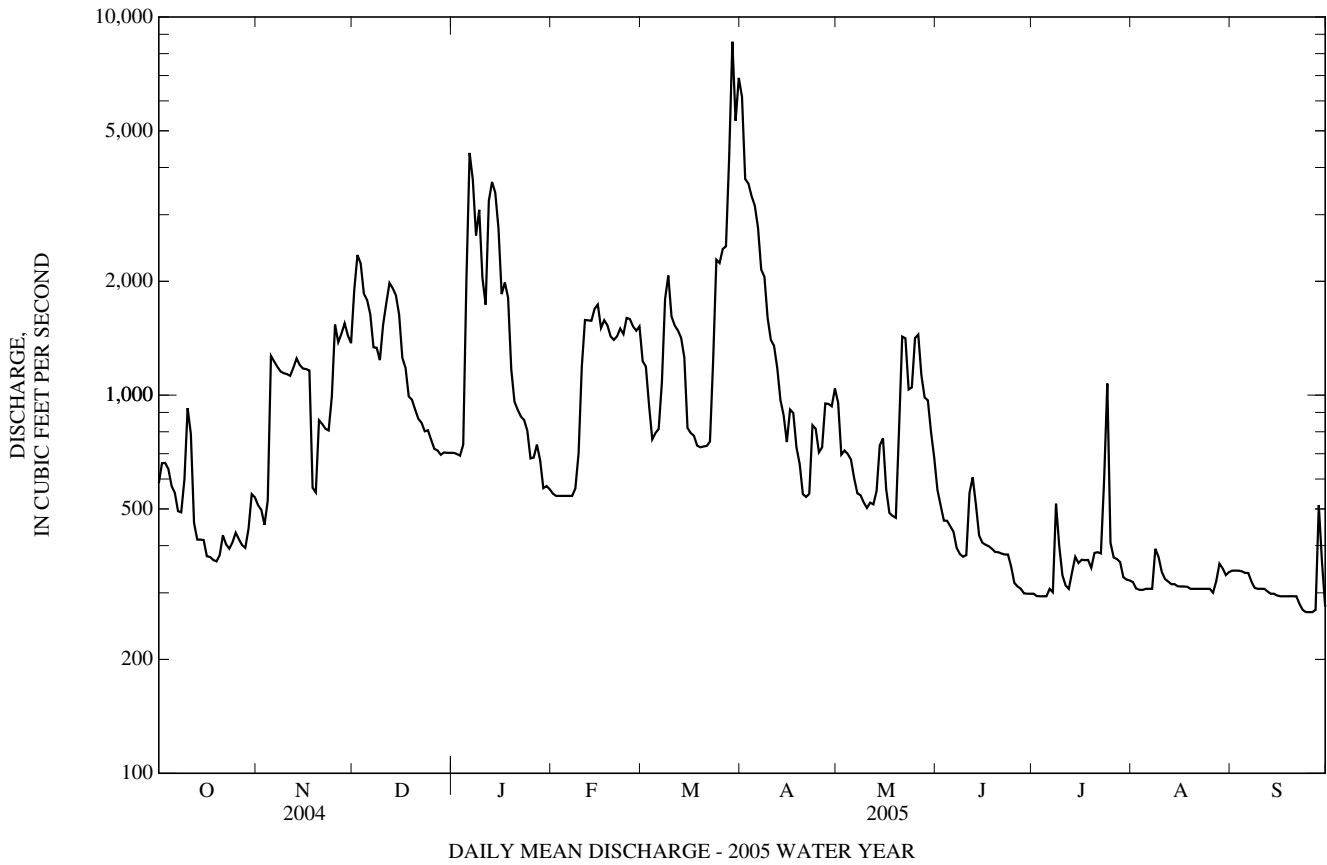
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 1985, 2004 - 2005, BY WATER YEAR (WY)

	426	518	971	1,081	1,448	2,006	1,590	1,112	673	373	343	306
MEAN	426	518	971	1,081	1,448	2,006	1,590	1,112	673	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 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1939 - 1985, 2004 - 2005	
ANNUAL TOTAL	393,241		346,784			
ANNUAL MEAN	1,074		950		901	
ANNUAL MEAN‡	1,080		921		902	
HIGHEST ANNUAL MEAN					1,225	1973
LOWEST ANNUAL MEAN					469	1969
HIGHEST DAILY MEAN	6,550	Apr 14	8,600	Mar 29	21,500	Oct 16, 1942
LOWEST DAILY MEAN	298	Aug 11	267	(a)	35	Dec 19, 1943
ANNUAL SEVEN-DAY MINIMUM	306	Aug 17	274	Sep 21	40	Aug 8, 1944
MAXIMUM PEAK FLOW			11,800	Mar 29	37,000	Oct 16, 1954
MAXIMUM PEAK STAGE			11.99	Mar 29	23.23	Oct 16, 1954
INSTANTANEOUS LOW FLOW			267	(b)	31	(c)
ANNUAL RUNOFF (CFSM)	1.80		1.59		1.51	
ANNUAL RUNOFF (CFSM)‡	1.81		1.54		1.51	
ANNUAL RUNOFF (INCHES)	24.54		21.64		20.55	
ANNUAL RUNOFF (INCHES)‡	24.62		20.98		20.56	
10 PERCENT EXCEEDS	2,030		1,820		2,080	
50 PERCENT EXCEEDS	804		662		485	
90 PERCENT EXCEEDS	351		307		123	

‡ Adjusted for change in reservoir contents since July 1981.
 a Sept. 24-26.
 b Sept. 23-27.
 c Dec. 18, 19, 1943, result of freezeup.



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 mi².

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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan 12	0330	4,880	7.14	Mar 29	0200	*14,600	*11.41

Minimum discharge, 14 ft³/s, Sept. 22-30.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	194	215	1,290	e172	e118	329	1,120	252	163	61	44	33
2	179	202	1,090	e170	e116	296	1,340	228	147	57	42	33
3	169	197	933	e168	e115	256	1,210	214	151	54	39	31
4	154	235	726	221	e114	232	1,060	199	158	52	36	27
5	142	328	577	1,070	e114	269	919	188	140	50	33	24
6	131	302	493	2,520	e114	285	803	179	132	50	32	22
7	123	302	522	1,760	e114	467	697	177	159	50	31	21
8	117	286	538	1,740	228	987	619	178	130	157	73	20
9	113	252	521	1,570	403	850	510	167	115	138	76	19
10	109	226	1,010	1,160	627	678	438	164	233	85	61	19
11	106	209	1,610	1,380	583	566	388	157	243	69	55	18
12	102	286	1,210	4,130	506	486	346	148	191	60	48	18
13	101	404	885	2,140	430	413	319	141	156	128	42	17
14	116	375	673	1,480	478	355	292	136	134	176	37	17
15	115	373	531	1,000	790	310	263	139	118	189	33	16
16	129	352	447	818	793	287	236	136	108	240	37	16
17	123	320	e370	689	720	275	220	127	101	443	61	16
18	109	295	e320	511	593	266	209	121	93	218	55	16
19	114	298	e280	e392	456	262	199	117	88	150	48	16
20	136	403	e255	e320	419	263	192	276	84	117	42	15
21	153	388	e238	e262	447	265	185	272	79	96	36	15
22	150	389	e225	e224	488	265	216	199	80	84	31	14
23	146	400	e220	e196	443	895	419	260	82	79	28	14
24	175	638	e210	e182	430	1,710	330	401	72	70	26	14
25	215	1,040	e202	e172	416	1,320	305	364	67	65	24	14
26	200	938	e196	e162	375	1,040	292	339	63	64	23	14
27	196	790	e192	e154	330	891	277	294	60	60	23	14
28	189	1,470	e188	e144	334	4,560	265	254	65	55	27	14
29	186	1,220	e182	e136	---	8,820	255	233	82	52	29	14
30	261	936	e178	e130	---	2,800	257	200	64	50	29	14
31	236	---	e176	e121	---	1,620	---	185	---	47	32	---
TOTAL	4,689	14,069	16,488	25,294	11,094	32,318	14,181	6,445	3,558	3,266	1,233	555
MEAN	151	469	532	816	396	1,043	473	208	119	105	39.8	18.5
MAX	261	1,470	1,610	4,130	793	8,820	1,340	401	243	443	76	33
MIN	101	197	176	121	114	232	185	117	60	47	23	14
CFSM	0.61	1.90	2.15	3.30	1.60	4.22	1.91	0.84	0.48	0.43	0.16	0.07
IN.	0.71	2.12	2.48	3.81	1.67	4.87	2.14	0.97	0.54	0.49	0.19	0.08

e Estimated

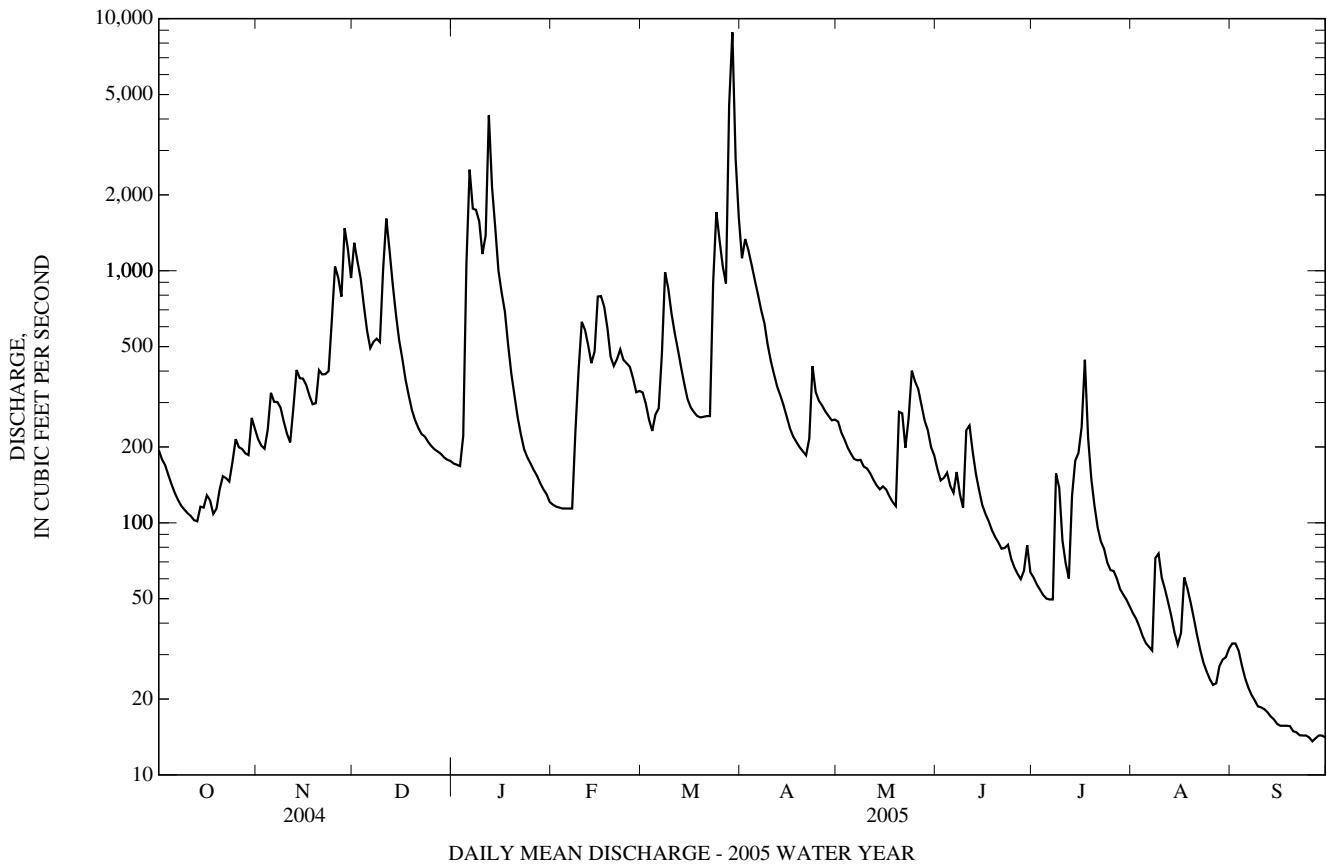
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1905 - 1906 , 1930 - 2005, BY WATER YEAR (WY)

MEAN	134	211	328	392	502	812	673	456	236	111	87.4	96.6
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 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1905 - 1906, 1930 - 2005	
ANNUAL TOTAL	159,323		133,190			
ANNUAL MEAN	435		365		336	
HIGHEST ANNUAL MEAN					599	1996
LOWEST ANNUAL MEAN					122	1954
HIGHEST DAILY MEAN	6,200	Sep 18	8,820	Mar 29	19,200	Jan 19, 1996
LOWEST DAILY MEAN	43	(a)	14	(b)	10	(c)
ANNUAL SEVEN-DAY MINIMUM	55	Sep 1	14	Sep 22	10	Oct 8, 1930
MAXIMUM PEAK FLOW			14,600	Mar 29	(d)45,900	Jan 19, 1996
MAXIMUM PEAK STAGE			11.41	Mar 29	(f)23.11	Jan 19, 1996
INSTANTANEOUS LOW FLOW			14	(b)	9.0	Oct 14, 1930
ANNUAL RUNOFF (CFSM)	1.76		1.48		1.36	
ANNUAL RUNOFF (INCHES)	24.00		20.06		18.48	
10 PERCENT EXCEEDS	942		893		800	
50 PERCENT EXCEEDS	238		192		149	
90 PERCENT EXCEEDS	70		31		29	

- a Sept. 6, 7.
- b Sept. 22-30.
- c Oct. 8-10, 1930.
- d From rating curve extended above 11,000 ft³/s on basis of slope-area measurement at gage heights of 13.45 and 20.2 ft.
- f From floodmarks at present site.
- g Aug. 23, 24.



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 mi².

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.--No estimated daily discharges. Record good. 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 ft³/s. Flood of Mar. 29, 1924, reached a stage of 28.4 ft, discharge, about 82,000 ft³/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 24,100 ft³/s, Mar. 29, gage height, 17.88 ft; minimum discharge, 284 ft³/s, Sept. 22-26.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	800	719	3,400	966	704	1,610	7,510	1,470	736	366	362	386
2	826	696	3,770	941	682	1,530	5,040	1,320	654	350	350	377
3	847	658	3,500	910	689	1,280	4,820	998	603	348	342	373
4	801	759	2,870	964	684	1,130	4,370	944	604	345	342	366
5	707	1,720	2,630	2,920	681	1,140	4,020	906	577	345	348	366
6	675	1,770	2,450	7,380	689	1,190	3,640	804	551	372	342	362
7	612	1,730	2,130	6,080	696	1,710	2,900	714	560	354	342	335
8	595	1,670	2,170	5,020	790	3,010	2,780	706	509	715	450	324
9	613	1,620	2,010	5,020	1,120	3,240	2,410	672	478	568	451	324
10	1,100	1,550	2,780	3,710	1,910	2,570	1,990	660	605	421	395	319
11	1,040	1,510	3,570	3,250	2,370	2,370	1,630	665	803	379	372	319
12	578	1,690	3,470	7,410	2,270	2,240	1,580	640	847	365	362	319
13	529	1,930	3,050	6,090	2,180	2,100	1,540	678	680	589	354	319
14	531	1,830	2,740	5,320	2,330	1,940	1,480	738	558	594	348	319
15	531	1,790	2,450	4,120	2,850	1,480	1,230	919	524	550	344	319
16	519	1,760	1,910	3,120	2,510	1,310	1,110	819	498	597	356	319
17	509	1,720	1,810	2,820	2,470	1,220	1,330	597	486	853	370	318
18	492	1,060	1,490	2,650	2,330	1,160	1,250	575	473	604	358	313
19	494	841	1,430	1,930	1,950	1,100	999	563	459	500	348	313
20	519	1,410	1,260	1,620	1,850	1,070	816	1,080	453	487	348	313
21	575	1,380	1,160	1,470	1,920	1,090	718	1,820	444	470	348	313
22	563	1,350	1,180	1,270	1,980	1,100	753	1,870	446	454	338	296
23	547	1,340	1,160	1,260	1,870	2,170	1,380	1,520	451	509	336	291
24	583	1,790	1,230	1,140	2,020	4,320	1,270	1,570	397	1,200	330	285
25	655	2,950	1,060	1,050	2,000	3,800	1,100	1,970	373	567	330	284
26	620	2,630	1,030	1,000	1,850	3,730	1,040	2,020	365	430	330	286
27	603	2,550	1,040	1,030	1,790	3,580	1,340	1,700	360	418	368	290
28	589	3,320	923	861	1,810	7,910	1,320	1,290	367	411	413	493
29	628	2,990	1,020	742	---	18,100	1,290	1,310	405	380	380	417
30	809	2,610	1,000	779	---	7,860	1,350	1,170	368	372	373	304
31	790	---	973	728	---	8,290	---	921	---	367	398	---
TOTAL	20,280	51,343	62,666	83,571	46,995	96,350	64,006	33,629	15,634	15,280	11,228	9,962
MEAN	654	1,711	2,021	2,696	1,678	3,108	2,134	1,085	521	493	362	332
MAX	1,100	3,320	3,770	7,410	2,850	18,100	7,510	2,020	847	1,200	451	493
MIN	492	658	923	728	681	1,070	718	563	360	345	330	284
CFSM	0.75	1.95	2.30	3.07	1.91	3.54	2.43	1.24	0.59	0.56	0.41	0.38
IN.	0.86	2.18	2.66	3.54	1.99	4.09	2.71	1.43	0.66	0.65	0.48	0.42

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1929 - 2005, BY WATER YEAR (WY)

MEAN	595	822	1,304	1,569	1,975	2,904	2,367	1,739	936	540	469	497
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

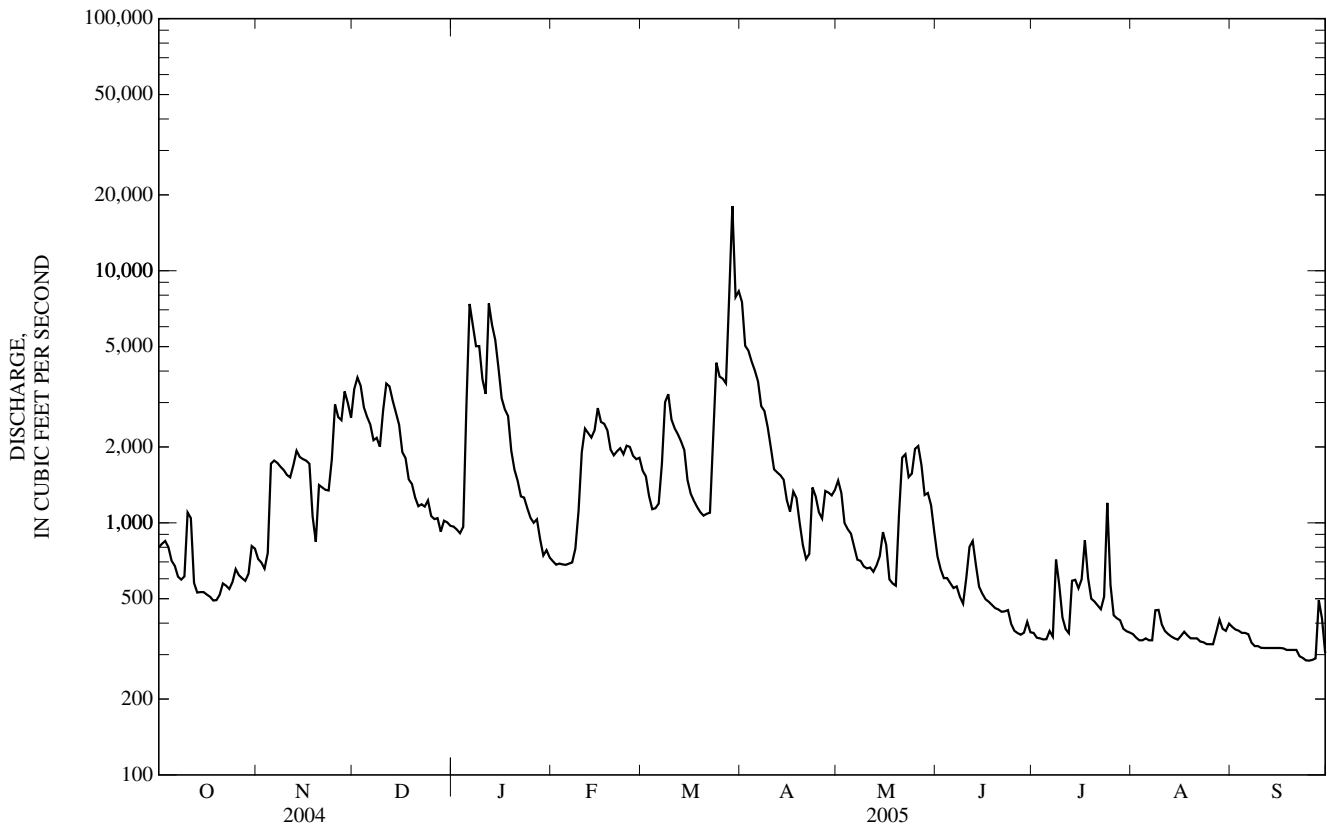
SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1929 - 2005	
ANNUAL TOTAL	615,302		510,944			
ANNUAL MEAN	1,681		1,400		1,308	
ANNUAL MEAN‡	1,687		1,370		1,307	
HIGHEST ANNUAL MEAN					2,390 1996	
LOWEST ANNUAL MEAN					632 1969	
HIGHEST DAILY MEAN	10,800	Sep 9	18,100	Mar 29	47,400	Mar 18, 1936
LOWEST DAILY MEAN	402	Aug 11	284	Sep 25	13	(a)
ANNUAL SEVEN-DAY MINIMUM	416	Aug 18	292	Sep 21	16	Sep 20, 1932
MAXIMUM PEAK FLOW			24,100	Mar 29	(b)88,200	Mar 17, 1936
MAXIMUM PEAK STAGE			17.88	Mar 29	29.10	Mar 17, 1936
INSTANTANEOUS LOW FLOW			284	(c)	12	Sep 22, 1932
ANNUAL RUNOFF (CFSM)	1.92		1.60		1.49	
ANNUAL RUNOFF (CFSM)‡	1.92		1.56		1.49	
ANNUAL RUNOFF (INCHES)	26.10		21.67		20.26	
ANNUAL RUNOFF (INCHES)‡	26.12		21.22		20.29	
10 PERCENT EXCEEDS	3,300		2,930		3,030	
50 PERCENT EXCEEDS	1,200		861		691	
90 PERCENT EXCEEDS	454		348		180	

‡ Adjusted for change in reservoir contents since October 1949.

a Sept. 21-24, 1932.

b From rating curve extended above 33,000 ft³/s on basis of slope-area measurement of peak flow.

a Sept. 22-26.



DAILY MEAN DISCHARGE - 2005 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 mi².

WATER-DISCHARGE RECORDS

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.--No estimated daily discharges. Water-discharge records fair. The flow from 115 mi² 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, 4,150 ft³/s, Mar. 29, gage height, 9.83 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	295	196	458	75	95	165	735	137	107	17	21	21
2	228	169	501	72	84	160	1,050	130	92	16	19	19
3	174	144	417	68	77	150	1,070	119	87	15	18	16
4	128	164	347	64	78	148	745	107	82	15	16	13
5	94	299	300	143	78	175	627	98	75	15	15	12
6	73	266	267	476	77	248	591	90	68	18	14	11
7	59	227	261	416	76	543	578	86	66	18	14	10
8	51	193	277	416	83	648	566	83	62	115	40	9.2
9	45	159	281	405	100	591	471	78	89	98	50	8.7
10	42	131	561	346	125	501	395	75	103	68	68	8.4
11	38	108	607	312	120	415	340	89	83	48	60	7.9
12	36	139	541	463	110	363	295	101	68	37	45	7.2
13	35	236	430	456	103	314	263	91	62	61	34	7.0
14	34	233	349	971	132	277	229	80	57	118	29	6.8
15	34	205	294	690	205	240	198	76	48	182	25	6.9
16	36	179	254	601	219	211	167	70	43	227	21	7.0
17	34	158	222	504	212	189	143	65	38	321	20	7.5
18	31	158	196	361	194	170	126	58	34	293	18	7.2
19	33	162	175	305	170	154	115	55	32	209	18	7.0
20	37	189	146	278	156	143	106	182	29	158	18	7.5
21	72	192	153	243	157	133	100	318	27	111	17	7.5
22	131	181	117	205	153	124	105	272	29	83	15	7.3
23	116	167	124	189	138	343	169	245	31	65	14	6.8
24	108	216	138	192	130	670	180	430	27	51	14	7.5
25	127	488	113	166	132	596	161	480	24	43	13	7.5
26	126	390	105	148	133	544	144	352	22	36	13	7.2
27	111	313	92	146	136	462	128	273	20	31	16	7.0
28	97	331	88	130	151	1,400	114	224	19	28	19	6.5
29	90	318	84	116	---	3,410	103	187	18	26	18	6.4
30	179	294	75	102	---	1,580	111	156	17	24	19	6.5
31	222	---	75	108	---	975	---	131	---	22	20	---
TOTAL	2,916	6,605	8,048	9,167	3,624	16,042	10,125	4,938	1,559	2,569	741	270.5
MEAN	94.1	220	260	296	129	517	338	159	52.0	82.9	23.9	9.02
MAX	295	488	607	971	219	3,410	1,070	480	107	321	68	21
MIN	31	108	75	64	76	124	100	55	17	15	13	6.4
CFSM	0.45	1.04	1.23	1.40	0.61	2.45	1.60	0.75	0.25	0.39	0.11	0.04
IN.	0.51	1.16	1.42	1.62	0.64	2.83	1.79	0.87	0.27	0.45	0.13	0.05

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 2005, BY WATER YEAR (WY)

MEAN	72.2	90.3	165	207	303	431	319	223	109	60.2	57.3	55.7
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)

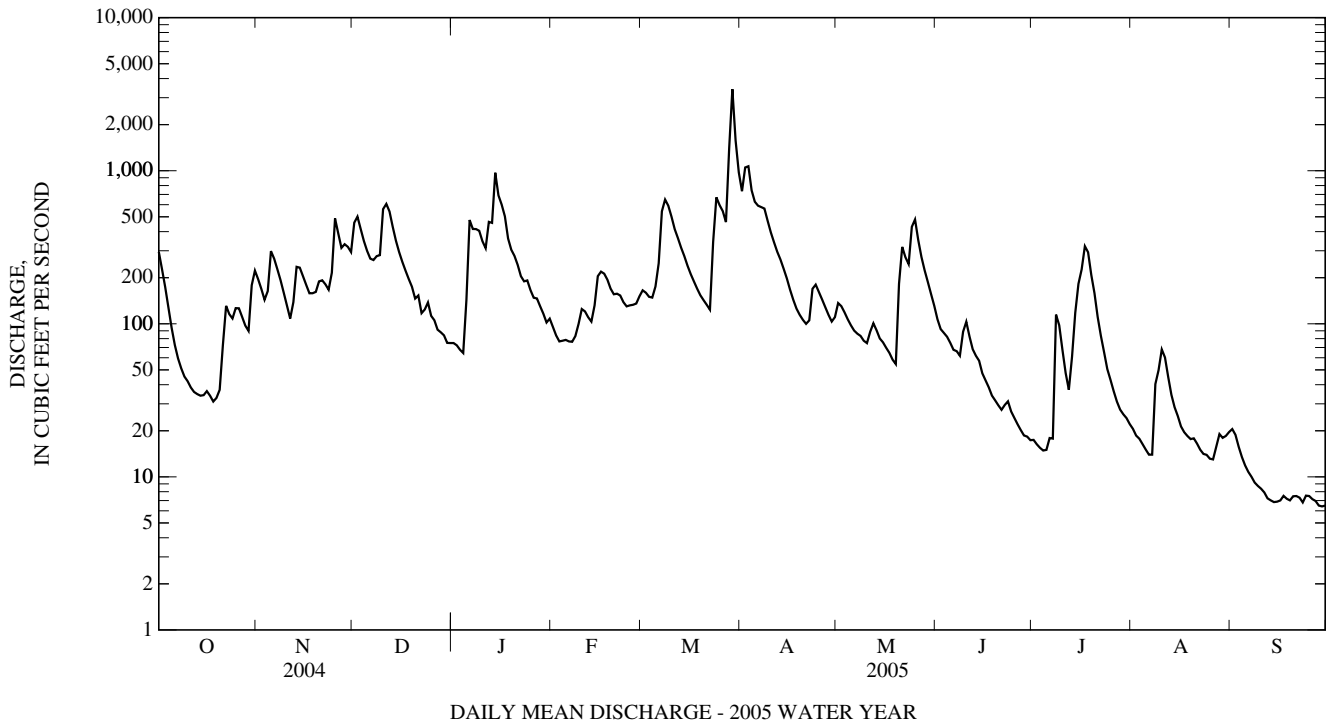
01604500 PATTERSON CREEK NEAR HEADSVILLE, WV—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1938 - 2005	
ANNUAL TOTAL	78,485		66,604.5		174	
ANNUAL MEAN	214		182		387	
HIGHEST ANNUAL MEAN					1996	
LOWEST ANNUAL MEAN					35.1	
HIGHEST DAILY MEAN	1,680	Apr 14	3,410	Mar 29	11,100	Oct 15, 1942
LOWEST DAILY MEAN	12	(a)	6.4	Sep 29	0.48	Aug 23, 1999
ANNUAL SEVEN-DAY MINIMUM	13	Sep 1	6.9	Sep 24	0.87	Aug 17, 1999
MAXIMUM PEAK FLOW			4,150	Mar 29	(b)16,000	Aug 19, 1955
MAXIMUM PEAK STAGE			9.83	Mar 29	12.20	Aug 19, 1955
INSTANTANEOUS LOW FLOW			6.2	Sep 28	0.45	(c)
ANNUAL RUNOFF (CFSM)	1.02		0.865		0.824	
ANNUAL RUNOFF (INCHES)	13.84		11.74		11.19	
10 PERCENT EXCEEDS	553		430		450	
50 PERCENT EXCEEDS	128		115		61	
90 PERCENT EXCEEDS	25		15		10	

a Sept. 5, 6.

b From rating curve extended above 4,900 ft³/s on basis of contracted-opening measurement of peak flow.

c Aug. 23, 24, 1999.



01604500 PATTERSON CREEK NEAR HEADSVILLE, WV—Continued

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 mi².

PERIOD OF RECORD.--Periodic laboratory analyses, June 2005 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Gage height, feet (00065)	Instantaneous discharge, cfs (00061)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unfltrd uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Alkalinity, wat fltr inc tit field, mg/L as CaCO ₃ (39086)	Bicarbonate, wat fltr incrm. titr., mg/L (00453)	Carbonate, wat fltr incrm. titr., mg/L (00452)
JUN 07...	1400	3.08	65	747	7.7	95	7.8	245	31.0	25.1	84	--	--
JUL 11...	1455	2.96	41	751	9.0	110	8.2	276	33.0	24.7	95	--	--
AUG 09...	1355	2.99	51	751	8.1	98	7.8	281	30.0	23.9	92	--	--
SEP 12...	1510	2.44	7.0	752	8.2	96	7.9	298	--	22.4	95	116	<1

Date	Residue total at 105 deg. C, suspended, mg/L (00530)	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)	Total nitrogen, wat unfltrd by analysis, mg/L (62855)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	Suspended sediment concentration mg/L (80154)	Suspended sediment discharge, tons/d (80155)
JUN 07...	<10	E.02	.46	E.005	.70	E.003	.015	3	.53
JUL 11...	<10	<.04	.07	<.008	.30	E.003	.020	5	.55
AUG 09...	<10	<.04	.27	E.005	.52	<.006	.017	8	1.1
SEP 12...	<10	<.04	E.04	<.008	.22	<.006	.015	4	.08

Remark codes used in this table:

< -- Less than.
E -- Estimated.



Photo by U.S. Geological Survey personnel

Water-Quality samples being collected by U.S. Geological Survey personnel

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 mi².

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.--No estimated daily discharges. Records good.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in 1877 reached a stage of 21.2 ft, from floodmarks at previous site and datum; discharge about 59,000 ft³/s.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 6,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar 28	2000	*12,700	*11.17	No other peak greater than base discharge.			

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,770	543	1,980	604	385	711	2,630	2,170	572	203	387	224
2	1,250	482	2,830	570	365	655	3,610	1,810	511	190	322	206
3	984	447	2,210	533	361	596	4,450	1,500	514	171	276	176
4	795	612	1,650	540	368	562	3,410	1,220	507	168	239	157
5	659	1,830	1,300	695	364	624	2,740	1,030	454	267	212	146
6	560	1,430	1,090	835	355	627	2,200	902	411	272	206	136
7	492	1,120	1,040	869	369	1,100	1,790	819	568	208	521	129
8	437	910	1,150	916	434	3,580	1,910	753	506	2,150	386	123
9	392	748	1,160	980	601	3,030	1,830	673	422	1,180	534	117
10	361	638	2,410	944	853	2,110	1,570	614	486	600	825	114
11	332	567	2,570	872	837	1,630	1,350	681	447	411	570	111
12	311	616	2,120	816	743	1,380	1,180	599	386	333	431	108
13	300	959	1,720	756	678	1,180	1,070	549	338	390	350	105
14	337	894	1,410	1,230	673	1,060	951	509	330	582	329	102
15	339	820	1,160	1,890	836	979	835	537	296	645	272	99
16	312	763	992	1,580	894	926	740	523	269	713	243	98
17	309	704	917	1,340	932	880	674	467	257	1,110	305	96
18	290	668	834	1,060	838	827	634	436	243	1,000	304	94
19	272	626	774	909	716	828	603	412	230	794	264	93
20	290	649	683	916	673	943	571	1,560	221	755	251	91
21	372	629	593	802	640	1,010	536	2,870	212	621	226	91
22	380	584	636	716	809	995	563	1,930	206	538	209	90
23	347	562	699	640	837	1,520	966	1,440	200	469	187	89
24	374	583	1,580	543	819	4,840	1,180	1,690	190	387	174	89
25	473	1,060	1,290	588	792	3,560	1,110	1,790	178	326	164	89
26	442	1,310	1,070	573	731	2,580	1,060	1,510	169	292	157	89
27	409	1,180	932	538	687	2,110	1,020	1,230	160	261	188	89
28	417	1,380	760	460	692	5,900	947	1,020	155	239	254	89
29	460	1,470	745	404	---	8,960	855	867	195	352	251	89
30	754	1,310	682	430	---	4,870	1,240	745	214	525	201	87
31	638	---	637	411	---	3,380	---	652	---	490	194	---
TOTAL	15,858	26,094	39,624	24,960	18,282	63,953	44,225	33,508	9,847	16,642	9,432	3,416
MEAN	512	870	1,278	805	653	2,063	1,474	1,081	328	537	304	114
MAX	1,770	1,830	2,830	1,890	932	8,960	4,450	2,870	572	2,150	825	224
MIN	272	447	593	404	355	562	536	412	155	168	157	87
CFSM	0.76	1.29	1.89	1.19	0.97	3.05	2.18	1.60	0.49	0.79	0.45	0.17
IN.	0.87	1.44	2.18	1.37	1.01	3.52	2.43	1.84	0.54	0.92	0.52	0.19

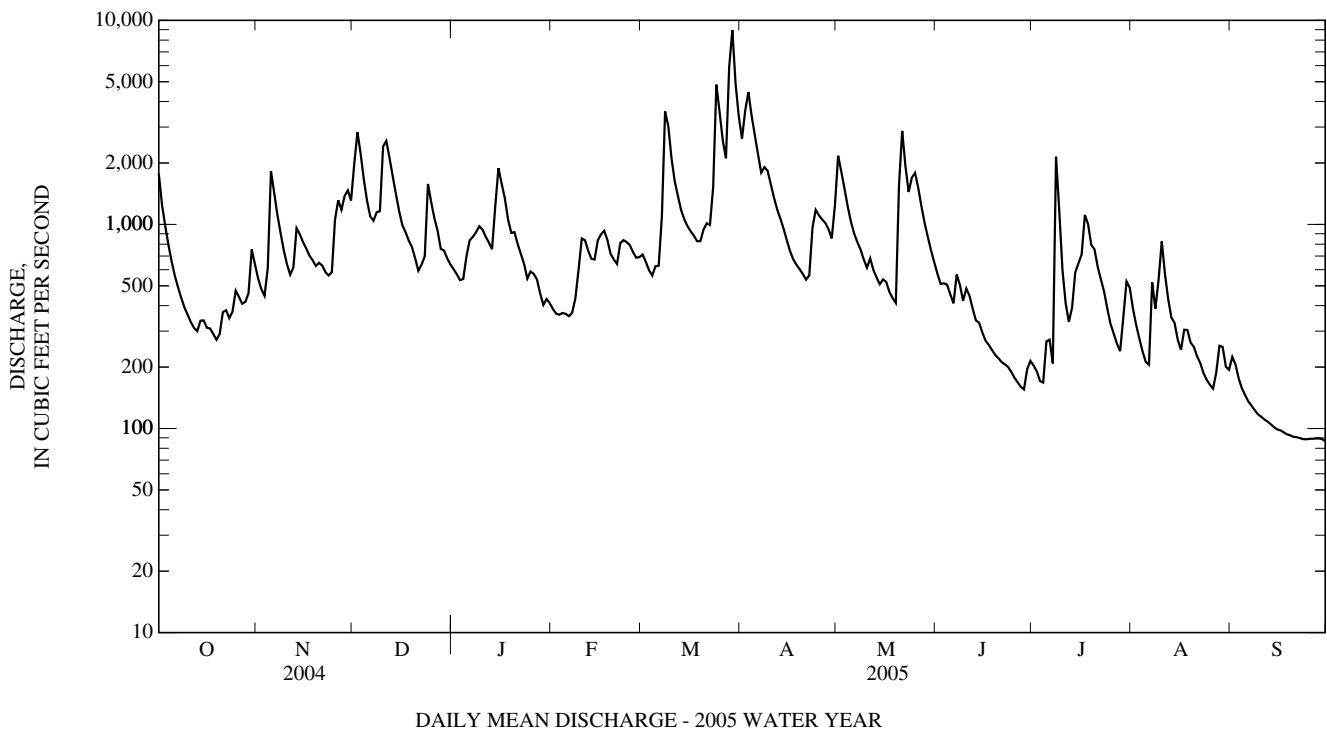
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 2005, BY WATER YEAR (WY)

MEAN	325	509	722	920	1,157	1,657	1,296	1,036	550	296	287	282
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 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1928 - 2005	
ANNUAL TOTAL	365,208		305,841		751	
ANNUAL MEAN	998		838		1,619	
HIGHEST ANNUAL MEAN					365	
LOWEST ANNUAL MEAN					196	
HIGHEST DAILY MEAN	8,650	Apr 14	8,960	Mar 29	77,000	Nov 5, 1985
LOWEST DAILY MEAN	97	Sep 5	87	Sep 30	43	(a)
ANNUAL SEVEN-DAY MINIMUM	106	Aug 31	89	Sep 24	44	Sep 6, 1966
MAXIMUM PEAK FLOW			12,700	Mar 28	(b)130,000	Nov 5, 1985
MAXIMUM PEAK STAGE			11.17	Mar 28	(c)25.40	Nov 5, 1985
INSTANTANEOUS LOW FLOW			87	(d)	42	(f)
ANNUAL RUNOFF (CFSM)	1.48		1.24		1.11	
ANNUAL RUNOFF (INCHES)	20.10		16.83		15.09	
10 PERCENT EXCEEDS	2,190		1,700		1,690	
50 PERCENT EXCEEDS	751		621		383	
90 PERCENT EXCEEDS	170		177		96	

- a Sept. 27-29, 1959, Sept. 11, 12, 1966.
- b From rating curve extended above 16,700 ft³/s on basis of slope-area measurement of peak flow.
- c From floodmarks at former site at gage datum 962.00 ft.
- d Sept. 23, 24, 29, 30.
- f Sept. 28, 29, 1959, Sept. 11, 12, 1966.



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 mi².

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: 1931(M), 1935(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 period of estimated discharge (no gage-height record), which is poor. The flow from 92.7 mi² 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, 3,530 ft³/s, Mar. 29, gage height, 6.29 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,140	99	551	156	132	167	756	279	127	41	53	35
2	695	93	799	145	124	172	862	305	113	42	48	33
3	375	87	675	133	115	168	1,330	294	109	39	46	32
4	272	101	532	127	110	167	1,000	269	107	36	41	29
5	222	245	421	130	106	175	736	241	99	33	37	26
6	183	341	340	128	102	207	576	217	89	34	40	25
7	154	304	297	128	96	364	472	200	89	37	164	24
8	133	259	277	134	91	e1,500	442	187	169	237	114	22
9	114	227	277	137	87	e1,100	403	170	130	386	181	21
10	102	197	753	139	91	e730	329	153	111	205	221	21
11	93	172	1,160	139	94	e560	287	140	151	135	128	20
12	85	169	948	136	95	462	261	134	134	104	92	20
13	80	256	709	134	95	372	237	122	106	93	77	19
14	79	312	546	374	100	305	219	112	94	94	70	18
15	77	310	421	1,170	103	264	200	109	83	219	61	18
16	77	290	334	800	105	235	177	102	75	248	54	20
17	73	264	285	618	106	216	158	93	66	331	53	20
18	68	245	255	527	106	202	148	87	57	367	54	19
19	66	224	229	441	106	189	137	82	53	323	53	17
20	64	215	209	396	106	175	134	219	51	229	48	17
21	70	234	180	356	110	166	128	514	48	179	43	17
22	70	245	165	313	115	156	129	395	47	138	38	17
23	71	241	162	292	130	190	196	314	45	112	35	16
24	71	234	196	276	127	464	280	440	42	89	32	18
25	73	337	275	259	127	715	287	466	39	76	30	20
26	74	656	273	234	127	616	262	365	36	66	29	18
27	72	587	249	215	136	506	236	279	34	59	37	19
28	72	531	225	191	147	1,160	216	232	33	53	38	18
29	75	693	193	171	---	3,020	197	200	38	56	33	18
30	119	590	182	156	---	1,670	206	172	46	66	34	18
31	110	---	169	151	---	1,040	---	146	---	62	35	---
TOTAL	5,029	8,758	12,287	8,706	3,089	17,433	11,001	7,038	2,421	4,189	2,019	635
MEAN	162	292	396	281	110	562	367	227	80.7	135	65.1	21.2
MAX	1,140	693	1,160	1,170	147	3,020	1,330	514	169	386	221	35
MIN	64	87	162	127	87	156	128	82	33	33	29	16
CFSM	0.59	1.05	1.43	1.01	0.40	2.03	1.32	0.82	0.29	0.49	0.24	0.08
IN.	0.68	1.18	1.65	1.17	0.41	2.34	1.48	0.95	0.33	0.56	0.27	0.09

e Estimated

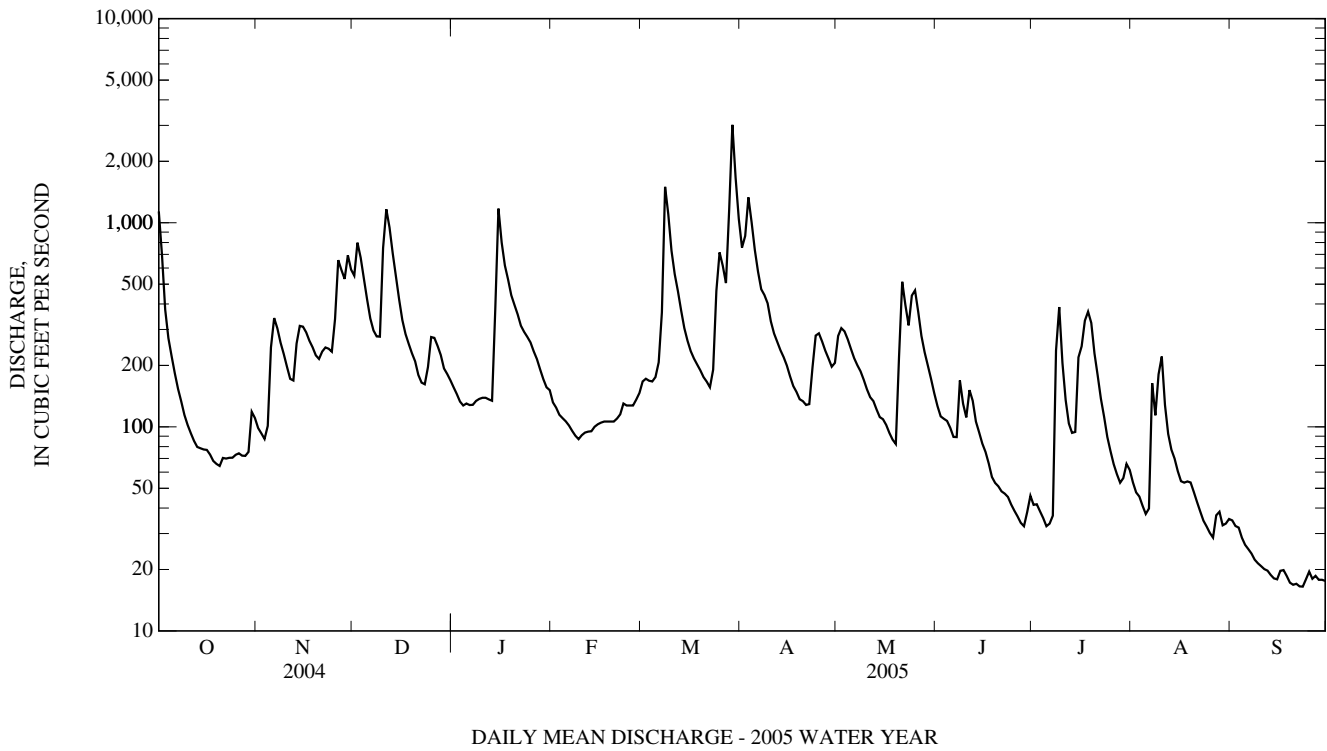
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 1935, 1939 - 2005, BY WATER YEAR (WY)

MEAN	126	183	214	263	334	496	415	330	172	84.7	105	109
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 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1928 - 1935, 1939 - 2005	
ANNUAL TOTAL	107,280		82,605		235	
ANNUAL MEAN	293		226		526	
HIGHEST ANNUAL MEAN					2003	
LOWEST ANNUAL MEAN					1934	
HIGHEST DAILY MEAN	4,610	Sep 29	3,020	Mar 29	28,000	Nov 5, 1985
LOWEST DAILY MEAN	20	(a)	16	Sep 23	4.4	Sep 10, 1966
ANNUAL SEVEN-DAY MINIMUM	21	Sep 1	17	Sep 18	5.3	Sep 5, 1966
MAXIMUM PEAK FLOW			3,530	Mar 29	(b)110,000	Nov 5, 1985
MAXIMUM PEAK STAGE			6.29	Mar 29	(c)19.99	Nov 5, 1985
INSTANTANEOUS LOW FLOW			16	(d)	3.1	Aug 13, 1999
ANNUAL RUNOFF (CFSM)	1.06		0.817		0.849	
ANNUAL RUNOFF (INCHES)	14.41		11.09		11.54	
10 PERCENT EXCEEDS	588		519		522	
50 PERCENT EXCEEDS	202		138		98	
90 PERCENT EXCEEDS	44		34		21	

- a Sept. 4-6.
- b From rating curve extended above 39,000 ft³/s on basis of slope-area measurement of peak flow.
- c From floodmarks.
- d Sept. 22, 23, 24.



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 mi².

WATER-DISCHARGE RECORDS

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.--Water-discharge records good except those for periods of estimated daily discharges (sluggish intakes), which are poor.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in November 1877 reached a stage of about 34 ft, from floodmarks, discharge, 140,000 ft³/s.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 10,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar 29	1130	*21,400	*14.99	No other peak greater than base discharge.			

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4,140	1,080	2,500	1,030	701	1,120	4,740	1,990	1,080	e330	632	320
2	2,750	913	3,850	970	642	1,140	4,700	e2,900	964	e310	522	303
3	1,920	802	3,620	904	645	1,080	8,640	e2,400	861	e290	452	318
4	1,490	769	2,830	859	624	1,020	6,250	e2,000	838	e270	402	299
5	1,240	1,510	2,250	922	630	1,030	4,580	e1,700	833	e260	361	270
6	1,070	2,290	1,850	1,410	635	1,210	3,580	1,410	763	e380	328	246
7	932	1,860	1,670	1,500	619	1,760	2,930	1,300	688	e390	371	225
8	814	1,540	1,680	1,480	617	3,740	2,590	1,220	764	e310	797	213
9	723	1,310	1,720	1,600	681	5,610	2,680	1,160	855	2,760	652	204
10	652	1,140	3,060	1,560	895	3,900	2,340	1,080	714	1,450	1,070	194
11	597	1,020	4,660	1,470	1,120	2,890	2,060	996	779	943	1,160	183
12	553	999	3,980	1,450	1,090	2,380	1,890	1,020	770	671	841	179
13	519	1,340	3,110	1,420	1,030	2,000	1,780	937	683	562	649	173
14	499	1,630	2,540	2,210	991	1,710	e1,600	862	590	587	538	165
15	510	1,480	2,060	3,860	1,060	1,540	e1,400	817	543	958	483	160
16	542	1,370	1,730	3,390	1,200	1,420	e1,200	813	495	1,280	428	156
17	509	1,260	1,530	2,670	1,230	1,370	e1,100	796	454	1,350	390	154
18	482	1,200	1,420	2,100	1,260	1,280	e1,000	721	422	1,590	381	150
19	473	1,170	1,310	1,660	1,170	1,210	e920	675	e390	1,510	426	150
20	462	1,130	1,210	1,590	1,070	1,210	e870	743	e370	1,230	411	147
21	507	1,140	1,080	1,480	1,020	1,280	e830	3,730	e350	1,110	379	142
22	638	1,130	1,020	1,330	985	1,320	e800	3,150	e340	951	351	138
23	613	1,080	1,070	1,210	1,090	1,600	e870	2,300	e320	782	318	136
24	574	1,090	1,290	1,030	1,120	4,840	e1,200	2,530	e310	684	301	135
25	624	1,490	1,800	956	1,130	6,070	e1,700	3,140	e300	582	277	133
26	727	2,140	1,600	1,080	1,110	4,290	e1,600	2,680	e280	494	266	137
27	690	2,180	1,440	1,020	1,070	3,290	e1,500	2,150	e260	438	263	142
28	638	2,130	1,310	900	1,070	4,900	1,400	1,760	e250	399	275	135
29	651	2,520	1,150	745	---	19,000	1,330	1,490	e240	377	340	135
30	958	2,390	1,120	724	---	11,600	1,270	1,320	e290	379	372	137
31	1,340	---	1,080	728	---	6,760	---	1,190	---	601	357	---
TOTAL	28,837	43,103	62,540	45,258	26,505	103,570	69,350	50,980	16,796	24,228	14,793	5,579
MEAN	930	1,437	2,017	1,460	947	3,341	2,312	1,645	560	782	477	186
MAX	4,140	2,520	4,660	3,860	1,260	19,000	8,640	3,730	1,080	2,760	1,160	320
MIN	462	769	1,020	724	617	1,020	800	675	240	260	263	133
CFSM	0.63	0.97	1.36	0.98	0.64	2.25	1.56	1.11	0.38	0.53	0.32	0.13
IN.	0.72	1.08	1.57	1.13	0.66	2.59	1.74	1.28	0.42	0.61	0.37	0.14

e Estimated

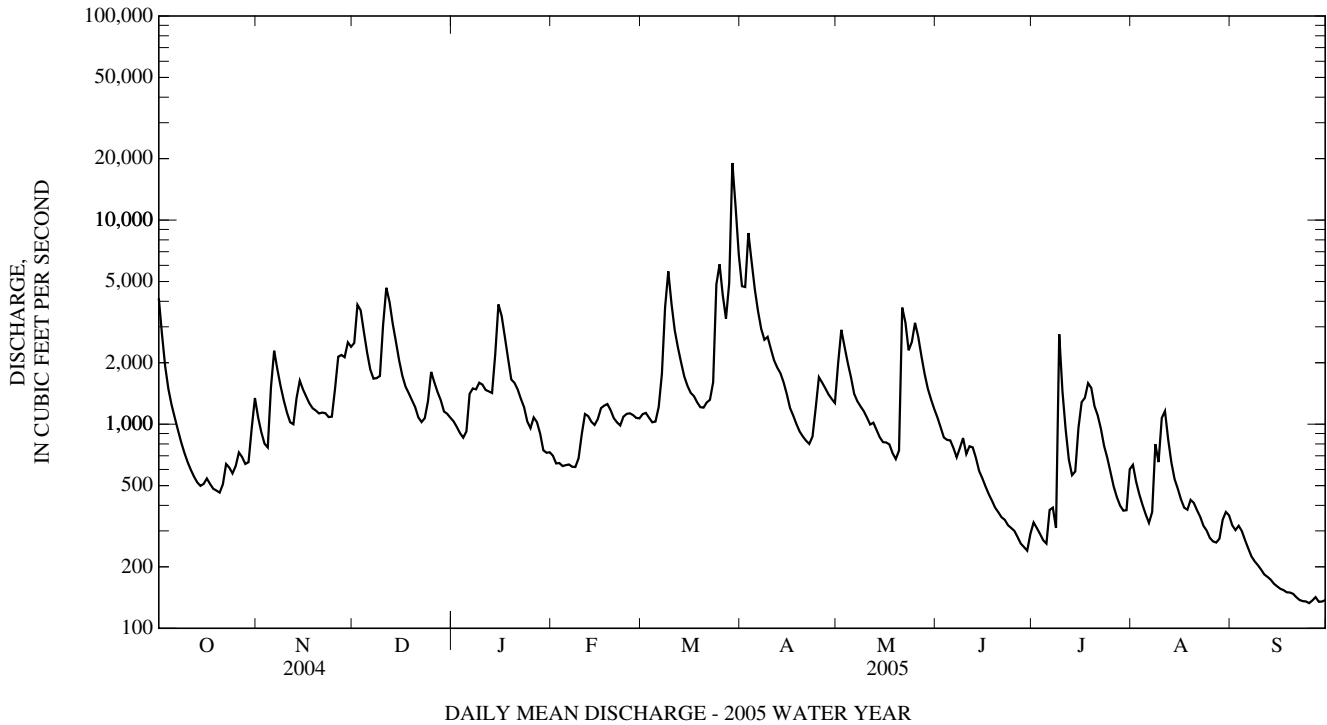
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1899 - 1902, 1904 - 1906, 1928 - 2005, BY WATER YEAR (WY)

MEAN	620	891	1,260	1,618	2,040	3,025	2,404	1,843	1,042	531	542	517
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 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1899 - 1902, 1904 - 1906, 1928 - 2005	
ANNUAL TOTAL	638,694		491,539		1,358	
ANNUAL MEAN	1,745		1,347		2,975	
HIGHEST ANNUAL MEAN					1996	
LOWEST ANNUAL MEAN					566	
HIGHEST DAILY MEAN	17,900	Apr 14	19,000	Mar 29	145,000	Nov 5, 1985
LOWEST DAILY MEAN	145	Sep 7	133	Sep 25	52	(a)
ANNUAL SEVEN-DAY MINIMUM	155	Sep 1	136	Sep 23	54	Sep 7, 1966
MAXIMUM PEAK FLOW			21,400	Mar 29	(b)240,000	Nov 5, 1985
MAXIMUM PEAK STAGE			14.99	Mar 29	(c)44.22	Nov 5, 1985
INSTANTANEOUS LOW FLOW			133	(d)	29	(f)
ANNUAL RUNOFF (CFSM)	1.17		0.906		0.914	
ANNUAL RUNOFF (INCHES)	15.99		12.31		12.41	
10 PERCENT EXCEEDS	3,460		2,680		3,060	
50 PERCENT EXCEEDS	1,340		1,030		665	
90 PERCENT EXCEEDS	316		286		153	

- a Sept. 11, 12, 1966.
- b From rating curve extended above 145,000 ft³/s on basis of slope-area measurement of peak flow.
- c From floodmarks.
- d Sept. 24, 25, 26, 28, 29.
- f Jan. 28, 1956 (result of freeze-up), July 30, 1966 (result of temporary dam).



01608500 SOUTH BRANCH POTOMAC RIVER NEAR SPRINGFIELD, WV—Continued

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 mi².

PERIOD OF RECORD.--Periodic laboratory analyses, June 2005 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Gage height, feet (00065)	Instantaneous discharge, cfs (00061)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unfltrd uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Alkalinity, wat fltr inc tit field, mg/L as CaCO ₃ (39086)	Bicarbonate, wat fltr incrm. titr., field, mg/L (00453)	Carbonate, wat fltr incrm. titr., field, mg/L (00452)
JUN 08...	1100	2.27	680	750	7.6	95	8.1	223	E29.0	25.8	92	--	--
JUL 12...	1015	2.27	680	753	7.5	93	7.9	210	33.0	25.8	80	--	--
AUG 10...	1000	2.77	1,160	752	7.2	88	7.8	223	30.0	25.0	86	--	--
SEP 13...	1030	1.43	176	751	8.2	96	8.4	266	--	22.5	113	138	<1

Date	Residue total at 105 deg. C, suspended, mg/L (00530)	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)	Total nitrogen, wat unfltrd by analysis, mg/L (62855)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	E coli, NA-MUG MF, water, col/100 mL (50278)	Fecal coliform, M-FC 0.7u MF col/100 mL (31625)	Total coliform, M-Endo, col/100 mL (31501)	Suspended sediment concentration mg/L (80154)	Suspended sediment discharge, tons/d (80155)
JUN 08...	<10	E.03	.38	.39	.008	.66	.031	.053	14	8	E8,200	3	5.5
JUL 12...	<10	<.04	--	.43	E.004	.72	.019	.058	10	20	230	8	15
AUG 10...	18	<.04	--	.36	E.005	.65	.043	.086	E18	E520	E1,120	17	53
SEP 13...	<10	<.04	--	<.06	<.008	.17	.082	.120	50	35	175	2	.95

Remark codes used in this table:

< -- Less than.
E -- Estimated.



Photo by U.S. Geological Survey personnel

Discharge measurement being made by U.S. Geological Survey personnel

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 mi².

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.--No estimated daily discharges. Records 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 ft³/s, from rating curve extended above 85,000 ft³/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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar 29	1500	*58,500	*27.39	No other peak greater than base discharge.			

Minimum discharge, 413 ft³/s, Sept. 27, 28.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7,080	2,650	7,960	2,700	2,200	3,730	15,900	3,730	2,220	743	1,050	757
2	5,110	2,340	9,990	2,620	2,100	3,590	13,500	4,410	1,920	768	960	707
3	4,050	2,150	9,580	2,500	2,040	3,230	17,700	3,810	1,760	694	852	690
4	3,330	2,100	7,960	2,450	2,010	2,980	14,200	3,490	1,700	666	781	679
5	2,850	3,310	6,690	3,400	2,030	3,070	11,400	3,130	1,670	641	735	637
6	2,500	5,120	5,890	11,200	2,030	3,510	9,790	2,810	1,580	664	688	599
7	2,230	4,600	5,240	10,900	2,020	5,090	8,040	2,540	1,590	747	669	573
8	2,030	4,060	5,370	9,190	2,070	8,530	7,370	2,400	1,490	1,500	954	531
9	1,910	3,640	5,090	9,890	2,420	11,000	6,810	2,260	1,580	3,600	1,360	512
10	2,050	3,320	7,480	8,250	3,300	8,850	5,920	2,080	1,540	2,610	1,240	500
11	2,210	3,090	11,000	6,430	4,140	7,210	5,030	2,030	1,780	1,680	1,760	486
12	1,870	3,200	10,200	11,300	4,180	6,320	4,460	2,010	1,990	1,260	1,380	476
13	1,550	4,260	8,530	11,000	3,960	5,630	4,060	1,930	1,790	1,130	1,130	471
14	1,490	4,640	7,230	11,200	3,900	5,010	3,740	1,860	1,570	1,880	970	464
15	1,490	4,310	6,220	11,800	5,090	4,180	3,350	2,010	1,320	1,750	874	458
16	1,520	4,010	5,140	9,950	5,000	3,690	3,000	1,980	1,190	2,330	830	456
17	1,480	3,780	4,560	7,800	4,980	3,490	2,960	1,690	1,100	2,950	798	449
18	1,380	3,420	4,090	6,800	4,680	3,320	2,790	1,550	1,030	3,100	765	442
19	1,340	2,850	3,760	5,450	4,210	3,160	2,490	1,470	985	2,660	776	438
20	1,370	3,210	3,460	4,790	3,820	3,090	2,330	1,730	943	2,190	789	438
21	1,550	3,470	3,070	4,330	3,760	3,140	2,170	5,460	910	1,860	753	436
22	1,810	3,380	3,010	3,780	3,860	3,190	2,110	6,140	895	1,640	707	431
23	1,800	3,280	3,030	3,490	3,760	4,890	2,910	4,660	900	1,410	659	421
24	1,740	3,470	3,350	3,260	3,900	12,700	3,690	4,970	876	1,660	624	418
25	1,870	7,340	3,820	2,980	4,000	13,100	3,660	6,020	776	1,740	591	418
26	1,990	7,240	3,540	3,080	3,820	10,800	3,390	5,690	726	1,090	570	418
27	1,950	6,750	3,370	3,000	3,700	9,230	3,340	4,750	688	981	582	415
28	1,840	8,020	2,970	2,590	3,700	13,700	3,310	3,760	668	905	663	419
29	1,800	8,250	2,910	2,320	---	50,800	3,140	3,340	741	848	730	682
30	2,030	7,260	2,900	2,380	---	30,300	3,080	3,000	689	790	746	493
31	3,090	---	2,760	2,230	---	19,400	---	2,540	---	882	796	---
TOTAL	70,310	128,520	170,170	183,060	96,680	269,930	175,640	99,250	38,617	47,369	26,782	15,314
MEAN	2,268	4,284	5,489	5,905	3,453	8,707	5,855	3,202	1,287	1,528	864	510
MAX	7,080	8,250	11,000	11,800	5,090	50,800	17,700	6,140	2,220	3,600	1,760	757
MIN	1,340	2,100	2,760	2,230	2,010	2,980	2,110	1,470	668	641	570	415
CFSM	0.72	1.37	1.75	1.89	1.10	2.78	1.87	1.02	0.41	0.49	0.28	0.16
IN.	0.84	1.53	2.02	2.18	1.15	3.21	2.09	1.18	0.46	0.56	0.32	0.18

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 2005, BY WATER YEAR (WY)

MEAN	1,522	2,154	3,362	3,976	5,275	7,539	6,091	4,547	2,640	1,375	1,276	1,302
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

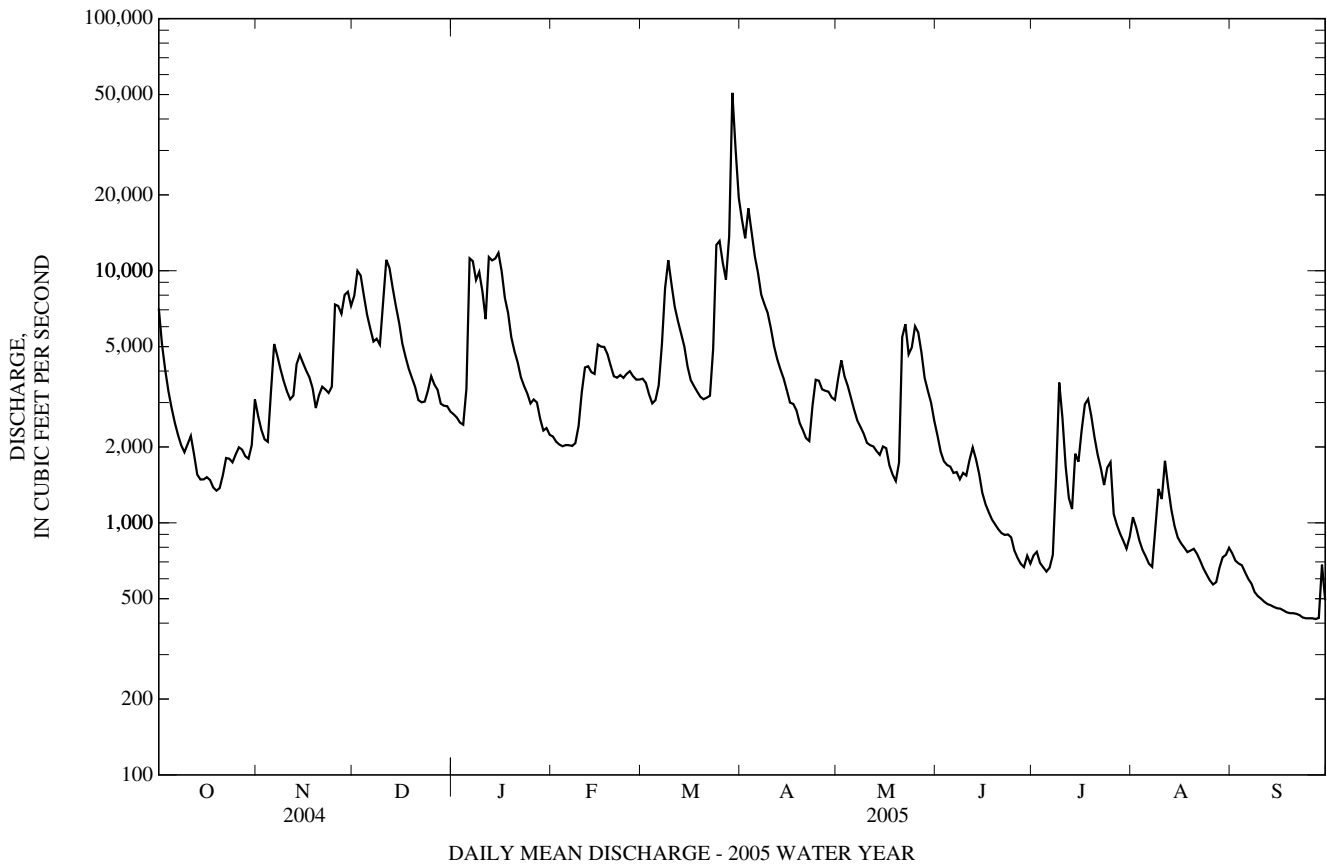
SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1939 - 2005	
ANNUAL TOTAL	1,692,380		1,321,642			
ANNUAL MEAN	4,624		3,621		3,412	
HIGHEST ANNUAL MEAN					6,556	
LOWEST ANNUAL MEAN					1,499	
HIGHEST DAILY MEAN	34,900	Apr 14	50,800	Mar 29	125,000	Nov 6, 1985
LOWEST DAILY MEAN	665	Sep 7	415	Sep 27	172	(a)
ANNUAL SEVEN-DAY MINIMUM	721	Sep 1	420	Sep 22	179	Sep 7, 1966
MAXIMUM PEAK FLOW			58,500	Mar 29	(b)235,000	Nov 5, 1985
MAXIMUM PEAK STAGE			27.39	Mar 29	53.58	Nov 5, 1985
INSTANTANEOUS LOW FLOW			413	(c)	164	(d)
ANNUAL RUNOFF (CFSM)	1.48		1.16		1.09	
ANNUAL RUNOFF (INCHES)	20.12		15.71		14.81	
10 PERCENT EXCEEDS	9,360		7,960		7,790	
50 PERCENT EXCEEDS	3,440		2,660		1,830	
90 PERCENT EXCEEDS	1,170		675		455	

a Sept. 10, 12, 13, 1966.

b From rating curve extended above 85,000 ft³/s on basis of slope-area measurement of peak flow at site 5.0 mi upstream at Okonoko, WV.

c Sept. 27, 28.

d Sept. 10, 11, 1966.



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 mi².

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 ft³/s and poor below except those for estimated daily discharges (missing record and 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 1,100 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov 25	0145	1,360	4.19	Mar 23	2315	1,890	4.88
Jan 12	0645	1,160	3.91	Mar 29	0415	*6,050	*8.65

Minimum discharge, 0.00 ft³/s, Sept. 26-29.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	188	34	373	50	e55	e58	295	56	13	1.5	0.80	0.99
2	132	31	378	48	e55	e58	379	48	10	1.2	0.80	1.0
3	103	29	293	44	e50	58	520	42	9.4	1.00	0.71	0.92
4	83	30	214	44	e45	58	364	38	9.0	0.96	0.56	0.90
5	69	49	161	82	44	63	258	35	9.5	1.3	0.57	0.76
6	58	52	126	584	44	65	202	32	9.8	16	0.40	0.65
7	50	46	119	494	45	143	167	31	9.6	19	0.51	0.53
8	45	42	129	614	48	266	155	32	8.0	77	2.1	0.37
9	41	37	109	669	60	220	123	31	8.9	73	3.1	0.28
10	38	33	283	392	99	173	101	28	9.6	38	2.9	0.21
11	34	31	547	270	104	143	89	27	18	20	2.4	0.16
12	31	45	380	912	87	123	77	25	24	12	2.0	0.13
13	30	117	259	559	75	100	71	22	24	9.2	1.6	0.09
14	30	111	184	612	73	81	64	20	20	10	1.3	0.07
15	32	93	133	525	159	69	57	20	16	6.7	0.99	0.04
16	32	83	105	344	199	63	49	19	10	6.5	1.0	0.07
17	31	74	96	246	180	60	44	18	7.3	8.1	0.88	0.07
18	29	67	86	175	140	58	43	16	5.9	6.1	0.69	0.04
19	28	64	80	e140	97	55	42	14	5.1	5.1	2.2	0.02
20	30	72	e75	e120	105	52	40	20	4.2	8.1	4.0	0.02
21	56	75	e68	e100	94	50	38	47	3.6	5.9	3.0	0.01
22	57	71	62	e90	92	48	38	34	3.5	4.4	2.3	0.01
23	44	71	64	e80	74	464	71	26	4.3	4.1	1.8	0.01
24	41	179	e110	e75	66	1,150	93	27	4.2	3.4	1.4	0.01
25	46	992	e85	e70	67	494	72	30	3.5	2.8	1.1	0.01
26	46	447	e68	e70	63	332	62	25	2.8	2.4	0.87	0.01
27	42	276	57	e65	60	257	55	20	2.3	2.1	0.91	0.01
28	39	587	52	e62	e60	901	50	17	1.9	1.8	0.93	0.00
29	36	523	57	e60	---	3,270	45	15	1.7	1.5	0.88	0.01
30	36	318	53	e58	---	922	48	14	1.6	1.2	0.89	0.01
31	36	---	49	e58	---	445	---	13	---	0.94	1.1	---
TOTAL	1,593	4,679	4,855	7,712	2,340	10,299	3,712	842	260.7	351.30	44.69	7.41
MEAN	51.4	156	157	249	83.6	332	124	27.2	8.69	11.3	1.44	0.25
MAX	188	992	547	912	199	3,270	520	56	24	77	4.0	1.0
MIN	28	29	49	44	44	48	38	13	1.6	0.94	0.40	0.00
CFSM	0.50	1.53	1.54	2.44	0.82	3.26	1.21	0.27	0.09	0.11	0.01	0.00
IN.	0.58	1.71	1.77	2.81	0.85	3.76	1.35	0.31	0.10	0.13	0.02	0.00

e Estimated

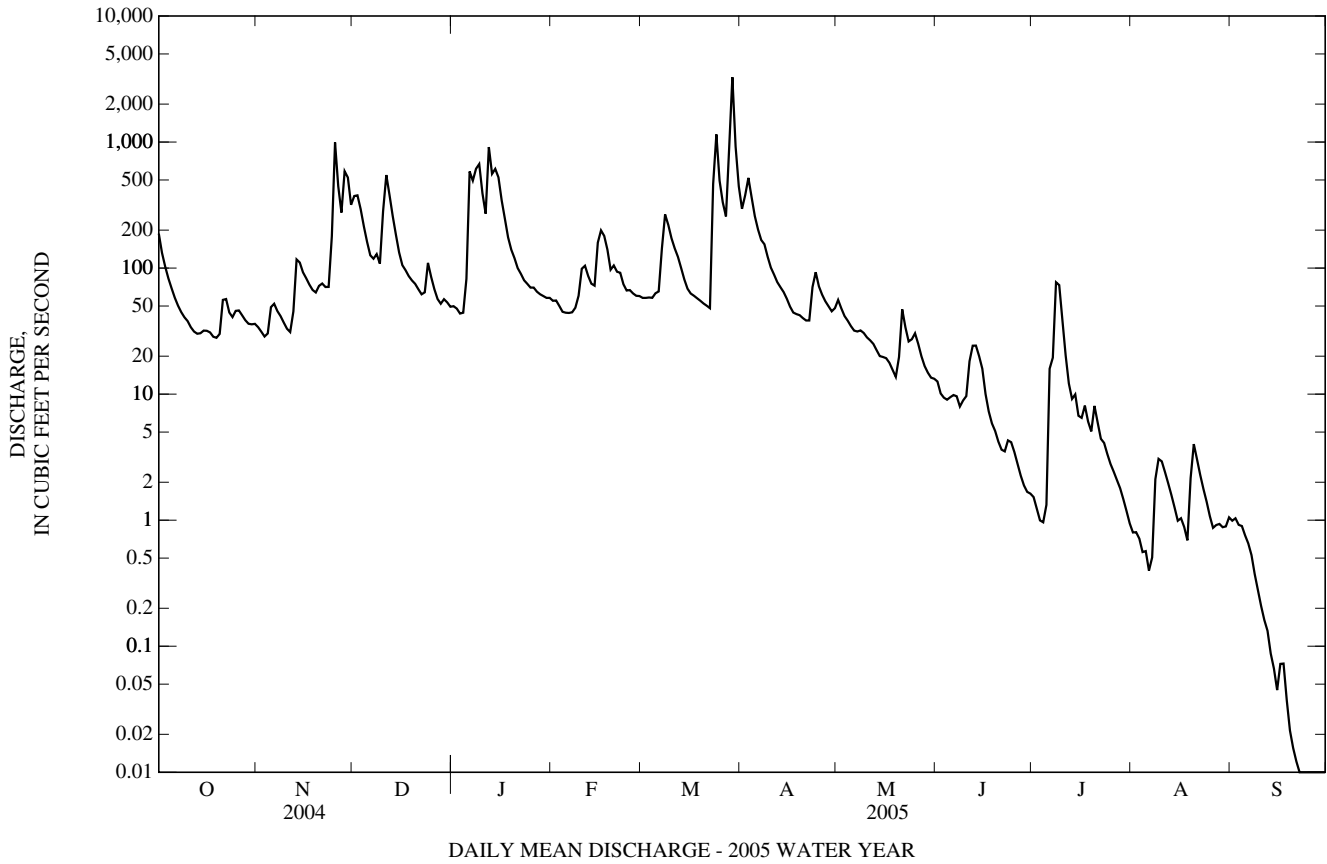
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1967 - 1977, 1999 - 2005, BY WATER YEAR (WY)

MEAN	81.5	95.5	162	118	163	222	215	130	120	29.1	21.5	63.5
MAX	569	293	401	249	523	416	518	435	726	87.6	85.1	578
(WY)	(1977)	(1971)	(1973)	(2005)	(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	0.25
(WY)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(1971)	(1969)	(1999)	(1999)	(1968)	(2005)

01610155 SIDELING HILL CREEK NEAR BELLEGROVE, MD—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1967 - 1977, 1999 - 2005	
	ANNUAL TOTAL	65,253.4		36,696.10		120
ANNUAL MEAN	178		101		207	2003
HIGHEST ANNUAL MEAN					31.1	2002
LOWEST ANNUAL MEAN					9,200	Jun 22, 1972
HIGHEST DAILY MEAN	6,400	Sep 18	3,270	Mar 29	0.00	(a)
LOWEST DAILY MEAN	2.1	Sep 7	0.00	Sep 28	0.00	Aug 18, 1968
ANNUAL SEVEN-DAY MINIMUM	3.6	Sep 1	0.01	Sep 22	0.00	Jun 22, 1972
MAXIMUM PEAK FLOW			6,050	Mar 29	(b)14,200	Jun 22, 1972
MAXIMUM PEAK STAGE			8.65	Mar 29	12.44	Jun 22, 1972
INSTANTANEOUS LOW FLOW			0.00	(c)	0.00	(d)
ANNUAL RUNOFF (CFSM)	1.75		0.986		1.17	
ANNUAL RUNOFF (INCHES)	23.80		13.38		15.93	
10 PERCENT EXCEEDS	374		262		284	
50 PERCENT EXCEEDS	75		44		39	
90 PERCENT EXCEEDS	12		0.88		1.7	

- a Aug. 18-31, Sept. 1-9, 1968, Aug. 6-24, 1999, Sept. 28.
- b From rating curve extended above 10,400 ft³/s.
- c Sept. 26-29.
- d Aug. 17-31, Sept. 1-10, 1968, Aug. 6-25, 1999, Sept. 26-29.



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 mi².

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 (ice affect and EDL malfunction), which are poor. U.S. Geological Survey gage-height telemeter at station.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 140 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan 25	0745	*144	*4.38	No other peak greater than base discharge.			

Minimum discharge, 1.1 ft³/s, Sept. 28.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	43	8.9	32	14	e9.0	9.9	41	17	14	2.8	3.7	2.4
2	34	8.6	27	13	e9.0	8.9	65	16	13	2.7	3.5	2.1
3	28	8.4	26	12	e9.0	e8.8	68	16	14	2.6	3.2	2.0
4	23	15	23	12	e9.0	e8.6	52	15	12	2.5	3.0	1.9
5	19	15	21	15	9.6	9.0	44	14	11	2.5	2.8	1.8
6	17	13	20	14	9.4	10	38	14	9.9	2.5	2.7	1.8
7	15	12	19	13	9.8	19	34	14	9.4	2.7	2.9	1.8
8	13	12	18	13	11	35	32	13	8.1	32	2.9	1.7
9	12	11	24	13	11	28	28	12	7.8	6.8	7.2	1.6
10	12	10	62	13	12	24	25	12	9.4	4.2	3.7	1.7
11	11	10	57	12	9.9	22	22	11	9.7	3.6	3.0	1.6
12	9.9	19	43	12	9.9	21	20	11	7.3	3.4	2.8	1.6
13	9.5	22	37	12	9.5	18	19	10	11	5.3	2.6	1.5
14	11	18	31	86	12	16	17	11	10	6.1	2.4	1.5
15	11	17	26	48	13	15	16	12	6.9	5.4	2.3	1.5
16	9.5	16	24	37	12	14	15	10	6.2	19	2.4	1.6
17	8.4	15	22	30	12	14	14	9.2	5.8	32	2.5	1.9
18	7.5	15	20	e24	11	13	14	8.6	5.4	18	2.2	1.6
19	7.7	15	19	e22	e11	13	13	8.3	5.3	17	2.5	1.5
20	8.9	15	e16	e19	10	13	13	46	5.0	14	2.4	1.5
21	13	14	e14	e18	11	12	13	30	4.5	14	2.1	1.5
22	9.4	13	15	e16	11	12	17	24	4.7	12	1.9	1.4
23	8.5	12	26	e15	9.9	23	26	32	4.3	9.2	1.9	1.4
24	9.7	14	23	e14	10	24	19	45	3.8	7.5	1.9	1.6
25	9.3	16	19	e13	9.9	e23	18	44	3.5	6.5	1.8	1.6
26	8.6	15	18	e12	9.4	e23	16	37	3.3	5.7	1.8	1.6
27	8.4	14	e16	e12	8.9	e28	16	30	3.1	5.0	3.7	1.5
28	8.4	35	e16	e11	9.6	e40	15	26	3.1	4.9	3.5	1.3
29	8.8	27	16	e10	---	77	14	22	3.2	5.0	2.5	1.5
30	11	25	15	e10	---	60	20	19	2.9	4.6	2.4	1.4
31	9.5	---	14	e9.5	---	48	---	17	---	4.1	3.2	---
TOTAL	415.0	460.9	759	574.5	288.8	690.2	764	606.1	217.6	263.6	87.4	49.4
MEAN	13.4	15.4	24.5	18.5	10.3	22.3	25.5	19.6	7.25	8.50	2.82	1.65
MAX	43	35	62	86	13	77	68	46	14	32	7.2	2.4
MIN	7.5	8.4	14	9.5	8.9	8.6	13	8.3	2.9	2.5	1.8	1.3
CFSM	1.06	1.22	1.94	1.47	0.82	1.77	2.02	1.55	0.58	0.67	0.22	0.13
IN.	1.23	1.36	2.24	1.70	0.85	2.04	2.26	1.79	0.64	0.78	0.26	0.15

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2002 - 2005, BY WATER YEAR (WY)

MEAN	11.9	25.4	28.5	18.9	14.7	28.7	36.5	28.0	17.8	6.51	4.39	23.7
MAX	13.9	31.0	36.5	26.7	22.6	55.8	45.6	33.9	44.1	8.50	9.21	48.3
(WY)	(2004)	(2004)	(2004)	(2003)	(2003)	(2003)	(2004)	(2003)	(2003)	(2005)	(2003)	(2003)
MIN	8.43	15.4	24.4	11.3	3.79	13.0	25.5	19.6	7.25	3.43	2.27	1.65
(WY)	(2003)	(2005)	(2003)	(2004)	(2002)	(2002)	(2005)	(2005)	(2005)	(2004)	(2004)	(2005)

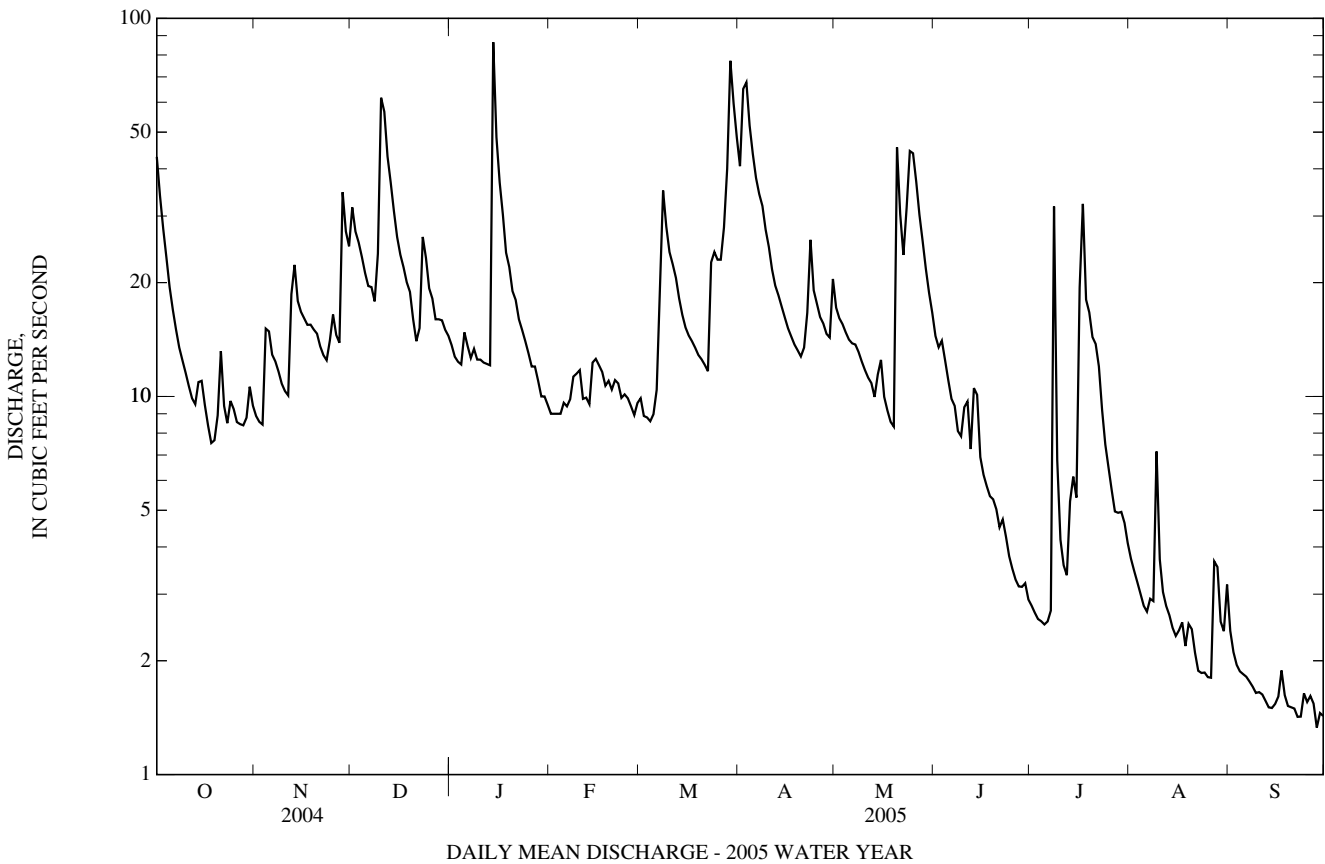
01610400 WAITES RUN NEAR WARDENSVILLE, WV—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 2002 - 2005	
ANNUAL TOTAL	7,424.1		5,176.5		22.1	
ANNUAL MEAN	20.3		14.2		14.2	
HIGHEST ANNUAL MEAN					29.5	2003
LOWEST ANNUAL MEAN					14.2	2005
HIGHEST DAILY MEAN	249	Sep 8	86	Jan 14	679	Sep 19, 2003
LOWEST DAILY MEAN	1.2	(a)	1.3	Sep 28	(e)0.78	Sep 14, 2002
ANNUAL SEVEN-DAY MINIMUM	1.3	Aug 30	1.5	Sep 22	1.0	Sep 12, 2002
MAXIMUM PEAK FLOW			144	Jan 25	1,380	Sep 19, 2003
MAXIMUM PEAK STAGE			4.38	Jan 25	6.09	Sep 19, 2003
INSTANTANEOUS LOW FLOW			1.1	Sep 28		UNKNOWN
ANNUAL RUNOFF (CFSM)	1.61		1.13		1.75	
ANNUAL RUNOFF (INCHES)	21.92		15.28		23.84	
10 PERCENT EXCEEDS	38		28		46	
50 PERCENT EXCEEDS	15		12		14	
90 PERCENT EXCEEDS	2.3		2.3		2.8	

a Sept. 2, 4, 5

e Estimated.

b From rating curve extended above 420 ft³/s.



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.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 156 microsiemens/cm (upstream bridge construction), 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.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

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)	Specific conductance, wat unfltrd 25 degC (00095)	Temperature, air, deg C (00020)
NOV 02...	1015	Environmental	1028	80020	8.6	40	734	11.2	107	7.0	56	15.5
JAN 04...	1400	Environmental	1028	80020	12	40	732	11.8	107	6.5	44	5.5
MAR 03...	1230	Environmental	1028	80020	8.9	40	727	18.8	135	6.4	58	.5
MAY 03...	1115	Environmental	1028	80020	15	40	733	11.3	100	7.0	39	12.5
JUL 05...	1100	Environmental	1028	80020	2.5	40	730	16.8	196	7.4	88	26.0
JUL 27...	1300	Biological	--	80020	--	--	--	--	--	--	--	--
SEP 06...	1045	Environmental	1028	80020	1.7	40	740	8.2	86	7.7	114	20.0

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)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Total nitrogen, wat unfltrd by analysis, mg/L (62855)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	Biomass periphyton, ashfree drymass g/m2 (49954)	Periphyton biomass ash weight, g/m2 (00572)
NOV 02...	11.6	20	24	.66	4.8	<.04	<.06	E.004	E.05	E.003	<.004	--	--
JAN 04...	9.4	17	21	.64	4.9	<.04	.11	<.008	.18	<.006	.006	--	--
MAR 03...	.1	19	23	.62	5.6	<.04	.13	<.008	.16	<.006	.005	--	--
MAY 03...	8.5	11	13	.59	4.8	<.04	.16	<.008	.21	<.006	E.004	--	--
JUL 05...	20.7	40	48	.52	4.6	<.04	.10	<.008	.19	<.006	.009	--	--
JUL 27...	--	--	--	--	--	--	--	--	--	--	--	27.3	470
SEP 06...	16.6	12	15	.59	4.9	<.04	.09	<.008	.21	E.004	.023	--	--

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 2004 TO SEPTEMBER 2005—CONTINUED

Date	Peri- phyton biomass dry weight, g/m2 (00573)	Pheo- phytin a, peri- phyton, mg/m2 (62359)	Chloro- phyll a peri- phyton, chromo- fluoro, mg/m2 (70957)	Sus- pended sedi- ment concen- tration mg/L (80154)	Sus- pended sedi- ment dis- charge, tons/d (80155)	Sampler type, code (84164)
NOV 02...	--	--	--	3	.07	3070
JAN 04...	--	--	--	2	.06	3070
MAR 03...	--	--	--	3	.07	3070
MAY 03...	--	--	--	1	.04	3070
JUL 05...	--	--	--	3	.02	3070
27...	496.8	33	98.6	--	--	--
SEP 06...	--	--	--	12	.06	3070

Remark codes used in this table:

< -- Less than.

E -- Estimated.

Sampler type: 3070 - Grab sample

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 mi².

WATER-DISCHARGE RECORDS

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.--No estimated daily discharges. Water-discharge records fair. High end of rating not confirmed above 3,000 ft³/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 ft³/s.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,900 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan 15	0330	4,300	7.13	Mar 29	1330	*9,090	*10.21

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,740	323	1,300	411	393	415	2,000	608	443	129	103	98
2	1,220	335	1,480	403	367	431	1,830	750	388	165	102	92
3	902	296	1,300	383	358	417	2,810	663	352	153	106	86
4	715	284	1,110	362	346	380	2,470	630	334	136	102	83
5	587	373	931	378	356	381	1,900	579	330	127	95	81
6	492	743	797	506	363	451	1,590	525	319	130	91	78
7	425	640	714	636	354	600	1,350	486	325	171	99	75
8	377	533	715	638	355	1,160	1,290	463	300	243	125	72
9	338	454	708	671	383	1,840	1,250	442	264	1,040	123	71
10	307	388	1,250	677	449	1,550	1,030	414	246	627	110	71
11	278	347	3,130	654	478	1,230	894	381	224	360	212	71
12	256	363	2,230	640	430	1,030	799	355	284	239	270	68
13	241	631	1,730	617	386	884	726	336	282	184	192	67
14	232	969	1,380	1,530	389	754	670	318	289	164	148	67
15	232	796	1,090	3,430	430	647	617	310	244	225	142	67
16	242	674	881	2,130	528	572	561	300	204	317	120	71
17	239	596	756	1,670	522	525	511	299	181	365	106	73
18	221	538	694	1,270	503	497	476	274	165	568	97	73
19	207	505	634	896	465	471	456	252	154	374	96	75
20	201	503	565	937	413	445	442	262	148	268	92	69
21	223	503	462	873	419	422	430	1,250	144	233	92	70
22	279	464	485	715	431	400	445	1,540	144	213	91	73
23	284	431	500	593	426	499	531	1,040	157	176	86	70
24	265	425	577	516	410	1,730	813	1,260	144	175	83	68
25	254	533	676	541	399	1,880	748	1,890	138	163	78	67
26	255	752	526	641	391	1,550	657	1,610	133	146	75	67
27	261	810	429	605	384	1,300	604	1,240	129	133	76	67
28	251	947	403	507	387	1,730	552	926	124	121	81	67
29	234	1,610	443	447	---	8,280	512	731	123	113	88	70
30	227	1,380	446	423	---	5,240	496	609	121	109	91	71
31	252	---	425	403	---	2,750	---	514	---	105	97	---
TOTAL	12,237	18,146	28,767	25,103	11,515	40,461	29,460	21,257	6,833	7,672	3,469	2,198
MEAN	395	605	928	810	411	1,305	982	686	228	247	112	73.3
MAX	1,740	1,610	3,130	3,430	528	8,280	2,810	1,890	443	1,040	270	98
MIN	201	284	403	362	346	380	430	252	121	105	75	67
CFSM	0.58	0.90	1.37	1.20	0.61	1.93	1.45	1.02	0.34	0.37	0.17	0.11
IN.	0.67	1.00	1.59	1.38	0.63	2.23	1.62	1.17	0.38	0.42	0.19	0.12

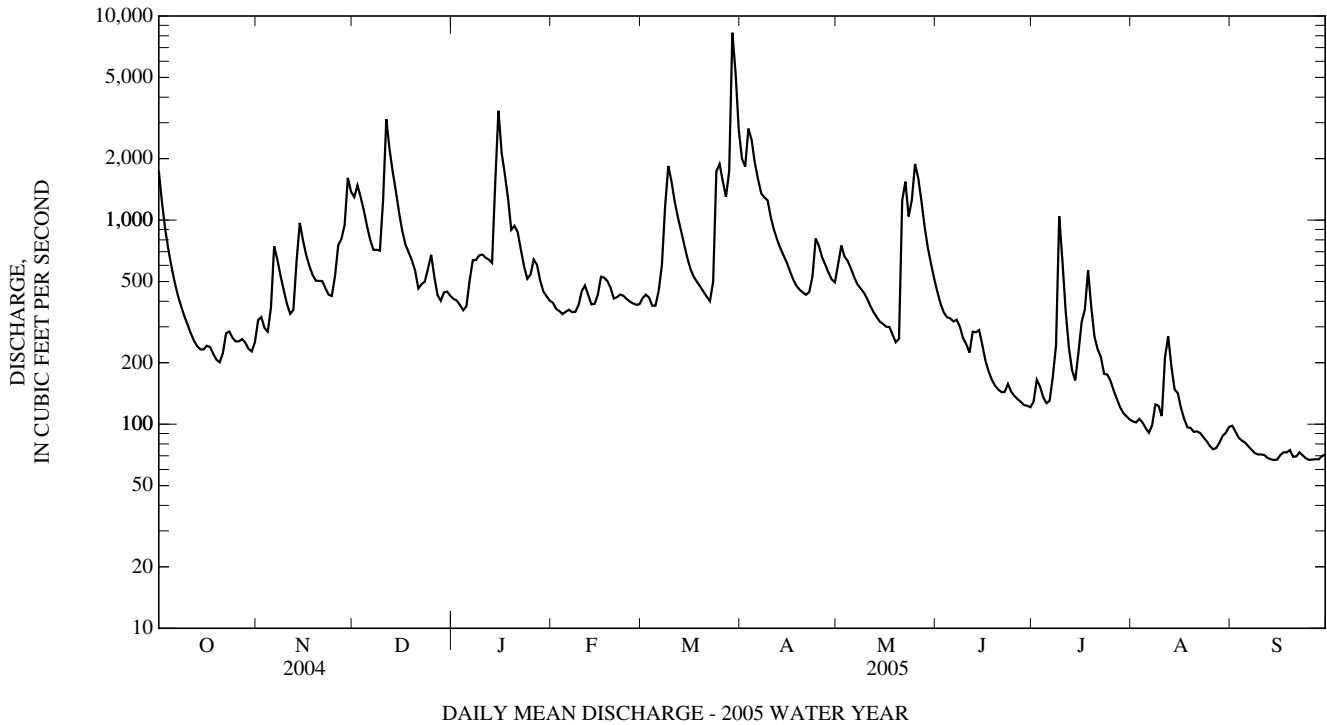
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1923 - 1995, 1997 - 2005, BY WATER YEAR (WY)

MEAN	326	381	534	638	885	1,286	1,130	864	439	195	232	203
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 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1923 - 1995, 1997 - 2005	
	ANNUAL TOTAL	320,830		207,118		594
ANNUAL MEAN	877		567		180	2003
HIGHEST ANNUAL MEAN					1,192	1969
LOWEST ANNUAL MEAN					26	Mar 18, 1936
HIGHEST DAILY MEAN	8,050	Apr 27	8,280	Mar 29	67,900	Mar 18, 1936
LOWEST DAILY MEAN	82	(a)	67	(b)	26	Sep 12, 1966
ANNUAL SEVEN-DAY MINIMUM	84	Sep 1	68	Sep 23	28	Sep 7, 1966
MAXIMUM PEAK FLOW			9,090	Mar 29	(c)87,600	Mar 18, 1936
MAXIMUM PEAK STAGE			10.21	Mar 29	30.10	Mar 18, 1936
INSTANTANEOUS LOW FLOW			66	(d)	26	(f)
ANNUAL RUNOFF (CFSM)	1.30		0.841		0.880	
ANNUAL RUNOFF (INCHES)	17.68		11.41		11.96	
10 PERCENT EXCEEDS	1,750		1,260		1,360	
50 PERCENT EXCEEDS	586		403		250	
90 PERCENT EXCEEDS	167		91		68	

- a Sept. 5-7.
- b Sept. 13-15, 25-28.
- c From rating curve extended above 52,000 ft³/s.
- d Sept. 14, 15, 16, 25, 26.
- f Sept. 11-13, 1966.



01611500 CACAPON RIVER NEAR GREAT CACAPON, WV—Continued

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 mi².

PERIOD OF RECORD.--Periodic laboratory analyses, June 2005 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Gage height, feet (00065)	Instantaneous discharge, cfs (00061)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unfltrd 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Alkalinity, wat flt inc tit field, mg/L as CaCO ₃ (39086)	Bicarbonate, wat flt incrm. titr., field, mg/L (00453)	Carbonate, wat flt incrm. titr., field, mg/L (00452)
JUN 08...	1615	1.95	292	751	8.6	110	8.5	136	35.0	27.0	50	--	--
JUL 12...	1535	1.79	226	753	8.4	108	8.0	134	E35.0	27.4	50	--	--
AUG 10...	1420	1.42	130	754	8.3	106	8.1	168	31.0	27.4	72	--	--
SEP 13...	1505	1.22	67	751	9.0	110	8.2	178	--	24.9	82	100	<1

Date	Residue total at 105 deg. C, suspended, mg/L (00530)	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)	Total nitrogen, wat unfltrd by analysis, mg/L (62855)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	Suspended sediment concentration mg/L (80154)	Suspended sediment discharge, tons/d (80155)
JUN 08...	<10	<.04	.12	<.008	.33	E.003	.016	3	2.4
JUL 12...	<10	<.04	.25	<.008	.60	E.003	.021	3	1.8
AUG 10...	<10	<.04	<.06	<.008	.22	<.006	.016	2	.70
SEP 13...	10	<.04	<.06	<.008	.18	<.006	.013	1	.18

Remark codes used in this table:

< -- Less than.
E -- Estimated.

01611500 CACAPON RIVER NEAR GREAT CACAPON, WV—Continued



CACAPON RIVER, CACAPON, WV

Photo by U.S. Geological personnel

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 mi².

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 (equipment malfunction), 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 ft³/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 23,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar 29	2200	*66,200	*23.26	No other peak greater than base discharge.			

Minimum discharge, 512 ft³/s, Sept. 25-29.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10,000	3,130	8,560	3,040	2,460	4,110	17,900	3,890	2,960	838	1,040	977
2	6,930	2,750	10,800	2,970	2,350	3,970	15,100	4,960	2,600	924	1,200	932
3	5,470	2,450	11,000	2,840	2,300	3,790	19,100	4,710	2,330	952	1,100	871
4	4,420	2,290	9,400	2,730	2,220	3,330	17,300	4,330	2,160	864	985	840
5	3,720	2,570	7,790	2,890	2,190	3,250	13,400	3,970	2,120	840	903	831
6	3,150	4,960	6,810	8,930	2,240	3,570	11,200	3,610	2,060	874	853	788
7	2,770	5,380	6,170	12,300	2,250	4,680	9,490	3,280	2,040	895	819	749
8	2,450	4,740	5,910	10,300	2,250	7,720	8,370	3,060	1,970	1,370	937	718
9	2,220	4,190	5,880	11,500	2,430	11,600	7,860	2,920	1,940	3,300	1,270	668
10	2,040	3,770	7,200	9,680	3,060	10,700	7,090	2,740	1,950	4,450	1,500	651
11	2,290	3,440	13,700	7,690	4,130	8,430	6,180	2,550	1,910	2,720	1,620	642
12	2,280	3,380	13,000	10,100	4,570	7,290	5,470	2,490	2,230	1,910	2,050	621
13	1,810	4,280	10,600	12,600	4,340	6,500	5,010	2,430	2,380	1,500	1,610	600
14	1,620	5,500	8,740	11,800	4,190	5,780	4,640	2,340	2,090	1,720	1,330	594
15	1,590	5,300	7,420	15,800	4,770	5,080	4,290	2,280	1,860	1,940	1,170	589
16	1,580	4,830	6,360	12,800	5,650	4,270	3,840	2,390	1,590	2,290	1,080	589
17	1,610	4,480	5,420	9,800	5,520	3,970	3,580	2,330	1,440	3,080	1,010	596
18	1,540	4,200	4,980	8,290	5,300	3,770	3,470	2,020	1,330	3,750	950	580
19	1,470	3,590	4,460	6,810	4,910	3,580	3,290	1,870	1,250	3,450	928	571
20	1,450	3,380	4,120	5,840	4,300	3,400	3,030	1,890	1,200	2,910	940	566
21	1,630	3,900	3,640	5,340	4,140	3,330	2,830	3,790	1,150	2,380	e920	563
22	1,800	3,870	3,430	4,670	4,210	3,380	2,750	7,610	1,110	2,100	e880	563
23	2,000	3,730	3,450	4,140	4,150	4,380	3,050	6,070	1,120	1,830	e830	558
24	1,940	3,850	3,680	3,930	4,110	13,200	4,400	5,500	1,110	1,610	789	535
25	1,890	7,580	4,110	3,680	4,280	15,100	4,660	7,020	1,060	2,080	748	518
26	2,070	8,650	4,130	3,630	4,200	12,500	4,310	7,110	953	1,750	721	512
27	2,130	7,860	3,780	3,570	4,010	10,500	4,030	6,150	896	1,260	714	512
28	2,050	8,540	3,490	3,300	3,950	12,600	4,040	5,060	854	1,150	740	512
29	1,920	10,600	3,300	2,940	---	53,500	3,860	4,230	832	1,060	806	513
30	1,920	9,080	3,270	2,690	---	44,800	3,730	3,820	897	994	900	806
31	2,540	---	3,170	2,590	---	22,800	---	3,410	---	931	939	---
TOTAL	82,300	146,270	197,770	209,190	104,480	304,880	207,270	119,830	49,392	57,722	32,282	19,565
MEAN	2,655	4,876	6,380	6,748	3,731	9,835	6,909	3,865	1,646	1,862	1,041	652
MAX	10,000	10,600	13,700	15,800	5,650	53,500	19,100	7,610	2,960	4,450	2,050	977
MIN	1,450	2,290	3,170	2,590	2,190	3,250	2,750	1,870	832	838	714	512
CFSM	0.65	1.19	1.56	1.65	0.91	2.40	1.69	0.95	0.40	0.46	0.25	0.16
IN.	0.75	1.33	1.80	1.90	0.95	2.77	1.89	1.09	0.45	0.53	0.29	0.18

e Estimated

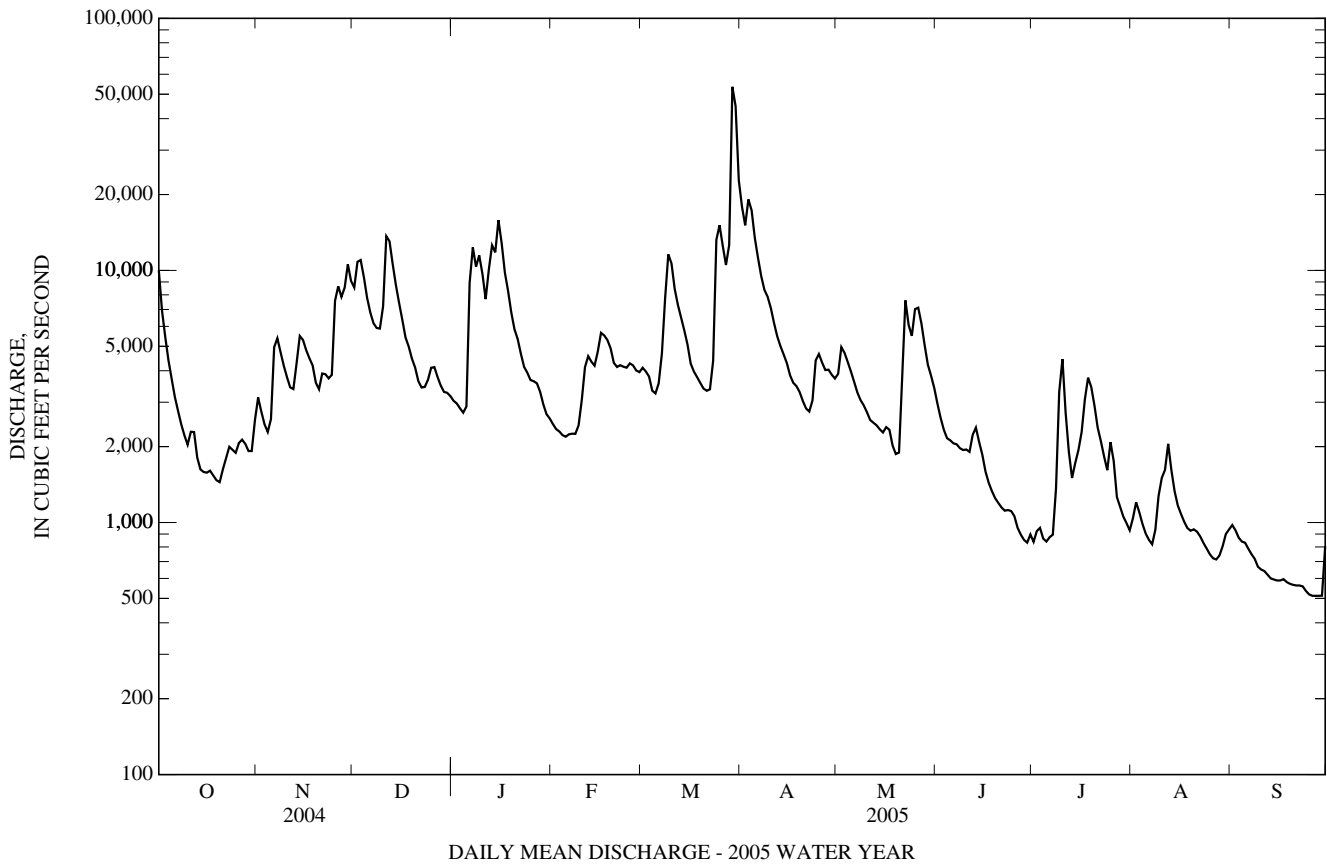
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1933 - 2005, BY WATER YEAR (WY)

MEAN	1,997	2,616	4,055	5,077	6,494	9,375	7,688	5,565	3,178	1,590	1,592	1,607
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 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1933 - 2005	
ANNUAL TOTAL	1,988,008		1,530,951		4,224	
ANNUAL MEAN	5,432		4,194		7,932	
HIGHEST ANNUAL MEAN					1,770	
LOWEST ANNUAL MEAN					196	
HIGHEST DAILY MEAN	37,900	Apr 14	53,500	Mar 29	261,000	Mar 18, 1936
LOWEST DAILY MEAN	613	Sep 7	512	(a)	184	Oct 3, 1932
ANNUAL SEVEN-DAY MINIMUM	690	Sep 1	523	Sep 23	215	Sep 7, 1966
MAXIMUM PEAK FLOW			66,200	Mar 29	(b)340,000	Mar 18, 1936
MAXIMUM PEAK STAGE			23.26	Mar 29	47.60	Mar 18, 1936
INSTANTANEOUS LOW FLOW			512	(c)	180	Oct 4, 1932
ANNUAL RUNOFF (CFSM)	1.33		1.03		1.03	
ANNUAL RUNOFF (INCHES)	18.08		13.92		14.03	
10 PERCENT EXCEEDS	10,700		8,990		9,660	
50 PERCENT EXCEEDS	4,080		3,130		2,200	
90 PERCENT EXCEEDS	1,110		839		549	

a Sept. 26-28.
 b From rating curve extended above 120,000 ft³/s on basis of slope-area measurement of peak flow.
 c Sept. 25-29.



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 mi².

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 ft³/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,300 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar 29	0845	*9,740	*11.44	Apr 3	0645	4,860	8.01

Minimum discharge, 84 ft³/s, Sept. 25.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,830	402	1,940	e460	e440	618	2,210	590	239	170	180	152
2	1,450	380	1,960	e420	e420	599	2,990	513	224	155	171	140
3	1,240	364	1,540	e456	e400	541	4,310	472	229	152	162	123
4	1,060	384	1,320	525	e380	510	2,710	443	255	131	153	116
5	936	695	1,160	763	e360	517	2,040	417	246	136	146	110
6	836	586	1,030	1,780	e340	552	1,720	394	249	206	140	108
7	768	499	1,020	1,630	e440	766	1,520	382	404	194	138	106
8	707	450	1,140	1,960	536	920	1,500	373	341	422	171	106
9	658	407	1,010	2,470	608	876	1,310	356	286	635	175	104
10	613	381	2,350	1,730	783	757	1,150	342	318	349	165	102
11	561	363	2,810	1,450	730	709	1,060	337	288	254	153	99
12	522	436	1,960	2,020	609	678	975	321	253	214	144	97
13	503	652	1,580	1,720	565	631	913	308	250	192	155	99
14	537	595	1,330	2,890	551	577	852	303	381	187	178	98
15	594	509	1,140	2,750	898	531	787	304	303	263	162	100
16	618	476	1,010	1,970	1,080	500	727	299	253	311	261	102
17	542	449	941	1,650	938	483	682	290	228	1,950	390	97
18	474	429	876	1,370	808	462	650	277	210	890	250	94
19	506	415	823	1,180	690	446	626	265	198	617	194	93
20	527	424	741	1,110	646	431	598	361	191	832	195	92
21	661	444	e580	1,030	655	422	569	494	196	485	180	91
22	661	418	e627	896	682	410	552	370	187	667	159	90
23	607	401	706	840	650	1,250	663	323	183	474	147	90
24	571	763	1,160	e740	613	3,130	743	317	184	349	139	88
25	548	3,340	858	e660	604	1,830	632	319	174	315	134	87
26	507	2,080	728	e620	582	1,430	560	302	165	301	128	91
27	476	1,430	678	e580	582	1,230	525	280	157	265	129	96
28	444	2,020	e560	e540	586	2,880	498	261	150	238	144	96
29	422	2,070	e520	e500	---	9,000	475	259	150	210	146	94
30	450	1,540	e490	e480	---	5,350	504	258	165	196	147	93
31	435	---	e470	e460	---	2,910	---	252	---	187	131	---
TOTAL	21,264	23,802	35,058	37,650	17,176	41,946	35,051	10,782	7,057	11,947	5,267	3,054
MEAN	686	793	1,131	1,215	613	1,353	1,168	348	235	385	170	102
MAX	1,830	3,340	2,810	2,890	1,080	9,000	4,310	590	404	1,950	390	152
MIN	422	363	470	420	340	410	475	252	150	131	128	87
CFSM	1.39	1.61	2.29	2.46	1.24	2.74	2.37	0.70	0.48	0.78	0.34	0.21
IN.	1.60	1.79	2.64	2.84	1.29	3.16	2.64	0.81	0.53	0.90	0.40	0.23

e Estimated.

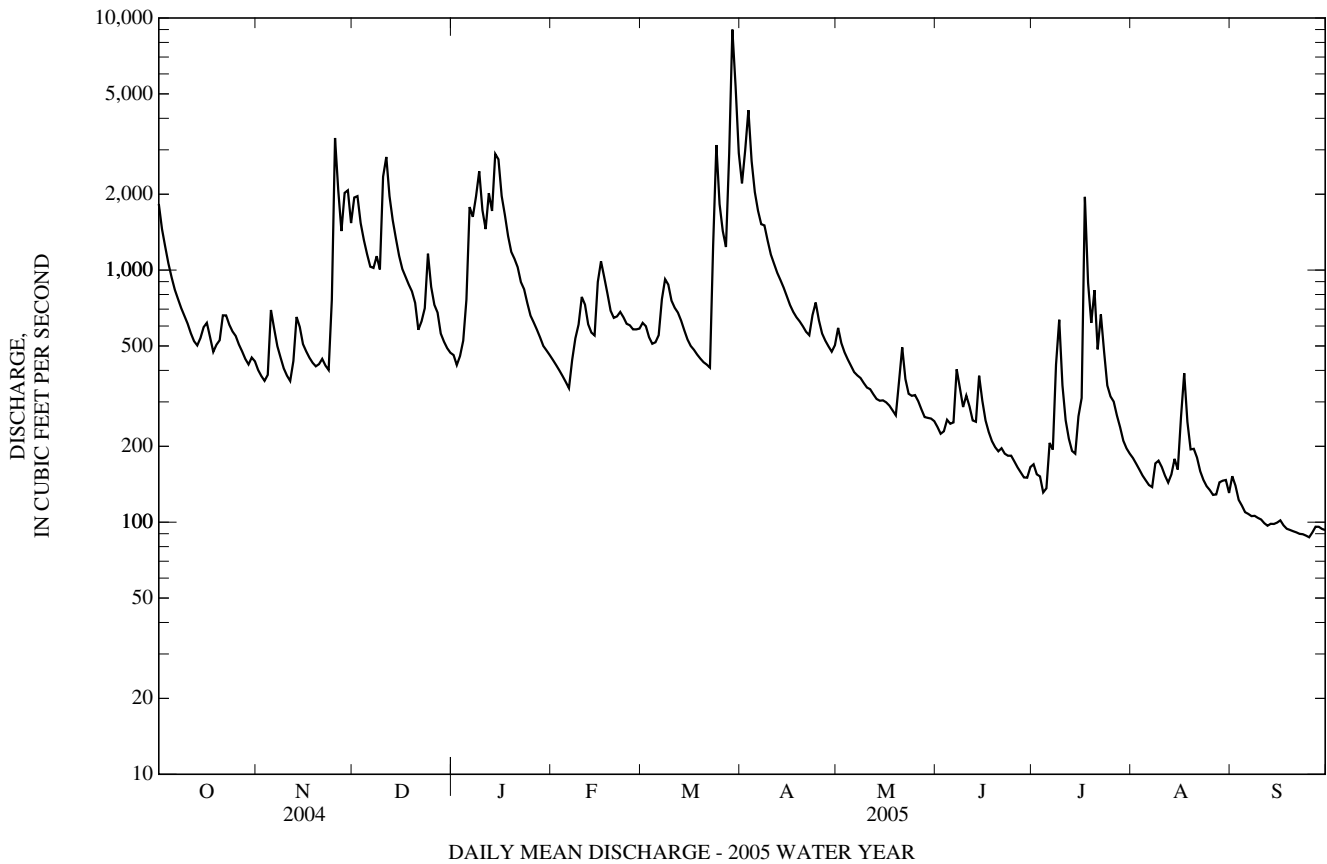
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 2005, BY WATER YEAR (WY)

MEAN	339	461	639	689	832	1,199	1,058	741	528	323	234	280
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 CONOCOCHIEGUE CREEK AT FAIRVIEW, MD—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1928 - 2005	
ANNUAL TOTAL	330,587		250,054			
ANNUAL MEAN	903		685		606	
HIGHEST ANNUAL MEAN					1,183	1996
LOWEST ANNUAL MEAN					184	2002
HIGHEST DAILY MEAN	9,660	Sep 19	9,000	Mar 29	26,700	Jun 23, 1972
LOWEST DAILY MEAN	198	Sep 7	87	Sep 25	25	Nov 28, 1930
ANNUAL SEVEN-DAY MINIMUM	218	Sep 2	90	Sep 20	28	Sep 7, 1966
MAXIMUM PEAK FLOW			9,740	Mar 29	(a)32,400	Jun 23, 1972
MAXIMUM PEAK STAGE			11.44	Mar 29	(b)24.50	Jun 23, 1972
INSTANTANEOUS LOW FLOW			84	Sep 25	21	(c)
ANNUAL RUNOFF (CFSM)	1.83		1.39		1.23	
ANNUAL RUNOFF (INCHES)	24.89		18.83		16.67	
10 PERCENT EXCEEDS	1,670		1,540		1,330	
50 PERCENT EXCEEDS	684		476		340	
90 PERCENT EXCEEDS	305		140		103	

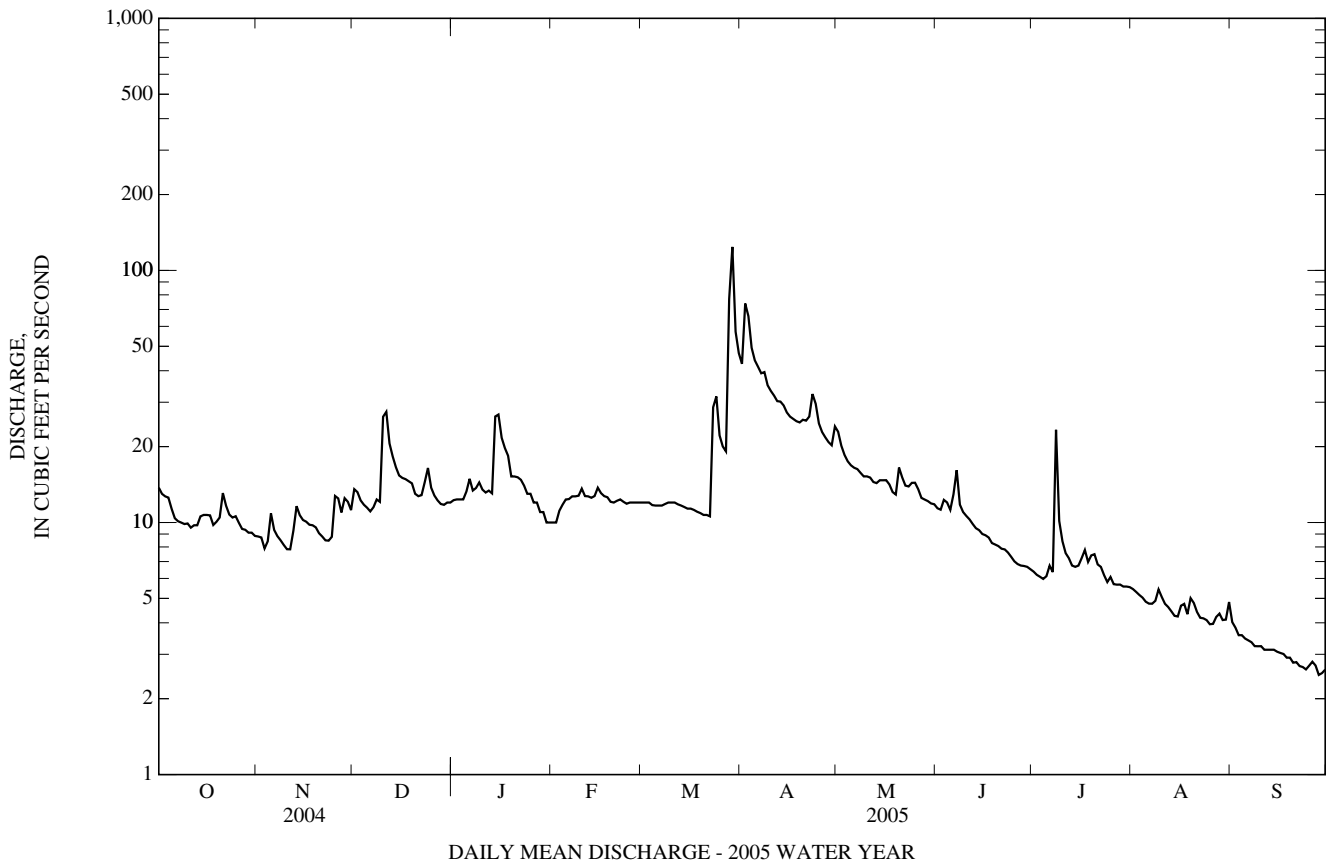
a From rating curve extended above 15,000 ft³/s on basis of contracted-opening and flow-over-road measurement of peak flow.
 b From floodmarks.
 c Aug. 8, Sept. 12, 1966.



01617800 MARSH RUN AT GRIMES, MD—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1964 - 2005	
ANNUAL TOTAL	7,053.0		4,737.0			
ANNUAL MEAN	19.3		13.0		12.4	
HIGHEST ANNUAL MEAN					23.9	1972
LOWEST ANNUAL MEAN					1.23	2002
HIGHEST DAILY MEAN	91	Feb 7	124	Mar 29	233	Sep 4, 2003
LOWEST DAILY MEAN	7.2	Sep 14	2.5	(a)	(b)0.00	Oct 1, 1977
ANNUAL SEVEN-DAY MINIMUM	7.9	Sep 2	2.6	Sep 24	0.04	Aug 17, 2002
MAXIMUM PEAK FLOW			229	Mar 28	(c)459	Feb 12, 1985
MAXIMUM PEAK STAGE			3.26	Mar 28	4.45	Feb 12, 1985
INSTANTANEOUS LOW FLOW			2.5	(d)	(b)0.00	Oct 1, 1977
ANNUAL RUNOFF (CFSM)	1.02		0.687		0.654	
ANNUAL RUNOFF (INCHES)	13.88		9.32		8.89	
10 PERCENT EXCEEDS	31		23		25	
50 PERCENT EXCEEDS	17		11		9.2	
90 PERCENT EXCEEDS	9.1		4.2		2.6	

- a Sept. 28, 29.
- b Result of regulation caused by construction work upstream from station.
- c From rating curve extended above 220 ft³/s.
- d Sept. 23, 24, 27-30.



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 mi².

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.--Records good except those for estimated daily discharges (ice affect), which are fair. 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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar 28	2145	*4,840	*9.36	Apr 3	0145	2,340	6.29

Minimum discharge, 93 ft³/s, Sept. 24, 25, 29, 30.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	465	174	324	268	e290	283	967	432	229	173	138	177
2	393	173	386	262	e285	280	1,430	394	222	157	136	137
3	346	169	313	257	e283	268	1,940	379	230	152	131	122
4	310	184	294	259	e282	262	1,310	366	234	148	128	117
5	286	243	279	277	284	260	1,090	354	226	149	126	115
6	270	213	269	326	281	261	959	348	222	164	124	115
7	258	188	272	320	280	264	877	342	302	185	121	113
8	248	181	286	312	282	290	898	336	242	375	128	112
9	239	177	281	395	293	337	790	328	218	278	166	109
10	232	173	642	364	330	299	712	323	213	192	145	107
11	223	173	777	361	322	293	670	315	217	174	135	104
12	219	206	600	372	287	292	629	308	203	167	129	103
13	215	237	532	366	278	289	605	298	202	160	124	103
14	229	218	486	764	281	280	577	299	195	159	120	102
15	238	199	440	912	343	275	549	302	198	165	118	103
16	230	194	418	686	348	268	518	295	185	205	144	102
17	215	190	394	617	334	262	499	285	186	286	201	100
18	205	185	370	550	318	260	487	278	183	243	149	99
19	209	182	356	512	296	256	476	272	178	197	148	101
20	217	182	332	494	287	251	466	311	178	193	159	101
21	239	188	312	472	295	248	454	330	178	175	139	98
22	228	183	300	442	299	245	446	291	175	185	129	98
23	211	178	335	427	293	487	504	277	177	176	124	97
24	206	183	435	404	285	927	507	278	176	159	121	95
25	203	244	342	e380	289	636	444	280	172	159	119	96
26	197	257	303	e360	281	567	418	267	164	160	117	100
27	191	224	292	e340	273	525	406	251	162	153	119	103
28	186	262	280	e322	271	1,510	398	241	160	152	128	101
29	182	330	276	e310	---	2,240	388	241	158	145	133	99
30	181	270	276	e302	---	1,430	412	234	191	142	136	97
31	181	---	271	e295	---	1,120	---	234	---	139	188	---
TOTAL	7,452	6,160	11,473	12,728	8,270	15,465	20,826	9,489	5,976	5,667	4,223	3,226
MEAN	240	205	370	411	295	499	694	306	199	183	136	108
MAX	465	330	777	912	348	2,240	1,940	432	302	375	201	177
MIN	181	169	269	257	271	245	388	234	158	139	117	95
(†)	-16.6	-17.1	-15.2	-17.9	-17.6	-17.2	-16.9	-17.5	-19.2	-18.9	-18.6	-18.1
MEAN‡	223	188	355	393	277	482	677	288	180	164	117	89.9
CFSM‡	0.79	0.67	1.26	1.40	0.99	1.72	2.41	1.02	0.64	0.58	0.42	0.32
IN‡	0.99	0.75	1.45	1.61	1.03	1.98	2.69	1.18	0.71	0.67	0.48	0.36

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 2005, BY WATER YEAR (WY)

MEAN	180	197	265	304	360	471	471	378	297	214	173	178
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)

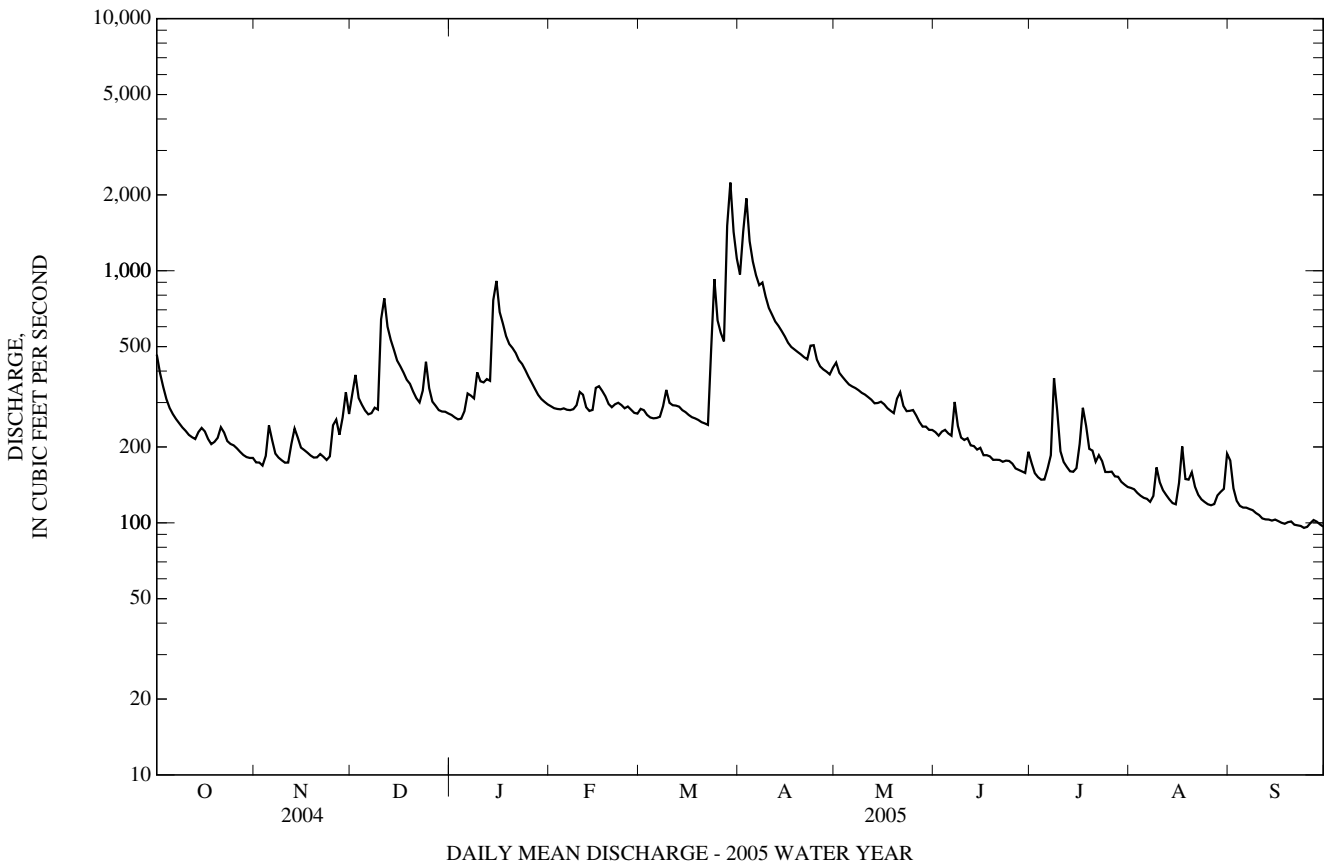
(†)Pumpage in cubic feet per second, from Potomac River for municipal supply of Hagerstown.

‡Adjusted for pumpage.

01619500 ANTIETAM CREEK NEAR SHARPSBURG, MD—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1931 - 2005	
ANNUAL TOTAL	157,021		110,955			
ANNUAL MEAN	429		304		290	
ANNUAL MEAN‡	414		286		281	
HIGHEST ANNUAL MEAN					554 1996	
LOWEST ANNUAL MEAN					82.7 2002	
HIGHEST DAILY MEAN	2,770	Feb 7	2,240	Mar 29	8,970	Sep 26, 1975
LOWEST DAILY MEAN	132	Sep 6	95	Sep 24	37	Jan 30, 1966
ANNUAL SEVEN-DAY MINIMUM	137	Sep 2	98	Sep 20	43	Aug 17, 2002
MAXIMUM PEAK FLOW			4,840	Mar 28	(a)12,600	Jul 20, 1956
MAXIMUM PEAK STAGE			9.36	Mar 28	16.73	Jul 20, 1956
INSTANTANEOUS LOW FLOW			93	(b)	(c)9.4	Nov 22, 1957
ANNUAL RUNOFF (CFSM)	1.53		1.08		1.03	
ANNUAL RUNOFF (CFSM)‡	1.53		1.02		1.00	
ANNUAL RUNOFF (INCHES)	20.79		14.69		14.04	
ANNUAL RUNOFF (INCHES)‡	20.83		13.85		13.57	
10 PERCENT EXCEEDS	716		501		563	
50 PERCENT EXCEEDS	374		260		209	
90 PERCENT EXCEEDS	178		124		97	

‡ Adjusted for inflow since January 1930.
 a From rating curve extended above 7,300 ft³/s on basis of contracted-opening measurement of peak flow.
 b Sept. 24, 25, 29, 30.
 c Result of regulation caused by construction work upstream from station.



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 mi².

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 those for estimated daily discharges, 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.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 150 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec 10	1315	174	4.15	Jul 17	2115	*486	*5.16

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	6.6	29	10	6.5	6.7	19	12	3.4	1.8	4.3	0.68
2	14	6.6	21	9.6	6.1	6.4	42	11	3.8	1.1	3.9	0.62
3	13	6.2	19	9.3	6.3	6.3	29	10	4.9	1.2	3.8	0.58
4	12	16	17	9.0	6.3	6.8	22	9.1	4.0	0.75	3.4	0.56
5	11	12	16	9.4	6.1	8.4	20	8.8	3.1	6.2	2.9	0.56
6	11	9.6	15	8.8	5.9	9.1	18	8.6	6.0	4.2	6.0	0.54
7	10	8.8	16	8.4	5.8	9.0	17	8.5	6.6	2.1	6.9	0.52
8	9.6	8.3	14	8.3	6.0	11	18	8.1	4.9	28	3.7	0.50
9	9.3	8.0	28	7.8	5.8	9.3	17	7.3	4.5	9.2	6.3	0.49
10	8.9	7.7	78	7.7	5.7	8.5	16	7.1	4.0	6.9	4.1	0.97
11	8.4	7.4	51	7.4	5.1	8.5	15	6.9	3.6	5.7	2.9	0.50
12	8.1	13	32	7.3	5.3	8.1	15	6.4	2.8	5.1	2.2	0.48
13	8.2	11	26	7.1	5.2	7.8	15	5.9	2.7	4.6	1.7	0.47
14	8.2	10	22	18	5.9	7.9	14	5.7	2.5	7.1	1.4	0.48
15	7.8	9.6	19	13	5.4	7.3	13	5.3	2.3	11	1.3	0.50
16	7.5	9.3	18	12	5.1	7.1	13	5.1	2.2	9.5	3.1	0.53
17	7.2	8.9	17	11	4.7	6.9	13	4.7	2.0	56	1.4	0.59
18	6.9	8.8	16	e9.4	4.0	6.5	13	4.0	1.9	e30	1.00	0.54
19	7.0	12	16	e8.9	3.8	6.2	12	4.2	2.0	e18	1.6	0.52
20	7.8	12	13	e8.7	4.2	6.0	12	18	1.8	e16	0.91	0.54
21	7.0	10	13	e8.5	4.9	5.9	12	9.3	1.8	13	0.78	0.56
22	6.8	9.4	13	e8.2	6.4	5.5	16	7.1	2.0	11	0.71	0.53
23	6.4	9.2	18	e8.1	4.9	12	17	6.5	1.8	9.1	0.69	0.53
24	7.7	17	16	e7.8	5.6	12	13	6.6	1.6	8.3	0.68	0.64
25	7.0	23	13	e7.8	5.3	8.7	11	6.0	1.5	7.9	0.63	0.60
26	6.3	18	e13	e7.6	5.7	8.3	11	5.4	1.4	7.6	0.60	0.56
27	6.2	16	e12	e7.4	5.7	8.7	11	5.0	1.4	7.2	1.0	0.56
28	6.6	31	12	6.9	6.4	35	11	4.6	1.5	7.9	0.86	0.53
29	6.5	20	11	6.7	---	30	10	4.4	1.8	9.0	0.64	0.52
30	6.3	19	11	6.9	---	22	15	4.1	1.2	7.0	0.66	0.52
31	6.1	---	11	6.6	---	21	---	3.8	---	5.9	1.3	---
TOTAL	264.8	364.4	626	273.6	154.1	322.9	480	219.5	85.0	318.35	71.36	16.72
MEAN	8.54	12.1	20.2	8.83	5.50	10.4	16.0	7.08	2.83	10.3	2.30	0.56
MAX	16	31	78	18	6.5	35	42	18	6.6	56	6.9	0.97
MIN	6.1	6.2	11	6.6	3.8	5.5	10	3.8	1.2	0.75	0.60	0.47
CFSM	0.60	0.86	1.42	0.62	0.39	0.73	1.13	0.50	0.20	0.72	0.16	0.04
IN.	0.69	0.95	1.64	0.72	0.40	0.85	1.26	0.58	0.22	0.83	0.19	0.04

e Estimated

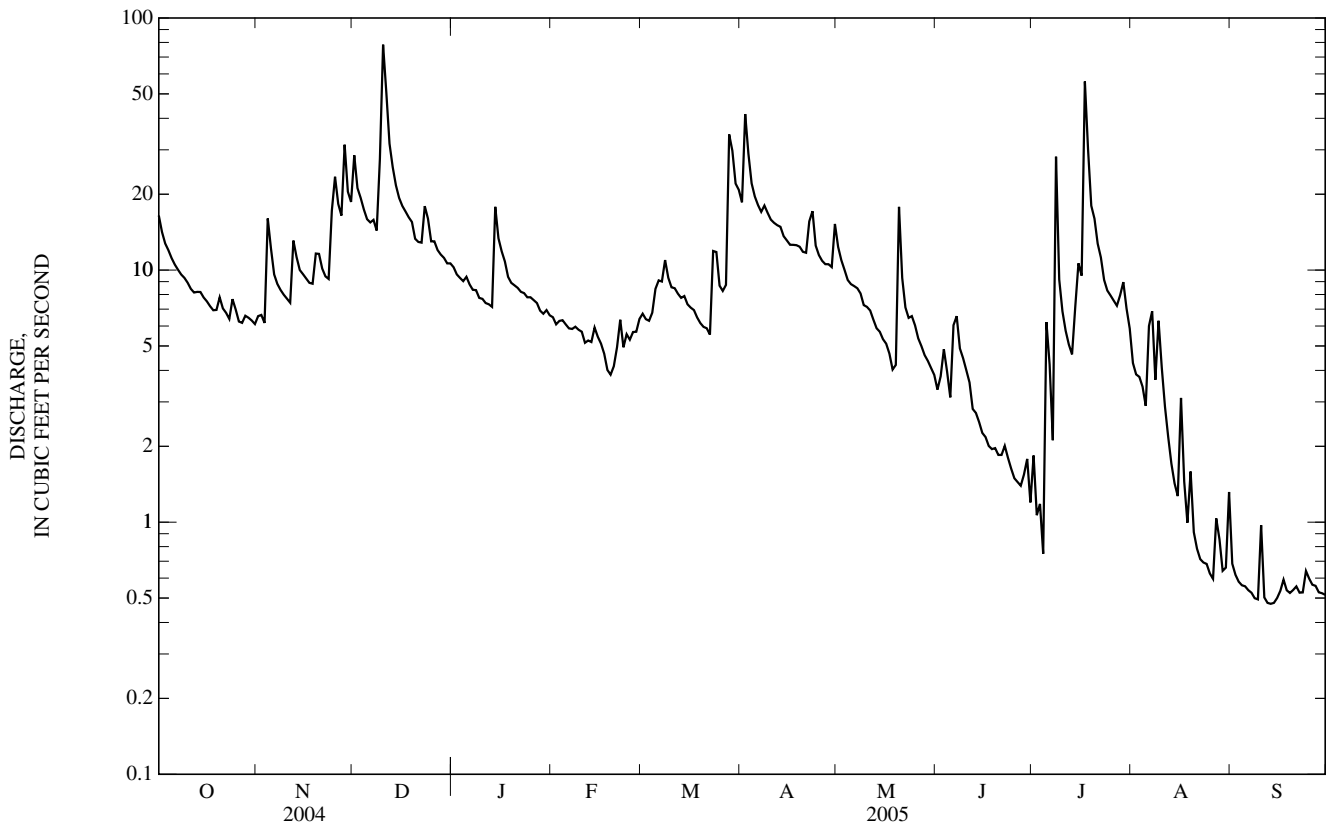
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1993 - 2005, BY WATER YEAR (WY)

MEAN	6.96	7.57	10.9	15.2	15.9	18.3	12.5	10.1	10.8	8.58	7.25	14.6
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	0.56
(WY)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(1999)	(1999)	(1999)	(1999)	(2002)	(2005)

01621050 MUDDY CREEK AT MOUNT CLINTON, VA—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1993 - 2005	
ANNUAL TOTAL	3,901.42		3,196.73		11.7	
ANNUAL MEAN	10.7		8.76		30.0	
HIGHEST ANNUAL MEAN					1.92	
LOWEST ANNUAL MEAN					2002	
HIGHEST DAILY MEAN	128	Sep 28	78	Dec 10	1,760	Sep 6, 1996
LOWEST DAILY MEAN	0.83	Sep 5	0.47	Sep 13	0.29	Sep 14, 2002
ANNUAL SEVEN-DAY MINIMUM	0.93	Aug 30	0.51	Sep 11	0.33	Sep 11, 2002
MAXIMUM PEAK FLOW			486	Jul 17	3,850	Sep 6, 1996
MAXIMUM PEAK STAGE			5.16	Jul 17	10.37	Sep 6, 1996
INSTANTANEOUS LOW FLOW			0.42	(a)	0.27	(b)
ANNUAL RUNOFF (CFSM)	0.751		0.617		0.825	
ANNUAL RUNOFF (INCHES)	10.22		8.37		11.21	
10 PERCENT EXCEEDS	18		17		23	
50 PERCENT EXCEEDS	8.8		7.1		5.7	
90 PERCENT EXCEEDS	2.5		0.73		1.1	

a July 2, 4, 5.
 b Sept. 14, 2002, Oct. 5.



DAILY MEAN DISCHARGE - 2005 WATER YEAR

WATER-QUALITY RECORDS

PERIOD OF RECORD.--March 1993 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.

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 day during winter periods.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

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)	Specific conductance, wat unfltrd 25 degC (00095)	Temperature, air, deg C (00020)	
NOV 01...	1115	Environmental	1028	80020	9.3	40	735	12.8	128	8.0	526	23.5	
JAN 04...	1100	Environmental	1028	80020	9.3	40	730	11.4	107	8.0	508	6.0	
MAR 03...	1000	Environmental	1028	80020	5.2	40	724	14.9	109	7.7	457	-2.5	
MAY 03...	0830	Environmental	1028	80020	9.7	40	727	12.1	106	8.1	430	8.0	
JUL 05...	0800	Environmental	1028	80020	.42	40	728	5.4	64	7.7	510	23.5	
JUL 05...	0805	Replicate	1028	80020	--	--	--	--	--	--	--	--	
JUL 26...	1400	Biological	--	80020	--	--	--	--	--	--	--	--	
SEP 06...	0815	Environmental	1028	80020	.80	40	736	6.9	71	7.8	503	19.5	
Date	Temperature, water, deg C (00010)	Alkalinity, wat flt inc tit field, mg/L as CaCO3 (39086)	Bicarbonate, wat flt incrm. titr., 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)	Total nitrogen, wat unfltrd by analysis, mg/L (62855)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	Biomass periphyton, ashfree drymass g/m2 (49954)
NOV 01...	13.6	240	283	8.82	12.0	E.02	6.24	6.28	.043	6.44	.050	.009	--
JAN 04...	10.7	251	302	8.27	12.8	E.02	7.45	7.47	.027	7.98	.018	.062	--
MAR 03...	.4	206	251	8.87	13.2	<.04	5.24	5.25	.014	5.61	.015	.055	--
MAY 03...	7.3	191	231	7.47	11.0	<.04	5.59	5.62	.030	6.04	.018	.067	--
JUL 05...	21.0	221	268	9.21	11.3	.05	3.28	3.41	.126	4.09	.039	.083	--
JUL 05...	--	225	273	8.86	11.2	.06	3.29	3.42	.126	4.08	.039	.087	--
JUL 26...	--	--	--	--	--	--	--	--	--	--	--	--	47.9
SEP 06...	15.4	189	230	8.51	10.5	E.02	4.62	4.66	.043	4.86	.046	.105	--

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 2004 TO SEPTEMBER 2005—CONTINUED

Date	Peri- phyton biomass ash weight, g/m2 (00572)	Peri- phyton biomass dry weight, g/m2 (00573)	Pheo- phytin a, peri- phyton, mg/m2 (62359)	Chloro- phyll a peri- phyton, chromo- fluoro, mg/m2 (70957)	1-Naph- thol, water, fltrd 0.7u GF ug/L (49295)	2,6-Di- ethyl- aniline water fltrd 0.7u GF ug/L (82660)	2Chloro -2',6'- diethyl acet- anilide wat flt ug/L (61618)	CIAT, water, fltrd, ug/L (04040)	2-Ethyl -6- methyl- aniline water, fltrd, ug/L (61620)	3,4-Di- chloro- aniline water fltrd, ug/L (61625)	3,5-Di- chloro- aniline water, fltrd, ug/L (61627)	4Chloro 2methyl phenol, water, fltrd, ug/L (61633)	Aceto- chlor, water, fltrd, ug/L (49260)
NOV 01...	--	--	--	--	<.09	<.006	<.005	E.100	<.004	<.004	--	<.006	<.006
JAN 04...	--	--	--	--	<.09	<.006	<.005	E.119	<.004	<.004	--	<.006	<.006
MAR 03...	--	--	--	--	<.09	<.006	<.005	E.086	<.004	<.004	--	<.006	<.006
MAY 03...	--	--	--	--	<.09	<.006	<.005	E.089	<.004	<.004	--	<.006	<.006
JUL 05...	--	--	--	--	<.09	<.006	<.005	E.148	<.004	<.004	<.004	<.006	<.006
05...	--	--	--	--	<.09	<.006	<.005	E.139	<.004	<.004	<.004	<.006	<.006
26...	830	873.2	60	121	--	--	--	--	--	--	--	--	--
SEP 06...	--	--	--	--	<.09	<.006	<.005	E.126	<.004	<.004	<.004	<.006	<.006

Date	Ala- chlor, water, fltrd, ug/L (46342)	alpha- Endo- sulfan, water, fltrd, ug/L (34362)	alpha- HCH-d6, surrog, Sch2003 wat flt percent recovry (99995)	Atra- zine, water, fltrd, ug/L (39632)	Azin- phos- methyl oxon, water, fltrd, ug/L (61635)	Azin- phos- methyl, water, fltrd 0.7u GF ug/L (82686)	Ben- flur- alin, water, fltrd 0.7u GF ug/L (82673)	Car- baryl, water, fltrd 0.7u GF ug/L (82680)	Carbo- furan, water, fltrd 0.7u GF ug/L (82674)	Chlor- pyrifos oxon, water, fltrd, ug/L (61636)	Chlor- pyrifos water, fltrd, ug/L (38933)	cis- Per- methrin water fltrd 0.7u GF ug/L (82687)	cis- Propi- cona- zole, water, fltrd, ug/L (79846)
NOV 01...	<.005	--	96.2	.067	<.07	<.050	<.010	<.041	--	<.06	<.005	<.006	--
JAN 04...	<.005	--	118	.080	<.07	<.050	<.010	<.041	--	<.06	<.005	<.006	--
MAR 03...	<.005	--	88.9	.046	<.07	<.050	<.010	<.041	--	<.06	<.005	<.006	--
MAY 03...	<.005	--	96.2	.087	<.07	<.050	<.010	<.041	--	<.06	<.005	<.006	--
JUL 05...	<.005	<.005	92.9	.136	<.07	<.050	<.010	E.006	E.006	<.06	<.005	<.006	<.008
05...	<.005	<.005	96.1	.140	<.07	<.050	<.010	E.006	E.006	<.06	<.005	<.006	<.008
26...	--	--	--	--	--	--	--	--	--	--	--	--	--
SEP 06...	<.005	<.005	96.9	.070	<.07	<.050	<.010	<.041	<.020	<.06	<.005	<.006	<.008

Date	Cyana- zine, water, fltrd, ug/L (04041)	Cyflu- thrin, water, fltrd, ug/L (61585)	Cyper- methrin water, fltrd, ug/L (61586)	DCPA, water fltrd 0.7u GF ug/L (82682)	Desulf- inyl fipron- il, water, fltrd, ug/L (62170)	Diaz- inon oxon, water, fltrd, ug/L (61638)	Diazi- non, water, fltrd, ug/L (39572)	Diazi- non-d10 surrog, Sch2003 wat flt percent recovry (99994)	Dicro- tophos, water, fltrd, ug/L (38454)	Diel- drin, water, fltrd, ug/L (39381)	Dimeth- oate, water, fltrd 0.7u GF ug/L (82662)	Disulf- oton sulfone water, fltrd, ug/L (61640)	Disulf- foton, water, fltrd 0.7u GF ug/L (82677)
NOV 01...	--	<.008	<.009	<.003	<.012	<.01	<.005	94.2	<.08	<.009	<.006	--	--
JAN 04...	--	<.008	<.009	<.003	<.012	<.01	<.005	127	<.08	<.009	<.006	--	--
MAR 03...	--	<.008	<.009	<.003	<.012	<.01	<.005	92.5	<.08	<.009	<.006	--	--
MAY 03...	--	<.027	<.009	<.003	<.012	<.01	<.005	104	<.08	<.009	<.006	--	--
JUL 05...	<.018	<.027	<.009	<.003	<.012	<.01	E.007	102	<.08	<.009	<.006	<.01	<.02
05...	<.018	<.027	<.009	<.003	<.012	<.01	E.007	108	<.08	<.009	<.006	<.01	<.02
26...	--	--	--	--	--	--	--	--	--	--	--	--	--
SEP 06...	<.018	<.027	<.009	<.003	<.012	<.01	<.005	107	<.08	<.009	<.006	<.01	<.02

01621050 MUDDY CREEK AT MOUNT CLINTON, VA—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Endo- sulfan sulfate water, fltrd, ug/L (61590)	EPTC, water, fltrd 0.7u GF ug/L (82668)	Ethion monoxon water, fltrd, ug/L (61644)	Ethion, water, fltrd, ug/L (82346)	Etho- prop, water, fltrd 0.7u GF ug/L (82672)	Fenami- phos sulfone water, fltrd, ug/L (61645)	Fenami- phos sulf- oxide, water, fltrd, ug/L (61646)	Fenami- phos, water, fltrd, ug/L (61591)	Desulf- inyl- fipron- nil amide, wat flt ug/L (62169)	Fipron- nil sulfide water, fltrd, ug/L (62167)	Fipron- nil sulfone water, fltrd, ug/L (62168)	Fipron- nil, water, fltrd, ug/L (62166)	Fonofos oxon, water, fltrd, ug/L (61649)
NOV 01...	--	--	<.0020	<.004	--	<.049	<.04	<.03	<.029	<.013	<.024	<.016	<.003
JAN 04...	--	--	<.0020	<.004	--	<.049	<.04	<.03	<.029	<.013	<.024	<.016	<.003
MAR 03...	--	--	<.0020	<.004	--	<.049	<.04	<.03	<.029	<.013	<.024	<.016	--
MAY 03...	--	--	<.0020	<.004	--	<.049	<.04	<.03	<.029	<.013	<.024	<.016	--
JUL 05...	<.014	<.004	<.002	<.004	<.005	<.049	<.04	<.03	<.029	<.013	<.024	<.016	--
05...	<.014	<.004	<.002	<.004	<.005	<.049	<.04	<.03	<.029	<.013	<.024	<.016	--
26...	--	--	--	--	--	--	--	--	--	--	--	--	--
SEP 06...	<.014	<.004	<.002	<.004	<.005	<.049	<.04	<.03	<.029	<.013	<.024	<.016	--
Date	Fonofos water, fltrd, ug/L (04095)	Hexa- zinone, water, fltrd, ug/L (04025)	Ipro- dione, water, fltrd, ug/L (61593)	Isofen- phos, water, fltrd, ug/L (61594)	Mala- oxon, water, fltrd, ug/L (61652)	Mala- thion, water, fltrd, ug/L (39532)	Meta- laxyl, water, fltrd, ug/L (61596)	Methi- althion water, fltrd, ug/L (61598)	Methyl para- oxon, water, fltrd, ug/L (61664)	Methyl para- thion, water, fltrd 0.7u GF ug/L (82667)	Metola- chlor, water, fltrd, ug/L (39415)	Metri- buzin, water, fltrd, ug/L (82630)	Moli- nate, water, fltrd 0.7u GF ug/L (82671)
NOV 01...	<.003	<.013	<.387	<.003	<.030	<.027	<.005	<.006	<.03	<.015	<.006	<.006	--
JAN 04...	<.003	<.013	<.387	<.003	<.030	<.027	<.005	<.006	<.03	<.015	<.006	<.006	--
MAR 03...	<.003	<.013	<.387	<.003	<.030	<.027	<.005	<.006	<.03	<.015	E.005	<.006	--
MAY 03...	<.003	<.013	<.538	<.003	<.030	<.027	<.005	<.006	<.03	<.015	.009	<.006	--
JUL 05...	<.003	<.013	<.538	<.003	<.030	<.027	<.005	<.006	<.03	<.015	.012	<.006	<.003
05...	<.003	<.013	<.538	<.003	<.030	<.027	<.005	<.006	<.03	<.015	.013	<.006	<.005
26...	--	--	--	--	--	--	--	--	--	--	--	--	--
SEP 06...	<.003	<.013	<.538	<.003	<.030	<.027	<.005	<.006	<.03	<.015	.008	<.006	<.003
Date	Myclo- butanil water, fltrd, ug/L (61599)	Oxy- fluor- fen, water, fltrd, ug/L (61600)	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)	Pro- panil, water, fltrd 0.7u GF ug/L (82679)	Propar- gite, water, fltrd 0.7u GF ug/L (82685)	Simaz- ine, water, fltrd, ug/L (04035)
NOV 01...	<.008	--	<.022	<.10	<.011	<.05	<.008	<.01	<.005	<.004	--	--	.029
JAN 04...	<.008	--	<.022	<.10	<.011	<.05	<.008	<.01	<.005	<.004	--	--	.031
MAR 03...	<.008	--	<.022	<.10	<.011	<.05	<.008	<.01	<.005	<.004	--	--	.021
MAY 03...	<.008	--	<.022	<.10	<.011	<.05	<.008	E.01	<.005	<.004	--	--	.038
JUL 05...	<.008	<.007	<.022	<.10	<.011	--	--	E.01	<.005	<.004	<.011	<.02	.067
05...	<.008	<.007	<.022	<.10	<.011	--	--	E.01	<.005	<.004	<.011	<.02	.069
26...	--	--	--	--	--	--	--	--	--	--	--	--	--
SEP 06...	<.008	<.007	<.022	<.10	<.011	<.05	<.008	E.01	<.005	<.004	<.011	<.02	.034

01621050 MUDDY CREEK AT MOUNT CLINTON, VA—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Tebuconazole, water, fltrd, ug/L (62852)	Tebu-thiuron water fltrd 0.7u GF (82670)	Teflu-thrin, water, fltrd, ug/L (61606)	Terbufos oxon sulfone water, fltrd, ug/L (61674)	Terbu-fos, water, fltrd 0.7u GF (82675)	Ter-buthyl-azine, water, fltrd, ug/L (04022)	Thio-bencarb water fltrd 0.7u GF (82681)	trans-Propi-conazole, water, fltrd, ug/L (79847)	Tribu-phos, water, fltrd, ug/L (61610)	Tri-flur-alin, water, fltrd 0.7u GF (82661)	Di-chlor-vo-s, water fltrd, ug/L (38775)	Sus-pended sedi-ment concen-tration mg/L (80154)	Sus-pended sedi-ment dis-charge, tons/d (80155)
NOV 01...	--	<.02	--	<.07	<.02	<.01	--	--	--	<.009	<.01	39	.98
JAN 04...	--	<.02	--	<.07	<.02	<.01	--	--	--	<.009	<.01	22	.55
MAR 03...	--	E.01	--	<.07	<.02	<.01	--	--	--	<.009	<.01	60	.84
MAY 03...	--	<.02	--	<.07	<.02	<.01	--	--	--	<.009	<.01	56	1.5
JUL 05...	<.01	<.02	<.008	<.07	<.02	<.01	<.010	<.01	<.004	<.009	<.01	21	.02
05...	<.01	<.02	<.008	<.07	<.02	<.01	<.010	<.01	<.004	<.009	<.01	14	--
26...	--	--	--	--	--	--	--	--	--	--	--	--	--
SEP 06...	<.01	<.02	<.008	<.07	<.02	<.01	<.010	<.01	<.004	<.009	<.01	65	.14

Date	Sampler type, code (84164)
NOV 01...	3070
JAN 04...	3070
MAR 03...	3070
MAY 03...	3070
JUL 05...	3070
05...	3070
26...	--
SEP 06...	3070

Remark codes used in this table:
 < -- Less than.
 E -- Estimated.
 M-- Presence verified but not quantified.

Sampler 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 mi².

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.--No estimated daily discharges. Records good. 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 ft³/s.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 15,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar 30	0700	*16,300	*8.57	Apr 3	1230	15,500	8.35

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14,900	1,660	6,040	2,930	2,290	2,240	8,760	2,810	2,030	1,140	1,130	1,160
2	9,570	1,640	5,680	2,790	2,170	2,320	8,020	2,880	1,930	990	1,200	833
3	7,030	1,590	5,960	2,690	2,120	2,410	13,600	3,080	1,870	973	1,090	819
4	5,560	1,660	5,540	2,490	2,060	2,360	13,600	3,010	1,880	1,000	1,140	850
5	4,680	1,800	4,920	2,540	2,070	2,330	10,100	2,860	1,870	1,210	1,130	871
6	3,950	2,210	4,420	2,470	2,080	2,340	7,950	2,740	1,850	1,200	998	763
7	3,410	2,670	4,000	2,500	2,070	2,530	6,640	2,590	1,900	1,080	1,060	750
8	3,020	2,660	3,730	2,450	2,060	3,070	5,980	2,470	1,670	2,570	884	734
9	2,770	2,550	3,650	2,400	1,990	4,330	5,450	2,390	1,670	4,070	1,080	577
10	2,530	2,290	5,000	2,310	2,080	6,240	5,020	2,280	1,840	4,350	1,220	531
11	2,380	2,140	10,500	2,290	2,150	5,650	4,580	2,150	1,750	3,210	1,160	629
12	2,250	2,120	11,900	2,210	2,050	4,900	4,170	2,080	1,990	2,340	1,060	649
13	2,110	2,570	9,120	2,140	2,010	4,370	3,890	2,010	1,900	1,920	1,070	640
14	2,070	3,020	7,170	3,580	1,980	3,910	3,700	1,930	1,720	1,660	1,180	623
15	2,060	3,730	5,930	5,420	1,990	3,550	3,500	2,420	1,700	1,530	1,140	618
16	2,130	3,340	5,050	8,280	2,050	3,340	3,330	2,450	1,500	1,640	1,020	631
17	2,080	3,020	4,480	7,060	2,020	3,110	3,100	2,100	1,360	2,650	1,010	643
18	1,980	2,820	4,090	5,750	2,000	2,890	2,940	2,000	1,270	2,690	1,040	662
19	1,860	2,660	3,780	4,840	1,940	2,760	2,790	1,870	1,240	2,510	1,250	617
20	1,730	2,610	3,550	4,310	1,890	2,660	2,720	1,860	1,200	2,960	1,150	651
21	1,870	2,570	3,290	3,920	1,880	2,560	2,660	4,000	1,160	2,910	1,030	642
22	1,810	2,710	3,070	3,680	1,870	2,390	2,620	3,700	1,160	2,520	975	626
23	1,690	2,630	3,010	3,420	1,900	2,620	2,730	3,760	1,180	2,140	881	603
24	1,730	2,550	3,370	3,040	2,030	3,850	2,950	3,980	1,150	1,850	852	598
25	1,750	2,550	3,750	2,920	2,170	4,180	3,270	4,190	1,120	1,600	809	617
26	1,620	2,720	4,560	3,220	2,110	4,260	3,500	3,800	1,110	1,390	635	609
27	1,820	4,020	4,060	3,120	2,110	4,170	3,330	3,430	1,020	1,290	741	594
28	1,600	4,900	3,710	2,790	2,140	4,700	3,060	2,970	990	1,250	818	590
29	1,630	6,090	3,460	2,660	---	9,050	2,850	2,660	960	1,140	803	581
30	1,630	6,890	3,220	2,550	---	15,300	2,790	2,400	1,180	1,100	1,030	577
31	1,680	---	3,060	2,470	---	11,700	---	2,210	---	1,090	975	---
TOTAL	96,900	86,390	153,070	105,240	57,280	132,090	149,600	85,080	45,170	59,973	31,561	20,288
MEAN	3,126	2,880	4,938	3,395	2,046	4,261	4,987	2,745	1,506	1,935	1,018	676
MAX	14,900	6,890	11,900	8,280	2,290	15,300	13,600	4,190	2,030	4,350	1,250	1,160
MIN	1,600	1,590	3,010	2,140	1,870	2,240	2,620	1,860	960	973	635	531
CFSM	1.03	0.95	1.63	1.12	0.68	1.41	1.65	0.91	0.50	0.64	0.34	0.22
IN.	1.19	1.06	1.88	1.30	0.71	1.63	1.84	1.05	0.56	0.74	0.39	0.25

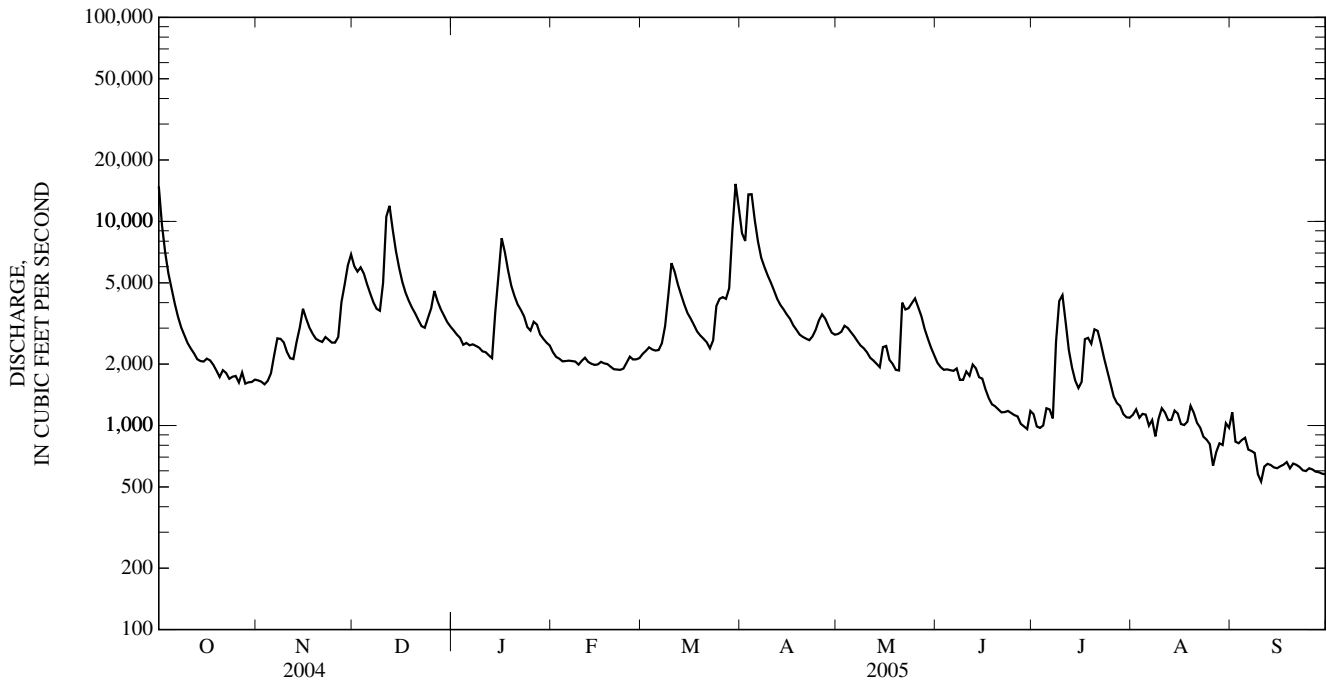
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1895 - 1909, 1929 - 2005, BY WATER YEAR (WY)

MEAN	1,947	1,907	2,554	3,214	3,896	5,031	4,405	3,352	2,434	1,459	1,609	1,584
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 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1895 - 1909, 1929 - 2005	
	ANNUAL TOTAL	1,288,185		1,022,642		2,776
ANNUAL MEAN	3,520		2,802		5,618	1996
HIGHEST ANNUAL MEAN					927	2002
LOWEST ANNUAL MEAN					192,000	Oct 16, 1942
HIGHEST DAILY MEAN	36,400	Sep 30	15,300	Mar 30	194	Jul 24, 1930
LOWEST DAILY MEAN	640	Sep 7	531	Sep 10	240	Sep 7, 1966
ANNUAL SEVEN-DAY MINIMUM	700	Sep 1	595	Sep 24	230,000	Oct 16, 1942
MAXIMUM PEAK FLOW			16,300	Mar 30	(a)32.40	Oct 16, 1942
MAXIMUM PEAK STAGE			8.57	Mar 30	59	Oct 4, 1930
INSTANTANEOUS LOW FLOW			312	Aug 23	0.919	
ANNUAL RUNOFF (CFSM)	1.16		0.927		12.48	
ANNUAL RUNOFF (INCHES)	15.86		12.59		5,630	
10 PERCENT EXCEEDS	5,980		4,950		1,630	
50 PERCENT EXCEEDS	2,840		2,310		883	
90 PERCENT EXCEEDS	1,070		883		610	

a From floodmarks.



DAILY MEAN DISCHARGE - 2005 WATER YEAR

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 mi².

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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan 14	0317	2,680	6.30	Apr 2	1300	1,440	4.67
Mar 28	1900	*3,970	*7.71				

Minimum discharge, 1.4 ft³/s, Sept. 23, 24.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	66	21	152	65	e48	73	271	91	24	7.9	8.1	25
2	55	19	115	52	e50	68	746	65	23	6.6	7.5	14
3	47	19	87	48	e54	61	526	61	26	5.7	6.7	9.7
4	40	29	81	48	e58	60	359	56	32	5.0	5.8	7.5
5	35	71	65	65	e64	64	283	52	26	12	5.2	6.3
6	32	37	65	84	e69	63	239	51	27	23	4.7	5.4
7	29	31	69	65	74	74	208	49	47	19	4.3	4.5
8	27	28	75	87	81	102	209	47	28	259	4.3	4.0
9	25	24	90	90	97	86	164	44	22	52	26	3.6
10	24	23	470	87	104	78	143	41	20	29	19	3.5
11	22	22	320	87	81	80	128	39	20	21	11	3.1
12	21	44	210	86	73	83	115	38	18	17	8.7	2.7
13	21	69	167	66	69	77	107	36	24	16	7.3	2.4
14	25	47	133	1,210	78	72	98	36	20	16	5.3	2.1
15	32	39	112	467	139	67	89	55	16	27	4.6	2.1
16	31	36	92	311	115	64	80	42	14	39	6.5	2.1
17	30	34	87	238	116	63	77	36	14	106	15	2.1
18	23	33	87	193	99	61	74	33	13	39	9.8	1.9
19	23	32	70	184	87	59	69	31	12	28	11	1.8
20	29	33	55	146	86	60	67	51	12	29	14	1.8
21	47	35	e53	124	91	59	65	55	12	23	10	1.8
22	36	29	65	91	91	54	67	38	12	22	6.9	1.6
23	31	21	140	e82	80	372	111	36	12	17	5.2	1.6
24	29	28	146	e74	74	338	90	42	9.8	13	4.1	1.6
25	29	65	90	e68	74	244	70	43	8.7	15	3.1	1.9
26	27	55	81	e62	70	209	62	36	7.9	17	3.0	2.3
27	24	48	72	e58	68	190	58	31	7.1	13	4.3	2.5
28	22	112	71	e54	70	1,110	54	29	7.1	10	6.8	2.5
29	22	81	65	e52	---	849	52	31	7.4	10	7.7	2.8
30	22	65	65	e51	---	462	86	27	9.5	9.4	7.8	3.0
31	22	---	65	e49	---	337	---	27	---	8.9	123	---
TOTAL	948	1,230	3,515	4,444	2,260	5,639	4,767	1,349	531.5	915.5	366.7	127.2
MEAN	30.6	41.0	113	143	80.7	182	159	43.5	17.7	29.5	11.8	4.24
MAX	66	112	470	1,210	139	1,110	746	91	47	259	123	25
MIN	21	19	53	48	48	54	52	27	7.1	5.0	3.0	1.6
CFSM	0.46	0.61	1.69	2.14	1.21	2.72	2.38	0.65	0.26	0.44	0.18	0.06
IN.	0.53	0.68	1.95	2.47	1.26	3.14	2.65	0.75	0.30	0.51	0.20	0.07

e Estimated

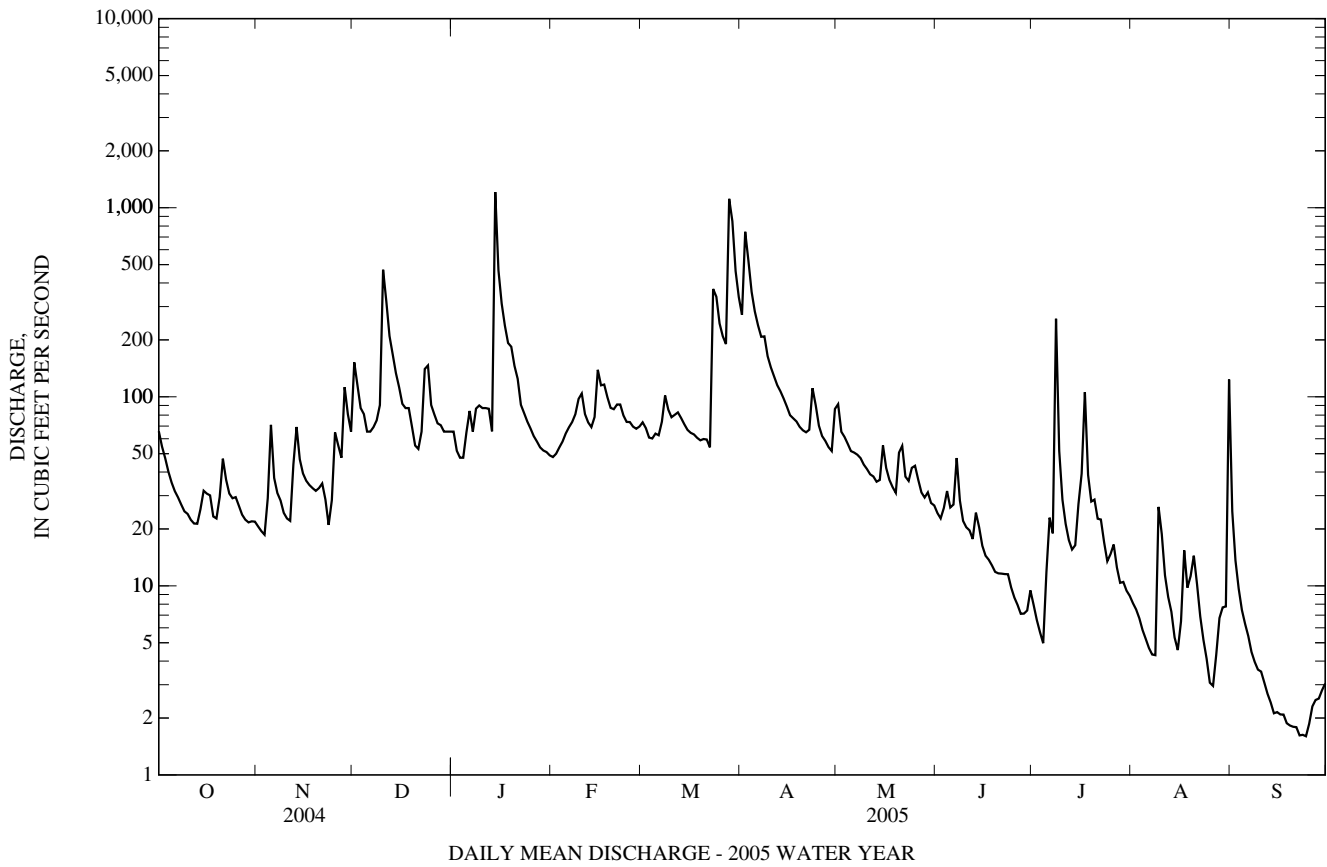
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1947 - 2005, BY WATER YEAR (WY)

MEAN	36.5	50.5	87.9	102	121	154	139	100	62.1	33.0	21.8	30.1
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 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1947 - 2005	
ANNUAL TOTAL	33,609.8		26,092.9		78.1	
ANNUAL MEAN	91.8		71.5		164	
HIGHEST ANNUAL MEAN					13.5	
LOWEST ANNUAL MEAN					1996	
HIGHEST DAILY MEAN	1,120	Feb 6	1,210	Jan 14	4,880	Oct 9, 1976
LOWEST DAILY MEAN	3.1	Sep 6	1.6	(a)	0.00	(b)
ANNUAL SEVEN-DAY MINIMUM	3.8	Sep 1	1.7	Sep 18	0.00	Aug 27, 1966
MAXIMUM PEAK FLOW			3,970	Mar 28	(c)12,000	Oct 9, 1976
MAXIMUM PEAK STAGE			7.71	Mar 28	14.13	Oct 9, 1976
INSTANTANEOUS LOW FLOW			1.4	(d)	0.00	(b)
ANNUAL RUNOFF (CFSM)	1.37		1.07		1.17	
ANNUAL RUNOFF (INCHES)	18.69		14.51		15.85	
10 PERCENT EXCEEDS	190		130		179	
50 PERCENT EXCEEDS	65		43		39	
90 PERCENT EXCEEDS	14		5.4		5.4	

- a Sept. 22-24.
- b Aug. 27 to Sept. 12, 1966.
- c From rating curve extended above 2,600 ft³/s on basis of slope-area measurement of peak flow.
- d Sept. 23, 24.



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 mi².

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 for estimated daily discharges during periods with lagging intakes (Oct. 1 - Mar. 24) and missing data (Aug. 15,16,23), 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 ft³/s from rating curve extended as explained in footnotes.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 35,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec 12	0100	38,100	9.02	Mar 30	0945	*116,000	*19.37
Jan 15	1515	35,300	8.57	Apr 3	2230	53,300	11.36

Minimum discharge, 1,330 ft³/s, Sept. 22.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	41,300	e4,400	21,200	e7,600	e6,750	8,560	41,800	8,710	6,440	2,570	2,550	2,490
2	26,200	e4,700	21,900	e7,400	e6,600	8,830	37,900	8,870	5,810	2,410	2,540	2,450
3	19,600	e5,050	23,300	e7,250	e6,600	8,670	47,600	9,910	5,390	2,220	2,700	2,090
4	15,800	e5,500	21,900	7,170	6,670	8,290	48,800	9,680	5,120	2,350	2,610	2,060
5	e12,800	e6,200	18,800	7,170	6,760	7,800	36,900	8,960	4,910	2,540	2,580	2,040
6	e10,800	e6,200	16,100	8,120	6,690	7,590	29,200	8,360	4,790	2,800	2,380	1,910
7	e9,300	e6,800	14,500	15,600	6,550	8,090	24,800	7,760	5,080	2,550	2,260	1,770
8	e7,900	e8,600	13,800	18,600	6,520	10,300	22,000	7,250	4,790	7,460	2,120	1,830
9	e7,100	e8,200	13,800	18,300	6,580	15,100	19,900	6,890	4,670	7,360	2,430	1,660
10	e6,400	e7,700	16,300	19,100	6,860	20,700	18,000	6,590	4,630	8,300	2,940	1,540
11	e5,850	e7,400	30,100	16,700	7,620	19,500	16,200	6,280	4,640	8,910	3,170	1,540
12	e5,400	e8,400	36,000	14,600	8,580	16,500	14,300	5,960	4,600	6,270	2,910	1,580
13	e5,250	e9,800	29,000	18,900	8,870	14,700	13,000	5,680	4,710	4,780	3,330	1,540
14	e5,180	e9,600	23,200	27,500	8,650	13,500	12,100	5,510	4,860	3,930	3,310	1,510
15	e5,100	e10,200	19,100	33,300	8,750	11,900	11,300	5,680	4,680	3,670	e3,000	1,490
16	e5,000	e10,800	15,900	33,300	9,860	10,700	10,300	6,120	4,330	4,340	e2,800	1,550
17	e4,900	e9,800	14,000	27,300	11,400	9,480	9,510	5,620	3,700	5,370	2,580	1,500
18	e4,650	e9,300	e12,800	21,700	11,000	8,760	8,940	5,370	3,390	8,040	2,780	1,580
19	e4,500	e8,700	e11,900	18,000	10,300	8,280	8,580	4,960	3,190	7,890	2,730	1,530
20	e4,250	e8,300	e10,800	15,200	9,470	7,850	8,270	4,990	3,090	7,680	2,800	1,520
21	e4,450	e7,900	e10,000	e13,200	8,790	7,500	7,800	6,780	2,940	7,730	2,530	1,580
22	e4,750	e7,600	e9,400	e11,400	8,480	7,140	7,570	8,870	2,980	6,140	2,330	1,400
23	e5,200	e8,100	e9,700	e10,000	8,470	8,750	7,880	13,000	2,840	5,430	e2,250	1,430
24	e5,100	e9,000	e11,800	e9,300	8,410	19,100	8,490	11,500	2,850	4,750	2,130	1,440
25	e5,050	e8,200	e11,500	e8,750	8,560	29,800	10,200	11,300	2,780	4,090	1,950	1,420
26	e5,030	17,900	e11,200	e8,300	8,630	26,500	10,500	12,500	2,730	3,910	1,850	1,430
27	e4,980	17,900	e9,800	e8,000	8,460	22,300	9,780	12,100	2,530	3,990	1,790	1,400
28	e4,800	17,500	e9,800	e7,600	8,330	26,500	9,070	10,500	2,410	3,150	1,930	1,390
29	e4,700	23,000	e9,100	e7,300	---	66,400	8,720	8,960	2,370	2,860	2,020	1,370
30	e4,580	23,900	e8,500	e7,000	---	109,000	8,710	7,730	2,490	2,710	2,100	1,360
31	e4,440	---	e8,200	e6,800	---	64,300	---	7,040	---	2,490	2,870	---
TOTAL	260,360	296,650	493,400	440,460	229,210	612,390	528,120	249,430	119,740	148,690	78,270	49,400
MEAN	8,399	9,888	15,920	14,210	8,186	19,750	17,600	8,046	3,991	4,796	2,525	1,647
MAX	41,300	23,900	36,000	33,300	11,400	109,000	48,800	13,000	6,440	8,910	3,330	2,490
MIN	4,250	4,400	8,200	6,800	6,520	7,140	7,570	4,960	2,370	2,220	1,790	1,360
CFSM	0.87	1.02	1.65	1.47	0.85	2.05	1.82	0.83	0.41	0.50	0.26	0.17
IN.	1.00	1.14	1.90	1.70	0.88	2.36	2.04	0.96	0.46	0.57	0.30	0.19

e Estimated

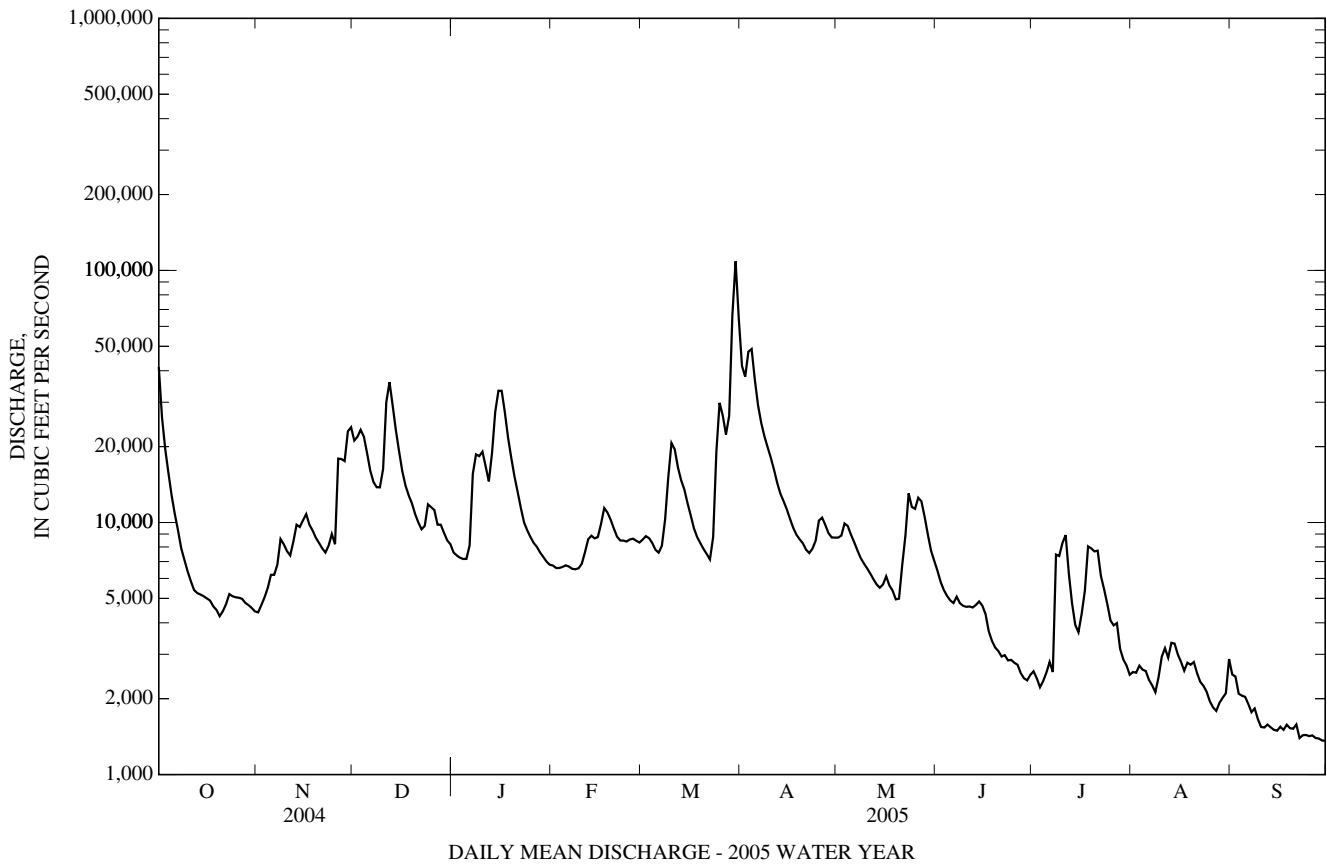
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1895 - 2005, BY WATER YEAR (WY)

MEAN	5,056	5,808	8,749	11,430	14,300	19,750	16,580	12,340	8,112	4,506	4,260	4,048
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 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1895 - 2005	
ANNUAL TOTAL	4,753,200		3,506,120		9,563	
ANNUAL MEAN	12,990		9,606		4,015	
HIGHEST ANNUAL MEAN					18,750	1996
LOWEST ANNUAL MEAN					4,015	2002
HIGHEST DAILY MEAN	85,600	Sep 30	109,000	Mar 30	434,000	Mar 19, 1936
LOWEST DAILY MEAN	2,000	Sep 7	1,360	Sep 30	540	Sep 10, 1914
ANNUAL SEVEN-DAY MINIMUM	2,140	Sep 2	1,400	Sep 24	593	Sep 6, 1966
MAXIMUM PEAK FLOW			116,000	Mar 30	(a) 480,000	Mar 19, 1936
MAXIMUM PEAK STAGE			19.37	Mar 30	41.03	Mar 19, 1936
INSTANTANEOUS LOW FLOW			1,330	Sep 22	530	(b)
ANNUAL RUNOFF (CFSM)	1.35		0.995		0.991	
ANNUAL RUNOFF (INCHES)	18.32		13.51		13.46	
10 PERCENT EXCEEDS	23,900		19,300		21,000	
50 PERCENT EXCEEDS	10,300		7,590		5,450	
90 PERCENT EXCEEDS	3,600		2,180		1,690	

a From rating curve extended above 300,000 ft³/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.



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 mi².

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 discharge (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 ft³/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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec 10	2015	4,820	10.51	Mar 28	2100	6,530	12.31
Jan 14	1200	8,200	13.90	Apr 2	2100	*8,990	*14.61
Mar 23	2000	5,590	11.35				

Minimum discharge, 4.3 ft³/s, Sept. 16-18, 23, 24.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	279	72	1,180	e125	e66	212	369	196	35	42	20	81
2	195	57	547	e121	e65	223	4,100	120	31	22	17	29
3	156	52	351	119	e64	160	2,270	95	34	15	15	16
4	118	66	273	143	e64	139	637	85	78	12	13	11
5	96	434	231	412	e63	152	421	73	63	12	11	9.0
6	79	165	197	1,020	e100	195	336	69	49	21	10	7.6
7	69	112	233	485	e160	371	285	67	74	25	123	6.6
8	62	92	420	836	248	536	552	64	69	1,710	507	5.8
9	55	74	304	633	410	363	317	60	43	290	93	5.7
10	52	63	2,910	381	627	233	240	53	36	107	68	5.5
11	47	58	1,390	311	308	207	202	51	38	63	44	5.4
12	42	85	547	534	203	206	169	48	35	42	32	5.2
13	40	464	392	365	173	176	148	46	34	32	25	5.4
14	42	231	304	4,580	186	149	134	43	38	27	23	4.9
15	62	160	247	912	1,060	126	120	45	42	333	23	4.6
16	81	134	209	532	512	114	109	46	26	269	24	4.5
17	62	121	196	413	395	109	100	44	20	713	76	4.5
18	51	111	157	266	261	103	96	39	17	199	50	4.5
19	48	106	139	246	168	97	91	35	16	100	33	4.8
20	85	106	119	272	159	96	87	227	16	69	41	5.0
21	160	153	93	216	174	101	80	300	15	51	34	5.8
22	175	133	106	156	241	93	77	110	15	149	26	5.1
23	140	118	662	e128	223	2,140	216	77	15	84	18	4.4
24	98	266	965	e116	182	1,560	331	69	19	51	14	4.4
25	87	1,000	303	e102	170	537	154	77	16	288	12	4.7
26	76	410	188	e92	173	387	113	71	13	138	9.8	4.9
27	66	249	159	e85	229	324	100	58	11	66	10	5.2
28	59	544	152	e79	214	3,060	91	46	9.4	45	18	4.9
29	54	385	145	e74	---	2,130	79	43	13	33	30	5.3
30	64	261	136	e71	---	666	109	43	96	26	24	6.4
31	100	---	127	e68	---	456	---	39	---	23	146	---
TOTAL	2,800	6,282	13,382	13,893	6,898	15,421	12,133	2,439	1,016.4	5,057	1,589.8	277.1
MEAN	90.3	209	432	448	246	497	404	78.7	33.9	163	51.3	9.24
MAX	279	1,000	2,910	4,580	1,060	3,060	4,100	300	96	1,710	507	81
MIN	40	52	93	68	63	93	77	35	9.4	12	9.8	4.4
CFSM	0.52	1.21	2.50	2.59	1.42	2.88	2.34	0.45	0.20	0.94	0.30	0.05
IN.	0.60	1.35	2.88	2.99	1.48	3.32	2.61	0.52	0.22	1.09	0.34	0.06

e Estimated

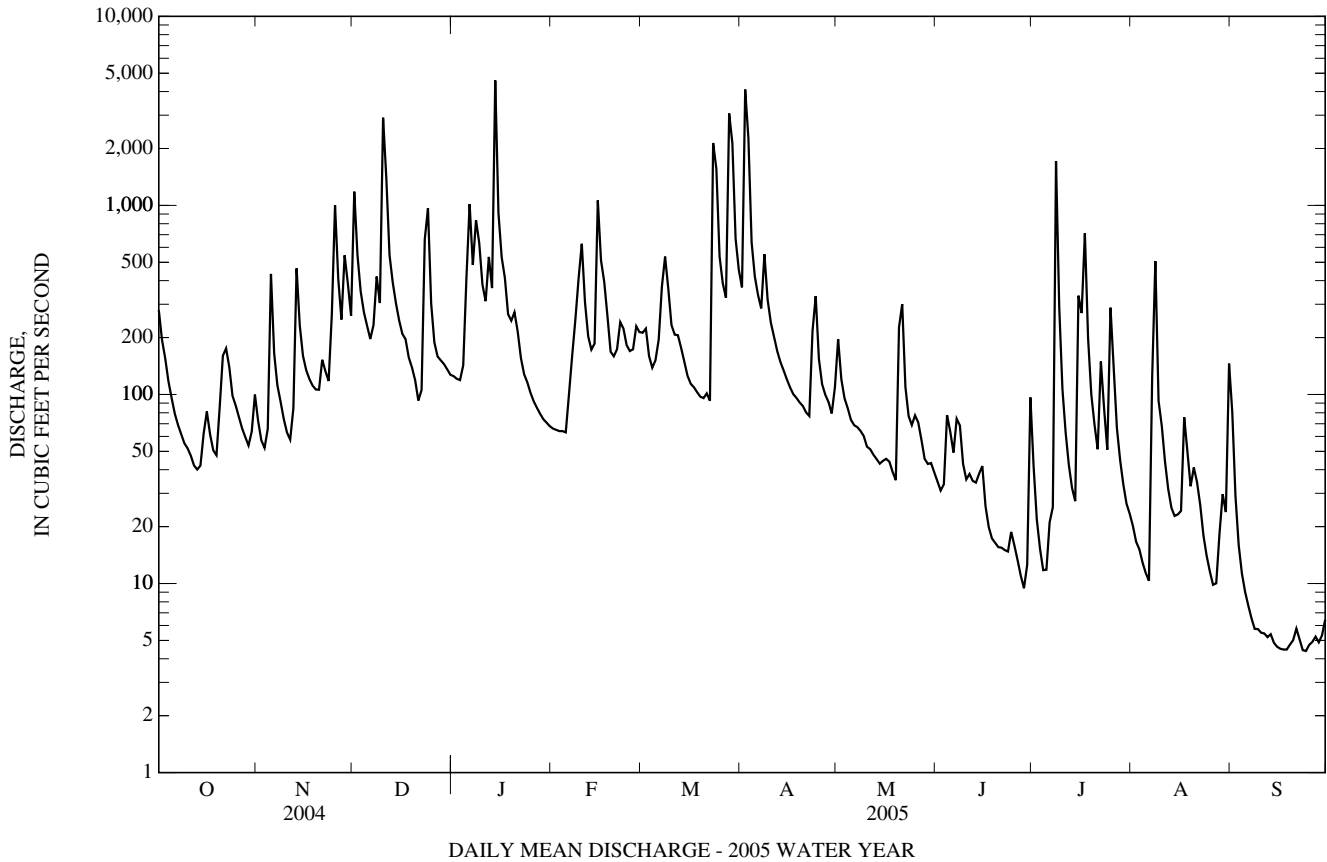
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1942 - 2005, BY WATER YEAR (WY)

MEAN	98.3	181	275	299	372	456	300	210	138	79.6	58.2	94.2
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 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1942 - 2005	
ANNUAL TOTAL	96,511		81,188.3		211	
ANNUAL MEAN	264		222		447	
HIGHEST ANNUAL MEAN					53.8	
LOWEST ANNUAL MEAN					1996	
HIGHEST DAILY MEAN	3,980	Sep 29	4,580	Jan 14	16,700	Jun 22, 1972
LOWEST DAILY MEAN	11	(a)	4.4	(b)	0.00	(c)
ANNUAL SEVEN-DAY MINIMUM	13	Sep 2	4.7	Sep 14	0.04	Jul 22, 1966
MAXIMUM PEAK FLOW			8,990	Apr 2	(d)24,400	Jun 19, 1996
MAXIMUM PEAK STAGE			14.61	Apr 2	25.42	Jun 19, 1996
INSTANTANEOUS LOW FLOW			4.3	(f)	0.00	(g)
ANNUAL RUNOFF (CFSM)	1.52		1.29		1.22	
ANNUAL RUNOFF (INCHES)	20.75		17.46		16.59	
10 PERCENT EXCEEDS	547		443		450	
50 PERCENT EXCEEDS	124		96		65	
90 PERCENT EXCEEDS	28		13		8.0	

- a Sept. 6, 7.
- b Sept. 12, 24.
- c July 25-28, 1966.
- d From rating curve extended above 14,000 ft³/s on basis of slope-conveyance study.
- f Sept. 16-18, 23, 24.
- g July 24-29, 1966.



POTOMAC RIVER BASIN

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 mi².

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 missing data), 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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec 10	1515	2,470	6.85	Apr 2	1530	3,450	8.59
Jan 14	0600	*4,120	*9.60	Jul 8	0700	2,860	7.57
Mar 23	1615	3,050	7.91	Jul 16	2300	2,600	7.10
Mar 28	1515	2,770	7.41				

Minimum discharge, 18 ft³/s, on several days.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	121	54	246	e77	e54	122	274	144	63	50	52	32
2	101	53	151	e75	e52	115	1,600	114	59	42	50	29
3	90	53	110	e73	e50	101	915	108	70	37	47	27
4	81	73	94	e71	e48	96	400	102	85	35	44	26
5	72	141	85	101	e46	104	307	97	70	37	42	25
6	67	79	79	173	e80	111	e260	96	63	169	40	24
7	65	70	92	121	114	123	e240	95	108	112	38	23
8	63	63	111	166	130	191	e280	92	67	1,540	40	23
9	61	58	165	150	175	153	e220	88	59	303	48	22
10	59	55	1,070	122	227	128	e200	85	61	117	48	23
11	55	56	389	113	137	130	e180	83	57	88	41	23
12	55	78	193	114	117	132	e170	81	54	75	39	22
13	55	142	153	107	108	115	e160	76	51	68	36	21
14	60	87	126	2,350	151	106	e152	79	81	78	34	21
15	62	75	109	478	276	97	e145	91	55	418	32	22
16	58	70	99	277	170	94	e137	84	48	428	36	23
17	58	66	e90	215	151	92	e132	78	46	735	52	22
18	52	64	e84	155	124	89	e125	74	43	172	38	21
19	54	63	e80	e120	106	87	e120	71	42	184	42	20
20	60	64	e76	e105	104	88	115	103	42	140	52	20
21	66	67	e73	e95	118	93	111	109	42	102	41	19
22	64	63	e70	85	124	84	111	81	41	93	35	18
23	58	62	194	78	111	1,330	238	77	44	80	32	18
24	59	65	287	e74	105	727	216	86	39	70	30	18
25	62	93	122	e71	107	342	137	111	37	151	28	19
26	59	81	109	e67	107	275	123	85	35	92	28	20
27	55	68	97	e64	114	253	116	74	34	73	29	21
28	55	91	90	e61	112	1,330	108	71	35	66	50	20
29	54	89	e85	e59	---	785	104	79	53	61	42	19
30	62	74	e81	e57	---	380	161	69	122	58	36	18
31	61	---	e78	e55	---	309	---	69	---	55	35	---
TOTAL	2,004	2,217	4,888	5,929	3,318	8,182	7,557	2,752	1,706	5,729	1,237	659
MEAN	64.6	73.9	158	191	118	264	252	88.8	56.9	185	39.9	22.0
MAX	121	142	1,070	2,350	276	1,330	1,600	144	122	1,540	52	32
MIN	52	53	70	55	46	84	104	69	34	35	28	18
CFSM	0.63	0.72	1.55	1.88	1.16	2.59	2.47	0.87	0.56	1.81	0.39	0.22
IN.	0.73	0.81	1.78	2.16	1.21	2.98	2.76	1.00	0.62	2.09	0.45	0.24

e Estimated

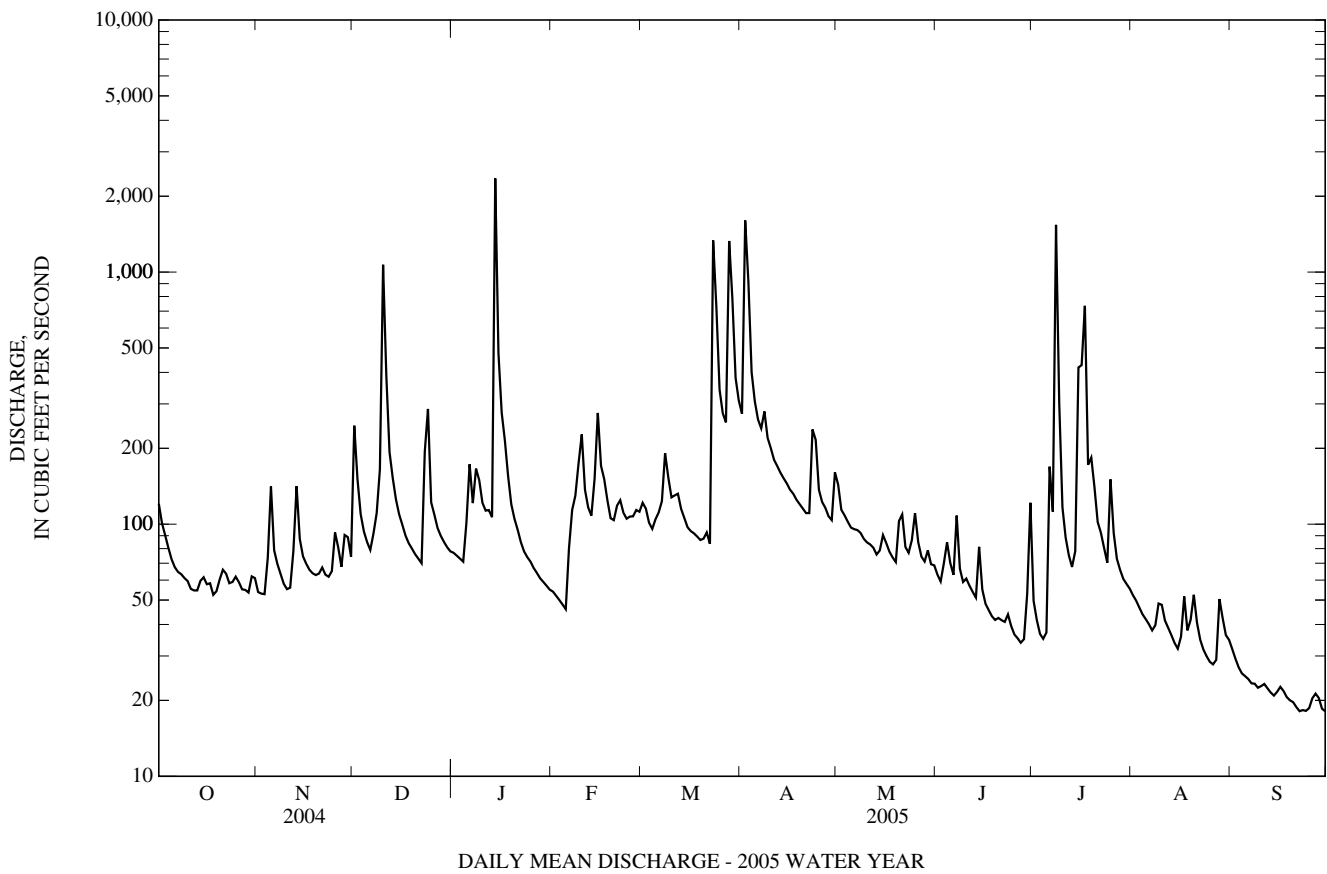
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1948 - 2005, BY WATER YEAR (WY)

MEAN	63.6	88.1	130	150	175	199	166	119	102	73.0	54.7	70.2
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 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1948 - 2005	
ANNUAL TOTAL	51,705		46,178		116	
ANNUAL MEAN	141		127		227	
HIGHEST ANNUAL MEAN					24.1	1972
LOWEST ANNUAL MEAN					24.1	2002
HIGHEST DAILY MEAN	1,750	Feb 7	2,350	Jan 14	14,400	Jun 22, 1972
LOWEST DAILY MEAN	34	Sep 6	18	(a)	0.08	Aug 22, 2002
ANNUAL SEVEN-DAY MINIMUM	36	Sep 1	19	Sep 19	0.51	Aug 11, 2002
MAXIMUM PEAK FLOW			4,120	Jan 14	(b) 28,000	Sep 26, 1975
MAXIMUM PEAK STAGE			9.60	Jan 14	18.98	Sep 26, 1975
INSTANTANEOUS LOW FLOW			18	(c)	0.06	Aug 22, 2002
ANNUAL RUNOFF (CFSM)	1.39		1.24		1.13	
ANNUAL RUNOFF (INCHES)	18.86		16.84		15.40	
10 PERCENT EXCEEDS	251		196		219	
50 PERCENT EXCEEDS	96		79		67	
90 PERCENT EXCEEDS	54		33		23	

a Sept. 22-24, 30.
 b From rating curve extended above 3,900 ft³/s on the basis of contracted-opening measurement at gage height of 17.86 ft.
 c Sept. 21-25, 29-30.



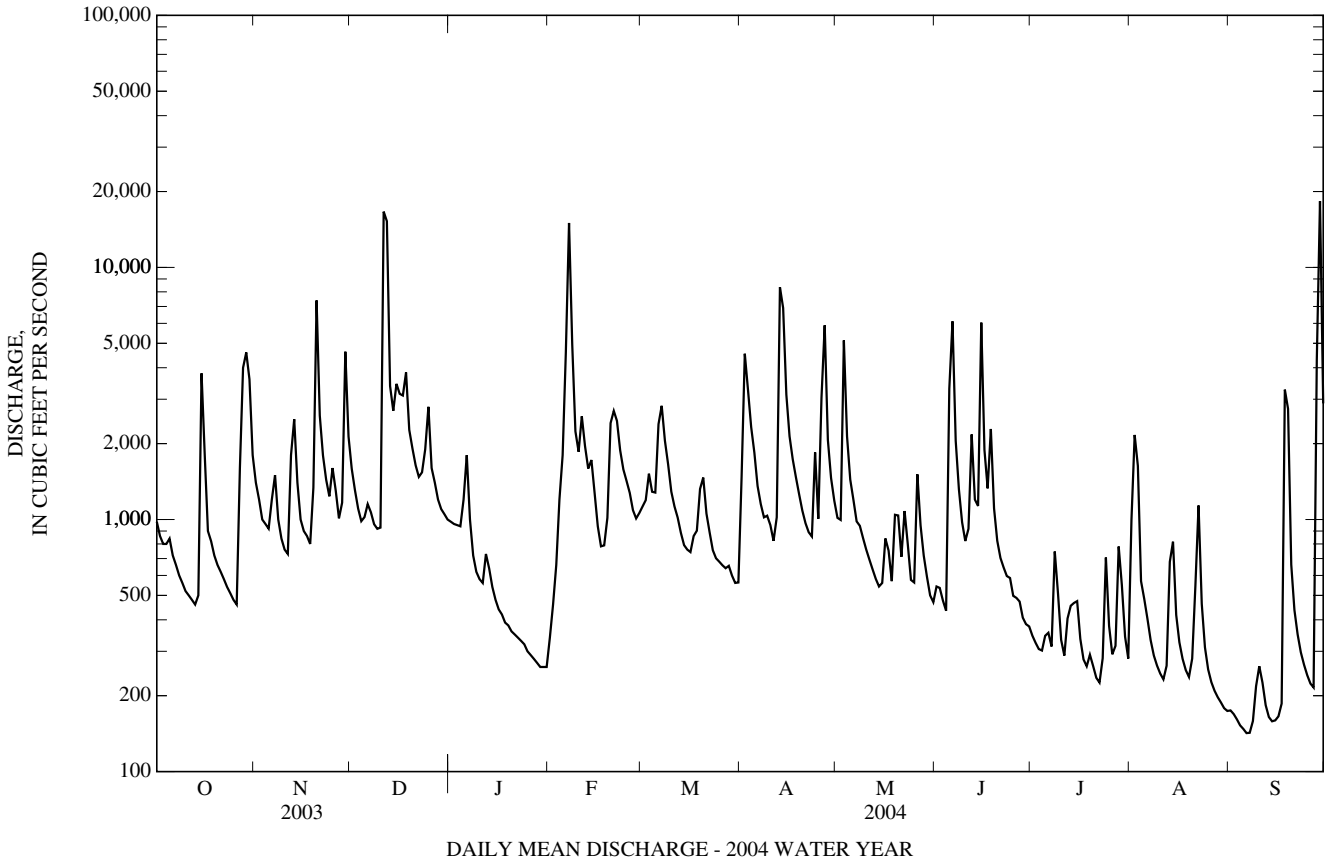
01642190 MONOCACY RIVER AT MONOCACY BLVD AT FREDERICK, MD

SUMMARY STATISTICS

FOR 2004 WATER YEAR

ANNUAL TOTAL	485,317	
ANNUAL MEAN	1,326	
HIGHEST DAILY MEAN	18,300	Sep 29
LOWEST DAILY MEAN	142	Sep 6
ANNUAL SEVEN-DAY MINIMUM	154	Sep 2
MAXIMUM PEAK FLOW	(a)26,500	Dec 12
MAXIMUM PEAK STAGE	24.68	Dec 12
INSTANTANEOUS LOW FLOW	140	(b)
ANNUAL RUNOFF (CFSM)	0.000	
ANNUAL RUNOFF (INCHES)	0.00	
10 PERCENT EXCEEDS	2,620	
50 PERCENT EXCEEDS	842	
90 PERCENT EXCEEDS	262	

a From rating curve extended above 20,900 ft³/s.
 b Sept. 6, 7.



01642190 MONOCACY RIVER AT MONOCACY BLVD AT FREDERICK, MD--Continued

EXTREMES FOR 2005 WATER YEAR.--Peak discharges greater than base discharge of 7,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec 11	0215	12,500	15.41	Mar 29	0645	16,800	18.57
Jan 14	2315	19,500	20.36	Apr 3	0800	*20,000	*20.71
Jan 15	0945	8,700	12.37	Jul 8	1745	11,300	14.49
Mar 24	0500	15,300	17.49				

Minimum discharge, 62 ft³/s, Sept. 23, 24.DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,450	372	2,580	e510	e290	879	2,130	908	293	324	227	402
2	995	325	2,860	e500	e282	902	7,580	724	274	214	217	243
3	810	305	1,490	e500	e280	767	15,100	606	292	174	204	176
4	681	329	1,150	e500	e278	675	3,770	558	390	153	193	144
5	576	1,130	954	e700	e276	690	2,590	516	393	150	180	123
6	502	777	842	2,420	e274	758	2,100	490	329	232	171	113
7	458	522	856	1,820	e510	992	1,820	479	360	328	163	107
8	427	450	1,400	1,580	884	1,230	2,020	468	364	7,700	626	100
9	399	398	1,120	2,600	1,250	1,230	1,790	443	304	2,810	362	96
10	382	359	7,330	1,470	1,910	889	1,360	421	302	766	277	92
11	353	340	8,150	1,210	1,430	875	1,180	405	273	497	237	93
12	339	441	2,780	1,380	889	889	1,050	391	262	395	202	92
13	325	1,240	1,990	1,310	788	814	954	367	253	341	177	86
14	329	1,010	1,580	12,000	759	730	883	361	259	823	162	84
15	371	662	1,250	8,270	2,690	660	814	394	259	1,900	147	83
16	397	569	1,060	2,530	1,990	609	748	392	233	1,470	173	83
17	388	523	958	1,380	1,530	585	711	367	205	4,040	234	83
18	343	488	874	615	1,130	565	687	340	194	1,430	253	79
19	325	468	785	e520	827	539	662	322	186	771	214	76
20	365	465	455	e456	766	530	645	446	181	694	218	75
21	464	499	530	e422	797	550	610	1,020	182	498	219	70
22	601	527	621	e402	944	522	597	575	178	443	190	67
23	543	467	1,110	e385	879	4,640	913	433	183	502	160	66
24	461	565	3,410	e378	795	10,300	1,530	416	180	382	141	65
25	418	2,240	963	e360	777	2,990	894	478	169	345	126	66
26	393	1,570	674	e348	762	2,150	704	439	159	747	120	71
27	363	889	e600	e338	849	1,800	637	383	149	396	123	76
28	340	1,180	559	e324	839	6,790	591	342	150	315	162	74
29	323	1,730	e540	e318	---	12,500	542	330	165	277	186	73
30	321	1,010	e520	e306	---	3,800	675	320	293	254	e180	70
31	379	---	e510	e300	---	2,610	---	308	---	238	251	---
TOTAL	14,821	21,850	50,501	46,152	25,675	64,460	56,287	14,442	7,414	29,609	6,495	3,128
MEAN	478	728	1,629	1,489	917	2,079	1,876	466	247	955	210	104
MAX	1,450	2,240	8,150	12,000	2,690	12,500	15,100	1,020	393	7,700	626	402
MIN	321	305	455	300	274	522	542	308	149	150	120	65
CFSM	0.68	1.04	2.32	2.12	1.30	2.96	2.67	0.66	0.35	1.36	0.30	0.15
IN.	0.78	1.16	2.67	2.44	1.36	3.41	2.98	0.76	0.39	1.57	0.34	0.17

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2004 - 2005, BY WATER YEAR (WY)

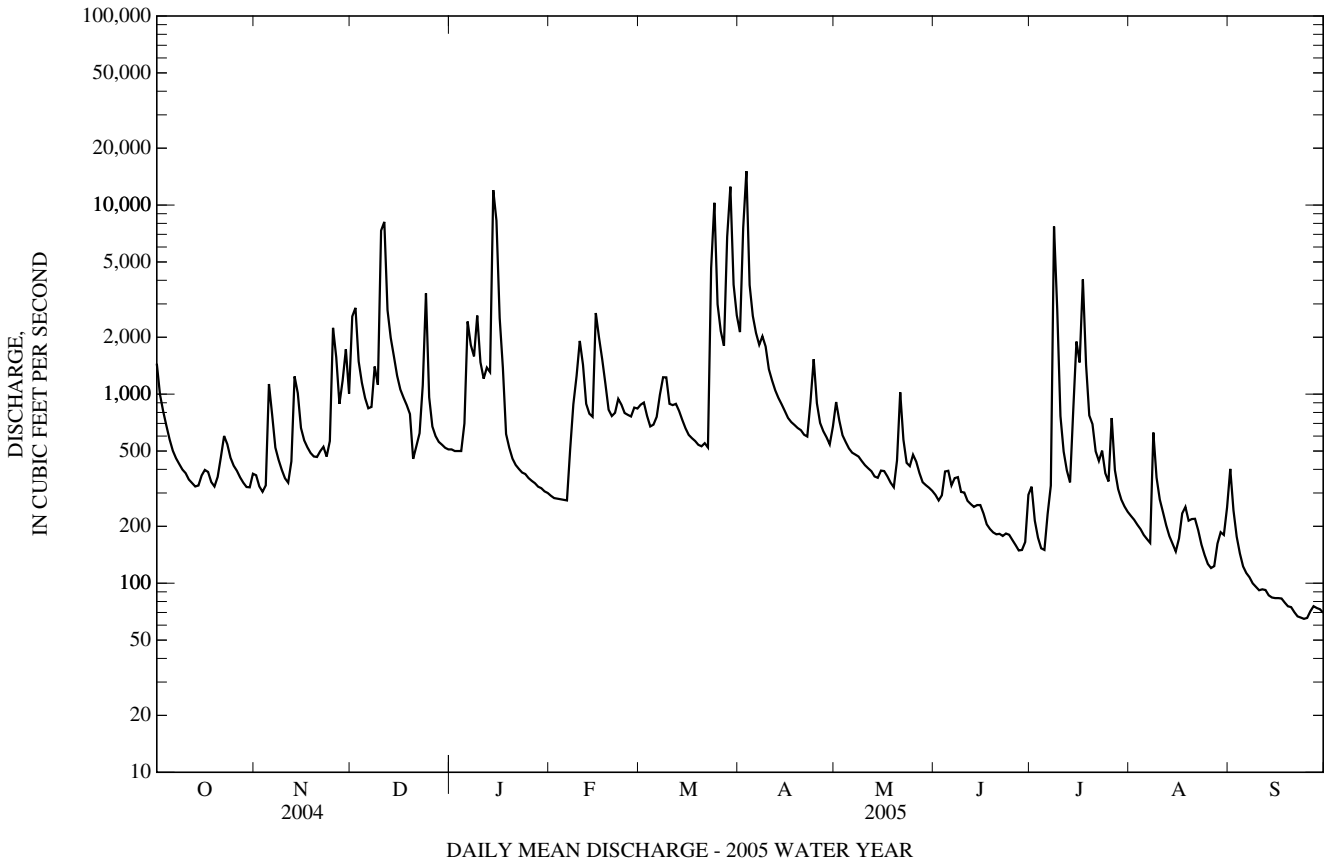
	2004	2005	2004	2005	2004	2005	2004	2005	2004	2005	2004	2005
MEAN	832	1,171	2,159	1,034	1,549	1,593	2,040	736	801	668	348	672
MAX	1,186	1,613	2,688	1,489	2,159	2,079	2,204	1,006	1,354	955	486	1,239
(WY)	(2004)	(2004)	(2004)	(2005)	(2004)	(2005)	(2004)	(2004)	(2004)	(2005)	(2004)	(2004)
MIN	478	728	1,629	579	917	1,106	1,876	466	247	380	210	104
(WY)	(2005)	(2005)	(2005)	(2004)	(2005)	(2004)	(2005)	(2005)	(2005)	(2004)	(2005)	(2005)

01642190 MONOCACY RIVER AT MONOCACY BLVD AT FREDERICK, MD

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 2004 - 2005	
ANNUAL TOTAL	403,978		340,834		1,130	
ANNUAL MEAN	1,104		934		934	
HIGHEST ANNUAL MEAN					1,326	2004
LOWEST ANNUAL MEAN					934	2005
HIGHEST DAILY MEAN	18,300	Sep 29	15,100	Apr 3	18,300	Sep 29, 2004
LOWEST DAILY MEAN	142	Sep 6	65	Sep 24	65	Sep 24, 2005
ANNUAL SEVEN-DAY MINIMUM	154	Sep 2	69	Sep 20	69	Sep 20, 2005
MAXIMUM PEAK FLOW			20,000	Apr 3	(a)26,500	Dec 12, 2003
MAXIMUM PEAK STAGE			20.71	Apr 3	24.68	Dec 12, 2003
INSTANTANEOUS LOW FLOW			62	(b)	62	(b)
ANNUAL RUNOFF (CFSM)	0.000		0.000		0.000	
ANNUAL RUNOFF (INCHES)	0.00		0.00		0.00	
10 PERCENT EXCEEDS	2,170		1,820		2,230	
50 PERCENT EXCEEDS	656		478		626	
90 PERCENT EXCEEDS	262		157		186	

a From rating curve extended above 20,900 ft³/s.

b Sept. 23, 24, 2005.



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 mi².

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 (equipment malfunction, ice effect), which are fair. 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 ft³/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 8,800 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec 11	0415	11,200	12.91	Mar 29	0815	15,200	15.74
Jan 15	0115	17,600	16.98	Apr 3	1030	*18,600	*17.43
Mar 24	0645	13,700	14.71	Jul 8	1645	11,100	12.80

Minimum discharge, 88 ft³/s, Sept. 24.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,570	431	e2,450	e750	e480	1,040	2,390	1,160	384	429	267	430
2	1,160	373	e2,180	e745	e470	1,060	7,030	963	356	265	253	282
3	961	342	e1,620	e740	e460	924	15,500	805	381	208	229	196
4	811	395	1,300	735	e440	820	4,340	740	493	184	214	164
5	694	1,080	1,110	851	e420	848	2,950	688	522	179	200	144
6	611	919	987	2,200	e400	922	2,420	650	444	312	189	136
7	561	605	e960	1,880	e540	1,130	2,110	632	454	409	183	129
8	523	515	e1,380	1,550	e840	1,360	2,220	613	490	7,570	578	123
9	491	470	1,260	2,530	1,310	1,760	2,120	581	420	3,430	459	118
10	454	442	6,420	1,520	1,860	1,210	1,660	549	406	999	324	113
11	397	423	8,070	1,270	1,560	1,080	1,490	526	370	638	276	113
12	380	561	2,830	1,380	1,070	1,070	1,350	509	344	496	230	114
13	365	1,260	2,040	1,410	978	999	1,260	470	339	417	203	109
14	367	1,190	1,670	10,700	967	901	1,190	464	339	982	184	108
15	419	808	e1,460	9,770	2,510	822	1,110	508	339	1,940	171	107
16	449	694	e1,280	3,000	2,120	766	1,010	513	310	1,760	225	106
17	439	631	1,120	2,310	1,650	740	968	480	263	3,840	297	105
18	392	592	1,010	1,700	1,330	715	934	447	244	1,690	296	103
19	392	559	908	1,370	1,060	667	899	421	233	986	253	99
20	458	543	779	1,400	948	658	861	577	233	860	249	101
21	584	574	624	1,340	967	673	835	1,140	232	624	252	97
22	683	606	702	1,060	1,110	651	838	762	230	545	216	94
23	614	547	1,080	795	1,080	4,130	1,150	562	232	597	183	92
24	529	612	3,860	e740	988	10,200	1,780	571	229	474	165	92
25	472	2,050	1,620	e680	965	3,260	1,210	654	221	437	150	94
26	451	1,640	1,110	e615	942	2,370	921	589	204	815	142	98
27	427	1,020	e900	e590	1,020	2,000	889	508	194	483	149	103
28	390	1,150	e840	e570	1,010	6,190	808	455	212	373	191	99
29	371	1,730	e800	e540	---	12,300	672	432	207	325	206	98
30	373	1,120	e780	e520	---	4,170	874	422	362	302	197	97
31	422	---	e760	e500	---	2,880	---	402	---	284	263	---
TOTAL	17,210	23,882	53,910	55,761	29,495	68,316	63,789	18,793	9,687	32,853	7,394	3,864
MEAN	555	796	1,739	1,799	1,053	2,204	2,126	606	323	1,060	239	129
MAX	1,570	2,050	8,070	10,700	2,510	12,300	15,500	1,160	522	7,570	578	430
MIN	365	342	624	500	400	651	672	402	194	179	142	92
CFSM	0.68	0.97	2.13	2.20	1.29	2.70	2.60	0.74	0.40	1.30	0.29	0.16
IN.	0.78	1.09	2.45	2.54	1.34	3.11	2.90	0.86	0.44	1.50	0.34	0.18

e Estimated

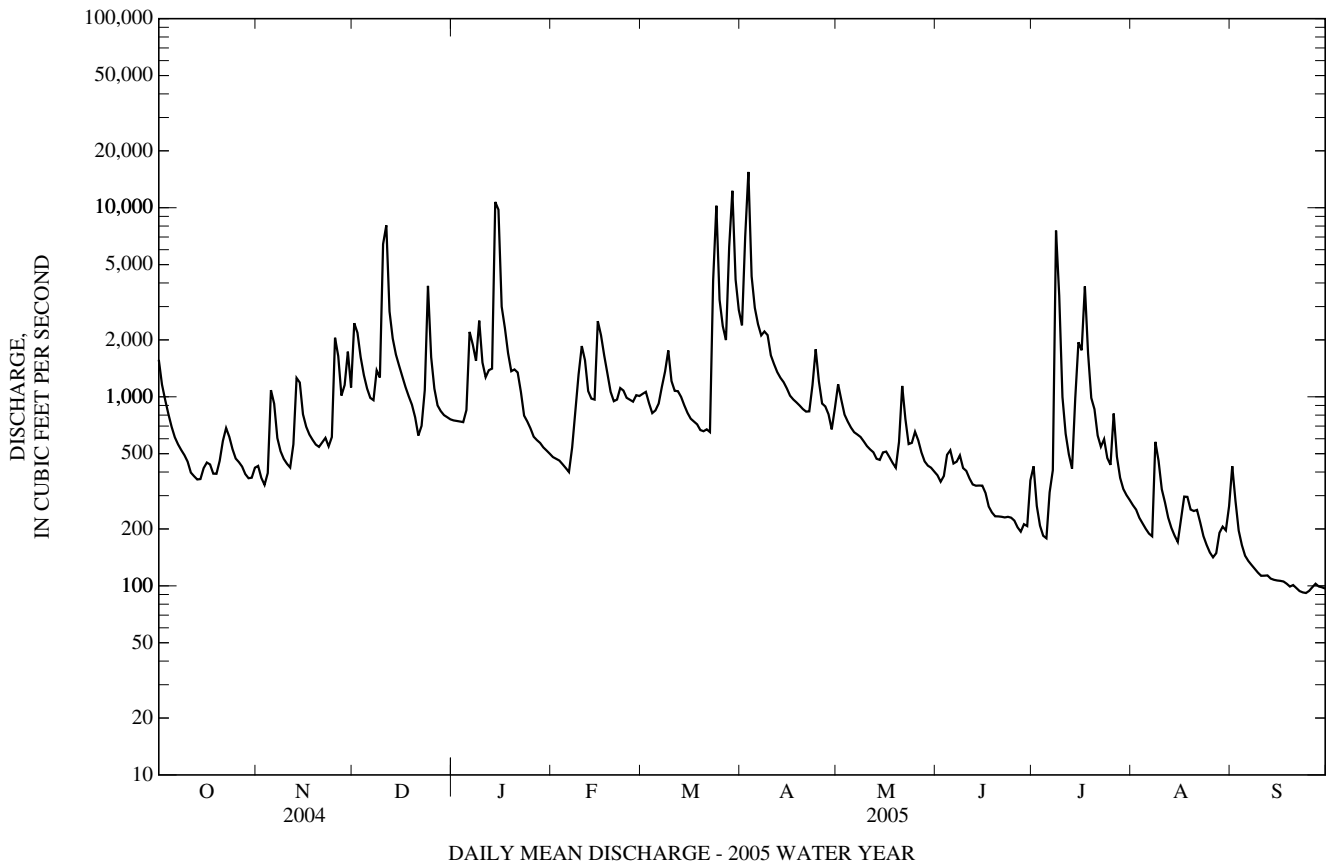
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1930 - 2005, BY WATER YEAR (WY)

MEAN	522	731	1,072	1,218	1,456	1,832	1,530	1,015	739	460	401	517
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 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1930 - 2005	
ANNUAL TOTAL	431,188		384,954		955	
ANNUAL MEAN	1,178		1,055		1,834	
HIGHEST ANNUAL MEAN					212	
LOWEST ANNUAL MEAN					19	
HIGHEST DAILY MEAN	17,100	Sep 29	15,500	Apr 3	74,000	Jun 23, 1972
LOWEST DAILY MEAN	153	Sep 6	92	(a)	19	(b)
ANNUAL SEVEN-DAY MINIMUM	167	Sep 1	95	Sep 20	19	Sep 7, 1966
MAXIMUM PEAK FLOW			18,600	Apr 3	81,600	Jun 23, 1972
MAXIMUM PEAK STAGE			17.43	Apr 3	(c)35.90	Jun 23, 1972
INSTANTANEOUS LOW FLOW			88	Sep 24	17	(d)
ANNUAL RUNOFF (CFSM)	1.44		1.29		1.17	
ANNUAL RUNOFF (INCHES)	19.63		17.53		15.88	
10 PERCENT EXCEEDS	2,180		2,020		2,010	
50 PERCENT EXCEEDS	789		613		480	
90 PERCENT EXCEEDS	297		184		121	

- a Sept. 23, 24.
- b Sept. 7-13, 1966.
- c From floodmarks.
- d Sept. 11, 13, 1966.



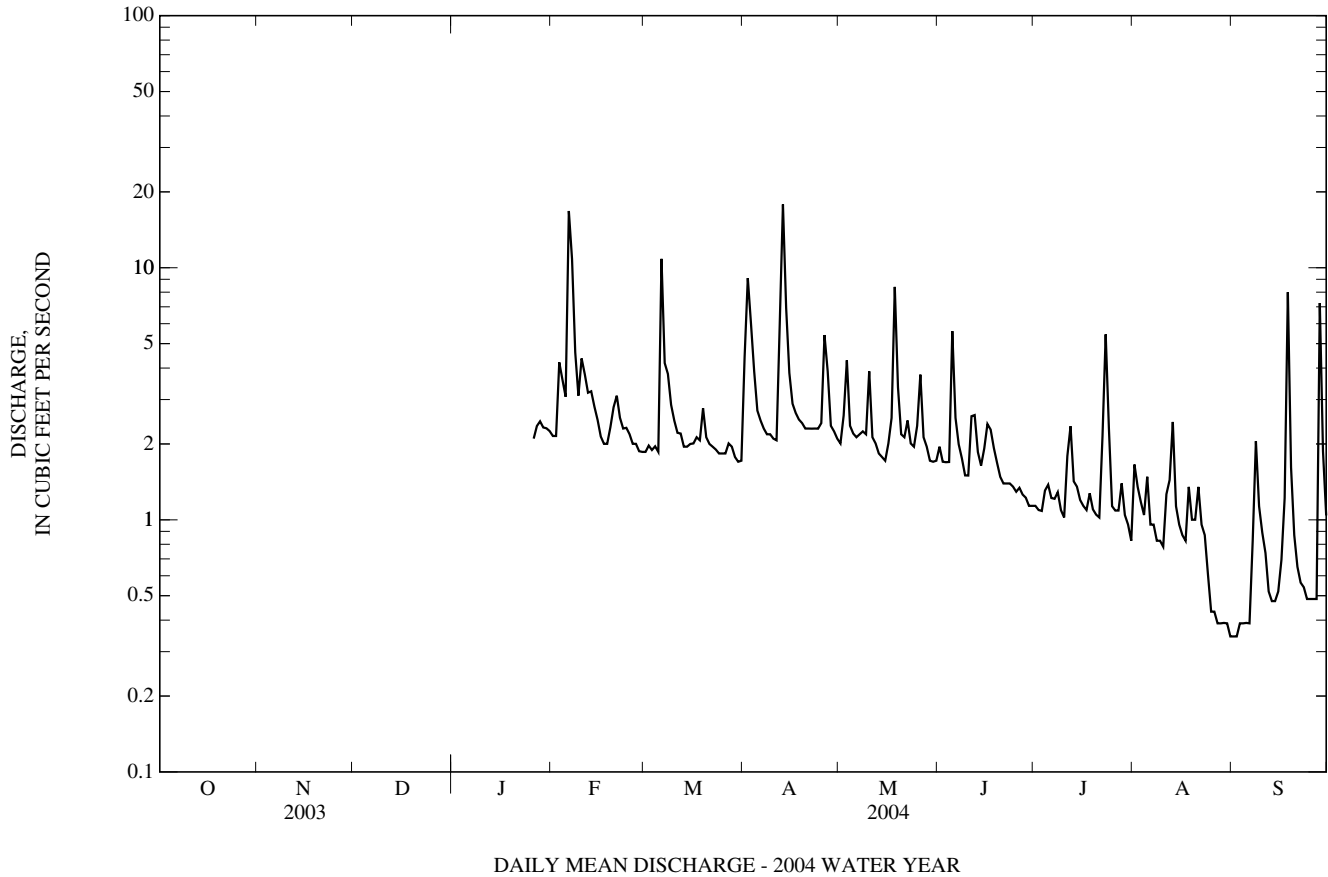
01643395 SOPER BRANCH AT HYATTSTOWN, MD—Continued

SUMMARY STATISTICS

FOR 2004 WATER YEAR

HIGHEST DAILY MEAN	18	Apr 13
LOWEST DAILY MEAN	0.34	Aug 31
ANNUAL SEVEN-DAY MINIMUM	0.37	Aug 27
MAXIMUM PEAK FLOW	(a)56	Jul 23
MAXIMUM PEAK STAGE	2.54	Jul 23
INSTANTANEOUS LOW FLOW	UNKNOWN	

a From rating curve extended above 24 ft³/s.



01643395 SOPER BRANCH AT HYATTSTOWN, MD—Continued

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 25 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan 14	0420	*74	*3.04	Mar 28	1815	46	2.24
Mar 23	0855	26	1.57	Apr 2	1210	61	2.71
Mar 23	1510	40	2.04	Jul 8	0525	50	2.36
Mar 28	1330	44	2.19				

Minimum discharge, Unknown.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.91	0.49	3.2	0.67	e0.59	0.76	4.1	3.4	1.0	0.66	0.37	e0.27
2	0.60	0.49	1.1	0.63	e0.61	0.76	21	2.5	1.00	0.63	0.36	e0.25
3	0.37	0.49	0.83	0.63	0.61	0.70	11	2.2	1.2	0.62	0.36	e0.21
4	0.37	1.1	0.75	0.63	0.62	0.68	6.4	2.0	1.1	0.58	0.33	e0.21
5	0.37	0.76	0.65	0.66	0.66	0.68	4.9	1.9	1.0	1.8	0.33	e0.21
6	0.37	0.58	0.63	0.68	0.81	0.70	4.1	1.8	0.93	1.9	0.33	e0.21
7	0.35	0.53	0.67	0.68	1.0	0.78	3.5	1.7	0.89	1.0	0.33	e0.20
8	0.33	0.53	0.72	0.87	1.4	1.4	3.6	1.6	0.84	13	0.33	e0.20
9	0.33	0.49	4.9	0.81	1.5	1.1	3.0	1.5	0.86	1.0	0.33	e0.20
10	0.33	0.49	8.5	0.68	1.5	0.94	2.7	1.3	1.1	0.63	0.33	e0.19
11	0.33	0.49	3.2	0.68	0.99	0.90	2.6	1.3	0.90	0.51	0.33	e0.19
12	0.33	5.9	1.6	0.67	0.86	0.84	2.5	1.3	0.83	0.49	0.33	e0.19
13	0.33	3.1	1.3	0.63	0.78	0.78	2.4	1.3	0.91	0.49	0.33	e0.19
14	0.36	0.90	1.0	19	1.3	0.76	2.3	1.3	0.91	0.48	0.33	e0.19
15	0.37	0.75	0.90	3.6	2.2	0.68	2.1	1.3	0.76	0.48	0.33	e0.18
16	0.39	0.64	0.93	2.1	1.2	0.68	2.0	1.3	0.71	0.64	0.36	0.22
17	0.39	0.63	0.91	1.5	0.96	0.66	2.0	1.2	0.68	0.78	0.35	0.22
18	0.37	0.58	0.84	1.1	0.84	0.63	1.9	1.1	0.68	0.47	0.33	0.23
19	0.37	0.58	0.84	1.0	0.74	0.63	1.9	1.0	0.68	0.44	0.33	0.23
20	0.40	0.57	0.84	e0.93	0.68	0.63	1.8	2.5	0.71	0.43	0.33	0.22
21	0.61	0.56	0.83	e0.83	0.75	0.63	1.7	1.5	0.71	0.40	0.31	0.23
22	0.44	0.53	0.76	0.77	0.75	0.65	2.1	1.3	0.73	0.39	0.30	0.22
23	0.41	0.53	5.3	e0.72	0.68	17	8.9	1.2	0.75	0.37	0.30	0.23
24	0.40	0.56	2.9	e0.68	0.68	8.2	4.9	1.9	0.68	0.37	0.28	0.23
25	0.39	0.68	1.4	e0.65	0.68	5.1	2.9	1.9	0.68	0.43	0.28	0.25
26	0.37	0.64	1.1	e0.62	0.68	4.1	2.5	1.4	0.67	0.40	e0.29	0.28
27	0.37	0.55	0.92	e0.58	0.68	3.8	2.3	1.3	0.64	0.37	e0.40	0.31
28	0.38	1.1	0.84	0.63	0.71	18	2.1	1.1	0.63	0.37	e0.54	0.30
29	0.43	0.73	0.84	e0.52	---	10	2.0	1.0	0.78	0.37	e0.34	0.30
30	0.47	0.63	0.76	e0.55	---	6.1	4.6	1.0	0.79	0.37	e0.32	0.30
31	0.49	---	0.68	e0.55	---	4.7	---	1.0	---	0.37	e0.30	---
MEAN	0.41	0.89	1.63	1.46	0.91	3.03	3.99	1.55	0.82	1.01	0.34	0.23
MAX	0.91	5.9	8.5	19	2.2	18	21	3.4	1.2	13	0.54	0.31
MIN	0.33	0.49	0.63	0.52	0.59	0.63	1.7	1.0	0.63	0.37	0.28	0.18
CFSM	0.35	0.76	1.40	1.25	0.78	2.59	3.41	1.33	0.71	0.86	0.29	0.20
IN.	0.40	0.85	1.61	1.44	0.81	2.99	3.81	1.53	0.79	0.99	0.33	0.22

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2004 - 2005, BY WATER YEAR (WY)

MEAN	0.41	0.89	1.63	1.46	2.24	2.74	3.91	2.03	1.33	1.21	0.65	0.72
MAX	0.41	0.89	1.63	1.46	3.53	3.03	3.99	2.52	1.84	1.42	0.97	1.20
(WY)	(2005)	(2005)	(2005)	(2005)	(2004)	(2005)	(2005)	(2004)	(2004)	(2004)	(2004)	(2004)
MIN	0.41	0.89	1.63	1.46	0.91	2.45	3.82	1.55	0.83	1.01	0.34	0.23
(WY)	(2005)	(2005)	(2005)	(2005)	(2005)	(2004)	(2004)	(2005)	(2005)	(2005)	(2005)	(2005)

01643395 SOPER BRANCH AT HYATTSTOWN, MD—Continued

SUMMARY STATISTICS

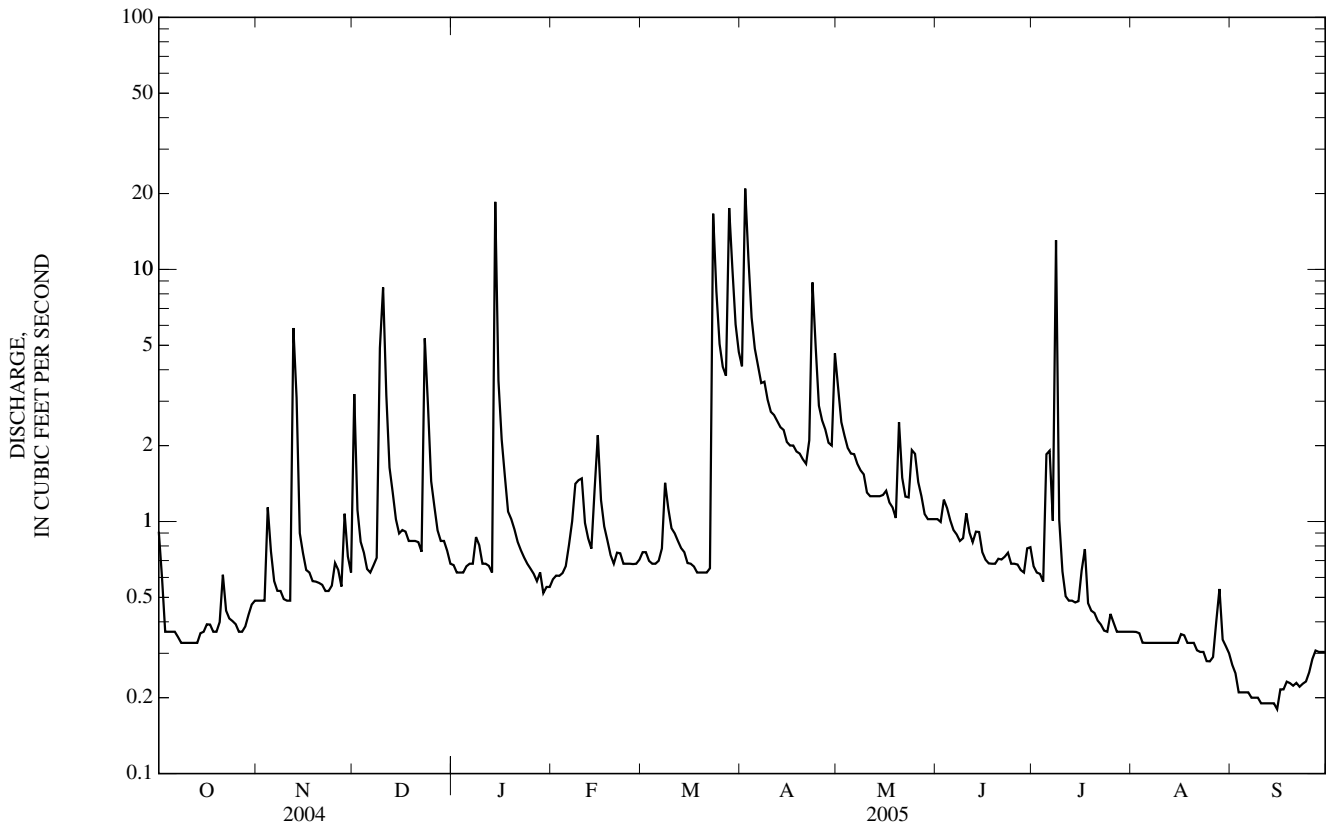
FOR 2005 WATER YEAR

WATER YEARS 2004 - 2005

ANNUAL MEAN	1.36	1.36
HIGHEST ANNUAL MEAN		1.36 2005
LOWEST ANNUAL MEAN		1.36 2005
HIGHEST DAILY MEAN	21 Apr 2	21 Apr 2, 2005
LOWEST DAILY MEAN	(e)0.18 Sep 15	(e)0.18 Sep 15, 2005
ANNUAL SEVEN-DAY MINIMUM	0.19 Sep 9	0.19 Sep 9, 2005
MAXIMUM PEAK FLOW	(a)74 Jan 14	(a)74 Jan 14, 2005
MAXIMUM PEAK STAGE	3.04 Jan 14	3.04 Jan 14, 2005
INSTANTANEOUS LOW FLOW	Unknown	Unknown
ANNUAL RUNOFF (CFSM)	1.16	1.16
ANNUAL RUNOFF (INCHES)	15.76	15.77
10 PERCENT EXCEEDS	2.5	2.5
50 PERCENT EXCEEDS	0.68	0.68
90 PERCENT EXCEEDS	0.31	0.31

e Estimated

a From rating curve extended above 24 ft³/s.



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 mi².

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 (recorder malfunction, ice effect), 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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan 14	0915	*3,850	*7.80	Apr 2	1715	3,150	6.98
Mar 23	1715	2,220	5.78	Jul 8	0900	3,260	7.11
Mar 28	2100	1,830	5.26				

Minimum discharge, 7.4 ft³/s, Sept. 22-24.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e57	e26	e118	56	e47	71	152	100	42	30	26	15
2	e49	e27	e83	51	e49	70	1,100	80	39	26	24	14
3	e36	e28	e64	51	55	62	495	75	52	24	23	12
4	e35	e105	e54	51	57	59	278	71	50	23	22	12
5	e33	e112	e50	61	63	61	218	67	43	43	22	12
6	e30	e72	e48	67	68	62	184	65	41	131	22	12
7	e31	e63	e46	58	74	65	165	64	55	37	21	11
8	e36	e55	53	65	84	86	194	62	41	1,150	20	11
9	e44	e50	109	64	99	79	143	58	37	125	26	11
10	e48	e48	387	59	112	75	129	55	64	73	23	11
11	e32	e46	207	56	85	74	116	54	42	57	21	11
12	e31	e330	117	55	77	73	108	52	37	50	20	10
13	e30	e235	93	53	72	68	103	49	35	45	18	10
14	e33	e100	77	1,430	79	65	97	50	37	49	18	9.7
15	e33	e86	68	283	117	58	91	52	31	57	17	13
16	e34	e73	63	194	94	55	85	57	29	50	18	12
17	e37	e64	61	157	84	55	81	49	27	113	22	11
18	e32	e59	56	117	76	53	79	47	27	53	18	9.9
19	e33	e54	55	107	65	53	77	45	26	48	20	9.3
20	e30	e70	55	98	63	53	75	90	27	58	22	8.8
21	e68	e81	e53	e80	71	52	74	66	26	42	18	8.6
22	e54	e50	53	e75	71	51	82	53	27	41	16	7.7
23	e54	e46	251	e70	66	766	203	54	30	36	15	7.4
24	e41	e49	153	e66	62	303	143	75	25	32	14	7.4
25	e33	e85	87	e62	63	179	97	80	24	37	13	9.1
26	e30	e57	75	e58	62	147	84	60	23	32	13	10
27	e28	e46	67	e56	63	129	78	51	21	29	18	11
28	e27	e96	74	e53	64	802	73	49	24	28	25	9.6
29	e28	e62	60	e51	---	405	70	48	60	27	19	8.6
30	e28	e51	58	e50	---	229	122	45	47	28	18	8.6
31	e26	---	57	e48	---	179	---	45	---	27	17	---
TOTAL	1,141	2,326	2,852	3,802	2,042	4,539	4,996	1,868	1,089	2,601	609	313.7
MEAN	36.8	77.5	92.0	123	72.9	146	167	60.3	36.3	83.9	19.6	10.5
MAX	68	330	387	1,430	117	802	1,100	100	64	1,150	26	15
MIN	26	26	46	48	47	51	70	45	21	23	13	7.4
CFSM	0.59	1.23	1.46	1.95	1.16	2.33	2.65	0.96	0.58	1.34	0.31	0.17
IN.	0.68	1.38	1.69	2.25	1.21	2.69	2.96	1.11	0.65	1.54	0.36	0.19

e Estimated

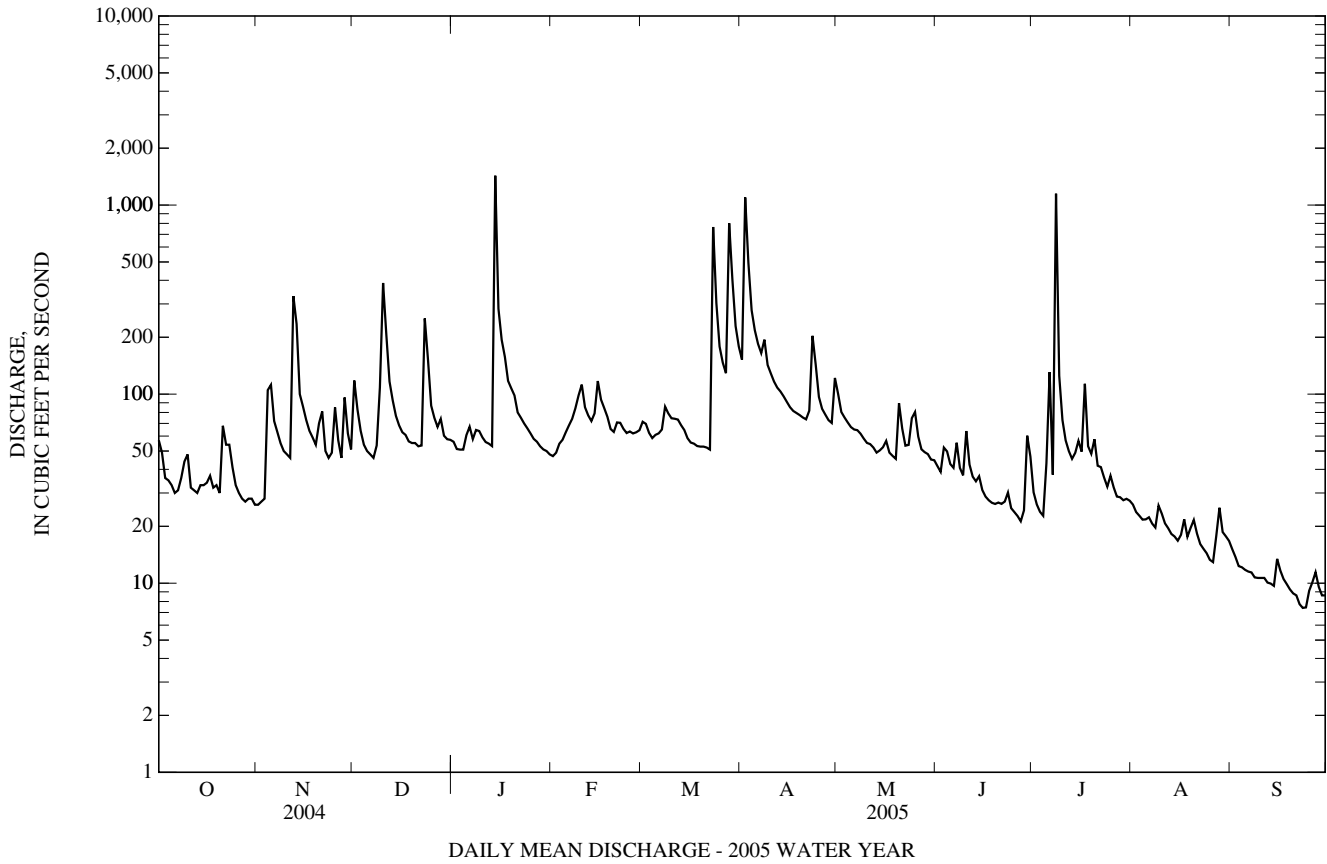
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1948 - 2005, BY WATER YEAR (WY)

MEAN	40.2	51.6	81.1	88.8	98.4	119	106	84.1	69.7	42.8	33.6	43.4
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 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1948 - 2005	
ANNUAL TOTAL	27,220.9		28,178.7		71.4	
ANNUAL MEAN	74.4		77.2		141	
HIGHEST ANNUAL MEAN					19.1	
LOWEST ANNUAL MEAN					2002	
HIGHEST DAILY MEAN	502	May 18	1,430	Jan 14	5,500	Jun 22, 1972
LOWEST DAILY MEAN	e4.0	Sep 6	7.4	(a)	0.40	Sep 8, 1966
ANNUAL SEVEN-DAY MINIMUM	5.0	Aug 31	8.3	Sep 19	0.88	Aug 17, 2002
MAXIMUM PEAK FLOW			3,850	Jan 14	(b)32,200	Jun 21, 1972
MAXIMUM PEAK STAGE			7.80	Jan 14	(c)22.10	Jun 21, 1972
INSTANTANEOUS LOW FLOW			7.4	(d)	0.30	Sep 8, 1966
ANNUAL RUNOFF (CFSM)	1.18		1.23		1.14	
ANNUAL RUNOFF (INCHES)	16.12		16.69		15.45	
10 PERCENT EXCEEDS	134		117		135	
50 PERCENT EXCEEDS	62		53		43	
90 PERCENT EXCEEDS	15		17		14	

- e Estimated.
- a Sept. 23, 24.
- b From rating curve extended above 2,700 ft³/s on basis of contracted-opening measurement at gage heights of 11.15, 14.33, and 22.1 ft.
- c From floodmarks.
- d Sept. 22-24.



01644368 LITTLE SENECA CREEK TRIBUTARY NEAR CLARKSBURG, MD

LOCATION.--Lat 39°13'53", long 77°15'22", Montgomery County, Hydrologic Unit 02060008, on left bank 900 ft upstream from confluence with Little Seneca Creek, and 1.4 mi east-southeast of Clarksburg.

DRAINAGE AREA.--0.43 mi².

PERIOD OF RECORD.--May 2004 to September 2005.

GAGE.--Water-stage recorder. Elevation of gage is 510 ft above National Geodetic Vertical Datum of 1929, from topographic maps.

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

EXTREMES FOR 2004 WATER YEAR.--Peak discharges greater than base discharge of 50 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
May 25	1900	68	4.66	Jul 7	2030	52	4.54
Jul 7	1325	*179	*5.22	Jul 23	1805	179	5.22

Minimum discharge, Unknown.

DISCHARGE, CUBIC FEET PER SECOND
MAY TO SEPTEMBER 2004
DAILY MEAN VALUES

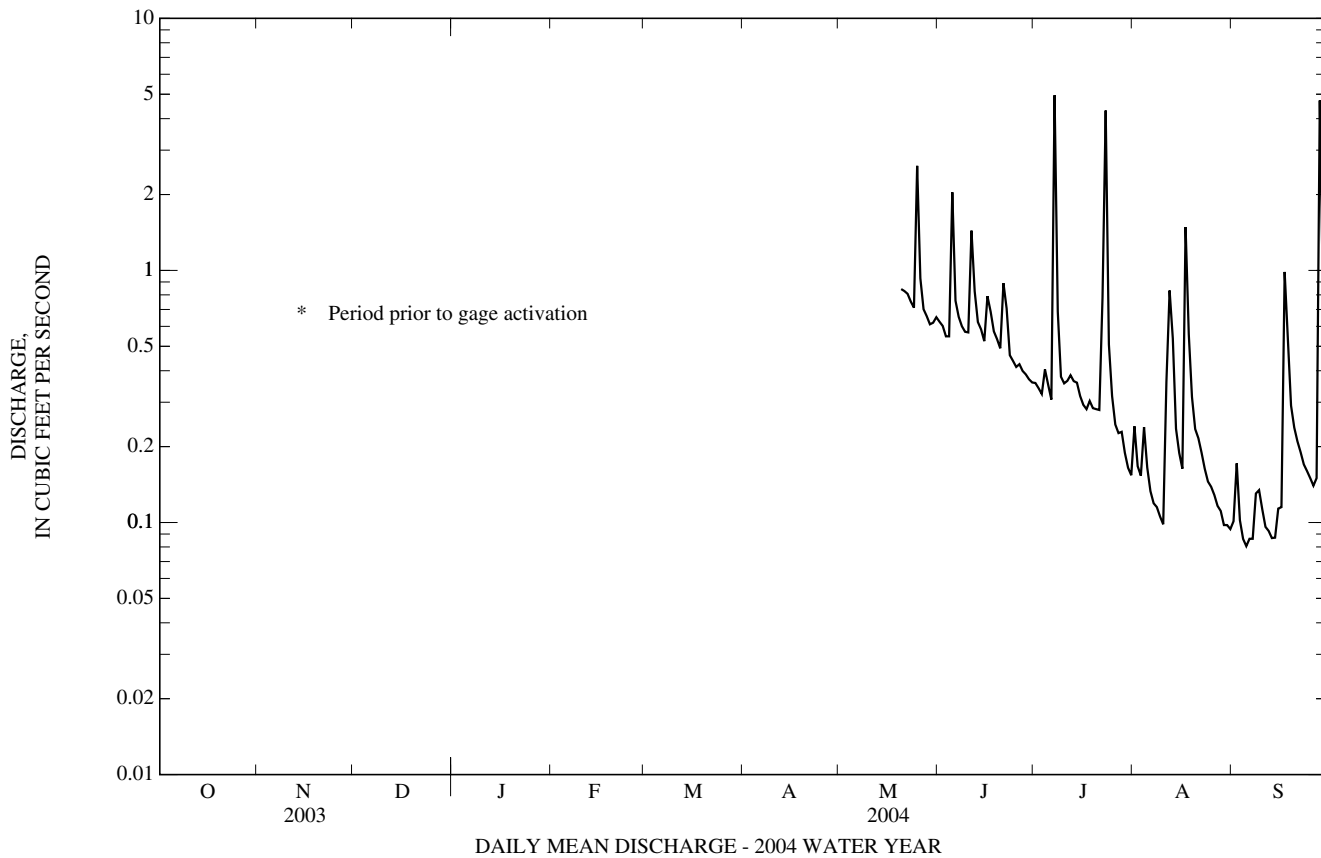
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	0.63	0.36	0.24	0.10
2	---	---	---	---	---	---	---	---	0.60	0.34	0.17	0.17
3	---	---	---	---	---	---	---	---	0.55	0.32	0.15	0.10
4	---	---	---	---	---	---	---	---	0.55	0.40	0.24	0.09
5	---	---	---	---	---	---	---	---	2.0	0.35	0.17	0.08
6	---	---	---	---	---	---	---	---	0.76	0.31	0.13	0.09
7	---	---	---	---	---	---	---	---	0.65	5.0	0.12	0.09
8	---	---	---	---	---	---	---	---	0.60	0.69	0.12	0.13
9	---	---	---	---	---	---	---	---	0.57	0.38	0.11	0.13
10	---	---	---	---	---	---	---	---	0.57	0.36	0.10	0.11
11	---	---	---	---	---	---	---	---	1.4	0.36	0.36	0.10
12	---	---	---	---	---	---	---	---	0.83	0.38	0.83	0.09
13	---	---	---	---	---	---	---	---	0.62	0.36	0.54	0.09
14	---	---	---	---	---	---	---	---	0.58	0.36	0.24	0.09
15	---	---	---	---	---	---	---	---	0.52	0.32	0.19	0.11
16	---	---	---	---	---	---	---	---	0.79	0.29	0.16	0.12
17	---	---	---	---	---	---	---	---	0.69	0.28	1.5	0.99
18	---	---	---	---	---	---	---	---	0.57	0.30	0.56	0.54
19	---	---	---	---	---	---	---	---	0.53	0.28	0.31	0.29
20	---	---	---	---	---	---	---	0.84	0.49	0.28	0.23	0.24
21	---	---	---	---	---	---	---	0.83	0.89	0.28	0.22	e0.21
22	---	---	---	---	---	---	---	0.81	0.71	0.78	0.19	e0.19
23	---	---	---	---	---	---	---	0.75	0.46	4.3	0.16	e0.17
24	---	---	---	---	---	---	---	0.71	0.44	0.51	0.15	e0.16
25	---	---	---	---	---	---	---	2.6	0.41	0.32	0.14	e0.15
26	---	---	---	---	---	---	---	0.93	0.42	0.24	0.13	e0.14
27	---	---	---	---	---	---	---	0.70	0.40	0.23	0.12	e0.15
28	---	---	---	---	---	---	---	0.66	0.39	0.23	0.11	4.7
29	---	---	---	---	---	---	---	0.61	0.37	0.19	0.10	0.77
30	---	---	---	---	---	---	---	0.62	0.36	0.16	0.10	0.42
31	---	---	---	---	---	---	---	0.65	---	0.15	0.09	---
MEAN	---	---	---	---	---	---	---	---	0.65	0.62	0.26	0.36
MAX	---	---	---	---	---	---	---	---	2.0	5.0	1.5	4.7
MIN	---	---	---	---	---	---	---	---	0.36	0.15	0.09	0.08

e Estimated

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

MEAN	---	---	---	---	---	---	---	---	0.64	0.62	0.26	0.36
MAX	---	---	---	---	---	---	---	---	0.64	0.62	0.26	0.36
(WY)	---	---	---	---	---	---	---	---	(2004)	(2004)	(2004)	(2004)
MIN	---	---	---	---	---	---	---	---	0.64	0.62	0.26	0.36
(WY)	---	---	---	---	---	---	---	---	(2004)	(2004)	(2004)	(2004)

01644368 LITTLE SENECA CREEK TRIBUTARY NEAR CLARKSBURG, MD—Continued



01644368 LITTLE SENECA CREEK TRIBUTARY NEAR CLARKSBURG, MD—Continued

EXTREMES FOR 2005 WATER YEAR.--Peak discharges greater than base discharge of 50 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan 14	0345	123	4.98	Jul 8	0450	*412	*5.89
Apr 2	1150	85	4.77	Jul 8	0705	66	4.65

Minimum discharge, 0.04 ft³/s, Sept. 13.DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.36	0.16	1.2	0.27	0.19	0.31	0.75	0.56	0.19	0.13	0.22	0.13
2	0.31	0.18	0.52	0.27	0.20	0.31	11	0.47	0.20	0.12	0.19	0.12
3	0.29	0.18	0.46	0.26	0.21	0.28	2.6	0.43	0.28	0.11	0.19	0.10
4	0.27	1.2	0.40	0.24	0.22	0.28	1.5	0.38	0.22	0.11	0.19	0.10
5	0.25	0.52	0.39	0.29	0.26	0.27	1.1	0.34	0.19	0.24	0.18	0.09
6	0.23	0.43	0.35	0.29	0.30	0.25	0.92	0.35	0.18	0.22	0.17	0.08
7	0.22	0.33	0.41	0.26	0.32	0.24	0.82	0.34	0.17	0.21	0.17	0.08
8	0.19	0.24	0.41	0.31	0.34	0.30	0.74	0.32	0.16	19	0.29	0.06
9	0.19	0.21	1.6	0.27	0.33	0.26	0.65	0.30	0.35	0.98	0.28	0.06
10	0.20	0.20	2.2	0.27	0.38	0.25	0.59	0.29	0.44	0.66	0.26	0.07
11	0.40	0.20	0.86	0.24	0.32	0.25	0.53	0.28	0.22	0.53	0.26	0.07
12	0.37	3.0	0.60	0.24	0.32	0.27	0.52	0.36	0.19	0.45	0.18	0.07
13	0.15	0.91	0.49	0.24	0.30	0.27	0.50	0.30	0.21	0.40	0.14	0.05
14	0.17	0.49	0.39	11	0.46	0.24	0.45	0.24	0.31	0.35	0.14	0.11
15	0.18	0.41	0.36	1.1	0.47	0.24	0.43	0.24	0.19	1.4	0.13	0.10
16	0.19	0.40	0.35	0.66	0.40	0.24	0.50	0.23	0.16	1.8	0.15	0.10
17	0.20	0.35	0.34	0.50	0.36	0.24	0.42	0.21	0.16	1.2	0.14	0.09
18	0.20	0.35	0.31	0.39	0.35	0.23	0.57	0.20	0.14	0.71	0.12	0.09
19	0.21	0.31	0.31	0.35	0.33	0.23	0.52	0.20	0.15	0.56	0.15	0.08
20	0.25	0.34	0.30	0.35	0.31	0.27	0.51	0.47	0.15	0.48	0.14	0.08
21	0.33	0.32	0.32	0.31	0.31	0.24	0.44	0.26	0.14	0.41	0.12	0.10
22	0.20	0.31	0.31	0.30	0.28	0.23	0.48	0.23	0.14	0.39	0.11	0.09
23	0.18	0.29	2.0	0.26	0.27	6.6	0.69	0.26	0.14	0.31	0.11	0.08
24	0.19	0.32	0.62	0.24	0.27	2.1	0.51	0.43	0.12	0.29	0.11	0.09
25	0.18	0.37	0.44	0.24	0.27	0.95	0.66	0.49	0.10	0.31	0.11	0.09
26	0.18	0.33	0.38	0.25	0.28	0.66	0.42	0.44	0.10	0.26	0.11	0.12
27	0.18	0.31	0.32	0.22	0.27	0.62	0.40	0.25	0.11	0.31	0.16	0.13
28	0.18	0.50	0.28	0.19	0.29	6.5	0.39	0.24	0.10	0.34	0.20	0.11
29	0.17	0.36	0.28	0.17	---	1.9	0.39	0.22	0.15	0.28	0.12	0.11
30	0.15	0.36	0.27	0.20	---	1.2	0.77	0.22	0.13	0.24	0.12	0.10
31	0.15	---	0.28	0.18	---	0.86	---	0.22	---	0.22	0.13	---
MEAN	0.22	0.46	0.57	0.66	0.31	0.87	1.03	0.32	0.18	1.07	0.16	0.09
MAX	0.40	3.0	2.2	11	0.47	6.6	11	0.56	0.44	19	0.29	0.13
MIN	0.15	0.16	0.27	0.17	0.19	0.23	0.39	0.20	0.10	0.11	0.11	0.05

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2004 - 2005, BY WATER YEAR (WY)

MEAN	0.22	0.46	0.57	0.66	0.31	0.87	1.03	0.32	0.41	0.84	0.21	0.23
MAX	0.22	0.46	0.57	0.66	0.31	0.87	1.03	0.32	0.64	1.07	0.26	0.36
(WY)	(2005)	(2005)	(2005)	(2005)	(2005)	(2005)	(2005)	(2005)	(2004)	(2005)	(2004)	(2004)
MIN	0.22	0.46	0.57	0.66	0.31	0.87	1.03	0.32	0.18	0.62	0.16	0.09
(WY)	(2005)	(2005)	(2005)	(2005)	(2005)	(2005)	(2005)	(2005)	(2005)	(2004)	(2005)	(2005)

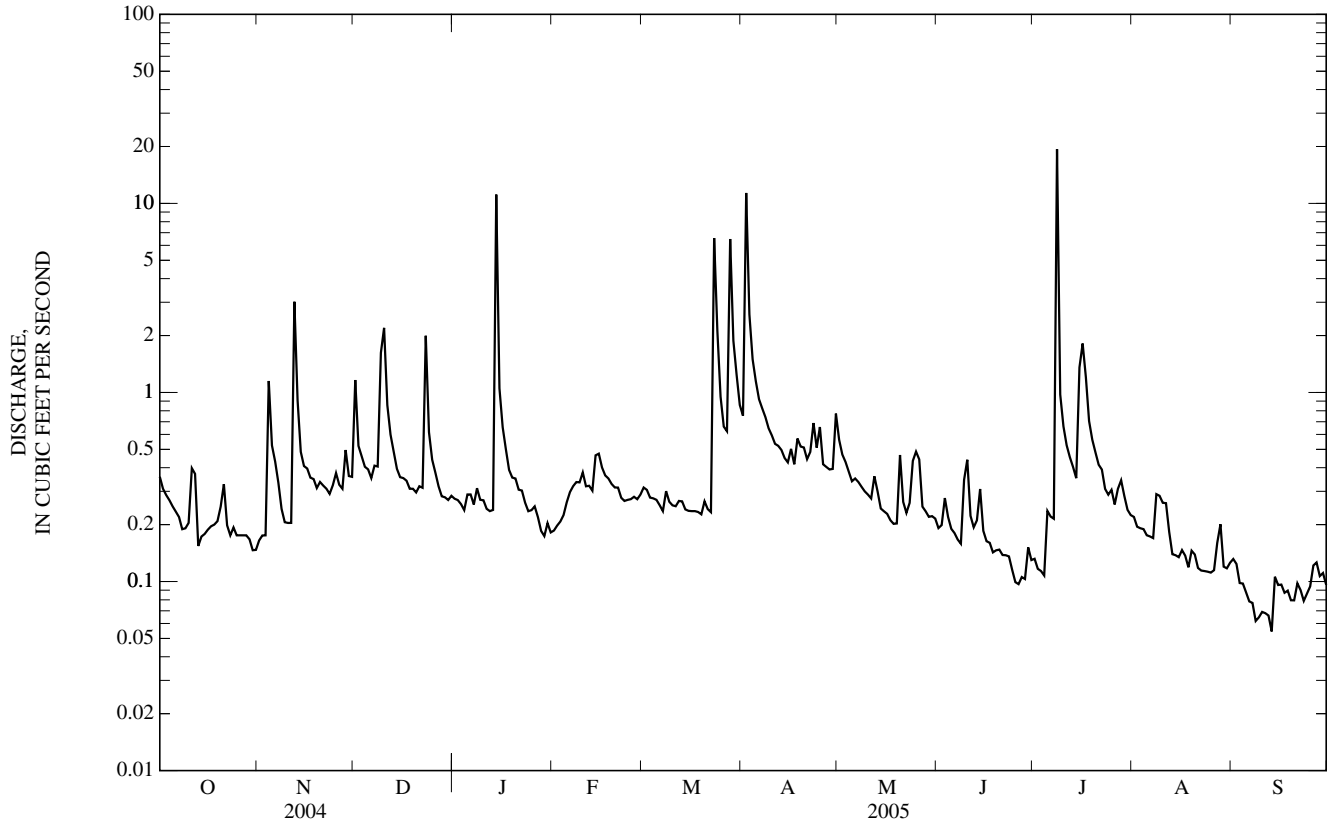
01644368 LITTLE SENECA CREEK TRIBUTARY NEAR CLARKSBURG, MD—Continued

SUMMARY STATISTICS

FOR 2005 WATER YEAR

WATER YEARS 2004 - 2005

ANNUAL MEAN	0.50		0.50	
HIGHEST ANNUAL MEAN			0.50	2005
LOWEST ANNUAL MEAN			0.50	2005
HIGHEST DAILY MEAN	19	Jul 8	19	Jul 8, 2005
LOWEST DAILY MEAN	0.05	Sep 13	0.05	Sep 13, 2005
ANNUAL SEVEN-DAY MINIMUM	0.07	Sep 7	0.07	Sep 7, 2005
MAXIMUM PEAK FLOW	412	Jul 8	412	Jul 8, 2005
MAXIMUM PEAK STAGE	5.89	Jul 8	5.89	Jul 8, 2005
INSTANTANEOUS LOW FLOW	0.04	Sep 13	0.04	Sep 13, 2005
10 PERCENT EXCEEDS	0.66		0.66	
50 PERCENT EXCEEDS	0.27		0.27	
90 PERCENT EXCEEDS	0.11		0.11	



DAILY MEAN DISCHARGE - 2005 WATER YEAR

01644370 LITTLE SENECA CREEK TRIBUTARY AT BRINK, MD

LOCATION.--Lat 39°13'22", long 77°14'58", Montgomery County, Hydrologic Unit 02060008, on left bank 1.2 mi northwest of Brink, Md, and 1.9 mi southwest of Cedar Grove, MD.

DRAINAGE AREA.--0.37 mi².

PERIOD OF RECORD.--June 2004 to current Year.

GAGE.--Water-stage recorder. Elevation of gage is 511 ft above National Geodetic Vertical Datum of 1929, from topographic maps.

REMARKS.--Records fair except those for estimated daily discharges (missing record and ice effect), which are poor. Records were provided by the Montgomery County Department of the Environment. Several measurements of water temperature were made during the year.

EXTREMES FOR 2004 WATER YEAR.--Peak discharges greater than base discharge of 6.0 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jul 7	2020	*6.7	*4.94	No other peak greater than base discharge.			

Minimum discharge, Unknown.

DISCHARGE, CUBIC FEET PER SECOND
JUNE 2004 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	0.31	0.24	0.11
2	---	---	---	---	---	---	---	---	---	0.31	0.22	0.10
3	---	---	---	---	---	---	---	---	---	0.31	0.22	0.11
4	---	---	---	---	---	---	---	---	---	0.34	0.22	0.11
5	---	---	---	---	---	---	---	---	0.56	0.32	0.21	0.09
6	---	---	---	---	---	---	---	---	0.41	0.31	0.21	0.10
7	---	---	---	---	---	---	---	---	0.37	0.77	0.20	0.12
8	---	---	---	---	---	---	---	---	0.36	0.32	0.19	0.17
9	---	---	---	---	---	---	---	---	0.35	0.27	0.19	0.15
10	---	---	---	---	---	---	---	---	0.36	0.27	0.19	e0.11
11	---	---	---	---	---	---	---	---	0.49	0.27	0.22	e0.11
12	---	---	---	---	---	---	---	---	0.41	0.27	0.25	e0.09
13	---	---	---	---	---	---	---	---	0.37	0.25	0.24	e0.09
14	---	---	---	---	---	---	---	---	0.36	0.24	0.22	e0.08
15	---	---	---	---	---	---	---	---	0.35	0.23	0.21	e0.10
16	---	---	---	---	---	---	---	---	0.46	0.23	0.20	e0.11
17	---	---	---	---	---	---	---	---	0.42	0.23	0.23	e0.14
18	---	---	---	---	---	---	---	---	0.37	0.23	0.20	e0.82
19	---	---	---	---	---	---	---	---	0.33	0.23	0.16	e0.25
20	---	---	---	---	---	---	---	---	0.33	0.22	0.15	e0.14
21	---	---	---	---	---	---	---	---	0.32	0.22	0.17	e0.11
22	---	---	---	---	---	---	---	---	0.33	0.29	0.16	e0.10
23	---	---	---	---	---	---	---	---	0.33	0.48	0.14	e0.11
24	---	---	---	---	---	---	---	---	0.32	0.24	0.13	e0.10
25	---	---	---	---	---	---	---	---	0.31	0.22	0.13	e0.09
26	---	---	---	---	---	---	---	---	0.33	0.22	0.13	e0.09
27	---	---	---	---	---	---	---	---	0.31	0.23	0.13	e0.09
28	---	---	---	---	---	---	---	---	0.31	0.23	0.13	e0.42
29	---	---	---	---	---	---	---	---	0.31	0.22	0.12	e1.0
30	---	---	---	---	---	---	---	---	0.31	0.22	0.12	e0.50
31	---	---	---	---	---	---	---	---	---	0.22	0.12	---
MEAN	---	---	---	---	---	---	---	---	0.36	0.28	0.18	0.19
MAX	---	---	---	---	---	---	---	---	0.56	0.77	0.25	1.0
MIN	---	---	---	---	---	---	---	---	0.31	0.22	0.12	0.08
CFSM	---	---	---	---	---	---	---	---	0.99	0.76	0.49	0.51
IN.	---	---	---	---	---	---	---	---	0.95	0.88	0.57	0.57

e Estimated

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

	---	---	---	---	---	---	---	---	0.36	0.28	0.18	0.19
MEAN	---	---	---	---	---	---	---	---	0.36	0.28	0.18	0.19
MAX	---	---	---	---	---	---	---	---	0.36	0.28	0.18	0.19
(WY)	---	---	---	---	---	---	---	---	(2004)	(2004)	(2004)	(2004)
MIN	---	---	---	---	---	---	---	---	0.36	0.28	0.18	0.19
(WY)	---	---	---	---	---	---	---	---	(2004)	(2004)	(2004)	(2004)

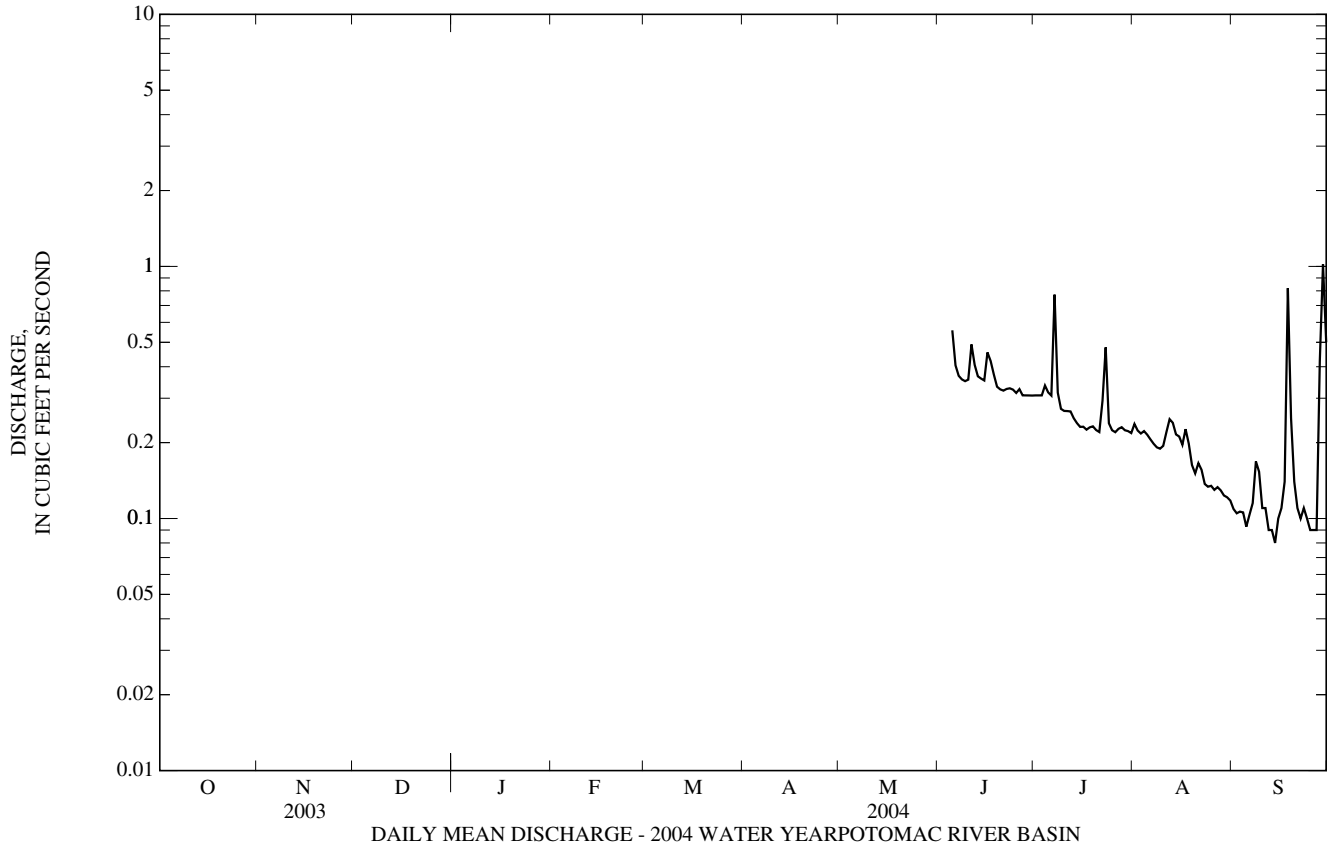
01644370 LITTLE SENECA CREEK TRIBUTARY AT BRINK, MD—Continued

SUMMARY STATISTICS

FOR 2004 WATER YEAR

ANNUAL MEAN	0.25	
HIGHEST DAILY MEAN	1.0	Sep 29
LOWEST DAILY MEAN	0.08	Sep 14
ANNUAL SEVEN-DAY MINIMUM	0.10	Sep 10
MAXIMUM PEAK FLOW	(a)6.7	Jul 7
MAXIMUM PEAK STAGE	4.94	Jul 7
INSTANTANEOUS LOW FLOW	0.08	Aug 31
ANNUAL RUNOFF (CFSM)	0.677	
ANNUAL RUNOFF (INCHES)	2.97	
10 PERCENT EXCEEDS	0.41	
50 PERCENT EXCEEDS	0.22	
90 PERCENT EXCEEDS	0.10	

a From rating curve extended above 6 ft³/s.



01644370 LITTLE SENECA CREEK TRIBUTARY AT BRINK, MD—Continued

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 6.0 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec 23	1430	9.3	5.01	Mar 23	1430	28	5.29
Jan 14	0350	*82	*5.61	Jul 8	0455	31	5.31

Minimum discharge, 0.00 ft³/s, on several days.DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e0.42	0.31	0.56	0.34	0.26	0.32	e1.8	0.41	0.32	0.22	0.14	0.06
2	e0.36	0.32	0.33	0.34	0.27	0.31	e3.7	0.34	0.31	0.22	0.13	0.04
3	e0.22	0.34	0.30	0.33	0.28	0.31	e2.0	0.34	0.39	0.21	0.13	0.03
4	e0.20	0.91	0.28	0.31	0.29	0.31	e1.2	0.33	0.35	0.21	0.13	0.03
5	e0.19	0.36	0.28	0.34	0.32	0.32	e0.90	0.32	0.32	0.26	0.12	0.03
6	e0.17	0.34	0.28	0.28	0.33	0.32	e0.75	0.31	0.35	0.24	0.12	0.02
7	e0.18	0.32	0.33	0.30	0.33	0.31	e0.62	0.30	0.33	0.24	0.11	0.02
8	e0.20	0.31	0.36	0.29	0.37	0.37	e0.64	0.29	0.29	3.3	0.12	0.02
9	e0.24	0.29	0.96	0.28	0.37	0.32	e0.54	0.28	0.31	0.21	0.16	0.01
10	e0.26	0.29	1.3	0.28	0.41	0.32	e0.49	0.27	0.33	0.18	0.13	0.02
11	e0.18	0.29	0.53	0.26	0.34	0.33	e0.47	0.27	0.29	0.16	0.12	0.01
12	e0.18	1.1	0.41	0.26	0.34	0.32	e0.45	0.26	0.27	0.16	0.11	0.01
13	e0.18	0.51	0.39	0.28	0.34	0.31	e0.43	0.26	0.29	0.16	0.09	0.01
14	e0.19	0.28	0.36	6.4	0.47	0.31	0.41	0.27	0.27	0.15	0.08	0.05
15	e0.19	0.25	0.33	0.39	e0.43	0.31	0.40	0.28	0.26	0.22	0.08	0.04
16	e0.20	0.25	0.31	0.34	e0.36	0.31	0.41	0.28	0.24	0.27	0.10	0.03
17	e0.22	0.22	0.31	0.30	e0.34	0.31	0.41	0.27	0.24	0.27	0.11	0.02
18	e0.18	0.20	0.31	0.34	e0.33	0.31	0.36	0.26	0.23	0.17	0.09	0.01
19	e0.19	0.20	0.31	0.31	e0.32	0.31	0.29	0.25	0.24	0.16	0.13	0.01
20	e0.21	0.24	0.39	0.31	0.31	0.33	0.31	0.49	0.24	0.15	0.12	0.01
21	e0.74	0.22	0.35	0.29	0.31	0.31	0.32	0.38	0.23	0.16	0.10	0.00
22	e0.66	0.21	0.35	0.35	0.31	0.31	0.40	0.35	0.25	0.16	0.07	0.00
23	e0.60	0.21	1.3	0.33	0.31	4.4	0.49	0.37	0.24	0.15	0.06	0.00
24	e0.44	0.25	0.59	e0.32	0.31	0.49	0.37	0.47	0.23	0.14	0.06	0.00
25	e0.37	0.26	0.45	e0.30	0.31	e0.42	0.34	0.41	0.23	0.16	0.05	0.01
26	e0.35	0.23	0.41	e0.28	0.31	e0.35	0.34	0.38	0.23	0.14	0.05	0.03
27	e0.34	0.22	0.39	0.30	0.31	e0.32	0.34	0.37	0.23	0.16	0.11	0.02
28	e0.33	0.35	0.38	e0.30	0.32	e1.5	0.33	0.37	0.22	0.15	0.14	0.00
29	e0.32	0.25	0.39	e0.28	---	e0.84	0.34	0.37	0.28	0.14	0.10	0.01
30	e0.32	0.24	0.37	e0.26	---	e0.52	0.57	0.37	0.23	0.13	0.09	0.00
31	e0.31	---	0.36	0.26	---	e0.39	---	0.35	---	0.14	0.08	---
MEAN	0.29	0.33	0.45	0.50	0.33	0.52	0.68	0.33	0.27	0.28	0.10	0.02
MAX	0.74	1.1	1.3	6.4	0.47	4.4	3.7	0.49	0.39	3.3	0.16	0.06
MIN	0.17	0.20	0.28	0.26	0.26	0.31	0.29	0.25	0.22	0.13	0.05	0.00
CFSM	0.80	0.88	1.22	1.36	0.90	1.41	1.84	0.90	0.74	0.77	0.28	0.05
IN.	0.92	0.98	1.40	1.56	0.94	1.63	2.05	1.03	0.83	0.88	0.32	0.06

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2004 - 2005, BY WATER YEAR (WY)

MEAN	0.29	0.33	0.45	0.50	0.33	0.52	0.68	0.33	0.27	0.28	0.14	0.10
MAX	0.29	0.33	0.45	0.50	0.33	0.52	0.68	0.33	0.27	0.28	0.18	0.19
(WY)	(2005)	(2005)	(2005)	(2005)	(2005)	(2005)	(2005)	(2005)	(2005)	(2005)	(2004)	(2004)
MIN	0.29	0.33	0.45	0.50	0.33	0.52	0.68	0.33	0.27	0.28	0.10	0.02
(WY)	(2005)	(2005)	(2005)	(2005)	(2005)	(2005)	(2005)	(2005)	(2005)	(2004)	(2005)	(2005)

01644370 LITTLE SENECA CREEK TRIBUTARY AT BRINK, MD—Continued

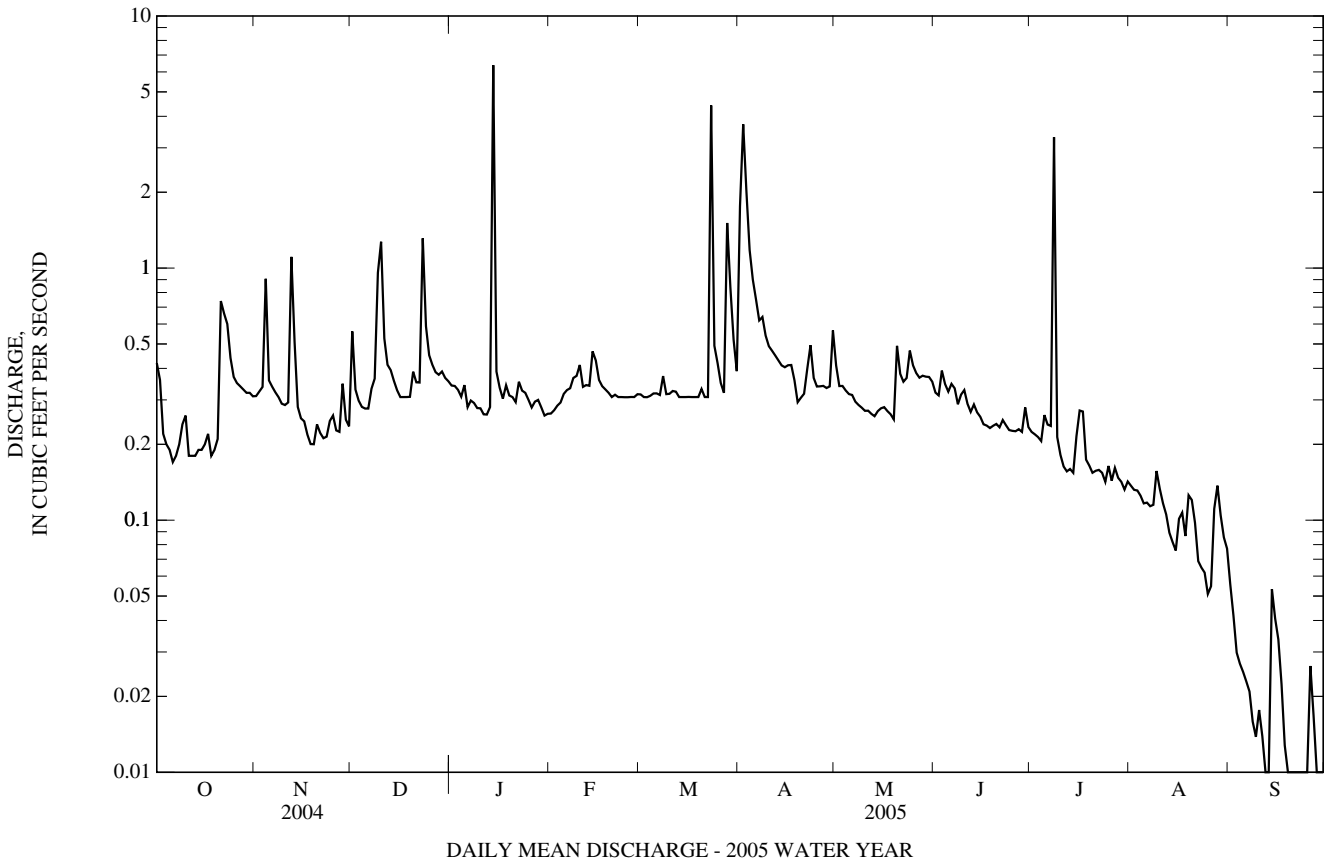
SUMMARY STATISTICS

FOR 2005 WATER YEAR

WATER YEARS 2004 - 2005

ANNUAL MEAN	0.34		0.34	
HIGHEST ANNUAL MEAN			0.34	2005
LOWEST ANNUAL MEAN			0.34	2005
HIGHEST DAILY MEAN	6.4	Jan 14	6.4	Jan 14, 2005
LOWEST DAILY MEAN	0.00	(a)	0.00	(a)
ANNUAL SEVEN-DAY MINIMUM	0.00	Sep 18	0.00	Sep 18, 2005
MAXIMUM PEAK FLOW	(b)82	Jan 14	(b)82	Jan 14, 2005
MAXIMUM PEAK STAGE	5.61	Jan 14	5.61	Jan 14, 2005
INSTANTANEOUS LOW FLOW	0.00	(c)	0.00	(c)
ANNUAL RUNOFF (CFSM)	0.929		0.929	
ANNUAL RUNOFF (INCHES)	12.61		12.62	
10 PERCENT EXCEEDS	0.45		0.45	
50 PERCENT EXCEEDS	0.30		0.30	
90 PERCENT EXCEEDS	0.08		0.08	

a Sept. 21-24, 28, 30.
 b from rating curve extended above 6 ft³/s.
 c Sept. 12-14, 19-24, 27-30



01644375 LITTLE SECECA CREEK TRIBUTARY NEAR GERMANTOWN, MD

LOCATION.--Lat 39°11'56", long 77°16'31", Montgomery County, Hydrologic Unit 02060008, on left bank 1.8 mi north of Germantown, and 1.6 mi west of Neelsville, on the northeastern edge of Little Seneca Regional Park.

DRAINAGE AREA.--1.35 mi².

PERIOD OF RECORD.--June 2004 to September 2005.

GAGE.--Water-stage recorder. Elevation of gage is 460 ft above National Geodetic Vertical Datum of 1929, from topographic maps.

REMARKS.--Records fair except those for estimated daily discharges (no gage-height record, ice effect), which are poor. Records were provided by the Montgomery County Department of the Environment. Several measurements of water temperature were made during the year.

EXTREMES FOR 2004 WATER YEAR.--Peak discharges greater than base discharge of 25 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jul 23	1855	29	5.10	Sep 17	2230	26	5.05
Aug 2	1710	28	5.08	Sep 28	1700	39	5.23
Aug 17	2120	*92	*5.73				

Minimum discharge, 0.50 ft³/s, Sept. 4-6.

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

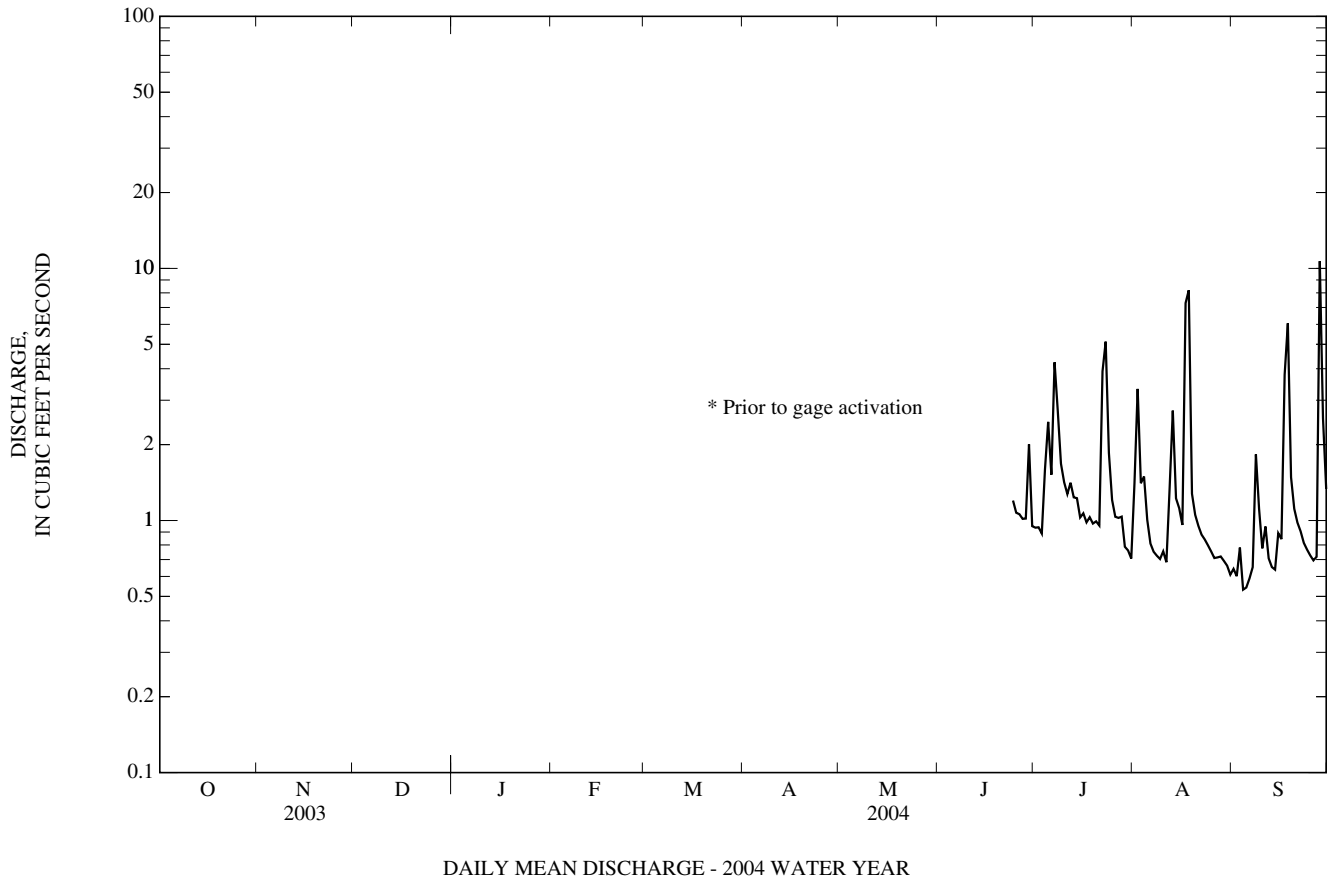
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	0.94	e1.4	0.64
2	---	---	---	---	---	---	---	---	---	0.94	3.3	0.60
3	---	---	---	---	---	---	---	---	---	0.89	1.4	0.78
4	---	---	---	---	---	---	---	---	---	1.6	1.5	0.53
5	---	---	---	---	---	---	---	---	---	2.5	1.0	0.54
6	---	---	---	---	---	---	---	---	---	1.5	0.81	0.59
7	---	---	---	---	---	---	---	---	---	4.2	0.75	0.65
8	---	---	---	---	---	---	---	---	---	2.7	0.73	1.8
9	---	---	---	---	---	---	---	---	---	1.7	0.70	1.1
10	---	---	---	---	---	---	---	---	---	1.4	0.75	0.78
11	---	---	---	---	---	---	---	---	---	1.3	0.68	0.95
12	---	---	---	---	---	---	---	---	---	1.4	1.3	0.71
13	---	---	---	---	---	---	---	---	---	1.2	2.7	0.65
14	---	---	---	---	---	---	---	---	---	1.2	1.2	0.64
15	---	---	---	---	---	---	---	---	---	1.0	1.1	0.89
16	---	---	---	---	---	---	---	---	---	1.1	0.96	0.84
17	---	---	---	---	---	---	---	---	---	0.98	7.3	3.8
18	---	---	---	---	---	---	---	---	---	1.0	8.2	6.1
19	---	---	---	---	---	---	---	---	---	0.97	1.3	1.5
20	---	---	---	---	---	---	---	---	---	0.99	1.1	1.1
21	---	---	---	---	---	---	---	---	---	0.96	0.95	0.98
22	---	---	---	---	---	---	---	---	---	3.9	0.88	0.91
23	---	---	---	---	---	---	---	---	---	5.1	0.84	0.81
24	---	---	---	---	---	---	---	---	---	e1.2	1.9	0.80
25	---	---	---	---	---	---	---	---	---	1.1	1.2	0.75
26	---	---	---	---	---	---	---	---	1.1	1.0	0.71	0.69
27	---	---	---	---	---	---	---	---	1.0	1.0	0.71	0.72
28	---	---	---	---	---	---	---	---	1.0	1.0	0.72	11
29	---	---	---	---	---	---	---	---	2.0	0.79	0.69	2.5
30	---	---	---	---	---	---	---	---	0.95	0.76	0.66	1.3
31	---	---	---	---	---	---	---	---	---	0.71	0.61	---
MEAN	---	---	---	---	---	---	---	---	---	1.54	1.50	1.52
MAX	---	---	---	---	---	---	---	---	---	5.1	8.2	11
MIN	---	---	---	---	---	---	---	---	---	0.71	0.61	0.53

e Estimated

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

MEAN	---	---	---	---	---	---	---	---	---	1.54	1.50	1.52
MAX	---	---	---	---	---	---	---	---	---	1.54	1.50	1.52
(WY)	---	---	---	---	---	---	---	---	---	(2004)	(2004)	(2004)
MIN	---	---	---	---	---	---	---	---	---	1.54	1.50	1.52
(WY)	---	---	---	---	---	---	---	---	---	(2004)	(2004)	(2004)

01644375 LITTLE SECECA CREEK TRIBUTARY NEAR GERMANTOWN, MD—Continued



01644375 LITTLE SECECA CREEK TRIBUTARY NEAR GERMANTOWN, MD—Continued

EXTREMES FOR 2005 WATER YEAR.--Peak discharges greater than base discharge of 25 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec 9	2145	29	5.10	Mar 23	1426	64	5.50
Dec 23	1435	69	5.55	Jun 29	1835	104	5.81
Jan 14	0355	113	5.87	Jul 8	0455	*201	*6.32
Mar 23	0731	39	5.24	Jul 16	2235	45	5.31

Minimum discharge, 0.46 ft³/s, on several days.DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.2	1.3	4.1	1.3	e1.0	2.6	e1.8	2.1	1.1	2.2	0.98	0.72
2	1.1	1.6	1.6	1.1	e1.1	1.4	e3.0	1.4	1.0	1.3	0.93	0.66
3	0.90	1.5	1.4	1.3	e1.2	1.1	e5.0	1.3	1.9	1.1	0.91	0.66
4	0.92	6.1	1.3	1.4	e1.4	1.3	e3.2	1.2	1.3	1.0	0.91	0.66
5	0.77	2.3	1.2	1.5	e1.6	1.4	e2.6	1.2	1.2	2.2	0.95	0.67
6	0.77	1.7	1.2	1.4	e1.8	1.7	e2.2	1.2	2.5	3.0	0.97	0.69
7	0.78	1.6	1.9	1.1	e2.0	2.6	e2.0	1.7	1.7	1.6	0.96	0.68
8	0.85	1.2	2.1	1.5	e1.2	3.0	e1.9	2.7	1.2	43	0.92	0.69
9	1.0	1.1	6.7	1.2	e1.1	1.4	e1.7	2.7	1.6	5.1	1.3	0.67
10	1.1	0.96	8.6	1.2	e1.1	1.4	e1.6	2.7	2.3	2.6	0.96	0.64
11	0.79	1.2	4.0	1.1	e1.1	2.0	1.5	2.4	1.3	1.5	0.85	0.64
12	0.92	8.0	2.1	1.1	e1.1	1.3	1.3	1.1	1.2	1.3	0.87	0.65
13	1.0	2.9	1.7	1.4	e1.4	0.99	1.4	0.95	1.4	1.3	0.83	0.61
14	1.3	1.6	1.3	29	e1.5	0.97	1.3	2.2	1.2	1.2	0.79	1.4
15	1.5	1.5	1.3	2.9	e1.6	1.0	1.1	2.1	1.2	2.3	0.76	0.53
16	1.1	1.8	1.3	2.0	e1.2	1.0	1.4	1.1	1.2	4.7	0.75	0.49
17	0.85	2.0	1.4	1.5	e1.0	1.0	1.6	0.97	1.1	6.5	0.77	0.49
18	0.86	2.1	1.4	1.2	0.98	1.1	1.6	1.0	1.1	2.6	0.77	0.52
19	1.3	1.3	e1.3	1.2	0.99	1.1	1.7	1.0	1.0	1.4	0.91	0.53
20	1.3	1.4	1.2	1.5	1.2	1.5	2.1	5.2	1.1	1.3	0.81	0.56
21	2.0	1.2	1.3	1.1	2.3	1.0	1.2	1.9	1.1	1.3	0.84	0.51
22	1.2	1.1	e1.3	e0.95	1.2	1.1	1.9	1.7	1.3	1.2	0.96	0.52
23	1.1	0.98	e1.0	e0.90	0.99	24	4.1	2.5	1.1	1.1	0.91	0.53
24	1.0	1.3	3.0	0.86	1.0	e5.4	1.7	3.7	1.1	1.1	0.77	0.47
25	0.96	1.7	1.5	e0.84	1.2	e2.3	1.3	1.9	1.1	2.2	0.76	0.50
26	0.94	1.1	1.2	e0.82	1.1	e1.8	1.4	1.5	1.0	1.2	0.78	1.1
27	1.1	1.0	1.1	e0.80	1.1	e1.8	1.4	1.3	1.1	2.6	1.1	0.64
28	1.1	2.6	1.2	0.79	1.8	e2.0	1.2	1.2	1.1	1.7	1.8	0.54
29	1.0	1.3	1.5	e0.80	---	e4.0	1.1	1.2	10	1.1	0.86	0.57
30	1.3	1.2	1.2	e0.90	---	e2.7	4.5	1.2	6.4	1.1	1.1	0.52
31	1.2	---	1.4	e0.95	---	e2.0	---	1.1	---	1.0	1.4	---
MEAN	1.07	1.89	2.32	2.12	1.29	3.10	2.89	1.79	1.76	3.32	0.94	0.64
MAX	2.0	8.0	10	29	2.3	24	30	5.2	10	43	1.8	1.4
MIN	0.77	0.96	1.1	0.79	0.98	0.97	1.1	0.95	1.0	1.0	0.75	0.47

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2004 - 2005, BY WATER YEAR (WY)

MEAN	1.07	1.89	2.32	2.12	1.30	3.10	2.89	1.79	1.76	2.43	1.22	1.08
MAX	1.07	1.89	2.32	2.12	1.30	3.10	2.89	1.79	1.76	3.32	1.50	1.52
(WY)	(2005)	(2005)	(2005)	(2005)	(2005)	(2005)	(2005)	(2005)	(2005)	(2005)	(2004)	(2004)
MIN	1.07	1.89	2.32	2.12	1.30	3.10	2.89	1.79	1.76	1.54	0.94	0.64
(WY)	(2005)	(2005)	(2005)	(2005)	(2005)	(2005)	(2005)	(2005)	(2005)	(2004)	(2005)	(2005)

01644375 LITTLE SECECA CREEK TRIBUTARY NEAR GERMANTOWN, MD—Continued

SUMMARY STATISTICS

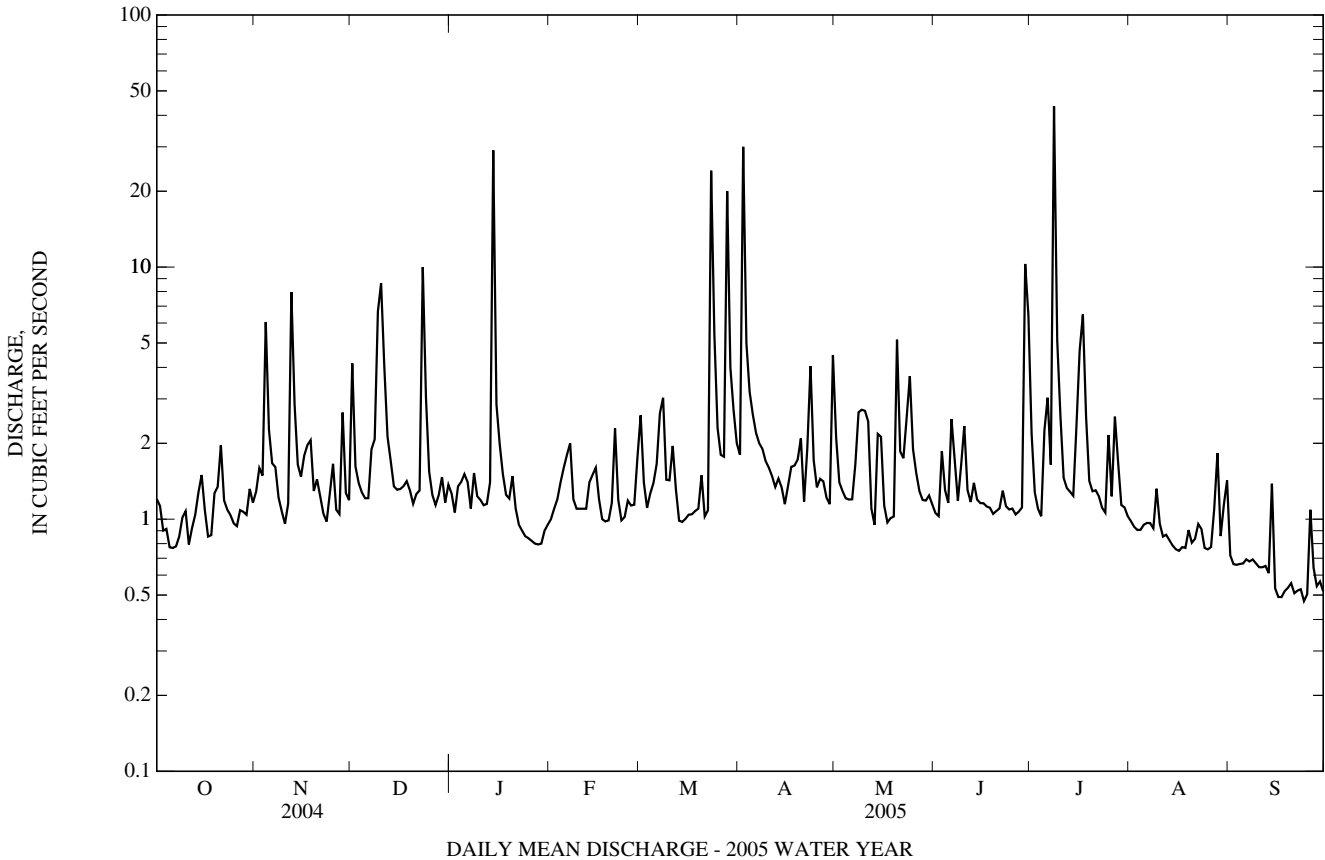
FOR 2005 WATER YEAR

WATER YEARS 2004 - 2005

ANNUAL MEAN	1.93		1.93	
HIGHEST ANNUAL MEAN			1.93	
LOWEST ANNUAL MEAN			1.93	
HIGHEST DAILY MEAN	43	Jul 8	43	Jul 8, 2005
LOWEST DAILY MEAN	0.47	Sep 24	0.47	Sep 24, 2005
ANNUAL SEVEN-DAY MINIMUM	0.52	Sep 16	0.52	Sep 16, 2005
MAXIMUM PEAK FLOW	(a)201	Jul 8	(a)201	Jul 8, 2005
MAXIMUM PEAK STAGE	6.32	Jul 8	6.32	Jul 8, 2005
INSTANTANEOUS LOW FLOW	0.46	(b)	0.46	(b)
10 PERCENT EXCEEDS	2.6		2.6	
50 PERCENT EXCEEDS	1.2		1.2	
90 PERCENT EXCEEDS	0.78		0.78	

a From rating curve extended above 45 ft³/s.

a Sept. 15-17, 21, 22, 24, 25, 2005.



01644380 CABIN BRANCH NEAR BOYDS, MD

LOCATION.--Lat 39°12'23.8", long 77°17'18.9", Montgomery County, Hydrologic Unit 02060008, on right bank 2 mi northeast of Boyds, 2.35 mi southwest of Clarksburg, and 1.45 mi upstream of Little Seneca Creek.

DRAINAGE AREA.--0.79 mi².

PERIOD OF RECORD.--June 2004 to September 2005.

GAGE.--Water-stage recorder. Elevation of gage is 420 ft above National Geodetic Vertical Datum of 1929, from topographic maps.

REMARKS.--Records fair except those for estimated daily discharges (no stage-discharge relationship, missing record, backwater, ice effect), which are poor. Records were provided by the Montgomery County Department of the Environment. Several measurements of water temperature were made during the year.

EXTREMES FOR 2004 WATER YEAR.--Peak discharges greater than base discharge of 20 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jun 17	1625	30	4.65	Jul 23	1805	*215	*6.00
Jul 7	1330	38	4.77	Sep 17	2145	24	4.56

Minimum discharge, Unknown.

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

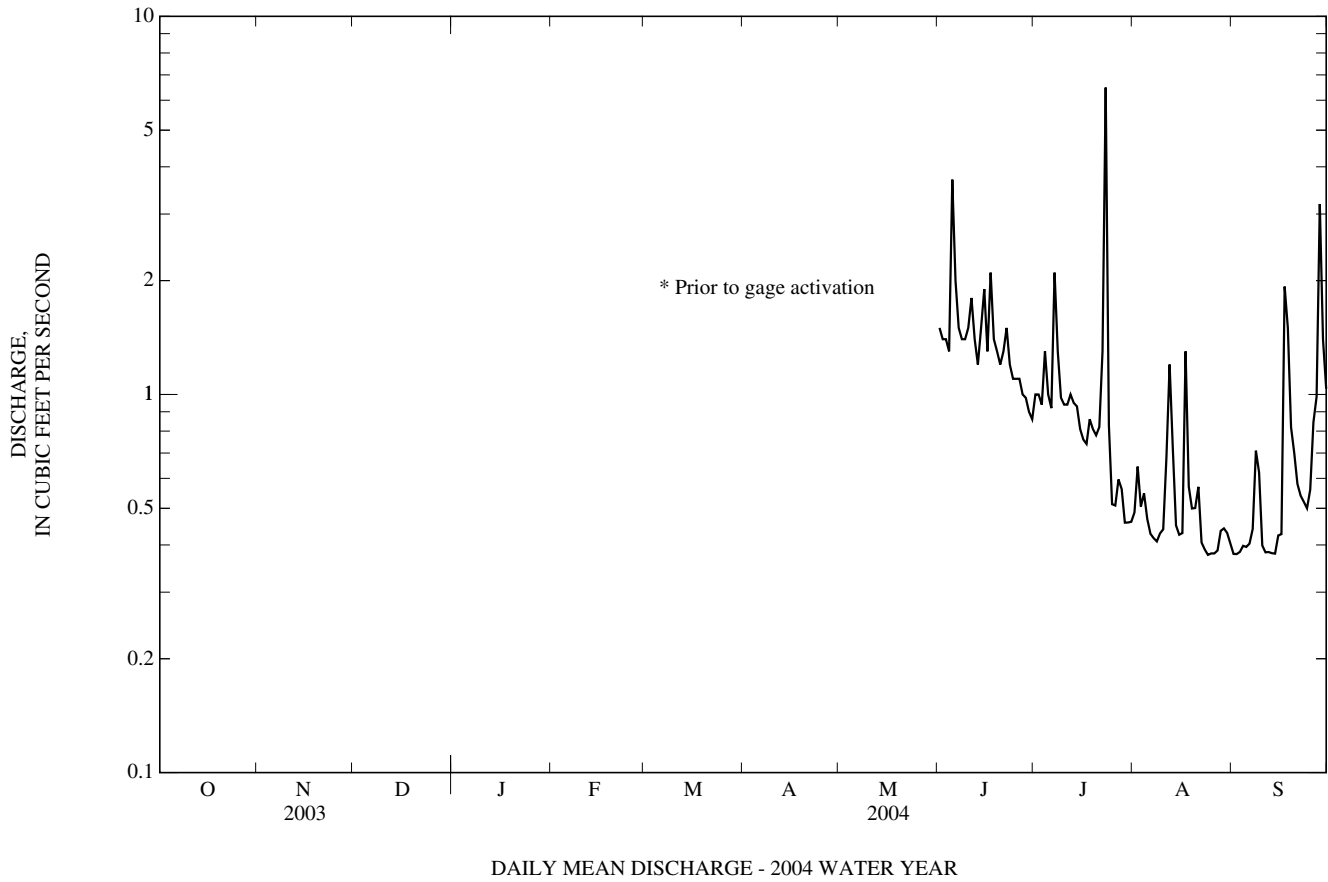
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	e1.5	e1.0	0.49	0.38
2	---	---	---	---	---	---	---	---	e1.4	e1.0	0.64	0.38
3	---	---	---	---	---	---	---	---	e1.4	e0.94	0.51	0.38
4	---	---	---	---	---	---	---	---	e1.3	e1.3	0.55	0.40
5	---	---	---	---	---	---	---	---	3.7	e1.0	0.47	0.40
6	---	---	---	---	---	---	---	---	e2.0	e0.92	0.43	0.40
7	---	---	---	---	---	---	---	---	e1.5	e2.1	0.42	0.44
8	---	---	---	---	---	---	---	---	e1.4	e1.3	0.41	0.71
9	---	---	---	---	---	---	---	---	e1.4	e0.98	0.43	0.62
10	---	---	---	---	---	---	---	---	e1.5	e0.94	e0.44	0.40
11	---	---	---	---	---	---	---	---	e1.8	e0.94	e0.68	0.38
12	---	---	---	---	---	---	---	---	e1.4	e1.0	e1.2	0.38
13	---	---	---	---	---	---	---	---	e1.2	e0.95	0.72	0.38
14	---	---	---	---	---	---	---	---	e1.5	e0.93	0.45	0.38
15	---	---	---	---	---	---	---	---	e1.9	e0.81	0.43	0.42
16	---	---	---	---	---	---	---	---	e1.3	e0.76	0.43	0.43
17	---	---	---	---	---	---	---	---	e2.1	e0.74	e1.3	1.9
18	---	---	---	---	---	---	---	---	e1.4	e0.86	0.57	1.5
19	---	---	---	---	---	---	---	---	e1.3	e0.81	0.50	0.82
20	---	---	---	---	---	---	---	---	e1.2	e0.78	0.50	e0.70
21	---	---	---	---	---	---	---	---	e1.3	e0.82	0.57	e0.58
22	---	---	---	---	---	---	---	---	e1.5	e1.3	0.41	e0.54
23	---	---	---	---	---	---	---	---	e1.2	6.5	0.39	e0.52
24	---	---	---	---	---	---	---	---	e1.1	0.83	0.38	e0.50
25	---	---	---	---	---	---	---	---	e1.1	0.51	0.38	e0.56
26	---	---	---	---	---	---	---	---	e1.1	0.51	0.38	0.84
27	---	---	---	---	---	---	---	---	e1.0	0.60	0.39	0.99
28	---	---	---	---	---	---	---	---	e0.98	0.56	0.44	3.2
29	---	---	---	---	---	---	---	---	e0.90	0.46	0.44	1.4
30	---	---	---	---	---	---	---	---	e0.86	0.46	0.43	1.0
31	---	---	---	---	---	---	---	---	---	0.46	0.40	---
MEAN	---	---	---	---	---	---	---	---	1.44	1.07	0.52	0.73
MAX	---	---	---	---	---	---	---	---	3.7	6.5	1.3	3.2
MIN	---	---	---	---	---	---	---	---	0.86	0.46	0.38	0.38

e Estimated

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

MEAN	---	---	---	---	---	---	---	---	---	1.07	0.52	0.73
MAX	---	---	---	---	---	---	---	---	---	1.07	0.52	0.73
(WY)	---	---	---	---	---	---	---	---	---	(2004)	(2004)	(2004)
MIN	---	---	---	---	---	---	---	---	---	1.07	0.52	0.73
(WY)	---	---	---	---	---	---	---	---	---	(2004)	(2004)	(2004)

01644380 CABIN BRANCH NEAR BOYDS, MD—Continued



01644380 CABIN BRANCH NEAR BOYDS, MD—Continued

EXTREMES FOR 2005 WATER YEAR.--Peak discharges greater than base discharge of 20 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec 23	1441	37	4.75	Mar 23	1450	20	4.48
Dec 23	1656	22	4.52	Jul 8	0450	*164	*5.75
Jan 14	0405	140	5.61				

Minimum discharge, 0.14 ft³/s, Mar. 10.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.84	2.7	1.3	1.3	0.62	1.3	e1.6	1.7	e0.72	0.53	0.59	0.31
2	0.97	2.9	1.0	0.99	0.63	0.89	e9.4	1.2	e0.56	0.45	0.58	0.32
3	0.84	3.4	0.91	1.4	0.83	0.67	e5.0	1.1	e1.1	0.43	0.52	0.29
4	0.83	2.4	0.83	1.4	e0.74	0.76	e3.0	1.1	e0.76	0.44	0.49	0.29
5	0.71	1.2	0.83	1.2	0.87	0.94	e2.6	1.1	e0.64	0.57	0.51	0.27
6	0.68	0.95	0.88	1.2	0.84	0.95	e2.5	1.1	e1.3	0.51	0.49	0.28
7	0.75	1.0	1.3	0.81	1.1	1.5	e2.3	1.4	e0.95	0.51	0.47	0.27
8	0.88	0.84	1.3	0.87	1.5	1.9	e2.1	1.5	0.58	15	0.48	0.26
9	1.1	0.79	1.5	0.79	1.8	0.68	e2.0	1.5	0.82	1.8	0.56	0.27
10	1.1	0.78	4.4	0.82	1.5	0.71	e1.9	1.5	0.96	1.1	e0.44	0.28
11	0.82	1.0	4.1	0.80	0.83	1.0	e1.7	1.7	0.76	0.92	0.48	0.27
12	e0.91	3.4	1.2	0.73	0.83	0.99	1.7	1.2	0.68	0.78	e1.2	0.27
13	e1.0	2.5	1.1	1.0	0.73	0.73	1.9	0.97	0.82	0.75	0.46	0.27
14	1.3	0.85	0.95	17	1.0	0.68	1.7	1.5	0.70	e0.70	0.44	0.39
15	1.9	e0.80	0.91	2.0	e1.0	0.63	1.5	1.5	0.57	e1.2	0.43	0.27
16	1.9	e0.78	e0.80	1.5	e0.83	0.67	1.6	1.1	0.53	1.8	0.45	0.27
17	0.81	e0.76	e0.74	1.2	e0.68	0.72	2.0	e0.96	0.50	2.0	e1.3	0.26
18	0.79	1.3	e0.70	1.0	e0.59	0.77	2.4	e0.98	0.50	1.00	0.35	0.23
19	1.2	1.1	e0.67	e0.82	0.69	0.81	2.2	e1.0	0.46	0.90	0.40	0.22
20	1.3	1.3	0.65	e0.82	0.79	1.1	2.3	e5.4	0.47	0.83	0.40	0.22
21	1.7	1.1	0.67	0.93	1.4	0.69	1.5	e1.5	0.53	0.87	0.39	0.22
22	1.5	1.0	e0.77	e0.81	1.2	0.70	1.5	e1.3	0.54	0.81	0.34	0.21
23	0.83	1.0	e4.0	e0.80	1.0	6.2	2.3	e1.8	0.47	0.66	0.32	0.22
24	0.77	1.4	1.3	e0.80	0.74	e2.4	1.4	e3.0	0.46	0.63	0.31	0.22
25	0.83	1.3	0.96	0.92	0.74	e1.9	1.2	e1.6	0.45	0.78	0.30	0.22
26	0.89	0.76	0.86	e0.66	0.74	e1.5	1.4	e1.1	0.42	0.65	0.31	0.24
27	0.91	0.75	0.70	0.65	0.72	e1.4	1.6	e0.89	0.40	0.82	0.39	0.23
28	0.89	1.5	0.72	0.65	1.0	e6.6	1.2	e0.81	0.45	0.64	0.46	0.20
29	1.1	0.83	1.1	e0.56	---	e3.1	1.1	e0.81	1.4	0.56	0.39	0.21
30	1.4	0.83	1.0	e0.55	---	e2.3	2.0	e0.81	0.66	0.55	0.40	0.20
31	2.0	---	1.3	e0.54	---	e1.8	---	e0.74	---	0.55	0.42	---
MEAN	1.08	1.37	1.27	1.47	0.93	1.52	2.22	1.42	0.67	1.28	0.49	0.26
MAX	2.0	3.4	4.4	17	1.8	6.6	9.4	5.4	1.4	15	1.3	0.39
MIN	0.68	0.75	0.65	0.54	0.59	0.63	1.1	0.74	0.40	0.43	0.30	0.20

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2004 - 2005, BY WATER YEAR (WY)

MEAN	1.08	1.37	1.27	1.47	0.93	1.52	2.22	1.42	1.06	1.17	0.50	0.49
MAX	1.08	1.37	1.27	1.47	0.93	1.52	2.22	1.42	1.44	1.28	0.52	0.73
(WY)	(2005)	(2005)	(2005)	(2005)	(2005)	(2005)	(2005)	(2005)	(2004)	(2005)	(2004)	(2004)
MIN	1.08	1.37	1.27	1.47	0.93	1.52	2.22	1.42	0.67	1.07	0.49	0.26
(WY)	(2005)	(2005)	(2005)	(2005)	(2005)	(2005)	(2005)	(2005)	(2005)	(2004)	(2005)	(2005)

01644380 CABIN BRANCH NEAR BOYDS, MD—Continued

SUMMARY STATISTICS

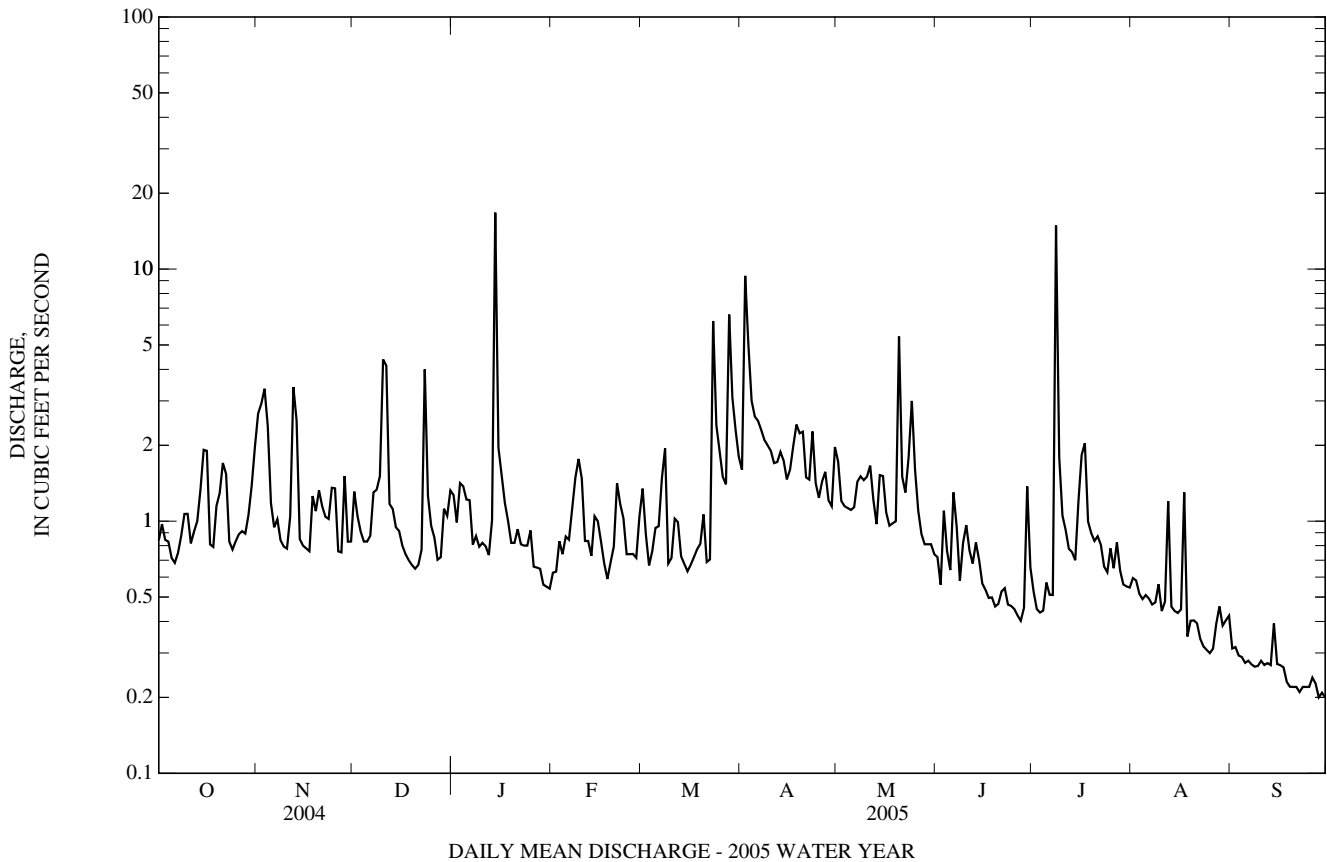
FOR 2005 WATER YEAR

WATER YEARS 2004 - 2005

ANNUAL MEAN	1.17		1.17	
HIGHEST ANNUAL MEAN			1.17 2005	
LOWEST ANNUAL MEAN			1.17 2005	
HIGHEST DAILY MEAN	17	Jan 14	17	Jan 14, 2005
LOWEST DAILY MEAN	0.20	(a)	0.20	(a)
ANNUAL SEVEN-DAY MINIMUM	0.22	Sep 24	0.22	Sep 24, 2005
MAXIMUM PEAK FLOW	164	Jul 8	(b)215	Jul 23, 2005
MAXIMUM PEAK STAGE	5.75	Jul 8	6.00	Jul 23, 2005
INSTANTANEOUS LOW FLOW	0.14	Mar 10	0.14	Mar 10, 2005
10 PERCENT EXCEEDS	1.9		1.9	
50 PERCENT EXCEEDS	0.83		0.83	
90 PERCENT EXCEEDS	0.39		0.39	

a Sept. 28, 30.

b From rating curve extended above 38 ft³/s.



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 mi².

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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan 14	1315	2,170	9.86	Apr 2	2200	2,020	9.61
Mar 23	1945	1,900	9.40	Jul 8	1130	*2,230	*9.97
Mar 28	2115	1,860	9.33				

Minimum discharge, 13 ft³/s, Aug. 23, Sept. 21.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	53	44	155	55	69	92	104	133	63	73	42	31
2	51	45	92	53	65	84	988	98	60	81	40	30
3	50	45	68	51	67	73	811	91	90	53	39	29
4	46	184	60	51	71	69	210	87	81	49	38	28
5	44	151	57	71	76	72	149	84	69	50	37	29
6	42	74	53	69	79	72	128	82	125	110	37	28
7	41	62	68	57	79	71	117	82	197	61	36	27
8	41	54	88	71	82	118	122	81	81	1,170	36	27
9	42	50	119	66	86	93	111	79	67	146	54	27
10	43	49	275	57	99	79	105	78	76	77	48	28
11	41	48	140	54	78	76	99	76	66	60	39	29
12	40	303	89	52	73	77	95	74	61	53	37	27
13	40	249	73	51	71	73	94	66	58	49	36	27
14	44	92	64	1,180	87	69	92	68	63	48	35	54
15	44	68	58	218	118	67	90	86	54	132	34	42
16	49	59	56	122	86	67	89	68	52	175	34	30
17	53	54	54	101	81	64	89	64	50	404	38	30
18	43	51	54	84	72	62	87	62	50	90	33	30
19	42	49	54	78	69	63	87	60	50	66	50	27
20	51	68	48	84	69	69	85	290	49	65	42	27
21	99	70	48	79	76	70	88	116	49	52	37	26
22	59	55	48	67	72	62	99	83	92	54	33	26
23	51	50	288	81	67	944	147	93	91	48	32	26
24	51	54	195	72	71	336	118	154	57	45	31	27
25	48	73	88	72	80	137	93	121	52	59	30	29
26	46	58	69	72	74	110	87	85	50	46	29	29
27	45	51	62	73	73	101	84	74	47	61	32	36
28	46	89	59	63	76	702	82	71	48	76	41	29
29	45	63	57	65	---	447	82	67	177	53	35	27
30	48	55	55	77	---	148	203	69	180	51	33	26
31	47	---	57	73	---	114	---	71	---	45	33	---
TOTAL	1,485	2,417	2,751	3,419	2,166	4,681	4,835	2,813	2,305	3,602	1,151	888
MEAN	47.9	80.6	88.7	110	77.4	151	161	90.7	76.8	116	37.1	29.6
MAX	99	303	288	1,180	118	944	988	290	197	1,170	54	54
MIN	40	44	48	51	65	62	82	60	47	45	29	26
CFSM	0.94	1.59	1.75	2.18	1.53	2.98	3.18	1.79	1.52	2.29	0.73	0.58
IN.	1.09	1.77	2.02	2.51	1.59	3.43	3.55	2.06	1.69	2.64	0.84	0.65

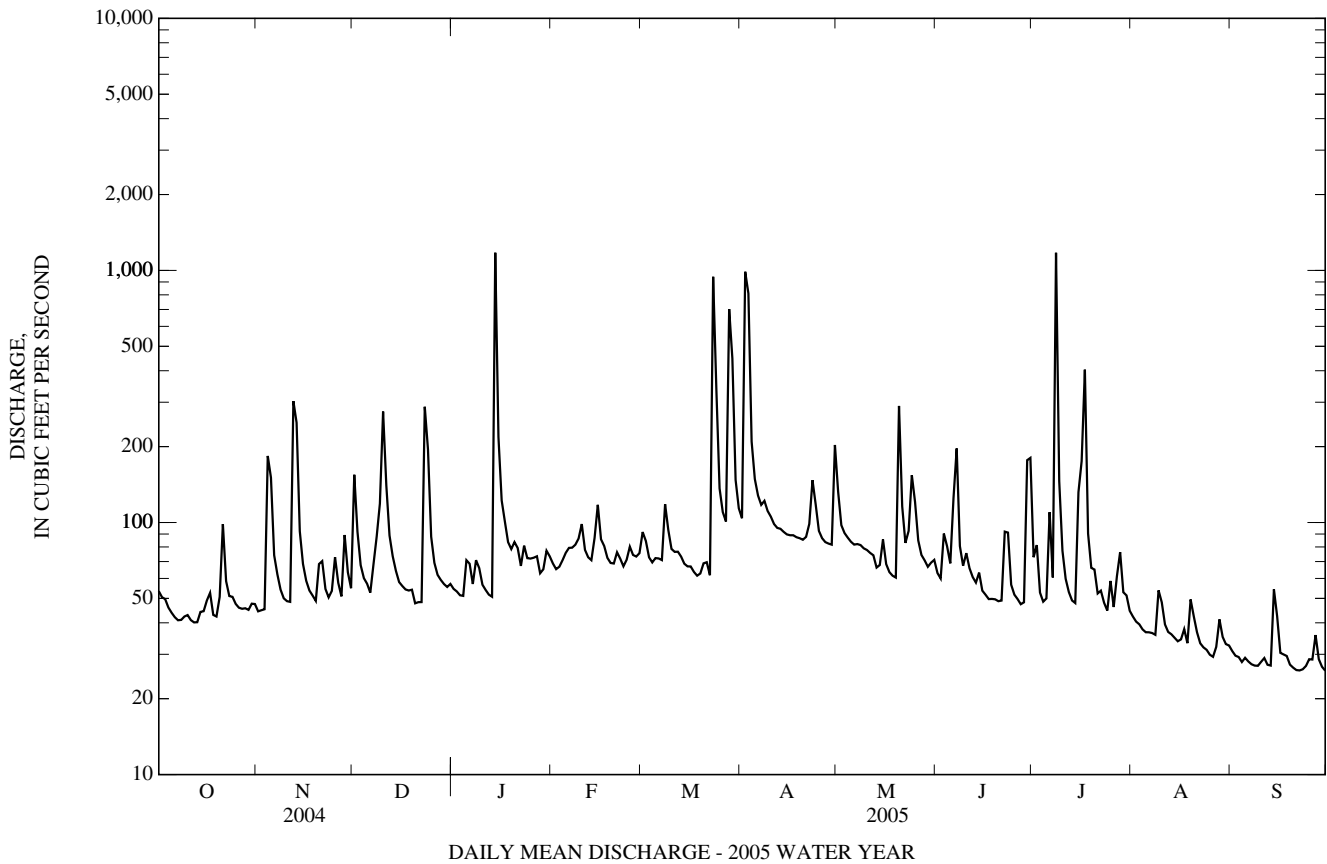
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 2005, BY WATER YEAR (WY)

	MEAN	MAX	MIN	(WY)	MEAN	MAX	MIN	(WY)	MEAN	MAX	MIN	(WY)	MEAN	MAX	MIN	(WY)	MEAN	MAX	MIN	(WY)																												
	57.2	157	30.4	(1998)	77.2	185	28.8	(1999)	83.8	234	28.2	(1999)	84.4	116	39.0	(2002)	98.4	175	31.5	(2002)	119	187	52.9	(2002)	103	161	49.0	(2002)	86.3	121	39.2	(1999)	96.0	278	31.6	(1999)	58.7	116	21.1	(1999)	54.4	88.5	28.0	(2002)	77.3	225	20.6	(1998)

01644600 GREAT SENECA CREEK NEAR QUINCE ORCHARD, MD—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1997 - 2005	
ANNUAL TOTAL	34,963		32,513			
ANNUAL MEAN	95.5		89.1		83.8	
HIGHEST ANNUAL MEAN					132	2003
LOWEST ANNUAL MEAN					41.3	2002
HIGHEST DAILY MEAN	957	Feb 6	1,180	Jan 14	2,000	Dec 11, 2003
LOWEST DAILY MEAN	38	Sep 2	26	Sep 21	10	Aug 21, 2002
ANNUAL SEVEN-DAY MINIMUM	39	Sep 1	27	Sep 19	11	Aug 17, 2002
MAXIMUM PEAK FLOW			2,230	Jul 8	3,730	Dec 11, 2003
MAXIMUM PEAK STAGE			9.97	Jul 8	12.05	Dec 11, 2003
INSTANTANEOUS LOW FLOW			13	Aug 23	4.7	Aug 21, 2002
ANNUAL RUNOFF (CFSM)	1.88		1.76		1.65	
ANNUAL RUNOFF (INCHES)	25.65		23.86		22.47	
10 PERCENT EXCEEDS	153		123		142	
50 PERCENT EXCEEDS	82		66		55	
90 PERCENT EXCEEDS	45		34		25	

‡ Adjusted for inflow.
 a Aug. 21, 22.
 † Pumpage in cubic feet per second, from Washington Suburban Sanitary Commission.
 ‡ Adjusted for pumpage.



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 mi².

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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan 14	1700	3,020	8.09	Apr 2	2345	3,360	8.44
Mar 23	1645	2,710	7.75	Jul 8	0830	*3,750	*8.83
Mar 28	2000	3,280	8.36	Jul 17	0030	1,690	6.44

Minimum discharge, 29 ft³/s, Sept. 12, 13, 18, 20-22, 24, 25.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	122	47	214	94	96	134	223	204	83	170	70	53
2	104	48	152	90	91	127	1,680	197	80	148	73	57
3	64	49	119	88	93	110	1,600	112	112	73	70	56
4	62	164	102	87	102	100	466	101	135	64	65	52
5	56	195	96	110	114	102	333	95	118	61	60	45
6	52	87	91	113	122	101	317	122	106	112	60	45
7	54	76	107	99	126	100	306	138	349	83	58	43
8	61	71	132	115	131	153	304	127	132	1,990	57	42
9	70	64	162	113	138	149	237	103	122	400	70	41
10	76	62	505	99	162	118	146	99	169	224	78	43
11	53	61	320	93	131	112	144	99	130	150	69	44
12	52	373	207	90	115	111	150	97	113	103	63	41
13	51	419	161	88	107	103	164	94	92	94	61	40
14	57	184	134	2,060	127	97	182	96	92	84	59	57
15	57	135	115	535	200	93	117	123	79	176	53	70
16	59	111	103	267	147	92	109	101	75	172	49	47
17	64	97	99	204	137	89	109	94	72	599	54	45
18	54	91	95	153	120	89	110	91	71	214	46	44
19	55	88	94	133	105	89	127	89	69	142	57	42
20	63	105	86	137	101	93	130	294	68	109	64	40
21	115	112	81	127	113	100	141	195	64	100	54	39
22	99	90	83	106	107	89	151	125	86	97	46	39
23	93	83	327	126	99	1,220	184	115	126	76	44	40
24	68	86	342	107	101	771	221	177	69	78	43	39
25	58	113	172	103	117	319	206	226	62	89	43	44
26	54	94	136	105	109	231	188	180	58	81	48	97
27	52	84	119	103	106	200	167	140	60	88	51	162
28	51	136	102	86	109	1,220	148	106	68	128	63	45
29	50	107	100	89	---	1,050	136	101	191	86	58	40
30	51	94	96	107	---	374	149	98	339	87	53	77
31	50	---	95	104	---	264	---	103	---	71	53	---
TOTAL	2,027	3,526	4,747	5,931	3,326	8,000	8,645	4,042	3,390	6,149	1,792	1,569
MEAN	65.4	118	153	191	119	258	288	130	113	198	57.8	52.3
MAX	122	419	505	2,060	200	1,220	1,680	294	349	1,990	78	162
MIN	50	47	81	86	91	89	109	89	58	61	43	39
CFSM	0.65	1.16	1.52	1.89	1.18	2.56	2.85	1.29	1.12	1.96	0.57	0.52
IN.	0.75	1.30	1.75	2.18	1.23	2.95	3.18	1.49	1.25	2.26	0.66	0.58

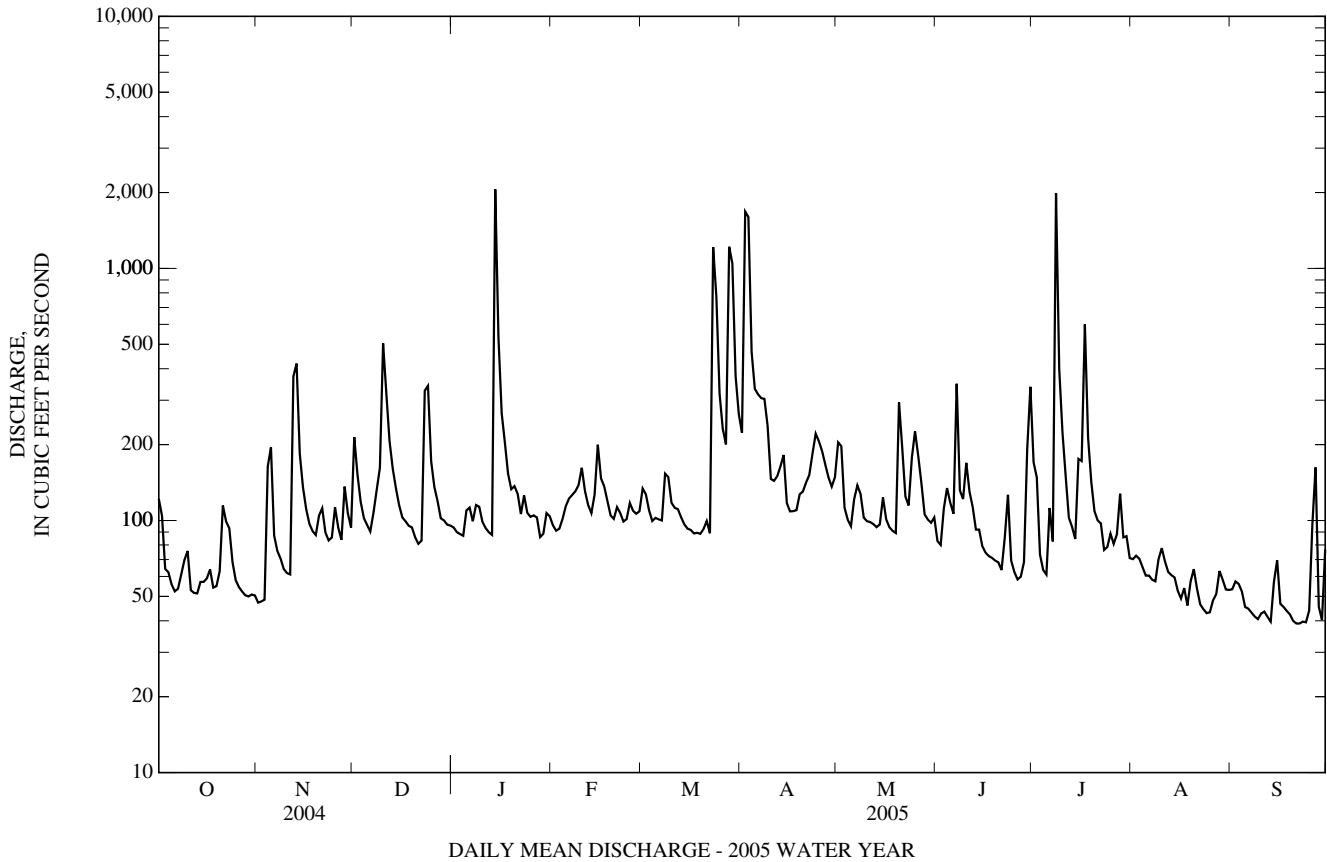
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1930 - 2005, BY WATER YEAR (WY)

MEAN	70.2	88.0	114	131	149	166	152	129	111	78.9	69.6	82.5
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 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1930 - 2005	
ANNUAL TOTAL	56,824		53,144		112	
ANNUAL MEAN	155		146		251	
HIGHEST ANNUAL MEAN					32.8	
LOWEST ANNUAL MEAN					1931	
HIGHEST DAILY MEAN	1,530	Feb 7	2,060	Jan 14	9,900	Jun 22, 1972
LOWEST DAILY MEAN	43	Sep 6	39	(a)	1.8	(b)
ANNUAL SEVEN-DAY MINIMUM	49	Aug 31	40	Sep 18	2.2	Sep 27, 1930
MAXIMUM PEAK FLOW			3,750	Jul 8	(c)26,100	Jun 22, 1972
MAXIMUM PEAK STAGE			8.83	Jul 8	(d)16.40	Jun 22, 1972
INSTANTANEOUS LOW FLOW			29	(f)	1.7	(g)
ANNUAL RUNOFF (CFSM)	1.54		1.44		1.10	
ANNUAL RUNOFF (INCHES)	20.93		19.57		15.00	
10 PERCENT EXCEEDS	276		214		196	
50 PERCENT EXCEEDS	126		100		70	
90 PERCENT EXCEEDS	56		51		27	

- a Sept. 21, 22, 24.
- b Sept. 29, 1930, Sept. 12, 1966.
- c From rating curve extended above 3,000 ft³/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.
- d From high-water mark in gage house.
- f Sept. 12, 13, 18, 20-22, 24, 25.
- g Sept. 28, 29, 1930.



WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

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)	Specific conductance, wat unfltrd uS/cm 25 degC (00095)	Temperature, air, deg C (00020)
OCT 12...	0945	Environmental	1028	80020	--	30	756	10.0	102	7.9	336	12.0
NOV 15...	1300	Environmental	1028	80020	--	30	--	--	--	--	--	--
DEC 06...	1130	Environmental	1028	80020	E19,500	30	761	12.3	100	7.5	235	12.0
20...	1215	Environmental	1028	80020	E12,300	30	757	14.2	103	7.8	273	-8.0
JAN 11...	1200	Environmental	1028	80020	E21,300	30	761	12.6	103	7.5	226	8.0
FEB 01...	1200	Environmental	1028	80020	E8,230	30	768	14.5	105	7.2	419	3.5
14...	1200	Environmental	1028	80020	E10,200	30	760	13.6	107	7.8	327	6.0
MAR 01...	1145	Environmental	1028	80020	E10,300	30	743	13.6	109	7.8	327	4.0
APR 04...	1205	Blank	--	80020	--	30	--	--	--	--	--	--
04...	1300	Environmental	1028	80020	E69,700	30	760	12.0	103	7.5	200	17.5
19...	1300	Environmental	1028	80020	E10,700	30	764	9.1	94	7.9	297	28.5
MAY 10...	1100	Environmental	1028	80020	E8,230	30	765	9.8	103	8.2	293	22.5
24...	1200	Environmental	1028	80020	E14,900	30	748	7.4	80	7.4	346	13.0
JUN 13...	1215	Environmental	1028	80020	E4,950	30	762	5.4	71	7.7	335	30.0
27...	1000	Environmental	1028	80020	E2,800	30	768	4.7	55	7.9	372	27.0

Date	Temperature, water, deg C (00010)	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 recovery (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-Diethyl-aniline water fltrd, 0.7u GF ug/L (82660)	2,6-Dimethylnaphthalene, water, fltrd, ug/L (62055)	2-[(2-Ethyl-6methyl phenyl) amino]2 oxoESA ug/L (62850)	2Chloro-2',6'-diethyl acetanilide wat flt ug/L (61618)	CIAT, water, fltrd, ug/L (04040)	CEAT, water, fltrd, ug/L (04038)
OCT 12...	15.9	<.5	<.09	97.7	<.016	<.04	<.02	<.006	<.5	<.02	<.005	E.055	<.08
NOV 15...	--	<.5	<.09	68.2	<.028	E.03	<.02	<.006	<.5	.02	<.005	E.039	<.08
DEC 06...	6.5	--	--	--	--	--	--	--	--	--	--	--	--
20...	1.6	<.5	<.09	92.9	<.016	<.04	<.02	<.006	<.5	<.02	<.005	<.006	E.01
JAN 11...	6.7	--	--	--	--	--	--	--	--	--	--	--	--
FEB 01...	2.4	<.5	<.09	69.6	<.016	<.04	<.02	<.006	<.5	<.02	<.005	E.064	E.02
14...	5.0	--	--	--	--	--	--	--	--	--	--	--	--
MAR 01...	5.0	<.5	<.09	110	<.016	<.04	<.02	<.006	<.5	<.02	<.005	E.047	E.02
APR 04...	--	--	--	--	--	--	--	--	--	--	--	--	--
04...	8.8	<.5	<.09	82.7	<.016	.08	<.02	<.006	<.5	<.02	<.005	E.031	<.08
19...	16.9	<.5	<.09	102	<.016	<.04	<.02	<.006	<.5	<.02	<.005	E.060	E.02
MAY 10...	18.0	M	<.09	84.3	<.016	<.04	<.02	<.006	<.5	.02	<.005	E.044	E.01
24...	18.6	<.5	<.09	75.3	<.016	.09	<.02	<.006	<.5	<.02	<.005	E.045	<.08
JUN 13...	29.3	.6	<.09	102	<.016	<.04	<.02	<.006	.6	--	<.005	E.065	E.02
27...	23.4	<.5	<.09	110	<.016	<.04	<.02	<.006	<.5	--	<.005	E.058	E.02

Agency collecting sample: 1028 - U.S. Geological Survey

Agency analyzing sample: 80020 - USGS-National Water Quality Lab, Denver, CO

Sampling method: 30 - Single vertical

01645495 POTOMAC RIVER NEAR GREAT FALLS, VA—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Ala-chlor 2nd amide, water, fltrd, ug/L (63781)	Aceto-chlor 3rd amide, water, fltrd, ug/L (63782)	2-Ethyl -6- methyl- aniline water, fltrd, ug/L (61620)	OIET, water, fltrd, ug/L (50355)	2- Methyl- naphth- alene, water, fltrd, ug/L (62056)	3,4-Di- chloro- aniline water, fltrd, ug/L (61625)	3,5-Di- chloro- aniline water, fltrd, ug/L (61627)	3-beta- Copro- tanol, water, fltrd, ug/L (62057)	3- Hydroxy- carbo- furan, wat flt 0.7u GF ug/L (49308)	3-Keto- carbo- furan, water, fltrd, ug/L (50295)	3- Methyl- 1H- indole, water, fltrd, ug/L (62058)	3-tert- Butyl- 4-hy- droxy- anisole wat flt ug/L (62059)	4Chloro 2methyl phenol, water, fltrd, ug/L (61633)
OCT 12...	<.02	<.02	<.004	E.038	<.5	<.006	--	<2	<.008	<.02	<1	<5	<.006
NOV 15...	<.02	<.02	<.004	E.031	<.5	<.004	--	<2	<.008	<.02	<1	<5	<.006
DEC 06...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	<.02	<.02	<.004	E.023	<.5	<.004	--	<2	<.008	<.02	<1	<5	<.006
JAN 11...	--	--	--	--	--	--	--	--	--	--	--	--	--
FEB 01...	<.02	<.02	<.004	E.016	<.5	<.004	--	<2	<.008	<.02	<1	<5	<.006
14...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR 01...	<.02	<.02	<.004	<.032	<.5	.006	--	M	<.008	<.02	<1	<5	<.006
APR 04...	--	--	--	--	--	--	--	--	--	--	--	--	--
04...	<.02	<.02	<.004	E.025	<.5	<.004	--	<2	<.008	<.02	<1	<5	<.006
19...	<.02	<.02	<.004	E.016	<.5	<.004	--	<2	<.008	<.02	<1	<5	<.006
MAY 10...	<.02	<.02	<.004	E.024	M	--	--	<2	<.008	<.02	<1	<5	<.006
24...	<.02	<.02	<.004	.033	<.5	E.006	--	<2	<.008	<.02	<1	<5	<.006
JUN 13...	--	--	<.004	.039	.6	<.004	<.004	2	<.008	<.02	M	M	<.006
27...	--	--	<.004	E.030	<.5	<.004	<.004	<2	<.008	E.20	M	<5	<.006

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-Meth- yl-1H- benzo- tri- azole, wat flt ug/L (62063)	9,10- Anthra- quinone water, fltrd, ug/L (62066)	Aceto- chlor ESA, water, fltrd 0.7u GF ug/L (61029)	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)	Ac- fluor- fen, water, fltrd 0.7u GF ug/L (49315)
OCT 12...	<1	<1	<5	<1	<2	<.5	<.02	<.02	<.02	<.006	<.5	<.5	<.028
NOV 15...	<1	<1	<5	<1	<2	<.5	<.02	<.02	<.02	<.006	<.5	E.1	<.028
DEC 06...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	<1	<1	<5	<1	<2	<.5	<.02	<.02	<.02	<.006	<.5	E.1	<.028
JAN 11...	--	--	--	--	--	--	--	--	--	--	--	--	--
FEB 01...	<1	<1	<5	<1	<2	<.5	<.02	<.02	<.02	<.006	<.5	E.1	<.028
14...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR 01...	<1	<1	<5	<1	<2	<.5	<.02	<.02	<.02	<.006	<.5	E.1	<.028
APR 04...	--	--	--	--	--	--	--	--	--	--	--	--	--
04...	<1	<1	<5	<1	<2	E.1	<.02	<.02	<.02	<.006	<.5	M	<.028
19...	<1	<1	<5	<1	<2	<.5	<.02	.02	<.02	<.006	<.5	E.1	<.028
MAY 10...	<1	<1	<5	<1	<2	<.5	<.02	<.02	<.02	<.006	<.5	M	<.028
24...	<1	<1	<5	<1	<2	E.1	<.02	<.02	<.02	.009	<.5	E.1	<.028
JUN 13...	M	M	E6	M	6	.8	--	--	--	<.006	.9	.8	<.028
27...	<1	<1	<5	<1	<2	<.5	--	--	--	<.010	<.5	M	<.028

01645495 POTOMAC RIVER NEAR GREAT FALLS, VA—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

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- Endo- sulfan, water, fltrd, ug/L (34362)	alpha- HCH-d6, surrog, Sch2003 wat flt percent recovery (99995)	Anthra- cene, water, fltrd, ug/L (34221)	Atra- zine, water, fltrd, ug/L (39632)	Azin- phos- methyl oxon, water, fltrd, ug/L (61635)
OCT 12...	<.02	.04	<.02	<.02	<.005	<.02	<.022	<.04	--	85.3	<.5	.033	<.07
NOV 15...	<.02	.03	<.02	<.02	<.005	<.02	<.022	<.04	--	89.0	<.5	.035	<.07
DEC 06...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	<.02	.02	<.02	<.02	<.005	<.02	<.022	<.04	--	80.7	<.5	<.007	<.07
JAN 11...	--	--	--	--	--	--	--	--	--	--	--	--	--
FEB 01...	<.02	.05	<.02	<.02	<.005	<.02	<.022	<.04	--	87.9	<.5	.033	<.07
14...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR 01...	<.02	<.02	<.02	<.02	<.005	<.02	<.022	<.04	--	88.0	<.5	.027	<.07
APR 04...	--	--	--	--	--	--	--	--	--	--	--	--	--
04...	<.02	.02	<.02	<.02	<.005	<.02	<.022	<.04	--	104	<.5	.023	<.07
19...	<.02	<.02	<.02	<.02	<.005	<.02	<.022	<.04	--	97.2	<.5	.029	<.07
MAY 10...	<.02	<.02	<.02	<.02	<.005	<.02	<.022	<.04	--	95.8	<.5	.093	<.07
24...	<.02	<.02	<.02	<.02	<.005	<.02	<.022	<.04	--	87.0	<.5	.165	<.07
JUN 13...	--	--	--	--	<.005	<.02	<.022	<.04	<.005	103	.8	.116	<.07
27...	--	--	--	--	<.005	<.02	<.022	<.04	<.005	94.4	<.5	.073	<.07

Date	Azin- phos- methyl, water, fltrd 0.7u GF ug/L (82686)	Barban, Sched. 2060/ 9060, wat flt pct rev (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)	Bisphen ol A-d3 sur Sch 2033 & 8033, wat flt pct rev (99583)
OCT 12...	<.050	102	<.02	<.010	<.022	<.02	<.01	<.5	<.5	<2	<2	<1	83.0
NOV 15...	<.050	E59.4	<.02	<.010	<.022	<.02	<.01	<.5	<.5	<2	<2	<1	61.5
DEC 06...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	<.050	E72.3	<.02	<.010	<.022	<.02	<.01	<.5	<.5	<2	<2	<1	58.7
JAN 11...	--	--	--	--	--	--	--	--	--	--	--	--	--
FEB 01...	<.050	82.5	<.02	<.010	<.022	<.02	<.01	<.5	<.5	<2	<2	<1	39.2
14...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR 01...	<.050	E136	<.02	<.010	<.022	<.02	<.01	<.5	<.5	<2	<2	M	57.3
APR 04...	--	--	--	--	--	--	--	--	--	--	--	--	--
04...	<.050	E29.9	<.02	<.010	<.022	<.02	<.01	<.5	<.5	<2	<2	<1	73.4
19...	<.050	75.9	<.02	<.010	<.022	<.02	<.01	<.5	<.5	<2	<2	<1	51.8
MAY 10...	<.050	115	<.02	<.010	<.022	<.02	<.01	<.5	M	<2	<2	--	73.2
24...	<.050	97.9	<.02	<.010	<.022	<.02	<.01	<.5	<.5	<2	<2	M	86.1
JUN 13...	<.050	E52.1	<.02	<.010	<.022	<.02	<.01	.7	.9	E2	E2	M	69.4
27...	<.050	86.5	<.02	<.010	<.022	<.02	<.01	<.5	M	<2	<2	M	103

01645495 POTOMAC RIVER NEAR GREAT FALLS, VA—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Bromacil, water, fltrd, ug/L (04029)	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)	Carbofuran, water, fltrd 0.7u GF ug/L (82674)	Chloramben methyl ester, water, fltrd, ug/L (61188)	Chlorimuron, water, fltrd, ug/L (50306)
OCT 12...	<.02	<.03	<.018	80.2	87.0	<.5	<.02	<.041	<.5	<.016	--	<.02	<.032
NOV 15...	<.02	<.03	.018	87.7	86.7	<.5	<.02	<.041	<.5	<.016	--	<.02	<.032
DEC 06...	--	--	--	--	--	--	--	--	--	--	--	--	--
DEC 20...	<.02	<.03	.026	80.3	80.0	<.5	<.02	<.041	<.5	<.016	--	<.02	<.032
JAN 11...	--	--	--	--	--	--	--	--	--	--	--	--	--
FEB 01...	<.02	<.03	.043	109	81.4	<.5	<.02	<.041	<.5	<.016	--	<.02	<.032
FEB 14...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR 01...	<.02	<.03	.067	E168	86.3	<.5	<.02	<.041	<.5	<.016	--	<.02	<.032
APR 04...	--	--	--	--	--	--	--	--	--	--	--	--	--
APR 04...	<.02	<.03	E.038	E91.9	75.4	M	<.02	E.008	<.5	<.016	--	<.02	<.032
APR 19...	<.02	<.03	.024	105	77.1	<.5	<.02	<.041	<.5	<.016	--	<.02	<.032
MAY 10...	<.02	<.03	.022	117	75.2	M	<.02	<.041	<.5	<.016	--	<.02	<.032
MAY 24...	<.02	<.03	.037	97.5	84.9	<.5	M	E.008	<.5	<.016	--	<.02	<.032
JUN 13...	<.02	<.03	.021	E133	85.9	.8	<.02	<.041	.8	<.016	<.020	<.02	<.032
JUN 27...	<.02	<.03	E.021	E118	95.2	<.5	<.02	<.041	<.5	<.016	<.020	<.02	<.032

Date	Chloro-di-amino-s-triazine, wat flt ug/L (04039)	Chlorothalonil, water, fltrd 0.7u GF ug/L (49306)	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)	cis-Propiconazole, water, fltrd, ug/L (79846)	Clopyralid, water, fltrd 0.7u GF ug/L (49305)	Cotinine, water, fltrd, ug/L (62005)	Cyanazine, water, fltrd, ug/L (04041)	Cycloate, water, fltrd, ug/L (04031)	Cyfluthrin, water, fltrd, ug/L (61585)	Cypermethrin water, fltrd, ug/L (61586)
OCT 12...	E.07	<.04	<.06	<.005	<2	<.006	--	<.02	<1.00	--	<.01	<.008	<.009
NOV 15...	E.05	<.04	<.06	<.005	<2	<.006	--	<.02	<1.00	--	<.01	<.008	<.009
DEC 06...	--	--	--	--	--	--	--	--	--	--	--	--	--
DEC 20...	E.04	<.04	<.06	<.005	<2	<.006	--	<.02	<1.00	--	<.01	<.008	<.009
JAN 11...	--	--	--	--	--	--	--	--	--	--	--	--	--
FEB 01...	<.04	<.04	<.06	<.005	<2	<.006	--	<.02	<1.00	--	<.01	<.008	<.009
FEB 14...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR 01...	<.04	<.04	<.06	<.005	<2	<.006	--	<.02	<1.00	--	<.01	<.008	<.009
APR 04...	--	--	--	--	--	--	--	--	--	--	--	--	--
APR 04...	<.04	<.04	<.06	<.005	<2	<.006	--	<.02	<1.00	--	<.01	<.027	<.009
APR 19...	<.04	<.04	<.06	<.005	<2	<.006	--	<.02	<1.00	--	<.01	<.027	<.009
MAY 10...	E.03	<.04	<.06	<.005	<2	<.006	--	<.02	<1.00	--	<.01	<.027	<.009
MAY 24...	<.04	<.04	<.06	<.005	<2	<.006	--	<.02	<1.00	--	<.01	<.027	<.009
JUN 13...	E.03	<.04	<.06	<.005	E2	<.006	<.008	<.02	2.00	<.018	<.01	<.027	<.009
JUN 27...	<.04	<.04	<.06	<.005	M	<.006	<.008	<.02	<1.00	<.018	<.01	<.027	<.009

01645495 POTOMAC RIVER NEAR GREAT FALLS, VA—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	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)	De-chloro-aceto-chlor, water, fltrd, ug/L (63778)	De-chloro-ala-chlor, water, fltrd, ug/L (63777)	De-chloro-dimeth-enamid, water, fltrd, ug/L (63779)	De-chloro-metola-chlor, water, fltrd, ug/L (63780)	DEET, water, fltrd, ug/L (62082)	Desulf-inyl fipro-nil, water, fltrd, ug/L (62170)	Diaz-inon oxon, water, fltrd, ug/L (61638)	Diazi-non, water, fltrd, ug/L (39572)	Diazi-non-d10 surrog, Sch2003 wat flt percent recovry (99994)	Dicamba water fltrd 0.7u GF ug/L (38442)
OCT 12...	<.03	<.003	48.1	<.02	<.02	<.02	<.02	E.1	E.006	<.01	<.005	91.0	<.04
NOV 15...	<.03	<.003	47.7	<.02	<.02	<.02	<.02	E.2	<.012	<.01	<.005	105	<.04
DEC 06...	--	--	--	--	--	--	--	--	--	--	--	--	--
DEC 20...	<.03	<.003	79.2	<.02	<.02	<.02	<.02	E.1	<.012	<.01	<.005	102	<.04
JAN 11...	--	--	--	--	--	--	--	--	--	--	--	--	--
FEB 01...	<.03	<.003	51.3	<.02	<.02	<.02	<.02	E.1	E.006	<.01	<.005	107	<.04
FEB 14...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR 01...	<.03	<.003	48.6	<.02	<.02	<.02	<.02	E.1	E.005	<.01	<.005	98.7	<.04
APR 04...	--	--	--	--	--	--	--	--	--	--	--	--	--
APR 04...	<.03	<.003	105	<.02	<.02	<.02	<.02	E.1	<.012	<.01	<.005	115	<.04
APR 19...	<.03	<.003	91.2	<.02	<.02	<.02	<.02	E.1	E.004	<.01	<.005	99.8	<.04
MAY 10...	<.03	<.003	75.4	<.02	<.02	<.02	<.02	M	<.012	<.01	<.005	109	<.04
MAY 24...	<.03	<.003	40.8	<.02	<.02	<.02	<.02	E.1	<.012	<.01	<.005	101	<.04
JUN 13...	<.03	<.003	78.5	--	--	--	--	.9	E.006	<.01	<.005	113	<.04
JUN 27...	<.03	<.003	29.5	--	--	--	--	E.1	E.005	<.01	E.004	105	<.04

Date	Di-chlor-prop, water, fltrd 0.7u GF ug/L (49302)	Dicro-topos, water fltrd, ug/L (38454)	Diel-drin, water, fltrd, ug/L (39381)	Di-ethoxy-nonyl-phenol, water, fltrd, ug/L (62083)	Di-ethoxy-octyl-phenol, water, fltrd, ug/L (61705)	Dimeth-enamid ESA, water, fltrd, ug/L (61951)	Dimeth-enamid OA, water, fltrd, ug/L (62482)	Dimeth-enamid water, fltrd, ug/L (61588)	Dimeth-oate, water, fltrd 0.7u GF ug/L (82662)	Dinoseb water, fltrd 0.7u GF ug/L (49301)	Diphen-amid, water, fltrd, ug/L (04033)	Disulf-oton sulfone water, fltrd, ug/L (61640)	Disul-foton, water, fltrd 0.7u GF ug/L (82677)
OCT 12...	<.03	<.08	<.009	<5	<1	<.02	<.02	<.02	<.006	<.04	<.01	--	--
NOV 15...	<.03	<.08	<.009	<5	<1	<.02	<.02	<.02	<.006	<.04	<.01	--	--
DEC 06...	--	--	--	--	--	--	--	--	--	--	--	--	--
DEC 20...	<.03	<.08	<.009	<5	<1	<.02	<.02	<.02	<.006	<.04	<.01	--	--
JAN 11...	--	--	--	--	--	--	--	--	--	--	--	--	--
FEB 01...	<.03	<.08	<.009	<5	<1	<.02	<.02	<.02	<.006	<.04	<.01	--	--
FEB 14...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR 01...	<.03	<.08	<.009	<5	<1	<.02	<.02	<.02	<.006	<.04	<.01	--	--
APR 04...	--	--	--	--	--	--	--	--	--	--	--	--	--
APR 04...	<.03	<.08	<.009	<5	<1	<.02	<.02	<.02	<.006	<.04	<.01	--	--
APR 19...	<.03	<.08	<.009	<5	<1	<.02	<.02	<.02	<.006	<.04	<.01	--	--
MAY 10...	<.03	<.08	<.009	<5	<1	<.02	<.02	<.02	<.006	<.04	<.01	--	--
MAY 24...	<.03	<.08	<.009	<5	M	<.02	<.02	<.02	<.006	<.04	<.01	--	--
JUN 13...	<.03	<.08	<.009	E10	M	--	--	--	<.006	<.04	<.01	<.01	<.02
JUN 27...	<.03	<.08	<.009	<5	<1	--	--	--	<.006	<.04	<.01	<.01	<.02

01645495 POTOMAC RIVER NEAR GREAT FALLS, VA—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Diuron, water, fltrd 0.7u GF (49300)	D-Limonene, water, fltrd, ug/L (62073)	Endo-sulfan sulfate water, fltrd, ug/L (61590)	EPTC, water, fltrd 0.7u GF (82668)	Ethion monoxon water, fltrd, ug/L (61644)	Ethion, water, fltrd, ug/L (82346)	Etho-prop, water, fltrd 0.7u GF (82672)	Ethoxy-octyl-phenol, water, fltrd, ug/L (61706)	Fenami-phos sulfone water, fltrd, ug/L (61645)	Fenami-phos sulf-oxide, water, fltrd, ug/L (61646)	Fenami-phos, water, fltrd, ug/L (61591)	Fenuron water, fltrd 0.7u GF (49297)	Desulf-inyl-fipronil amide, wat flt ug/L (62169)
OCT 12...	<.01	<.5	--	--	<.0020	<.004	--	<1	<.049	<.04	<.03	<.02	<.029
NOV 15...	<.01	<.5	--	--	<.0020	<.004	--	<1	<.049	--	<.03	<.02	<.029
DEC 06...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	<.01	<.5	--	--	<.0020	<.004	--	<1	<.049	<.04	<.03	.02	<.029
JAN 11...	--	--	--	--	--	--	--	--	--	--	--	--	--
FEB 01...	<.01	<.5	--	--	<.0020	<.004	--	<1	<.049	<.04	<.03	<.02	<.029
14...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR 01...	<.01	<.5	--	--	<.0020	<.004	--	<1	<.049	<.04	<.03	<.02	<.029
APR 04...	--	--	--	--	--	--	--	--	--	--	--	--	--
04...	<.01	<.5	--	--	<.0020	<.004	--	<1	<.049	<.04	<.03	<.02	<.029
19...	<.01	<.5	--	--	<.0020	<.004	--	<1	<.049	<.04	<.03	<.02	<.029
MAY 10...	.02	<.5	--	--	<.0020	<.004	--	<1	<.049	<.04	<.03	<.02	<.029
24...	.02	<.5	--	--	<.0020	<.004	--	M	<.049	<.04	<.03	<.02	<.029
JUN 13...	<.01	E.3	<.014	<.004	<.002	<.004	<.005	E2	<.049	<.04	<.03	<.02	<.029
27...	<.01	<.5	<.014	<.004	<.002	<.004	<.005	<1	<.049	<.04	<.03	<.02	<.029

Date	Fipronil sulfide water, fltrd, ug/L (62167)	Fipronil sulfone water, fltrd, ug/L (62168)	Fipronil, water, fltrd, ug/L (62166)	Flufen-acet ESA, water, fltrd, ug/L (61952)	Flufen-acet OA, water, fltrd, ug/L (62483)	Flufen-acet, water, fltrd, ug/L (62481)	Flumet-sulam, water, fltrd, ug/L (61694)	Fluo-meturon water fltrd 0.7u GF (38811)	Fluor-anthene water, fltrd, ug/L (34377)	Fluor-anthene -d10, sur Sch 20/8033 wat flt pct rcv (99586)	Fonofos oxon, water, fltrd, ug/L (61649)	Fonofos water, fltrd, ug/L (04095)	HHCB, water, fltrd, ug/L (62075)
OCT 12...	<.013	<.024	<.016	<.02	<.02	<.02	<.04	<.02	<.5	104	<.003	<.003	<.5
NOV 15...	<.013	<.024	<.016	<.02	<.02	<.02	<.04	<.02	<.5	84.7	<.003	<.003	<.5
DEC 06...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	<.013	<.024	<.016	<.02	<.02	<.02	<.04	<.02	<.5	88.0	<.003	<.003	M
JAN 11...	--	--	--	--	--	--	--	--	--	--	--	--	--
FEB 01...	<.013	<.024	E.008	<.02	<.02	<.02	<.04	<.02	<.5	87.1	--	<.003	<.5
14...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR 01...	<.013	<.024	E.007	<.02	<.02	<.02	<.04	<.02	<.5	97.7	--	<.003	<.5
APR 04...	--	--	--	--	--	--	--	--	--	--	--	--	--
04...	<.013	<.024	<.016	<.02	<.02	<.02	<.04	<.02	<.5	82.3	--	<.003	<.5
19...	<.013	<.024	E.007	.10	<.02	<.02	<.04	<.02	<.5	74.7	--	<.003	<.5
MAY 10...	<.013	<.024	<.016	<.02	<.02	<.02	<.04	<.02	<.5	66.7	--	<.003	<.5
24...	<.013	<.024	E.006	<.02	<.02	<.02	<.04	<.02	<.5	78.5	--	<.003	<.5
JUN 13...	<.013	<.024	E.008	--	--	--	E.01	<.02	.8	83.3	--	<.003	.8
27...	E.006	<.024	<.016	--	--	--	<.04	<.02	<.5	83.6	--	<.003	<.5

01645495 POTOMAC RIVER NEAR GREAT FALLS, VA—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Hexa- zinone, water, fltrd, ug/L (04025)	Hydroxy aceto- chlor, water, fltrd, ug/L (63784)	Hydroxy ala- chlor, water, fltrd, ug/L (63783)	Hydroxy dimeth- enamid, water, fltrd, ug/L (64045)	Hydroxy metola- chlor, water, fltrd, ug/L (63785)	Imaza- quin, water, fltrd, ug/L (50356)	Imaze- thapyr, water, fltrd, ug/L (50407)	Imida- cloprid water, fltrd, ug/L (61695)	Indole, water, fltrd, ug/L (62076)	Ipro- dione, water, fltrd, ug/L (61593)	Isobor- neol, water, fltrd, ug/L (62077)	Isofen- phos, water, fltrd, ug/L (61594)	Iso- phorone water, fltrd, ug/L (34409)
OCT 12...	<.013	<.02	<.02	<.02	<.02	<.04	<.04	<.020	<.5	<.387	<.5	<.003	<.5
NOV 15...	<.013	<.02	<.02	<.02	<.02	<.04	<.04	<.020	<.5	<.387	<.5	<.003	<.5
DEC 06...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	<.013	<.02	<.02	<.02	<.02	<.04	<.04	<.020	<.5	<.387	<.5	<.003	<.5
JAN 11...	--	--	--	--	--	--	--	--	--	--	--	--	--
FEB 01...	<.013	<.02	<.02	<.02	<.02	E.02	<.04	<.020	<.5	<.387	<.5	<.003	<.5
14...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR 01...	<.013	<.02	<.02	<.02	<.02	<.04	.20	<.020	<.5	<.387	<.5	<.003	<.5
APR 04...	--	--	--	--	--	--	--	--	--	--	--	--	--
04...	<.013	<.02	<.02	<.02	<.02	<.04	<.04	<.020	<.5	<.538	<.5	<.003	<.5
19...	<.013	<.02	<.02	<.02	<.02	<.04	<.04	<.020	<.5	<.538	<.5	<.003	<.5
MAY 10...	<.013	<.02	<.02	<.02	<.02	<.04	<.04	<.020	<.5	<.538	<.5	<.003	M
24...	<.013	<.02	<.02	<.02	<.02	<.04	<.04	<.020	<.5	<.538	<.5	<.003	<.5
JUN 13...	<.013	--	--	--	--	<.04	E.01	<.020	.8	<.538	.8	<.003	.8
27...	<.013	--	--	--	--	<.04	<.04	<.020	<.5	<.538	<.5	<.003	M

Date	Iso- propyl- benzene water, fltrd, ug/L (62078)	Iso- quin- oline, water, fltrd, ug/L (62079)	Linuron water fltrd 0.7u GF ug/L (38478)	Mala- oxon, water, fltrd, ug/L (61652)	Mala- thion, water, fltrd, ug/L (39532)	MCPA, water, fltrd 0.7u GF ug/L (38482)	MCPB, water, fltrd 0.7u GF ug/L (38487)	Menthol water, fltrd, ug/L (62080)	Meta- laxyl, water, fltrd, ug/L (50359)	Meta- laxyl, water, fltrd, ug/L (61596)	Methi- althion water, fltrd, ug/L (61598)	Methio- carb, water, fltrd 0.7u GF ug/L (38501)	Meth- omyl, water, fltrd 0.7u GF ug/L (49296)
OCT 12...	<.5	<.5	<.01	<.030	<.027	<.03	<.01	<.5	<.01	<.030	<.006	<.010	<.020
NOV 15...	<.5	<.5	<.01	<.030	<.027	<.03	<.01	<.5	.02	.021	<.006	<.010	<.020
DEC 06...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	<.5	<.5	<.01	<.030	<.027	--	<.01	<.5	<.01	<.005	<.006	<.010	<.020
JAN 11...	--	--	--	--	--	--	--	--	--	--	--	--	--
FEB 01...	<.5	<.5	<.01	<.030	<.027	<.03	<.01	<.5	<.01	<.005	<.006	<.010	<.020
14...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR 01...	<.5	<.5	<.01	<.030	<.027	<.03	<.01	<.5	<.01	<.005	<.006	<.010	<.020
APR 04...	--	--	--	--	--	--	--	--	--	--	--	--	--
04...	<.5	<.5	<.01	<.030	<.027	<.03	<.01	<.5	<.01	<.005	<.006	<.010	<.020
19...	<.5	<.5	<.01	<.030	<.027	<.03	<.01	<.5	<.01	<.005	<.006	<.010	<.020
MAY 10...	<.5	<.5	<.01	<.030	<.027	<.03	<.01	<.5	<.01	<.005	<.006	<.010	<.020
24...	<.5	<.5	<.01	<.030	<.027	<.03	<.01	<.5	<.01	<.005	<.006	<.010	<.020
JUN 13...	E.3	.8	<.01	<.030	<.027	<.03	<.01	.8	<.01	<.005	<.006	<.010	<.020
27...	<.5	<.5	<.01	<.030	<.027	<.03	<.01	<.5	<.01	<.005	<.006	<.010	<.020

01645495 POTOMAC RIVER NEAR GREAT FALLS, VA—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Methyl paraxon, water, fltrd, ug/L (61664)	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)	Molinate, water, fltrd 0.7u GF ug/L (82671)	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)
OCT 12...	<.03	<.015	<.5	.64	.08	.018	<.006	<.03	--	<.008	<.04	<.5	<.01
NOV 15...	<.03	<.015	<.5	.73	.12	.016	<.006	<.03	--	<.008	<.04	<.5	<.01
DEC 06...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	<.03	<.015	<.5	.49	.05	<.006	<.006	<.03	--	<.008	<.04	<.5	<.01
JAN 11...	--	--	--	--	--	--	--	--	--	--	--	--	--
FEB 01...	<.03	<.015	<.5	.64	.07	.020	<.006	<.03	--	<.008	<.04	<.5	<.01
14...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR 01...	<.03	<.015	<.5	.09	.02	.015	<.006	E.05	--	<.008	<.04	<.5	<.01
APR 04...	--	--	--	--	--	--	--	--	--	--	--	--	--
04...	<.03	<.015	<.5	.17	.05	.018	<.009	<.03	--	<.008	<.04	<.5	<.01
19...	<.03	<.015	<.5	.05	<.02	.015	<.006	<.03	--	<.008	<.04	<.5	<.01
MAY 10...	<.03	<.015	M	.13	.02	.044	<.006	<.03	--	<.008	<.04	M	<.01
24...	<.03	<.015	<.5	.19	.03	.069	<.006	<.03	--	<.008	<.04	M	<.01
JUN 13...	<.03	<.015	.7	--	--	.049	<.006	<.03	<.003	<.008	<.04	.6	<.01
27...	<.03	<.015	M	--	--	.019	<.006	<.03	<.003	<.008	<.04	<.5	<.01

Date	Nicosulfuron, water, fltrd, ug/L (50364)	Norflurazon, water, fltrd 0.7u GF ug/L (49293)	Oryzalin, water, fltrd 0.7u GF ug/L (49292)	Oxamyl, water, fltrd 0.7u GF ug/L (38866)	Oxyfluorfen, water, fltrd, ug/L (61600)	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)
OCT 12...	<.04	<.02	<.01	<.03	--	<1	<.022	<2	<.5	.7	<.10	<.011	<.05
NOV 15...	<.04	<.02	<.01	<.03	--	<1	<.022	<2	<.5	<.5	<.10	<.011	<.05
DEC 06...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	<.04	<.02	<.01	<.03	--	<1	<.022	<2	<.5	<.5	<.10	<.011	<.05
JAN 11...	--	--	--	--	--	--	--	--	--	--	--	--	--
FEB 01...	<.04	<.02	<.01	<.03	--	<1	<.022	<2	<.5	<.5	<.10	<.011	<.05
14...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR 01...	<.04	<.02	<.01	<.03	--	<1	<.022	<2	<.5	<.5	<.10	<.011	<.05
APR 04...	--	--	--	--	--	--	--	--	--	--	--	--	--
04...	<.04	<.02	<.01	<.03	--	<1	<.022	<2	<.5	<.5	<.10	<.011	<.05
19...	<.04	<.02	<.01	<.03	--	<1	<.022	--	<.5	<.5	<.10	<.011	--
MAY 10...	<.04	<.02	<.01	<.03	--	<1	<.022	--	<.5	E.4	<.10	<.011	<.05
24...	<.04	<.02	<.01	<.03	--	<1	<.022	--	<.5	E.4	<.10	<.011	<.05
JUN 13...	<.04	<.02	<.01	<.03	<.007	M	<.022	E3	.8	1.0	<.10	<.011	<.05
27...	<.04	<.02	<.01	<.03	<.007	<1	<.022	<2	<.5	E.2	<.10	<.011	--

01645495 POTOMAC RIVER NEAR GREAT FALLS, VA—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Phosmet water, fltrd, ug/L (61601)	Pic- loram, water, fltrd 0.7u GF ug/L (49291)	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)	Pro- panil, water, fltrd 0.7u GF ug/L (82679)	Propar- gite, water, fltrd 0.7u GF ug/L (82685)	Propham water fltrd 0.7u GF ug/L (49236)	Propi- cona- zole, water, fltrd, ug/L (50471)	Pro- poxur, water, fltrd 0.7u GF ug/L (38538)	Pyrene, water, fltrd, ug/L (34470)
OCT 12...	<.008	<.03	E.01	<.005	<.004	<.05	<.02	--	--	<.030	<.01	<.008	<.5
NOV 15...	<.008	<.03	<.01	<.005	<.004	<.05	<.02	--	--	<.030	<.01	<.008	<.5
DEC 06...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	<.008	<.03	<.01	<.005	<.004	<.05	<.02	--	--	<.030	<.01	<.008	<.5
JAN 11...	--	--	--	--	--	--	--	--	--	--	--	--	--
FEB 01...	<.008	--	E.01	<.005	<.004	<.05	<.02	--	--	<.030	<.01	<.008	<.5
14...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR 01...	<.008	--	<.01	<.005	<.004	<.05	<.02	--	--	<.030	<.01	<.008	<.5
APR 04...	--	--	--	--	--	--	--	--	--	--	--	--	--
04...	<.008	<.03	E.01	<.005	<.004	<.05	<.02	--	--	<.030	<.01	<.008	<.5
19...	<.008	<.03	E.01	<.005	<.004	<.05	<.02	--	--	<.030	<.01	<.008	<.5
MAY 10...	<.008	<.03	<.01	<.005	<.004	<.05	<.02	--	--	<.030	<.01	<.008	<.5
24...	<.008	<.03	E.01	<.005	<.004	<.05	<.02	--	--	<.030	<.01	<.008	<.5
JUN 13...	<.008	<.03	E.01	<.005	<.004	--	--	<.011	<.02	<.030	<.01	<.008	.8
27...	--	<.03	E.01	<.005	<.004	--	--	<.011	<.02	<.030	<.01	<.008	<.5
Date	Siduron water, fltrd, ug/L (38548)	Simaz- ine, water, fltrd, ug/L (04035)	Sulfo- met- ruron, water, fltrd, ug/L (50337)	Tebu- con- azole, water, fltrd, ug/L (62852)	Tebu- thiuron water fltrd 0.7u GF ug/L (82670)	Teflu- thrin, water, fltrd, ug/L (61606)	Terba- cil, water, fltrd, ug/L (04032)	Terbu- fos 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)	Tetra- chloro- ethene, water, fltrd, ug/L (34476)	Thio- bencarb water fltrd 0.7u GF ug/L (82681)	trans- Propi- cona- zole, water, fltrd, ug/L (79847)
OCT 12...	<.02	.015	<.038	--	E.01	--	<.016	<.07	<.02	<.01	<.5	--	--
NOV 15...	<.02	.014	<.038	--	<.02	--	<.016	<.07	<.02	<.01	<.5	--	--
DEC 06...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	<.02	<.005	<.038	--	<.02	--	<.016	<.07	<.02	<.01	<.5	--	--
JAN 11...	--	--	--	--	--	--	--	--	--	--	--	--	--
FEB 01...	<.02	.018	<.038	--	<.02	--	<.016	<.07	<.02	<.01	<.5	--	--
14...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR 01...	<.02	.013	<.038	--	<.02	--	<.016	<.07	<.02	<.01	<.5	--	--
APR 04...	--	--	--	--	--	--	--	--	--	--	--	--	--
04...	<.02	.041	<.038	--	<.02	--	<.016	<.07	<.02	<.01	M	--	--
19...	<.02	.013	<.038	--	<.02	--	<.016	<.07	<.02	<.01	<.5	--	--
MAY 10...	<.02	.024	<.038	--	<.02	--	<.016	<.07	<.02	<.01	M	--	--
24...	<.02	.057	<.038	--	<.02	--	<.016	<.07	<.02	<.01	<.5	--	--
JUN 13...	<.02	.057	E.005	<.01	<.02	<.008	<.016	<.07	<.02	<.01	E.2	<.010	<.01
27...	<.02	.029	<.038	<.01	<.02	<.008	<.016	<.07	<.02	E.01	<.5	<.010	<.01

01645495 POTOMAC RIVER NEAR GREAT FALLS, VA—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	n-Butyl benzene water unfltrd ug/L (77342)	n-propyl benzene water unfltrd ug/L (77224)	o-Xylene, water, unfltrd ug/L (77135)	sec-Butyl benzene water unfltrd ug/L (77350)	Styrene water unfltrd ug/L (77128)	t-Butyl ethyl ether, water, unfltrd ug/L (50004)	Methyl t-butyl ether, water, unfltrd ug/L (78032)	tert-Butyl benzene water unfltrd ug/L (77353)	Tetra-chloro-ethene, water, unfltrd ug/L (34475)	Tetra-chloro-methane water unfltrd ug/L (32102)	Tetra-hydro-furan, water, unfltrd ug/L (81607)	Toluene water unfltrd ug/L (34010)	Toluene -d8, surrog, Sch2090 wat unfltrd percent recovery (99833)
OCT 12...	<.1	<.04	<.04	<.06	<.04	<.03	.2	<.06	<.03	<.06	<.1	E.02	101
NOV 15...	<.1	<.04	<.04	<.06	<.04	<.03	E.1	<.06	<.03	<.06	<.1	<.02	99.2
DEC 06...	<.1	<.04	<.04	<.06	<.04	<.03	E.1	<.06	<.03	<.06	<.1	E.01	97.9
20...	<.1	<.04	<.04	<.06	<.04	<.03	E.1	<.06	<.03	<.06	<.1	<.02	101
JAN 11...	<.1	<.04	<.04	<.06	<.04	<.03	E.1	<.06	<.03	<.06	<.1	E.02	96.5
FEB 01...	<.1	<.04	<.04	<.06	<.04	<.03	E.1	<.06	<.03	<.06	<.1	E.05	99.0
14...	<.1	<.04	<.04	<.06	<.04	<.03	.1	<.06	<.03	<.06	<.1	E.05	95.5
MAR 01...	<.1	<.04	<.04	<.06	<.04	<.03	E.1	<.06	<.03	<.06	<.1	E.02	95.3
APR 04...	<.1	<.04	<.04	<.06	<.04	<.03	<.1	<.06	<.03	<.06	<.1	<.02	97.4
04...	<.1	<.04	<.04	<.06	<.04	<.03	<.1	<.06	<.03	<.06	<.1	E.02	97.0
19...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY 10...	<.1	<.04	<.04	<.06	<.04	<.03	.2	<.06	<.03	<.06	<.1	E.03	93.0
24...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 13...	<.1	<.04	<.04	<.06	<.04	<.03	.9	<.06	<.03	<.06	<.1	E.03	100
27...	--	--	--	--	--	--	--	--	--	--	--	--	--

Date	trans-1,2-Di-chloro-ethene, water, unfltrd ug/L (34546)	trans-1,3-Di-chloro-propene water unfltrd ug/L (34699)	trans-1,4-Di-chloro-2-butene, wat unfltrd ug/L (73547)	Tri-bromo-methane water unfltrd ug/L (32104)	Tri-chloro-ethene, water, unfltrd ug/L (39180)	Tri-chloro-fluoro-methane water unfltrd ug/L (34488)	Tri-chloro-methane water unfltrd ug/L (32106)	Vinyl chloride, water, unfltrd ug/L (39175)	Di-chloro-vos, water fltrd, ug/L (38775)	Sampler type, code (84164)
OCT 12...	<.03	<.09	<.7	<.10	<.04	<.08	E.07	<.1	<.01	3060
NOV 15...	<.03	<.09	<.7	<.10	<.04	<.08	E.07	<.1	<.01	3060
DEC 06...	<.03	<.09	<.7	<.10	<.04	<.08	E.03	<.1	--	3080
20...	<.03	<.09	<.7	<.10	<.04	<.08	E.03	<.1	<.01	3060
JAN 11...	<.03	<.09	<.7	<.10	<.04	E.02	E.04	<.1	--	3080
FEB 01...	<.03	<.09	<.7	<.10	<.04	<.08	E.04	<.1	<.01	3060
14...	<.03	<.09	<.7	<.10	<.04	<.08	E.05	<.1	--	3080
MAR 01...	<.03	<.09	<.7	<.10	<.04	<.08	E.04	<.1	<.01	3060
APR 04...	<.03	<.09	<.7	<.10	<.04	<.08	<.02	<.1	--	3080
04...	<.03	<.09	<.7	<.10	<.04	<.08	E.02	<.1	<.01	3060
19...	--	--	--	--	--	--	--	--	<.01	3060
MAY 10...	<.03	<.09	<.7	<.10	<.04	<.08	E.06	<.1	<.01	3060
24...	--	--	--	--	--	--	--	--	<.01	3060
JUN 13...	<.03	<.09	<.7	<.10	<.04	<.08	E.05	<.1	<.01	3060
27...	--	--	--	--	--	--	--	--	<.01	3060

Remark codes used in this table:

< -- Less than.

E -- Estimated.

M-- Presence verified but not quantified.

Sampler type: 3060 - Grab sample

3080 - VOC hand sampler



Photo by U.S. Geological Survey personnel

Low-flow measurement on the Potomac River

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 mi².

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), 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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Sep 30	1230	119,000	9.53	Mar 30	1700	*140,000	*10.28
Dec 12	0700	50,800	6.74	Apr 3	2215	84,700	8.27
Jan 14	1645	69,300	7.62				

Minimum discharge, 784 ft³/s, Sept. 29.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	63,400	5,230	26,100	9,550	8,240	10,200	56,700	12,000	7,570	3,600	2,710	2,780
2	33,800	5,570	26,600	9,220	8,020	10,300	56,700	11,300	6,900	3,390	2,660	2,590
3	23,400	6,010	27,300	8,810	7,650	10,300	81,700	11,300	6,670	2,740	2,520	2,490
4	18,000	6,430	26,200	8,510	7,550	9,760	71,900	12,100	6,360	2,390	2,580	1,960
5	14,700	7,080	23,000	8,290	7,620	9,230	52,300	11,200	5,870	2,340	2,480	1,910
6	12,200	7,070	19,400	8,710	7,890	8,910	40,000	10,500	5,950	4,120	2,420	1,780
7	10,500	8,150	17,100	13,400	7,660	8,990	32,900	9,830	7,280	3,760	2,240	1,710
8	9,110	10,500	15,900	24,000	7,840	11,100	29,100	9,130	5,950	21,900	2,220	1,580
9	8,190	10,200	15,700	22,300	8,110	15,400	26,200	8,480	5,400	26,300	2,890	1,570
10	7,460	9,060	21,400	24,700	8,780	22,500	23,200	8,090	5,460	11,800	3,250	1,410
11	6,760	8,210	39,700	21,300	9,730	24,500	20,900	7,760	5,300	11,000	3,290	1,280
12	6,300	9,620	48,900	17,900	9,990	20,400	18,600	7,300	5,010	9,180	3,320	1,160
13	6,200	13,000	39,700	17,800	10,200	17,600	16,700	6,870	4,900	6,780	3,000	1,180
14	6,110	11,600	30,900	50,200	10,200	15,600	15,300	6,780	5,480	5,470	3,210	1,230
15	5,890	13,000	25,000	60,000	10,800	13,800	14,100	7,280	5,280	6,870	3,110	1,280
16	5,910	13,300	20,800	46,500	12,600	12,400	13,000	7,370	4,810	8,070	2,810	1,140
17	5,760	11,800	17,900	37,500	13,600	11,200	12,100	7,060	4,370	9,860	2,640	1,160
18	5,630	10,700	15,500	e29,300	13,300	10,100	11,100	6,450	3,800	11,100	2,550	1,120
19	5,220	9,920	14,000	23,000	12,200	9,530	10,600	6,110	3,530	10,500	2,810	1,080
20	5,130	9,400	12,700	19,600	11,200	9,100	10,200	9,140	3,220	9,050	2,950	1,080
21	5,410	8,770	11,300	17,300	10,400	8,760	9,820	10,300	3,120	8,970	2,830	1,080
22	5,910	8,330	10,500	15,500	10,000	8,340	9,550	10,200	2,990	8,110	2,450	1,130
23	6,250	9,040	11,500	e12,900	9,930	12,500	10,400	12,900	3,230	6,640	2,230	1,020
24	6,080	8,750	16,200	e10,100	9,950	30,400	11,400	15,300	2,940	5,840	2,020	949
25	6,020	9,070	15,200	e10,400	9,960	39,800	12,100	15,900	2,850	5,090	1,850	1,020
26	5,780	16,700	13,500	e10,600	10,000	35,100	12,700	14,500	2,740	4,480	1,770	1,010
27	5,650	21,500	13,000	e11,400	9,970	29,400	12,200	14,600	2,680	4,450	1,750	1,260
28	5,650	20,100	11,700	e10,700	9,910	34,800	11,300	13,000	2,510	4,720	1,960	1,130
29	5,420	23,200	10,700	e9,430	---	83,300	10,600	11,200	2,820	3,660	1,990	930
30	5,290	29,000	10,200	9,000	---	132,000	11,200	9,550	4,820	3,320	2,010	986
31	5,200	---	9,880	8,640	---	97,800	---	8,440	---	2,950	2,020	---
TOTAL	322,330	340,310	617,480	586,560	273,300	773,120	724,570	311,940	139,810	228,450	78,540	42,005
MEAN	10,400	11,340	19,920	18,920	9,761	24,940	24,150	10,060	4,660	7,369	2,534	1,400
MAX	63,400	29,000	48,900	60,000	13,600	132,000	81,700	15,900	7,570	26,300	3,320	2,780
MIN	5,130	5,230	9,880	8,290	7,550	8,340	9,550	6,110	2,510	2,340	1,750	930
(†)	619	574	576	580	568	545	577	594	681	683	701	728
MEAN‡	11,020	11,920	20,500	19,510	10,330	25,490	24,740	10,660	5,341	8,050	3,235	2,128
CFSM‡	0.95	1.03	1.77	1.69	0.89	2.20	2.14	0.92	0.46	0.70	0.28	0.18
IN.‡	1.10	1.15	2.04	1.95	0.93	2.54	2.39	1.06	0.52	0.80	0.32	0.21

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1930 - 2005, BY WATER YEAR (WY)

	6,090	7,477	11,110	13,780	17,030	23,560	20,270	14,650	9,087	4,920	4,746	5,081
MEAN	6,090	7,477	11,110	13,780	17,030	23,560	20,270	14,650	9,087	4,920	4,746	5,081
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)

01646500 POTOMAC RIVER NEAR WASHINGTON, DC—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1930 - 2005	
ANNUAL TOTAL	5,662,770		4,438,415			
ANNUAL MEAN	15,470		12,160		11,510	
ANNUAL MEAN‡	16,110		12,780		11,958	
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	108,000	Sep 30	132,000	Mar 30	426,000	Mar 19, 1936
LOWEST DAILY MEAN	1,850	Sep 6	930	Sep 29	(a)121	Sep 9, 1966
LOWEST DAILY MEAN‡	2,530	Sep 6	1,620	Sep 29	(b)601	Sep 10, 1966
ANNUAL SEVEN-DAY MINIMUM	2,050	Sep 1	1,040	Sep 24	181	Sep 7, 1966
MAXIMUM PEAK FLOW			140,000	Mar 30	484,000	Mar 19, 1936
MAXIMUM PEAK STAGE			10.28	Mar 30	(c)28.10	Mar 19, 1936
INSTANTANEOUS LOW FLOW			784	Sep 29	66	Sep 9, 1966
ANNUAL RUNOFF (CFSM)	1.34		1.05		0.996	
ANNUAL RUNOFF (CFSM)‡	1.39		1.11		1.03	
ANNUAL RUNOFF (INCHES)	18.22		14.28		13.53	
ANNUAL RUNOFF (INCHES)‡	18.92		15.07		14.05	
10 PERCENT EXCEEDS	29,400		24,600		25,800	
50 PERCENT EXCEEDS	12,000		9,070		6,570	
90 PERCENT EXCEEDS	4,160		2,230		1,670	

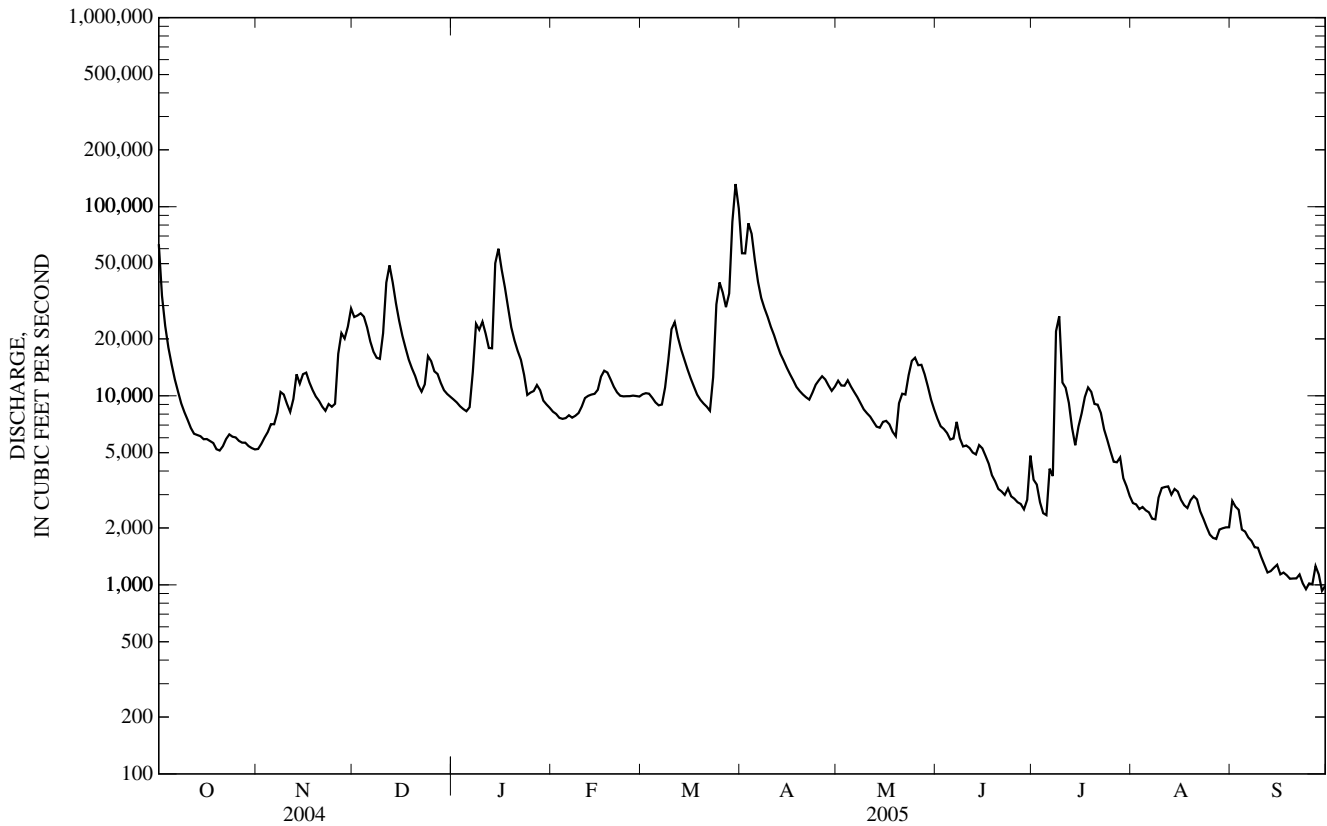
† Diversions, in cubic feet per second, for municipal supply of Washington, D.C., Washington Suburban Sanitary District, city of Rockville, city of Fairfax (from Goose Creek), Fairfax County, and the Chesapeake and Ohio Canal (insignificant diversion to canal during current water year). Records provided 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 ft³/s.

b Includes diversion of 449 ft³/s for municipal use.

c At previous site, 1 mi upstream at same datum.



DAILY MEAN DISCHARGE - 2005 WATER YEAR

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 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 (road salt influence), Feb. 6, 2004; minimum, 68 microsiemens/cm, Oct. 23, 1990.

WATER TEMPERATURE (water years 1989-93, 1995-99, 2001-03): Maximum, 33.5°C, July 11, 1993; minimum, 0.0°C, on many days during winter periods.

EXTREMES FOR CURRENT YEAR.-- EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 712 microsiemens/cm, Mar. 1; minimum, 116 microsiemens/cm, Jan. 14.

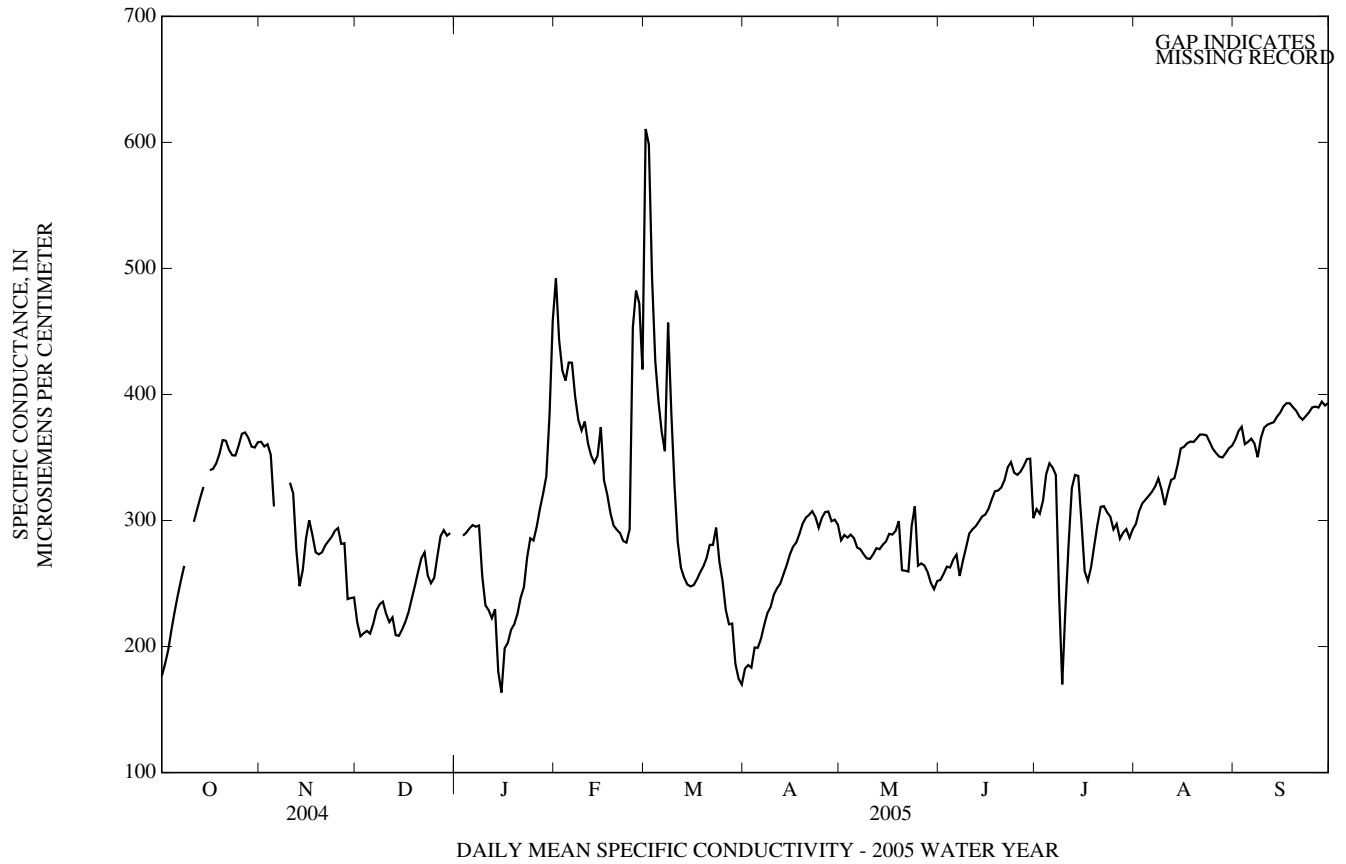
WATER TEMPERATURE: Maximum, 33.2°C, Aug. 14, 15; minimum, 0.0°C, on several days.

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	181	173	177	367	358	362	238	209	219	---	---	---
2	192	180	186	363	354	359	211	206	208	---	---	---
3	205	191	197	364	357	361	216	207	211	291	286	288
4	220	205	213	369	267	352	217	209	212	291	289	290
5	235	220	228	334	264	311	211	209	210	301	289	294
6	247	235	241	---	332	---	222	211	218	307	290	296
7	258	247	253	342	334	336	234	222	229	306	291	295
8	271	258	264	---	340	---	236	232	234	305	278	296
9	---	271	---	---	343	---	244	217	236	278	241	256
10	292	---	---	343	321	330	232	214	226	241	229	233
11	303	292	299	326	319	322	227	210	219	249	219	229
12	314	302	309	324	165	276	234	212	223	233	219	223
13	321	314	318	260	184	248	212	205	209	240	224	230
14	331	321	327	272	253	261	211	205	209	242	116	180
15	---	330	---	295	272	286	217	211	214	178	148	164
16	341	339	340	304	295	300	223	217	220	209	178	199
17	342	338	341	301	277	289	232	223	227	211	200	203
18	348	341	345	277	273	275	243	232	238	219	210	213
19	358	348	353	276	271	273	254	243	248	220	216	218
20	370	358	364	279	272	275	266	254	260	236	219	226
21	373	352	363	283	278	280	273	266	270	243	236	239
22	358	354	356	286	282	284	277	272	275	258	239	247
23	356	349	352	289	286	287	293	173	256	283	258	270
24	357	348	352	296	289	292	260	221	250	292	277	286
25	364	355	360	298	287	294	259	251	254	290	279	284
26	371	364	369	287	278	281	281	256	272	306	289	295
27	372	367	370	290	263	282	295	281	288	321	296	309
28	370	361	366	263	227	238	295	287	292	346	309	321
29	362	355	359	241	236	238	290	287	288	351	328	335
30	360	356	358	242	236	239	292	289	290	483	335	384
31	364	359	362	---	---	---	---	---	---	504	425	458
MONTH	373	173	312	369	165	294	295	173	240	504	116	268

POTOMAC RIVER BASIN

01646500 POTOMAC RIVER NEAR WASHINGTON, DC—Continued



01646500 POTOMAC RIVER NEAR WASHINGTON, DC—Continued

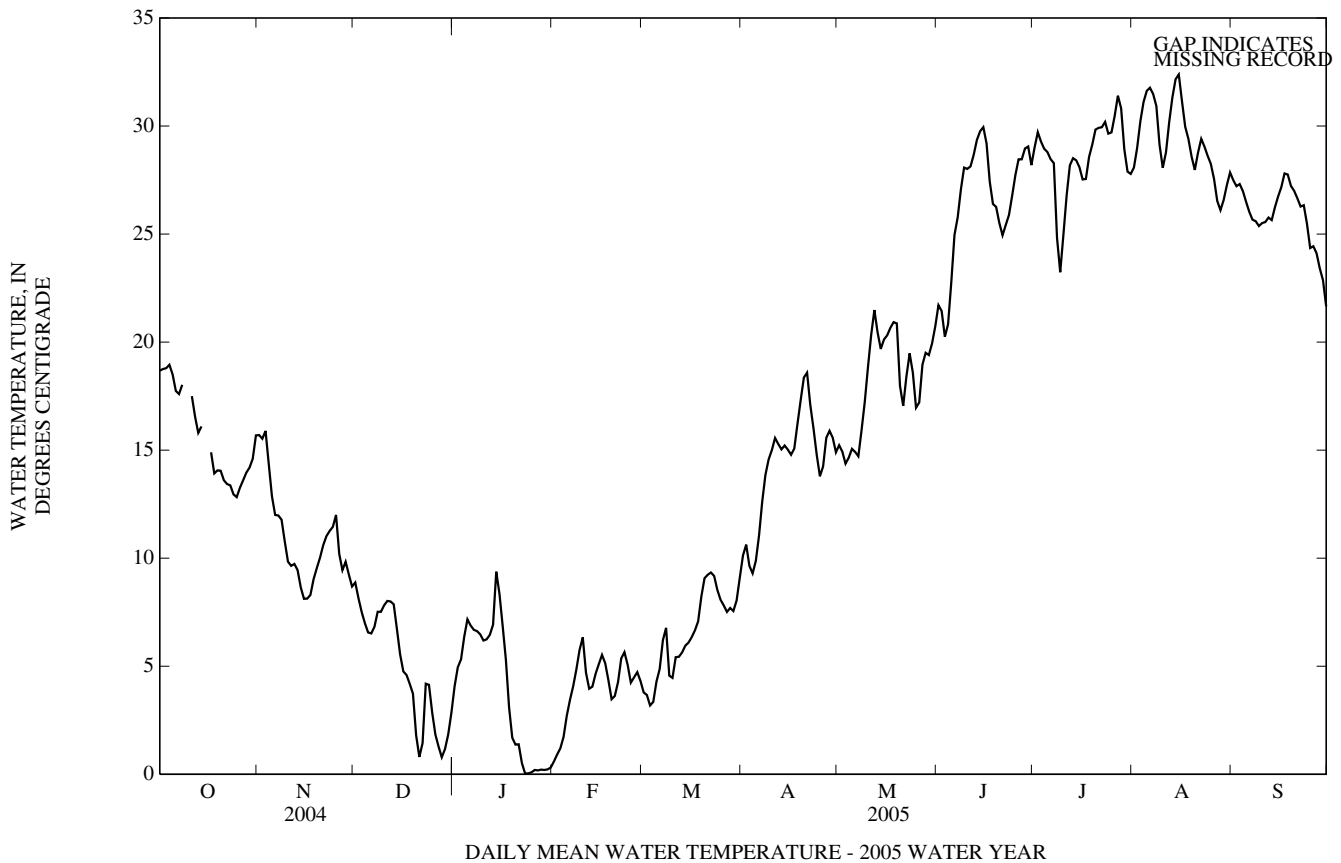
TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	19.0	18.4	18.7	16.2	15.1	15.7	9.2	8.6	8.9	4.9	3.3	4.1
2	19.1	18.4	18.8	16.4	14.6	15.5	8.6	7.8	8.2	5.2	4.4	5.0
3	19.2	18.3	18.8	16.4	15.5	15.9	8.0	7.2	7.5	6.0	4.9	5.3
4	19.3	18.4	18.9	15.8	12.6	14.4	7.3	6.6	7.0	7.1	5.6	6.4
5	19.2	18.1	18.5	13.4	12.3	12.9	6.9	6.1	6.6	7.5	6.8	7.2
6	18.1	17.3	17.7	12.6	11.4	12.0	6.8	6.3	6.5	7.1	6.8	6.9
7	18.3	17.1	17.6	12.9	11.3	12.0	7.1	6.7	6.8	7.1	6.5	6.7
8	19.1	17.3	18.0	12.1	11.0	11.8	8.0	7.1	7.5	6.8	6.4	6.6
9	18.7	---	---	11.2	10.0	10.8	8.1	7.3	7.5	6.7	6.2	6.5
10	19.0	---	---	10.3	9.2	9.8	8.1	7.6	7.8	6.5	5.9	6.2
11	18.1	16.9	17.5	10.4	9.0	9.6	8.3	7.8	8.0	6.5	6.1	6.2
12	17.4	15.9	16.6	9.9	9.5	9.7	8.1	7.8	8.0	6.6	6.3	6.5
13	16.4	15.5	15.8	9.9	9.0	9.4	8.1	7.3	7.9	7.9	6.6	6.9
14	17.0	15.3	16.1	9.0	8.2	8.6	7.3	6.1	6.7	11.7	7.9	9.4
15	---	16.1	---	8.4	7.8	8.1	6.1	5.3	5.5	9.4	7.4	8.4
16	---	15.2	---	8.6	7.8	8.1	5.3	4.4	4.8	7.4	6.3	6.9
17	15.5	14.3	14.9	8.6	8.0	8.3	4.9	4.3	4.6	6.3	4.1	5.3
18	14.6	13.2	13.9	9.6	8.3	9.0	4.5	3.9	4.2	4.1	2.4	3.1
19	14.4	13.7	14.1	9.9	9.1	9.5	4.1	3.1	3.7	2.4	1.4	1.7
20	14.2	13.8	14.0	10.5	9.5	10.0	3.1	0.6	1.8	1.6	1.2	1.4
21	13.8	13.4	13.6	11.2	10.2	10.6	1.2	0.6	0.8	1.8	1.1	1.4
22	13.6	13.2	13.4	11.2	10.8	11.0	2.1	0.8	1.4	1.2	0.0	0.5
23	14.1	12.6	13.4	11.3	11.2	11.3	8.8	1.9	4.2	0.1	0.0	0.0
24	13.1	12.7	13.0	11.8	11.2	11.4	5.9	3.3	4.1	0.1	0.0	0.0
25	13.0	12.6	12.8	12.3	11.1	12.0	3.3	2.3	2.9	0.2	0.0	0.1
26	14.0	12.7	13.3	11.1	9.8	10.2	2.3	1.5	1.8	0.5	0.0	0.2
27	14.3	13.0	13.6	9.9	9.0	9.4	1.6	0.8	1.3	0.6	0.0	0.2
28	14.8	13.3	14.0	10.2	9.6	9.8	1.1	0.5	0.8	0.6	0.0	0.2
29	14.5	13.9	14.2	9.7	8.9	9.2	1.5	0.8	1.2	0.5	0.0	0.2
30	15.3	14.2	14.6	9.0	8.4	8.7	2.2	1.4	1.8	0.5	0.1	0.2
31	16.7	14.9	15.7	---	---	---	3.8	2.1	2.8	0.9	0.0	0.3
MONTH	19.3	12.6	15.6	16.4	7.8	10.8	9.2	0.5	4.9	11.7	0.0	3.9
	FEBRUARY			MARCH			APRIL			MAY		
1	1.3	0.1	0.6	4.5	3.3	3.8	10.8	9.5	10.1	16.2	14.6	15.2
2	1.7	0.4	0.9	4.2	3.0	3.7	11.0	10.1	10.6	15.2	14.4	14.9
3	1.5	0.8	1.2	4.0	2.7	3.2	10.1	9.1	9.6	14.9	13.7	14.4
4	2.4	1.3	1.7	4.3	2.7	3.4	9.9	8.8	9.3	15.1	14.4	14.7
5	3.8	1.9	2.7	5.2	3.3	4.3	10.7	9.1	9.9	15.9	14.6	15.1
6	4.6	2.5	3.4	6.1	4.0	4.9	12.1	10.1	11.0	15.2	14.1	14.9
7	5.0	3.4	4.1	7.6	5.0	6.2	13.6	11.6	12.6	16.0	13.8	14.7
8	5.9	4.0	4.8	7.4	5.1	6.8	14.6	13.2	13.9	17.4	14.9	15.9
9	6.5	5.1	5.8	5.1	4.0	4.6	15.4	13.7	14.6	18.9	15.9	17.2
10	6.9	5.6	6.3	5.4	3.5	4.5	16.0	13.9	15.0	20.5	17.4	18.8
11	5.6	3.7	4.7	6.1	4.7	5.4	16.3	14.6	15.6	22.0	18.8	20.3
12	4.5	3.7	4.0	5.9	5.0	5.4	16.3	14.9	15.3	22.5	20.6	21.5
13	4.7	3.6	4.1	6.0	5.2	5.6	15.7	14.4	15.0	21.2	19.5	20.4
14	4.8	4.2	4.6	6.5	5.4	6.0	15.9	14.2	15.2	20.8	18.6	19.7
15	5.9	4.6	5.1	6.7	5.4	6.1	15.7	14.4	15.0	20.6	19.4	20.1
16	6.1	5.2	5.5	6.5	6.1	6.3	15.3	14.0	14.8	21.4	19.5	20.3
17	5.4	4.9	5.1	6.8	6.4	6.7	15.9	14.4	15.1	21.7	19.9	20.7
18	5.0	3.6	4.3	8.2	6.4	7.1	17.2	15.3	16.2	22.2	19.8	20.9
19	3.9	2.9	3.5	9.4	7.1	8.2	18.6	16.2	17.3	21.5	20.2	20.9
20	3.8	3.5	3.6	9.8	8.3	9.1	19.6	17.3	18.4	20.3	15.5	18.0
21	4.8	3.6	4.3	10.2	8.7	9.2	18.9	17.8	18.6	18.3	16.0	17.1
22	6.2	4.6	5.4	10.7	8.3	9.3	17.8	16.3	17.1	19.4	17.4	18.4
23	6.4	5.2	5.7	10.1	8.3	9.2	16.4	15.6	16.0	20.1	18.9	19.5
24	5.5	4.1	5.1	8.8	7.9	8.5	15.7	13.6	14.8	19.6	17.4	18.6
25	5.1	3.7	4.2	8.5	7.6	8.1	14.4	13.4	13.8	17.4	16.7	17.0
26	5.1	4.1	4.5	8.2	7.7	7.8	15.0	13.5	14.2	18.5	16.2	17.2
27	5.5	4.2	4.7	7.7	7.4	7.5	16.3	15.0	15.6	19.7	18.2	19.0
28	4.8	3.3	4.3	8.8	7.4	7.7	16.6	15.5	15.9	19.7	19.1	19.5
29	---	---	---	7.8	7.3	7.6	16.0	14.9	15.6	19.9	18.8	19.4
30	---	---	---	8.6	7.6	8.0	15.0	14.8	14.9	20.8	19.5	19.9
31	---	---	---	9.5	8.6	9.1	---	---	---	22.1	19.6	20.7
MONTH	6.9	0.1	4.1	10.7	2.7	6.6	19.6	8.8	14.4	22.5	13.7	18.2

01646500 POTOMAC RIVER NEAR WASHINGTON, DC—Continued

TEMPERATURE, WATER, DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	23.0	20.6	21.7	30.4	27.6	29.0	29.0	27.2	28.1	28.3	26.6	27.5
2	21.6	21.0	21.4	30.8	28.7	29.7	30.1	27.8	29.0	28.2	26.4	27.2
3	21.0	19.9	20.2	30.1	28.3	29.3	31.1	29.2	30.2	27.8	26.5	27.3
4	22.2	19.7	20.8	29.9	28.1	28.9	32.3	30.1	31.1	27.5	26.5	27.0
5	24.5	21.0	22.8	29.3	28.4	28.8	32.6	30.8	31.6	27.1	25.9	26.5
6	26.6	23.2	25.0	29.0	27.7	28.5	32.6	31.1	31.8	26.7	25.5	26.0
7	27.2	23.9	25.8	28.8	27.5	28.3	32.1	30.8	31.5	26.5	24.9	25.7
8	28.5	25.7	27.1	27.9	22.8	24.8	31.6	30.3	30.9	26.5	24.8	25.6
9	29.3	26.7	28.1	24.1	22.4	23.2	30.3	27.9	29.1	26.1	24.8	25.4
10	28.6	27.4	28.0	26.2	24.0	25.0	29.0	27.3	28.1	26.6	24.9	25.5
11	29.3	26.9	28.1	27.7	25.8	26.8	30.1	27.6	28.8	26.4	24.9	25.6
12	29.9	27.3	28.7	29.1	27.3	28.2	31.6	28.9	30.2	26.7	25.0	25.8
13	30.6	28.0	29.4	29.0	27.9	28.5	32.8	30.1	31.3	26.5	25.1	25.6
14	30.9	28.6	29.8	29.3	27.6	28.4	33.2	31.1	32.2	26.8	25.7	26.2
15	30.9	28.9	29.9	29.2	27.1	28.1	33.2	31.2	32.4	27.8	26.1	26.7
16	29.9	28.3	29.2	28.6	26.7	27.5	32.5	30.3	31.1	28.1	26.5	27.2
17	28.3	26.8	27.4	28.0	27.2	27.6	30.7	29.1	30.0	28.6	27.1	27.8
18	27.2	25.0	26.4	29.6	27.2	28.6	30.3	28.6	29.4	28.2	27.2	27.8
19	27.4	24.8	26.3	29.6	28.7	29.1	29.7	28.0	28.6	27.9	26.7	27.2
20	26.5	24.6	25.5	30.7	29.3	29.8	28.7	27.3	28.0	27.4	26.6	27.0
21	25.8	23.7	24.9	30.9	29.3	29.9	30.1	27.8	28.8	27.1	26.2	26.7
22	26.5	24.4	25.4	30.9	29.2	29.9	30.3	28.4	29.4	26.9	25.7	26.3
23	26.9	24.5	25.9	31.1	29.5	30.2	29.7	28.4	29.1	26.7	25.9	26.3
24	28.4	25.1	26.8	30.6	28.7	29.6	29.2	28.1	28.6	26.5	24.6	25.5
25	29.2	26.4	27.7	31.0	28.6	29.7	29.6	27.5	28.2	24.6	24.2	24.4
26	30.0	27.3	28.5	31.8	28.9	30.5	28.2	27.2	27.6	24.6	24.2	24.4
27	29.0	27.8	28.5	32.8	29.8	31.4	27.2	26.1	26.5	24.5	23.7	24.1
28	30.1	28.1	29.0	31.4	30.1	30.8	26.8	25.5	26.1	24.0	22.8	23.4
29	29.5	28.6	29.1	30.1	28.1	28.9	27.6	25.9	26.6	23.5	22.0	22.9
30	29.3	26.9	28.2	28.5	27.2	27.9	27.9	26.8	27.3	22.0	21.2	21.7
31	---	---	---	28.5	26.9	27.8	28.4	27.4	27.9	---	---	---
MONTH	30.9	19.7	26.5	32.8	22.4	28.5	33.2	25.5	29.3	28.6	21.2	25.9
YEAR	33.2	0.0	15.8									



01646500 POTOMAC RIVER NEAR WASHINGTON, DC—Continued



Photo by U.S. Geological personnel

01646500 POTOMAC RIVER NEAR WASHINGTON, DC

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 mi².

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 measured 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.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

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)
OCT											
05...	0815	Environmental	1028	80020	15,000	40	--	768	9.7	103	8.1
NOV											
03...	0845	Environmental	1028	80020	6,000	40	--	769	10.5	106	8.3
10...	1030	Environmental	1028	80020	9,050	40	--	775	11.7	102	8.4
DEC											
08...	0945	Environmental	1028	80020	16,300	40	--	760	13.1	109	8.0
13...	1045	Environmental	1028	80020	40,000	40	--	751	12.9	111	8.0
JAN											
05...	1015	Environmental	1028	80020	8,230	40	--	761	13.8	114	7.8
06...	0945	Environmental	1028	80020	8,590	40	--	755	12.9	108	7.7
FEB											
22...	1045	Environmental	1028	80020	10,000	40	--	763	13.6	107	8.4
MAR											
07...	0930	Environmental	1028	80020	8,960	40	--	755	11.0	88	8.1
10...	1030	Environmental	1028	80020	22,100	40	--	755	14.3	110	7.8
17...	1030	Environmental	1028	80020	11,400	40	--	763	12.7	104	7.0
24...	1100	Environmental	1028	80020	31,200	40	--	764	12.3	105	7.9
30...	1015	Environmental	1028	80020	133,000	40	--	762	13.1	112	6.8
30...	1020	Replicate	1028	80020	--	40	--	--	--	--	--
APR											
18...	1015	Environmental	1028	80020	11,100	40	--	764	10.4	106	8.2
MAY											
02...	0845	Environmental	1028	80020	11,500	40	--	762	10.6	106	8.2
09...	1045	Environmental	1028	80020	8,500	40	--	760	10.0	104	8.8
09...	1100	Replicate	1028	80020	--	10	--	--	--	--	--
JUN											
09...	1030	Environmental	1028	80020	5,500	40	--	760	7.8	101	8.3
JUL											
06...	0845	Environmental	1028	80020	4,170	40	--	761	8.2	105	8.2
19...	0945	Environmental	1028	80020	10,700	40	--	759	--	--	8.0
AUG											
09...	1345	Environmental	1028	80020	2,800	40	7.6	765	7.6	98	8.2
SEP											
07...	0845	Environmental	1028	80020	1,810	40	--	773	11.3	134	8.4
13...	0915	Environmental	1028	80020	1,300	40	--	763	8.3	100	7.8

Agency collecting sample: 1028 - U.S. Geological Survey

Agency analyzing sample: 80020 - USGS-National Water Quality Lab, Denver, CO

Sampling method: 40 - Multiple verticals

10 - Equal width increments (EWI)

01646580 POTOMAC RIVER AT CHAIN BRIDGE AT WASHINGTON, DC—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	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 non-filterable, mg/L (00540)	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)	Particulate nitrogen, susp, water, mg/L (49570)	Total nitrogen, wat flt by analysis, mg/L (62854)
OCT 05...	E.1	8.88	16.5	142	--	21	<10	<.04	1.51	1.51	.005	.09	1.64
NOV 03...	--	--	30.7	--	--	--	--	<.04	--	1.29	E.005	--	--
10...	--	3.3	--	--	--	<10	<10	<.04	.94	.94	.003	.04	1.20
DEC 08...	--	7.3	--	--	--	<10	<10	E.02	1.46	1.47	.005	.06	1.62
13...	--	7.8	--	--	--	58	<10	<.04	1.38	1.39	.007	.32	1.62
JAN 05...	--	--	25.3	--	--	--	--	<.04	1.73	1.73	.008	--	--
06...	.1	6.26	26.9	168	--	<10	<10	<.04	1.83	1.84	.006	.03	2.05
FEB 22...	--	4.3	--	--	--	<10	<10	<.04	1.54	1.55	.008	.04	1.75
MAR 07...	--	--	30.4	--	--	--	--	<.04	--	1.27	E.005	--	--
10...	--	2.1	--	--	1	13	12	<.04	1.25	1.26	.008	.14	1.45
17...	--	--	--	--	--	--	--	<.04	1.15	1.16	.008	.08	1.33
24...	--	2.3	--	--	147	169	22	E.03	1.02	1.03	.013	.66	1.49
30...	--	5.8	--	--	480	542	62	.06	1.20	1.22	.011	1.70	1.53
30...	--	5.8	--	--	500	560	60	.06	1.19	1.21	.012	1.77	1.52
APR 18...	E.1	5.93	22.0	158	--	<10	<10	<.04	1.66	1.66	.007	.06	1.81
MAY 02...	--	--	24.3	--	--	--	--	<.04	--	1.24	E.004	--	--
09...	--	.4	--	--	--	<10	<10	<.04	.99	.99	.005	.04	1.16
09...	--	.4	--	--	--	<10	<10	<.04	.98	.98	.005	.06	1.10
JUN 09...	--	6.1	--	--	--	<10	<10	<.04	1.10	1.11	.011	.07	1.34
JUL 06...	--	--	32.2	--	--	--	--	E.03	.68	.69	.009	--	--
19...	.1	8.29	18.9	164	32	45	13	.04	1.31	1.33	.018	.15	1.87
AUG 09...	--	6.0	--	--	--	12	<10	.04	.57	.58	.009	E.10	.89
SEP 07...	--	--	33.0	--	--	--	--	E.02	--	.71	E.006	--	--
13...	--	5.1	--	--	--	<10	<10	E.02	.54	.54	.006	E.11	.90

01646580 POTOMAC RIVER AT CHAIN BRIDGE AT WASHINGTON, DC—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Total nitrogen, wat unfiltered by analysis, mg/L (62855)	Ortho-phosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, fltrd, mg/L (00666)	Phosphorus, water, unfltrd, mg/L (00665)	Total carbon, suspended sediment total, mg/L (00694)	Inorganic carbon, suspended sediment total, mg/L (00688)	Organic carbon, suspended sediment total, mg/L (00689)	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)	2,6-Diethyl-aniline water fltrd, 0.7u GF ug/L (82660)	2-Chloro-2',6'-diethyl acetanilide water fltrd, ug/L (61618)
OCT 05...	--	.040	.048	.074	1.0	<.1	.9	2.7	15	1.6	--	--	--
NOV 03...	1.46	E.004	--	.021	--	--	--	--	--	--	<.09	<.006	<.005
10...	--	.006	.016	.021	.3	<.1	.3	2.4	--	--	--	--	--
DEC 08...	--	.022	.029	.038	.4	<.1	.4	1.9	--	--	--	--	--
13...	--	.034	.045	.125	2.7	<.1	2.7	2.5	--	--	--	--	--
JAN 05...	1.96	.010	--	.007	--	--	--	--	--	--	<.09	<.006	<.005
06...	--	.012	.016	.024	.3	<.1	.3	1.6	25	7.7	--	--	--
FEB 22...	--	E.003	.009	.015	.3	<.1	.3	1.8	--	--	--	--	--
MAR 07...	1.50	<.006	--	.026	--	--	--	--	--	--	<.09	<.006	<.005
10...	--	<.006	.005	.052	1.3	<.1	1.3	1.8	--	--	--	--	--
17...	--	<.006	.005	.014	.4	<.1	.4	1.7	--	--	--	--	--
24...	--	E.003	.011	.16	5.3	<.1	5.2	3.3	--	--	--	--	--
30...	--	.018	.024	.47	18.1	.5	17.6	3.2	--	--	--	--	--
30...	--	.013	.025	.43	18.5	.6	17.9	3.2	--	--	--	--	--
APR 18...	--	.017	.022	.036	.5	<.1	.5	1.7	21	8.3	--	--	--
MAY 02...	1.47	<.006	--	.025	--	--	--	--	--	--	<.09	<.006	<.005
09...	--	<.006	.009	.018	.4	<.1	.3	1.8	--	--	--	--	--
09...	--	<.006	.008	.018	.3	<.1	.3	1.8	--	--	--	--	--
JUN 09...	--	.025	.034	.050	.5	<.1	.5	2.4	--	--	--	--	--
JUL 06...	1.00	.025	--	.063	--	--	--	--	--	--	<.09	<.006	<.005
06...	--	--	--	--	--	--	--	--	--	--	E.01	.100	.130
19...	--	.081	.107	.21	1.7	<.1	1.7	5.3	16	17.3	--	--	--
AUG 09...	--	.021	.034	.056	.9	<.1	.9	2.9	--	--	--	--	--
SEP 07...	1.09	.021	--	.046	--	--	--	--	--	--	<.09	<.006	<.005
13...	--	.013	.027	.036	.6	<.1	.6	7.5	--	--	--	--	--

01646580 POTOMAC RIVER AT CHAIN BRIDGE AT WASHINGTON, DC—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	trans-Propi-conazole, water, fltrd, ug/L (79847)	Tribu-phos, water, fltrd, ug/L (61610)	Tri-flur-alin, water, fltrd, 0.7u GF ug/L (82661)	Di-chlor-vo-s, water fltrd, ug/L (38775)	Suspnd. sedi-ment, sieve diametr percent <.063mm (70331)	Sus-pended sedi-ment concen-tration mg/L (80154)	Sus-pended sedi-ment dis-charge, tons/d (80155)	Sampler type, code (84164)
OCT 05...	--	--	--	--	--	24	972	3060
NOV 03...	--	--	<.009	<.01	--	3	49	3060
10...	--	--	--	--	--	3	73	3060
DEC 08...	--	--	--	--	--	6	264	3060
13...	--	--	--	--	--	64	6,910	3060
JAN 05...	--	--	<.009	<.01	--	28	622	3060
06...	--	--	--	--	--	3	70	3060
FEB 22...	--	--	--	--	--	3	81	3060
MAR 07...	--	--	<.009	<.01	--	4	97	3060
10...	--	--	--	--	--	17	1,010	3060
17...	--	--	--	--	--	2	62	3060
24...	--	--	--	--	91	189	15,900	3060
30...	--	--	--	--	79	788	283,000	3060
30...	--	--	--	--	79	763	--	3060
APR 18...	--	--	--	--	--	6	180	3060
MAY 02...	--	--	E.005	E.01	--	8	248	3060
09...	--	--	--	--	--	6	138	3060
09...	--	--	--	--	--	4	--	3055
JUN 09...	--	--	--	--	--	8	119	3060
JUL 06...	E.01	E.013	<.009	<.01	--	9	101	3060
06...	E.11	E.110	.109	E.04	--	--	--	3060
19...	--	--	--	--	--	52	1,500	3060
AUG 09...	--	--	--	--	--	10	76	3060
SEP 07...	<.01	<.004	<.009	<.01	--	4	20	3060
13...	--	--	--	--	--	3	11	3060

Remark codes used in this table:

< -- Less than.

E -- Estimated.

M -- Presence verified but not quantified.

Sampler type: 3060 - Weighted-bottle sampler
3055 - US D-96 Bag sampler

01646580 POTOMAC RIVER AT CHAIN BRIDGE AT WASHINGTON, DC—Continued



Photo by U.S. Geological Survey personnel

01646580 POTOMAC RIVER AT CHAIN BRIDGE AT WASHINGTON D.C..

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 mi².

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 (in stream construction work), which are fair. Flow affected by two upstream reservoirs which control flow from about 25 mi², 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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec 23	1915	1,370	6.24	Apr 2	1930	1,650	7.04
Jan 14	1315	*1,900	*7.57	May 20	1300	1,380	6.27
Mar 23	1745	1,310	6.06	Jun 7	0015	1,580	6.86
Mar 28	1945	1,210	5.82	Jul 8	0700	1,690	7.12

Minimum discharge, 4.6 ft³/s, Sept. 30.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e20	14	234	31	37	84	157	221	33	43	34	9.8
2	105	13	76	29	32	53	998	62	29	188	30	9.7
3	e13	11	49	28	31	39	702	49	154	31	27	9.3
4	e9.0	353	37	28	32	35	399	42	44	23	24	8.9
5	e15	184	31	127	38	33	341	38	37	20	22	8.4
6	e14	51	28	47	40	33	289	35	117	36	22	8.4
7	e13	33	119	40	39	32	246	34	362	25	15	8.1
8	e10	26	107	118	39	230	281	32	58	884	24	7.8
9	9.5	20	149	47	39	63	170	31	42	239	170	7.8
10	9.0	17	353	37	55	45	118	30	45	143	49	7.8
11	8.4	16	195	33	41	41	76	29	38	90	26	7.8
12	e7.8	527	104	31	38	38	58	29	35	53	20	7.7
13	e7.2	368	62	30	35	35	51	28	33	41	17	6.5
14	e7.5	150	47	1,040	84	33	46	33	31	102	16	6.1
15	e18	76	37	367	127	31	43	55	36	289	15	6.8
16	67	47	33	263	48	30	40	31	31	222	28	7.8
17	26	34	31	201	43	29	39	27	28	159	29	7.5
18	e18	27	29	147	38	29	38	26	25	64	15	6.7
19	e48	24	28	89	34	29	38	25	24	73	53	6.1
20	e125	29	28	57	31	29	38	634	22	40	31	6.1
21	290	37	25	47	29	34	39	182	22	37	18	5.6
22	55	26	24	39	29	29	86	76	21	56	14	5.6
23	36	23	418	36	29	717	139	54	33	94	12	5.6
24	31	40	326	31	35	389	132	257	31	30	11	5.6
25	42	83	180	34	52	251	52	221	27	25	9.9	5.8
26	14	37	117	34	40	197	44	74	24	24	9.3	6.3
27	13	29	68	37	37	156	40	52	22	78	9.1	8.6
28	14	107	47	27	36	653	36	42	21	52	10	7.8
29	15	36	38	26	---	428	34	38	94	104	11	5.9
30	16	28	35	36	---	244	333	43	194	89	10	4.8
31	14	---	33	42	---	194	---	53	---	40	10	---
TOTAL	1,090.4	2,466	3,088	3,179	1,188	4,263	5,103	2,583	1,713	3,394	791.3	216.7
MEAN	35.2	82.2	99.6	103	42.4	138	170	83.3	57.1	109	25.5	7.22
MAX	290	527	418	1,040	127	717	998	634	362	884	170	9.8
MIN	7.2	11	24	26	29	29	34	25	21	20	9.1	4.8
CFSM	0.57	1.32	1.60	1.65	0.68	2.21	2.73	1.34	0.92	1.76	0.41	0.12
IN.	0.65	1.47	1.85	1.90	0.71	2.55	3.05	1.54	1.02	2.03	0.47	0.13

e Estimated

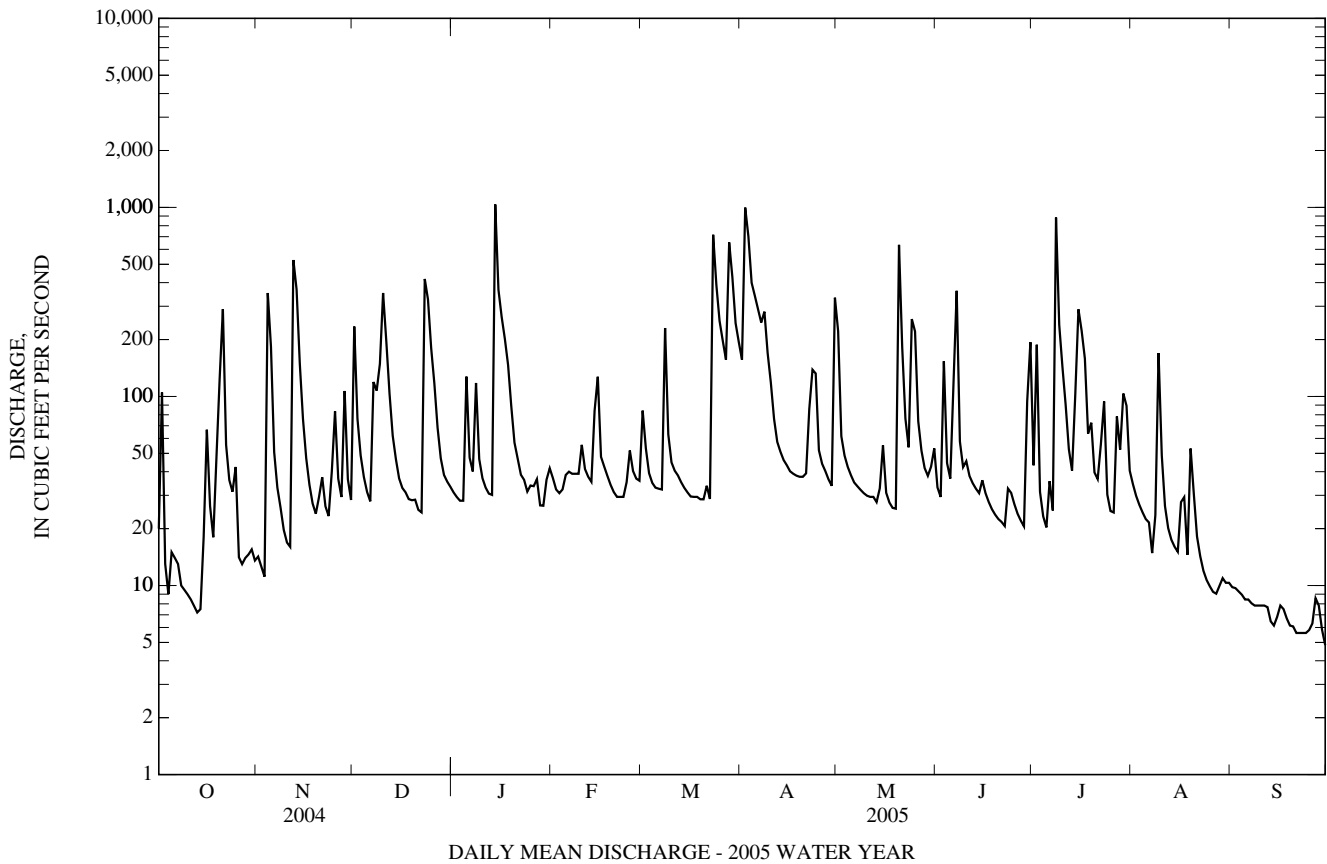
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1930 - 2005, BY WATER YEAR (WY)

MEAN	40.8	53.7	63.5	72.6	82.7	92.4	85.6	74.7	62.2	50.6	47.2	47.3
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 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1930 - 2005	
ANNUAL TOTAL	27,814.4		29,075.4		64.3	
ANNUAL MEAN	76.0		79.7		142	
HIGHEST ANNUAL MEAN					1931	
LOWEST ANNUAL MEAN					16.1	
HIGHEST DAILY MEAN	837	Jul 28	1,040	Jan 14	5,000	Jun 22, 1972
LOWEST DAILY MEAN	(e)7.2	Oct 13	4.8	Sep 30	0.50	(a)
ANNUAL SEVEN-DAY MINIMUM	8.5	Oct 8	5.8	Sep 19	0.50	Oct 1, 1930
MAXIMUM PEAK FLOW			1,900	Jan 14	(b)12,500	Jun 22, 1972
MAXIMUM PEAK STAGE			7.57	Jan 14	(c)16.20	Jun 22, 1972
INSTANTANEOUS LOW FLOW			4.6	Sep 30	0.50	(a)
ANNUAL RUNOFF (CFSM)	1.22		1.28		1.03	
ANNUAL RUNOFF (INCHES)	16.63		17.39		14.05	
10 PERCENT EXCEEDS	156		199		126	
50 PERCENT EXCEEDS	51		35		38	
90 PERCENT EXCEEDS	16		9.4		12	

e Estimated.
 a Oct. 1-7, 1930.
 b From rating curve extended above 5,640 ft³/s on basis of contracted-opening measurement at gage heights of 13.19 and 16.2 ft.
 c From floodmarks.



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 mi².

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 fair 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 ft³/s, from rating curve extended above 3,000 ft³/s on basis of velocity-area study.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec 23	1630	2,040	5.08	Apr 3	0130	2,220	5.28
Jan 14	0930	*5,130	*7.89	May 20	1145	2,460	5.53
Mar 23	1515	3,770	6.75	Jun 7	0000	2,110	5.16
Mar 28	1400	2,570	5.64	Jul 8	0815	3,350	6.38
Apr 2	1415	3,890	6.86	Jul 16	2200	2,660	5.72

Minimum discharge, 9.4 ft³/s, Sept. 24.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	41	24	193	43	54	133	86	231	31	31	29	16
2	76	25	84	40	50	92	1,500	78	29	33	26	15
3	42	25	53	40	50	62	858	55	130	20	23	14
4	33	393	44	42	63	53	161	47	59	18	21	13
5	32	182	39	126	78	54	110	42	39	26	20	13
6	26	56	38	82	81	53	90	40	104	34	20	13
7	25	39	115	57	74	53	88	39	405	27	20	13
8	24	32	172	111	69	232	129	36	61	975	145	13
9	24	29	207	69	65	100	80	34	56	91	201	12
10	24	29	329	54	76	65	65	35	47	38	57	12
11	23	31	172	48	51	62	60	34	36	28	32	13
12	23	658	93	58	45	58	56	33	31	24	25	12
13	23	412	67	58	42	49	53	31	29	22	e20	18
14	27	96	52	2,110	128	45	49	50	28	294	e19	16
15	27	60	45	286	164	42	46	44	25	339	e19	14
16	31	49	42	115	79	40	44	34	23	386	e43	13
17	28	42	42	78	60	40	44	33	21	427	e48	12
18	23	40	40	62	49	39	44	28	20	73	e42	12
19	26	37	49	84	43	38	43	27	19	45	90	11
20	46	44	51	61	42	41	42	931	19	37	41	11
21	82	46	46	54	51	40	49	199	20	30	25	11
22	38	37	38	59	49	37	74	68	20	27	19	11
23	30	36	509	81	43	1,580	89	51	20	93	18	11
24	32	54	239	62	66	469	87	153	18	29	17	11
25	29	82	87	54	78	128	50	104	18	51	15	12
26	27	44	62	61	68	94	43	57	17	27	15	16
27	26	36	53	59	67	80	40	44	20	79	16	19
28	26	104	e49	51	85	1,130	37	37	23	80	81	13
29	26	55	e50	53	---	460	36	35	98	110	22	12
30	26	41	46	69	---	132	273	35	102	81	19	11
31	26	---	44	67	---	97	---	39	---	36	18	---
TOTAL	992	2,838	3,150	4,294	1,870	5,598	4,426	2,704	1,568	3,611	1,206	393
MEAN	32.0	94.6	102	139	66.8	181	148	87.2	52.3	116	38.9	13.1
MAX	82	658	509	2,110	164	1,580	1,500	931	405	975	201	19
MIN	23	24	38	40	42	37	36	27	17	18	15	11
CFSM	0.44	1.30	1.40	1.90	0.92	2.48	2.03	1.20	0.72	1.60	0.53	0.18
IN.	0.51	1.45	1.61	2.19	0.96	2.86	2.26	1.38	0.80	1.85	0.62	0.20

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 2005, BY WATER YEAR (WY)

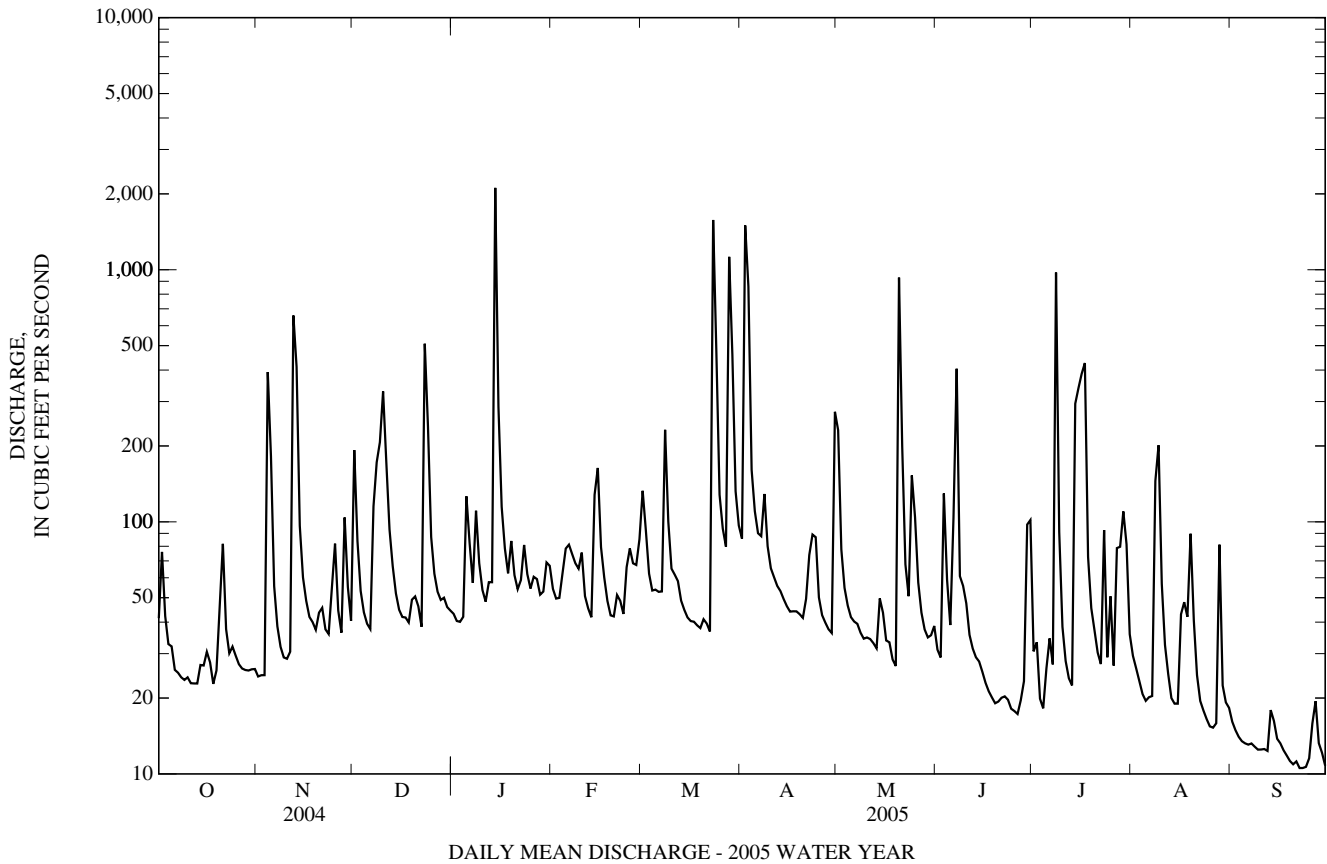
MEAN	55.2	76.4	95.1	104	114	135	110	95.2	72.9	65.6	63.2	64.7
MAX	234	205	275	325	265	339	322	329	353	335	243	449
(WY)	(1943)	(1973)	(1997)	(1979)	(1972)	(1994)	(1983)	(1989)	(1972)	(1945)	(1955)	(1975)
MIN	9.37	15.9	19.8	25.6	19.5	37.0	32.4	23.9	20.3	8.72	7.94	8.32
(WY)	(1942)	(1942)	(1966)	(1955)	(2002)	(1981)	(1985)	(1941)	(1965)	(1999)	(1962)	(1941)

01649500 NORTHEAST BRANCH ANACOSTIA RIVER AT RIVERDALE, MD—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1938 - 2005	
ANNUAL TOTAL	38,228		32,650			
ANNUAL MEAN	104		89.5		87.5	
HIGHEST ANNUAL MEAN					175	2003
LOWEST ANNUAL MEAN					35.2	2002
HIGHEST DAILY MEAN	2,280	Jul 28	2,110	Jan 14	6,830	Sep 26, 1975
LOWEST DAILY MEAN	20	Sep 4	11	(a)	1.4	Sep 12, 1966
ANNUAL SEVEN-DAY MINIMUM	22	Sep 1	11	Sep 18	1.7	Sep 7, 1966
MAXIMUM PEAK FLOW			5,130	Jan 14	(b)12,000	Jun 22, 1972
MAXIMUM PEAK STAGE			7.89	Jan 14	12.93	Oct 16, 1942
INSTANTANEOUS LOW FLOW			9.4	Sep 24	Unknown	
ANNUAL RUNOFF (CFSM)	1.43		1.23		1.20	
ANNUAL RUNOFF (INCHES)	19.53		16.68		16.33	
10 PERCENT EXCEEDS	206		132		168	
50 PERCENT EXCEEDS	56		44		44	
90 PERCENT EXCEEDS	26		18		16	

a Sept. 19-24, 30.

b From rating curve extended above 3,800 ft³/s on basis of average of contracted-opening and slope-area measurements at gage height 10.84 ft.



WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 1959-63, 1969-87, 1992-95, July 2003 to current year.

PERIOD OF DAILY RECORD.--

DISSOLVED OXYGEN: December 2003 to current year.
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--

DISSOLVED OXYGEN: Maximum, 20.2 mg/L, Mar. 4, 2005; minimum, 4.1 mg/L, July 26, 2005.
SPECIFIC CONDUCTANCE: Maximum, 7,000 microsiemens/cm, Feb. 6, 2004; minimum, 42 microsiemens/cm, July 27, 2004.
WATER TEMPERATURE: Maximum, 32.0°C, July 27, 2005; minimum, 0.0°C, on several days.
pH: Maximum, 9.7 standard units, May 14, 2005; 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.

EXTREMES FOR CURRENT YEAR.--

DISSOLVED OXYGEN: Maximum, 20.2 mg/L, Mar. 4; minimum, 4.1 mg/L, July 26.
SPECIFIC CONDUCTANCE: Maximum, 6,100 microsiemens/cm, Jan. 30; minimum, 55 microsiemens/cm, Aug. 8.
WATER TEMPERATURE: Maximum, 32.0°C, July 27; minimum, 0.0°C, on several days.
pH: Maximum, 9.7 standard units, May 14; minimum, 6.7 standard units, July 17.
TURBIDITY: Maximum, 980 NTU, Dec. 23; minimum, 0.0 NTU, on several days.

01649500 NORTHEAST BRANCH ANACOSTIA RIVER AT RIVERDALE, MD—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

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)	Specific conductance, wat unfltrd uS/cm 25 degC (00095)
OCT												
14...	0925	Blank	1028	80020	--	--	--	--	--	--	--	--
14...	0930	Environmental	1028	80020	28	10	2.6	749	8.2	81	7.5	304
NOV												
16...	0940	Blank	1028	9724	--	--	--	--	--	--	--	--
16...	0945	Environmental	1028	80020	48	10	5.5	781	11.6	92	7.4	257
DEC												
07...	1245	Environmental	1028	80020	174	10	25	759	--	--	6.6	227
07...	1247	Replicate	1028	80020	--	10	--	--	--	--	--	--
07...	1250	Replicate	1028	80020	--	10	--	--	--	--	--	--
JAN												
11...	1430	Environmental	1028	80020	46	10	--	773	17.3	138	7.6	261
11...	1435	Replicate	1028	80020	--	10	--	--	--	--	--	--
14...	0530	Environmental	1028	80020	2,190	50	--	--	10.9	--	7.3	82
14...	0535	Replicate	1028	80020	--	50	--	--	--	--	--	--
14...	0630	Environmental	1028	82105	3,700	50	--	--	12.4	--	7.1	96
14...	0730	Environmental	1028	80020	4,570	50	--	--	11.1	--	7.0	85
14...	0732	Replicate	1028	82105	--	50	--	--	--	--	--	--
14...	0735	Replicate	1028	80020	--	50	--	--	--	--	--	--
14...	1300	Environmental	1028	80020	2,790	50	--	--	11.3	--	6.9	115
14...	1302	Replicate	1028	82105	--	50	--	--	--	--	--	--
14...	1305	Replicate	1028	80020	--	50	--	--	--	--	--	--
FEB												
09...	1155	Blank	1028	80020	--	--	--	--	--	--	--	--
09...	1157	Blank	1028	80020	--	--	--	--	--	--	--	--
09...	1200	Environmental	1028	80020	61	10	7.2	--	12.6	--	7.4	533
09...	1205	Replicate	1028	80020	--	10	--	--	--	--	--	--
MAR												
09...	1045	Environmental	1028	80020	95	10	23	--	13.6	--	7.4	824
09...	1050	Replicate	1028	80020	--	10	--	--	--	--	--	--
23...	0645	Environmental	1028	80020	496	50	140	--	11.4	--	7.4	284
23...	0745	Environmental	1028	80020	1,090	50	250	--	11.4	--	7.4	300
23...	0945	Environmental	1028	80020	1,540	50	370	--	11.6	--	7.3	403
23...	0950	Replicate	1028	80020	--	50	--	--	--	--	--	--
23...	1200	Environmental	1028	80020	2,340	50	290	--	--	--	7.3	264
23...	1400	Environmental	1028	80020	2,910	50	280	--	--	--	7.2	245
23...	1915	Environmental	1028	80020	2,100	50	280	--	--	--	7.0	270
24...	0715	Environmental	1028	80020	560	50	91	--	--	--	7.0	294
24...	0720	Replicate	1028	80020	--	50	--	--	--	--	--	--
28...	1300	Environmental	1028	80020	2,430	50	330	--	--	--	7.3	203
28...	1302	Replicate	1028	82105	--	50	--	--	--	--	--	--
28...	2000	Environmental	1028	80020	1,900	50	510	--	--	--	7.2	206
28...	2002	Replicate	1028	82105	--	50	--	--	--	--	--	--
APR												
02...	1415	Environmental	1028	80020	3,890	50	540	--	10.5	--	7.2	150
02...	1416	Replicate	1028	80020	--	50	--	--	--	--	--	--
12...	0845	Replicate	1028	80020	--	50	4.2	--	12.7	--	7.4	304
12...	0915	Environmental	1028	80020	56	10	1.7	766	11.7	109	7.6	305
MAY												
03...	1215	Environmental	1028	80020	55	10	2.1	763	11.6	113	8.1	305
20...	0930	Environmental	1028	80020	1,090	50	90	--	9.3	--	7.2	117
20...	0935	Replicate	1028	80020	--	50	--	--	--	--	--	--
20...	1130	Environmental	1028	80020	2,280	50	200	--	9.3	--	7.0	116
20...	1135	Replicate	1028	80020	--	50	--	--	--	--	--	--
JUN												
15...	0900	Environmental	1028	80020	28	10	1.2	756	9.2	113	7.7	318
15...	1500	Environmental	1028	80020	26	50	1.0	--	10.2	--	8.9	305
JUL												
06...	1000	Environmental	1028	80020	27	70	5.6	--	8.8	--	7.5	281
08...	0545	Environmental	1028	80020	1,040	50	160	--	8.8	--	7.0	76
08...	0645	Environmental	1028	80020	2,210	50	240	--	8.6	--	7.0	96
08...	0845	Environmental	1028	80020	3,210	50	580	--	8.7	--	6.8	101
08...	1030	Environmental	1028	80020	2,020	50	380	--	8.7	--	6.8	116
08...	1200	Environmental	1028	80020	1,200	50	240	--	8.6	--	6.8	133
08...	1202	Replicate	1028	80020	--	10	250	--	6.6	--	7.0	149
08...	1203	Replicate	1028	82105	--	10	--	--	--	--	--	--
08...	1205	Replicate	1028	82105	--	10	--	--	--	--	--	--
08...	1206	Replicate	1028	82105	--	10	--	--	--	--	--	--
08...	1207	Replicate	1028	82105	--	10	--	--	--	--	--	--

Agency collecting sample: 1028 - U.S. Geological Survey

Agency analyzing sample: 80020 - USGS-National Water Quality Lab, Denver, CO

82105 - USGS-Kentucky Sediment Lab

Sampling method: 10 - Equal width increments (EWI)

70 - Grab sample

50 - Point sample-automatic sampler

01649500 NORTHEAST BRANCH ANACOSTIA RIVER AT RIVERDALE, MD—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—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)	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											
14...	<.06	<.2	<.2	<.06	<.16	.6	E1	--	--	--	--
14...	.38	27.0	28	2.85	3.35	3.1	5	--	3	.23	3045
NOV											
16...	--	--	--	--	--	--	--	--	--	--	--
16...	.64	134	111	5.49	4.88	9.2	10	--	5	.65	3045
DEC											
07...	2.32	121	150	4.13	5.10	12.6	24	--	23	11	3045
07...	2.28	123	151	4.18	5.26	13.0	23	--	23	--	3045
07...	--	--	--	--	--	--	--	--	--	--	3045
JAN											
11...	.43	127	117	5.08	4.83	8.1	12	--	1	.12	3045
11...	--	--	--	--	--	--	--	--	--	--	3045
14...	50.6	3.5	478	3.20	22.4	38.4	459	89	563	3,330	8010
14...	--	--	--	--	--	--	--	--	--	--	8010
14...	--	--	--	--	--	--	--	--	1,300	13,000	8010
14...	54.2	46.3	774	2.83	28.3	8.1	161	52	1,670	20,600	8010
14...	--	--	--	--	--	--	--	44	1,930	--	8010
14...	--	--	--	--	--	--	--	--	--	--	8010
14...	21.3	49.9	357	3.54	13.0	7.3	69	74	528	3,980	8010
14...	--	--	--	--	--	--	--	--	411	--	8010
14...	--	--	--	--	--	--	--	--	--	--	8010
FEB											
09...	.08	<.2	M	E.04	<.16	<.6	E1	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--	--
09...	.97	217	187	6.14	6.28	12.5	15	--	6	.99	3045
09...	--	--	--	--	--	--	--	--	--	--	3045
MAR											
09...	1.98	232	208	6.20	7.31	19.0	27	--	18	4.6	3045
09...	--	--	--	--	--	--	--	--	--	--	3045
23...	33.6	48.7	254	4.05	15.5	16.4	157	--	294	394	8010
23...	35.7	68.7	427	4.85	20.9	12.5	164	--	663	1,950	8010
23...	33.6	88.0	592	4.24	20.6	11.9	121	--	948	3,940	8010
23...	--	--	--	--	--	--	--	--	--	--	8010
23...	33.5	68.6	447	4.26	18.2	11.0	120	--	795	5,020	8010
23...	32.3	70.3	409	3.78	16.3	13.0	104	52	889	6,980	8010
23...	9.52	154	196	5.82	7.61	18.9	34	--	461	2,610	8010
24...	21.8	122	369	5.20	12.5	22.8	69	--	99	150	8010
24...	--	--	--	--	--	--	--	--	--	--	8010
28...	38.8	42.7	348	3.72	18.5	18.5	128	53	966	6,340	8010
28...	--	--	--	--	--	--	--	--	701	--	8010
28...	23.9	55.1	355	3.95	16.2	14.8	83	--	592	3,040	8010
28...	--	--	--	--	--	--	--	--	519	--	8010
APR											
02...	50.3	25.5	616	3.24	27.8	11.9	152	36	1,980	20,700	8010
02...	52.3	26.4	667	3.17	28.5	11.6	155	--	--	--	8010
12...	.73	88.4	101	4.93	4.85	8.1	10	--	4	--	8010
12...	.72	87.6	100	4.60	4.74	6.8	10	--	4	.60	3045
MAY											
03...	1.30	81.0	88	4.25	5.07	6.0	10	--	4	.59	3045
20...	--	1.8	--	3.07	--	11.7	--	--	221	650	8010
20...	--	--	--	--	--	--	--	--	--	--	8010
20...	--	4.5	--	3.70	--	10.1	--	41	819	5,040	8010
20...	--	--	--	--	--	--	--	--	--	--	8010
JUN											
15...	.38	33.0	35	3.39	3.07	8.4	4	--	2	.15	3045
15...	.87	15.9	44	3.00	3.19	4.3	15	--	5	.35	8010
JUL											
06...	--	--	--	--	--	--	--	--	6	.44	3070
08...	41.2	4.8	402	1.86	14.6	7.0	140	55	494	1,390	8010
08...	35.5	18.7	683	3.03	21.7	9.3	122	--	726	4,330	8010
08...	57.3	34.3	1,480	3.35	42.0	4.4	168	61	1,580	13,700	8010
08...	--	--	--	--	--	--	--	--	768	4,190	8010
08...	26.0	47.8	497	4.14	16.9	27.3	119	76	423	1,370	8010
08...	22.0	39.0	403	3.56	13.5	3.8	57	76	418	--	3053
08...	--	--	--	--	--	--	--	76	446	--	3053
08...	--	--	--	--	--	--	--	78	440	--	3053
08...	--	--	--	--	--	--	--	--	--	--	3053
08...	--	--	--	--	--	--	--	--	--	--	3053

Sampler type: 8010 - Other-automatic sampler
 3045 - US DH-81 Teflon cap and nozzle
 3053 - US D-95 Teflon bottle

01649500 NORTHEAST BRANCH ANACOSTIA RIVER AT RIVERDALE, MD—Continued

Date	Time	Sample type	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Residue total at 105 deg. C, suspended, mg/L (00530)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia + org-N, water, unfltrd, mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water, fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Ortho-phosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, fltrd, mg/L (00666)	
AUG 23...	1010	Blank	1028	80020	<10	<.10	<.10	<.010	<.016	<.002	<.006	<.004	
Date	Phosphorus, water, unfltrd, mg/L (00665)	Organic carbon, water, unfltrd, mg/L (00680)	BOD, water, unfltrd, 5 day, 20 degC (00310)	Enterococci, Defined Substr. Tech., water, MPN (99601)	E coli, Defined Substr. Tech., water, MPN/100 mL (50468)	Aluminum, water, fltrd, ug/L (01106)	Aluminum, water, unfltrd recover-able, ug/L (01105)	Arsenic water, fltrd, ug/L (01000)	Arsenic water, unfltrd, ug/L (01002)	Cadmium water, fltrd, ug/L (01025)	Cadmium water, unfltrd, ug/L (01027)	Chromium, water, fltrd, ug/L (01030)	Chromium, water, unfltrd recover-able, ug/L (01034)
AUG 23...	<.004	E.2	<2.0	<10	<10	M	E1	<.2	<2	<.04	<.04	<.8	<.8
Date	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)	Lead, water, unfltrd recover-able, ug/L (01051)	Manganese, water, fltrd, ug/L (01056)	Manganese, water, unfltrd recover-able, ug/L (01055)	Nickel, water, fltrd, ug/L (01065)	Nickel, water, unfltrd recover-able, ug/L (01067)	Zinc, water, fltrd, ug/L (01090)
AUG 23...	<.014	<.016	<.4	<.6	<6	<6	<.08	<.06	<.2	M	<.06	<.16	<.6
Date	Zinc, water, unfltrd recover-able, ug/L (01092)	Suspended sediment concentration, mg/L (80154)											
AUG 23...	<2	<1											

Remark codes used in this table:

< -- Less than.

> -- Greater than.

E -- Estimated.

M-- Presence verified but not quantified.

Remark codes used in this table:

< -- **Less than.**

> -- **Greater than.**

E -- Estimated.

M-- Presence verified but not quantified.

Agency collecting sample: 1028 - U.S. Geological Survey

Agency analyzing sample: 80020 - USGS-National Water Quality Lab, Denver, CO

9724 - Maryland Department of Health and Mental Hygiene Lab, Baltimore, MD

Sampling method: 10 - Equal width increments (EWI)

70 - Grab sample

Sampler type: 3045 - US DH-81 Teflon cap and nozzle

3070 - Grab sampl

01649500 NORTHEAST BRANCH ANACOSTIA RIVER AT RIVERDALE, MD—Continued

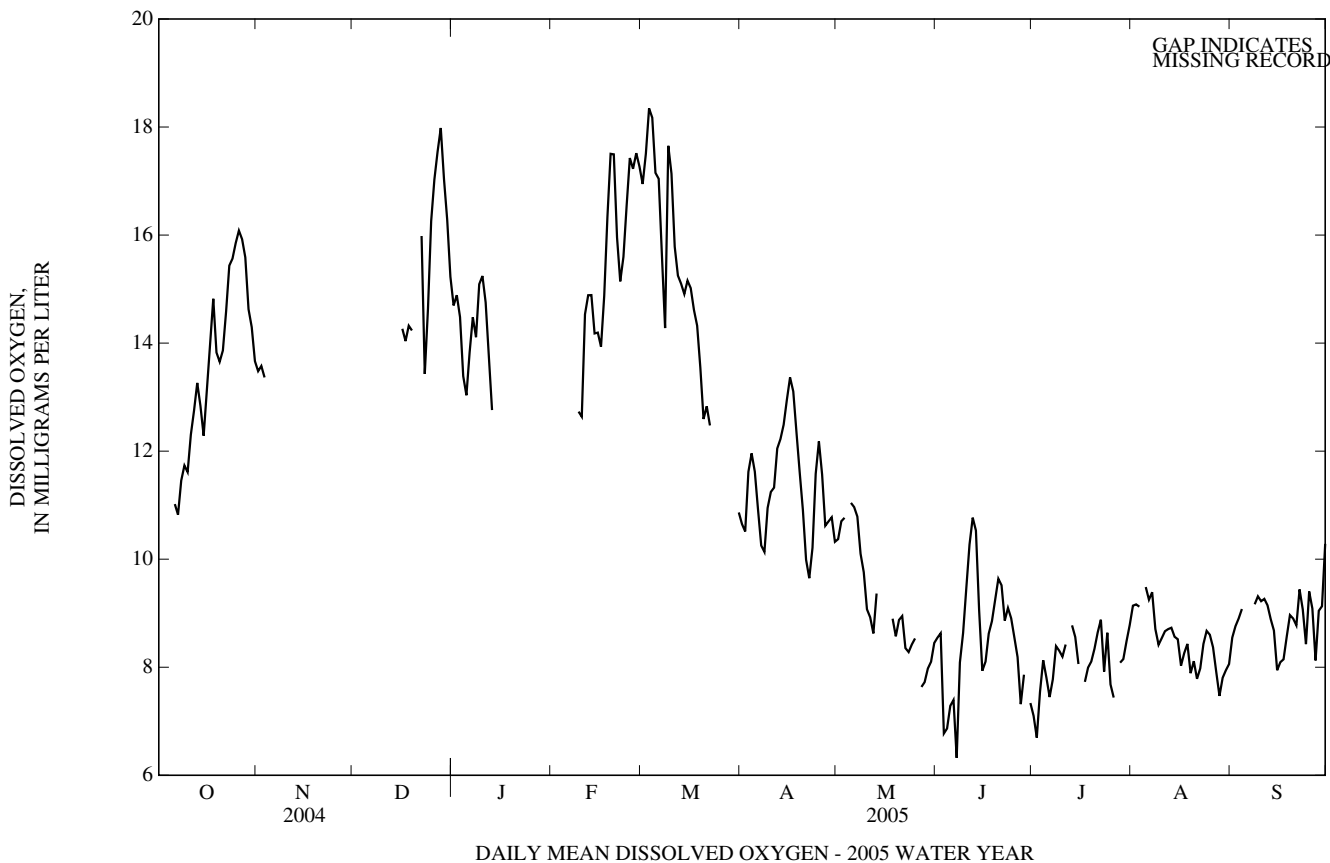
DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	---	---	---	18.5	10.5	13.5	---	---	---	15.3	14.2	14.7
2	---	---	---	19.0	10.1	13.6	---	---	---	15.4	14.3	14.9
3	---	---	---	19.2	10.4	13.4	---	---	---	15.2	13.3	14.5
4	---	---	---	---	---	---	---	---	---	14.1	12.8	13.4
5	---	---	---	---	---	---	---	---	---	13.4	12.5	13.0
6	12.6	10.0	11.0	---	---	---	---	---	---	14.2	13.4	13.8
7	11.6	10.3	10.8	---	---	---	---	---	---	15.2	13.9	14.5
8	13.3	10.3	11.5	---	---	---	---	---	---	14.4	13.7	14.1
9	14.0	10.2	11.7	---	---	---	---	---	---	15.8	14.3	15.1
10	14.0	10.2	11.6	---	---	---	---	---	---	16.0	14.5	15.2
11	14.7	10.6	12.3	---	---	---	---	---	---	15.8	13.1	14.8
12	14.9	11.4	12.8	---	---	---	---	---	---	15.1	12.7	13.8
13	15.4	11.7	13.3	---	---	---	---	---	---	13.7	10.9	12.8
14	14.9	11.5	12.8	---	---	---	---	---	---	---	---	---
15	13.7	11.5	12.3	---	---	---	---	---	---	---	---	---
16	14.7	11.9	13.1	---	---	---	14.9	13.8	14.3	---	---	---
17	15.5	12.8	14.0	---	---	---	14.6	13.7	14.0	---	---	---
18	16.8	13.4	14.8	---	---	---	15.1	13.8	14.3	---	---	---
19	15.0	12.5	13.8	---	---	---	14.8	13.3	14.2	---	---	---
20	14.5	12.7	13.7	---	---	---	---	---	---	---	---	---
21	14.4	13.0	13.9	---	---	---	---	---	---	---	---	---
22	16.0	13.8	14.6	---	---	---	16.7	15.0	16.0	---	---	---
23	17.0	14.4	15.4	---	---	---	15.0	11.5	13.4	---	---	---
24	17.2	14.8	15.6	---	---	---	15.4	13.2	14.6	---	---	---
25	17.7	14.8	15.9	---	---	---	16.8	15.4	16.3	---	---	---
26	18.4	14.4	16.1	---	---	---	17.5	16.7	17.0	---	---	---
27	19.0	14.2	15.9	---	---	---	18.0	16.8	17.5	---	---	---
28	19.0	13.4	15.6	---	---	---	18.3	17.6	18.0	---	---	---
29	18.0	12.7	14.6	---	---	---	17.6	16.2	17.0	---	---	---
30	18.5	11.6	14.3	---	---	---	16.8	15.7	16.3	---	---	---
31	18.8	10.5	13.7	---	---	---	15.8	14.5	15.2	---	---	---
MONTH	19.0	10.0	13.7	19.2	10.1	13.5	18.3	11.5	15.6	16.0	10.9	14.2
	FEBRUARY			MARCH			APRIL			MAY		
1	---	---	---	17.9	16.0	16.9	11.3	9.8	10.7	10.7	10.0	10.4
2	---	---	---	18.9	16.3	17.5	10.9	10.1	10.5	11.1	10.2	10.7
3	---	---	---	20.1	17.2	18.3	12.2	10.9	11.6	11.4	9.8	10.8
4	---	---	---	20.2	16.2	18.2	12.8	11.1	12.0	---	---	---
5	---	---	---	19.0	16.0	17.2	12.6	10.8	11.6	11.8	9.7	11.0
6	---	---	---	19.5	15.0	17.0	11.9	9.9	10.9	12.7	9.7	11.0
7	---	---	---	18.2	13.2	15.6	11.0	9.4	10.3	12.5	8.8	10.8
8	---	---	---	16.5	12.1	14.3	10.6	9.6	10.1	12.2	7.6	10.1
9	13.2	12.3	12.7	18.8	16.5	17.7	11.8	10.3	10.9	12.3	7.1	9.8
10	13.4	11.9	12.6	19.0	15.8	17.1	12.4	10.2	11.2	12.9	5.9	9.1
11	15.2	13.4	14.5	17.1	14.1	15.8	12.6	10.2	11.3	12.6	5.9	8.9
12	15.6	14.2	14.9	16.7	14.1	15.2	13.6	10.5	12.0	12.3	5.8	8.6
13	15.8	14.2	14.9	16.7	14.0	15.1	14.0	10.8	12.2	12.5	6.4	9.4
14	14.5	13.4	14.2	16.6	13.9	14.9	14.4	10.9	12.5	---	---	---
15	14.7	13.6	14.2	17.0	13.9	15.2	15.1	11.0	12.9	---	---	---
16	14.5	13.6	13.9	16.8	13.6	15.0	15.6	11.4	13.4	---	---	---
17	15.7	13.9	14.9	16.1	13.5	14.6	15.6	10.5	13.1	---	---	---
18	17.2	15.0	16.3	16.2	12.7	14.3	14.9	9.9	12.3	11.4	6.9	8.9
19	18.6	16.8	17.5	15.4	11.8	13.5	14.9	8.9	11.6	11.3	6.7	8.6
20	18.6	16.3	17.5	14.2	11.2	12.6	13.8	8.3	10.9	9.3	6.8	8.9
21	17.2	13.7	16.0	14.3	11.7	12.8	13.1	8.3	10	9.5	7.8	8.9
22	16.6	14.1	15.1	14.1	11.0	12.5	10.9	8.4	9.6	8.9	7.7	8.4
23	17.2	14.4	15.6	---	---	---	12.0	9.0	10.2	8.9	7.6	8.3
24	17.9	15.1	16.5	---	---	---	12.6	10.5	11.6	8.8	7.9	8.4
25	18.8	16.2	17.4	---	---	---	13.6	10.7	12.2	8.8	8.0	8.5
26	18.9	16.0	17.2	---	---	---	13.4	9.2	11.6	---	---	---
27	19.1	16.3	17.5	---	---	---	12.9	8.7	10.6	8.5	6.5	7.6
28	18.5	16.5	17.3	---	---	---	12.8	8.9	10.7	9.0	6.6	7.7
29	---	---	---	---	---	---	12.9	9.0	10.8	9.7	6.3	8.0
30	---	---	---	---	---	---	10.7	8.9	10.3	10.7	6.0	8.1
31	---	---	---	11.2	10.3	10.9	---	---	---	11.1	6.1	8.4
MONTH	19.1	11.9	15.5	20.2	10.3	15.3	15.6	8.3	11.3	12.9	5.8	9.2

01649500 NORTHEAST BRANCH ANACOSTIA RIVER AT RIVERDALE, MD—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER—CONTINUED
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	11.5	6.0	8.5	8.0	5.8	7.1	11.6	7.3	9.1	9.8	7.6	8.5
2	12.1	5.6	8.6	7.8	4.2	6.7	12.3	6.8	9.2	10.1	7.9	8.8
3	7.5	5.7	6.8	9.3	4.3	7.5	13.0	6.4	9.1	10.2	8.0	8.9
4	8.2	5.8	6.9	10.4	6.3	8.1	---	---	---	10.3	8.2	9.1
5	9.2	5.6	7.3	10.7	5.7	7.8	13.8	6.3	9.5	---	---	---
6	9.7	4.4	7.4	9.6	5.8	7.4	13.1	6.4	9.2	---	---	---
7	7.2	5.5	6.3	9.8	5.8	7.8	13.2	6.5	9.4	---	---	---
8	8.8	7.0	8.1	8.9	7.5	8.4	12.5	6.6	8.7	11.9	7.4	9.2
9	10.1	5.1	8.6	8.7	7.9	8.3	8.7	8.0	8.4	12.0	7.3	9.3
10	10.4	7.8	9.5	8.7	7.6	8.2	9.4	7.8	8.5	12.1	7.2	9.2
11	11.6	9.1	10.3	9.3	7.6	8.4	10.5	7.5	8.7	12.0	7.4	9.3
12	12.5	9.3	10.8	---	---	---	10.8	6.9	8.7	12.0	7.3	9.1
13	12.3	9.2	10.5	10.8	7.3	8.8	11.3	6.8	8.7	11.6	7.2	8.9
14	10.6	6.2	9.1	10.9	7.3	8.6	11.4	6.6	8.6	11.2	6.8	8.7
15	10.5	5.4	7.9	8.4	7.7	8.1	11.6	6.5	8.5	10.8	6.1	7.9
16	10.3	5.7	8.1	---	---	---	9.9	6.7	8.0	11.2	6.3	8.1
17	11.0	6.8	8.6	8.0	7.6	7.7	9.5	6.9	8.3	11.5	6.1	8.1
18	11.3	6.9	8.9	9.3	7.6	8.0	10.3	6.9	8.4	12.1	6.2	8.6
19	12.3	7.0	9.2	8.6	7.7	8.1	8.4	7.2	7.9	12.8	6.6	9.0
20	12.5	7.0	9.6	9.2	7.6	8.3	9.3	6.8	8.1	13.0	6.6	8.9
21	12.4	7.0	9.5	10.2	7.4	8.6	9.4	6.7	7.8	12.9	6.6	8.8
22	11.9	6.8	8.9	10.9	7.2	8.9	9.9	6.8	8.0	13.9	6.8	9.4
23	12.4	6.7	9.1	8.8	7.0	7.9	10.4	7.0	8.4	13.4	6.6	9.1
24	11.9	6.3	8.9	10.8	7.1	8.6	10.7	7.3	8.7	11.2	6.5	8.4
25	12.1	6.0	8.6	9.8	5.7	7.7	10.4	7.0	8.6	13.3	7.4	9.4
26	11.6	5.6	8.2	10.9	4.1	7.4	10.3	7.0	8.4	13.1	6.5	9.1
27	10.1	5.5	7.3	---	---	---	9.2	6.9	7.9	11.8	5.9	8.1
28	10.3	5.9	7.9	9.3	7.2	8.1	8.3	6.9	7.5	13.3	6.7	9.0
29	---	---	---	9.6	7.1	8.2	9.0	6.9	7.8	13.6	6.7	9.1
30	7.8	6.6	7.3	9.3	7.6	8.5	9.4	7.0	7.9	15.0	7.7	10.3
31	---	---	---	10.6	7.0	8.8	9.2	7.3	8.1	---	---	---
MONTH	12.5	4.4	8.5	10.9	4.1	8.1	13.8	6.3	8.5	15.0	5.9	8.9
YEAR	20.2	4.1	11.2									



01649500 NORTHEAST BRANCH ANACOSTIA RIVER AT RIVERDALE, MD—Continued

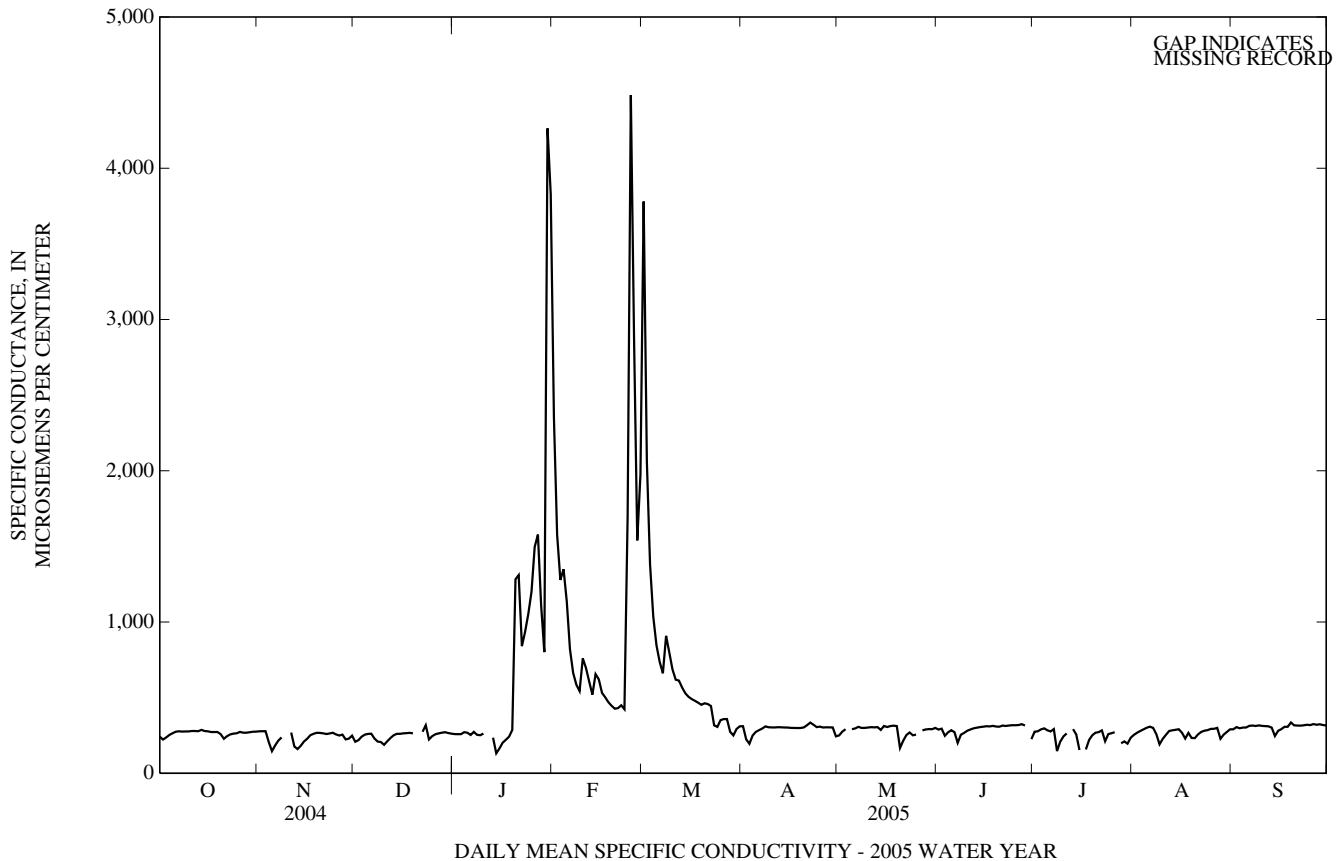
SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	251	230	242	282	270	277	257	189	208	262	256	259
2	253	89	223	283	270	278	233	207	219	260	257	258
3	246	223	237	286	271	278	251	233	242	274	256	259
4	263	246	253	283	77	207	260	251	255	340	262	272
5	273	255	265	168	118	146	262	258	260	376	237	268
6	278	273	275	201	168	184	263	259	261	269	242	253
7	280	273	277	231	201	216	264	180	230	298	262	274
8	278	273	275	243	231	237	222	180	209	275	234	254
9	280	273	276	---	---	---	232	148	207	262	247	252
10	278	275	277	---	---	---	206	174	188	265	260	262
11	283	277	279	294	264	269	225	201	212	---	---	---
12	282	278	279	276	124	177	244	224	233	---	---	---
13	292	275	278	182	143	160	259	244	252	267	132	235
14	307	272	287	198	166	182	262	259	261	239	60	132
15	295	275	279	222	198	210	271	256	261	188	135	164
16	285	273	277	237	222	228	266	262	264	213	188	202
17	282	268	273	262	237	252	267	263	265	232	212	221
18	278	270	273	263	258	261	270	265	267	252	232	242
19	290	260	273	270	263	268	291	216	264	505	252	286
20	287	185	258	275	249	267	---	---	---	2,480	505	1,280
21	238	200	228	276	260	264	---	---	---	1,590	986	1,310
22	255	237	245	264	257	259	280	269	275	986	748	840
23	260	255	257	270	260	263	990	93	318	1,240	767	936
24	268	244	262	298	237	268	234	214	223	1,200	901	1,050
25	266	262	264	289	239	257	252	234	245	1,680	966	1,200
26	309	262	273	254	245	250	264	252	258	1,890	1,120	1,500
27	273	264	268	263	252	255	267	261	264	1,800	1,260	1,580
28	287	261	268	261	152	224	273	264	268	1,320	890	1,110
29	280	267	271	245	217	229	285	267	271	1,160	658	801
30	278	269	274	256	245	249	274	262	266	6,100	1,130	4,260
31	284	268	275	---	---	---	265	259	262	4,660	2,740	3,830
MONTH	309	89	266	298	77	236	990	93	249	6,100	60	820
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	2,740	1,900	2,350	4,650	2,720	3,780	365	236	311	265	229	250
2	1,900	1,330	1,580	2,720	1,600	2,060	331	124	224	285	265	275
3	1,640	1,120	1,280	1,600	1,170	1,380	227	168	195	307	285	291
4	1,490	1,260	1,350	1,170	931	1,040	266	227	250	---	---	---
5	1,300	953	1,140	931	793	846	280	266	274	295	288	291
6	953	725	820	793	697	736	289	280	285	299	294	296
7	725	617	663	697	642	661	346	257	296	337	297	307
8	617	564	585	2,250	637	909	339	259	310	305	295	300
9	564	534	543	868	737	799	309	301	304	306	294	300
10	1,130	540	760	737	644	686	304	302	303	309	298	302
11	737	662	696	696	592	619	309	299	303	308	298	305
12	695	552	606	629	596	613	309	302	305	310	298	303
13	552	500	520	596	547	567	309	298	304	312	301	305
14	809	448	656	547	517	529	308	295	302	312	140	286
15	804	555	621	521	491	506	310	294	302	324	292	313
16	557	506	532	497	482	491	307	290	300	317	294	306
17	510	491	502	484	473	479	305	290	300	317	307	312
18	491	458	470	476	456	467	303	293	299	328	308	315
19	459	437	446	462	444	452	305	291	299	317	307	312
20	437	418	427	480	447	462	312	288	303	318	79	167
21	489	380	431	470	435	458	348	304	318	237	189	215
22	481	432	449	454	435	445	350	275	335	264	237	253
23	435	413	423	482	217	317	340	221	321	274	264	269
24	4,740	428	1,700	334	280	306	324	294	305	287	169	251
25	5,410	4,070	4,480	374	334	351	315	304	308	267	239	256
26	4,130	1,920	2,880	361	355	358	308	297	303	---	---	---
27	1,920	1,230	1,540	394	353	358	308	299	304	287	281	284
28	3,770	1,040	1,980	398	135	274	306	300	303	293	286	289
29	---	---	---	278	216	250	307	297	303	294	290	292
30	---	---	---	304	277	293	303	136	244	307	287	291
31	---	---	---	317	304	310	---	---	---	317	291	300
MONTH	5,410	380	1,090	4,650	135	703	365	124	294	337	79	284

01649500 NORTHEAST BRANCH ANACOSTIA RIVER AT RIVERDALE, MD—Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	299	280	289	300	261	275	266	248	254	293	285	290
2	306	288	295	300	268	278	282	261	268	323	292	305
3	313	121	248	295	284	290	292	270	280	300	295	298
4	280	255	270	306	293	297	299	282	291	306	299	302
5	291	280	285	318	97	284	315	291	301	306	297	303
6	298	75	272	311	150	276	377	288	308	325	306	314
7	236	119	201	322	168	292	306	291	299	334	304	315
8	271	236	255	210	76	147	334	55	258	321	309	313
9	283	151	267	230	185	208	218	172	191	321	311	317
10	286	264	281	255	230	244	242	210	228	320	307	313
11	296	281	290	273	255	263	266	242	255	320	305	312
12	304	293	297	---	---	---	290	266	280	313	305	310
13	308	297	301	300	286	292	287	280	284	313	256	301
14	310	301	305	313	97	256	294	284	287	264	236	246
15	316	304	308	182	109	154	297	286	291	310	264	281
16	314	308	311	---	---	---	310	175	268	297	287	292
17	314	305	310	192	133	158	246	220	229	311	297	307
18	324	310	313	243	192	220	305	245	267	312	301	307
19	315	303	309	257	243	251	287	106	233	422	305	336
20	315	303	308	288	257	268	243	226	232	336	309	317
21	330	309	315	281	269	272	268	243	257	321	310	315
22	316	308	313	290	270	283	280	268	273	319	312	315
23	323	310	316	270	182	212	289	278	281	322	313	317
24	322	313	318	273	231	259	293	283	285	325	318	321
25	322	311	318	285	174	265	295	289	293	324	314	318
26	324	316	319	284	263	271	299	291	294	356	285	325
27	354	305	324	---	---	---	304	296	300	333	312	321
28	328	304	316	223	158	198	299	109	228	330	320	324
29	---	---	---	253	115	210	264	249	255	330	311	319
30	261	170	226	221	158	196	288	264	273	321	311	316
31	---	---	---	248	221	235	294	288	291	---	---	---
MONTH	354	75	292	322	76	245	377	55	269	422	236	309
YEAR	6,100	55	419									



01649500 NORTHEAST BRANCH ANACOSTIA RIVER AT RIVERDALE, MD—Continued

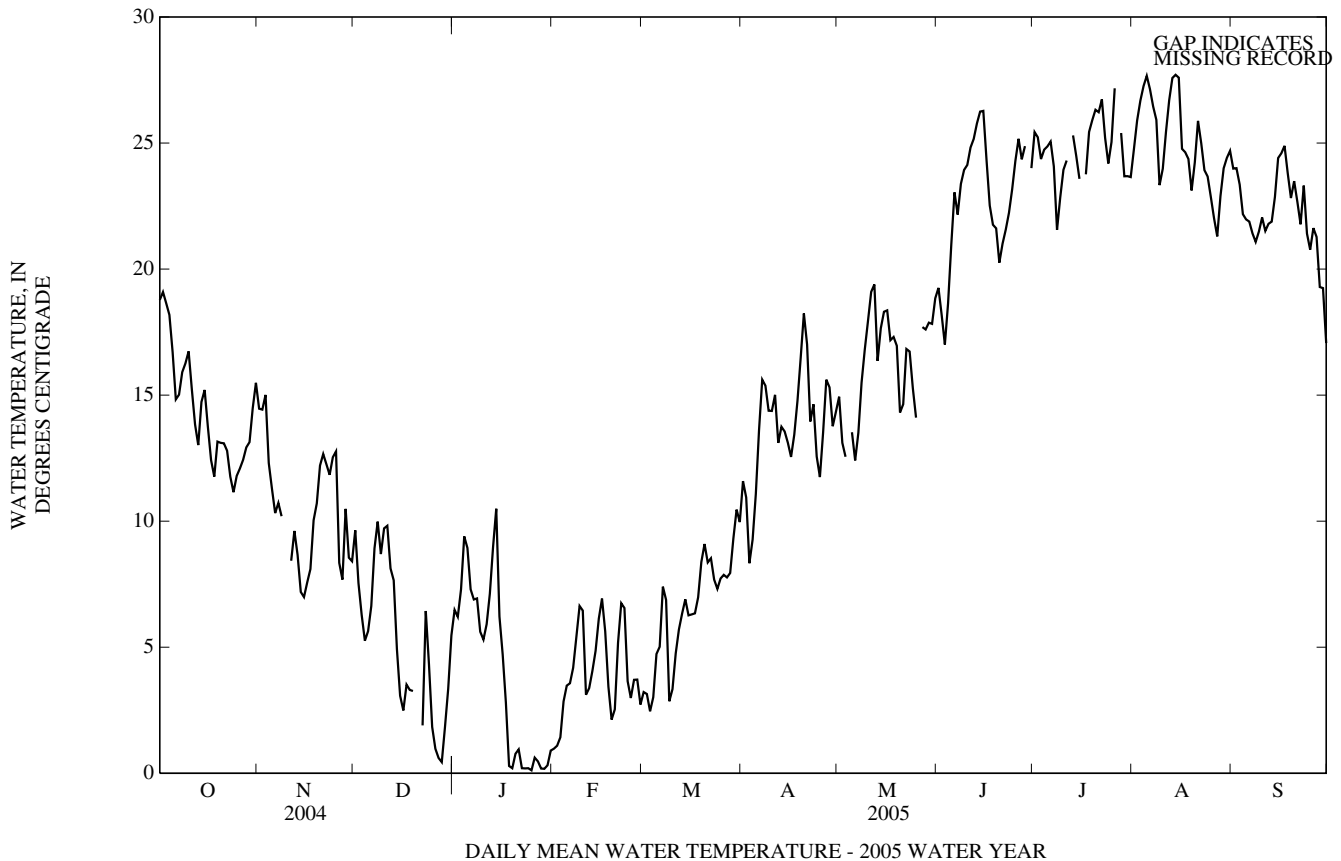
TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	21.0	16.9	18.8	16.4	13.1	14.5	10.6	8.4	9.6	8.5	5.0	6.5
2	19.7	18.6	19.1	16.8	12.5	14.4	8.5	6.7	7.5	6.6	5.6	6.2
3	20.8	17.5	18.6	16.3	13.5	15.0	8.0	5.3	6.3	8.8	5.9	7.3
4	20.9	16.6	18.2	13.5	11.7	12.3	6.8	4.0	5.3	10.7	8.4	9.4
5	18.9	14.7	16.7	12.3	10.3	11.3	7.6	4.2	5.6	9.6	7.9	8.9
6	17.6	12.9	14.8	12.3	8.9	10.3	7.5	5.8	6.6	7.9	7.0	7.3
7	18.1	12.8	15.0	13.1	8.8	10.7	12.4	7.5	8.9	7.9	6.0	6.9
8	18.8	13.8	15.9	11.0	8.6	10.2	11.8	9.0	10	7.6	6.2	6.9
9	17.7	14.8	16.3	---	---	---	10.0	7.7	8.7	6.2	4.9	5.6
10	19.3	15.5	16.7	---	---	---	10.2	9.2	9.7	6.5	4.2	5.3
11	17.5	13.8	15.2	10.3	7.0	8.4	10.4	8.6	9.8	7.1	5.2	5.9
12	16.6	12.0	13.8	10.8	8.8	9.6	8.8	7.6	8.1	7.9	6.4	7.1
13	14.2	11.8	13.0	9.3	7.6	8.7	8.8	5.8	7.7	12.7	7.4	9.0
14	16.7	13.1	14.7	8.6	6.1	7.2	5.8	3.7	4.9	13.3	7.9	10.5
15	16.0	14.0	15.2	9.0	5.4	7.0	4.4	2.1	3.1	7.9	5.2	6.2
16	15.2	12.4	13.8	9.7	6.0	7.6	4.1	1.1	2.5	5.3	4.1	4.7
17	14.9	11.0	12.4	10.0	6.4	8.1	5.2	2.3	3.5	4.5	0.4	2.8
18	13.9	9.7	11.8	11.8	8.7	10.0	4.9	1.9	3.3	1.0	0.0	0.3
19	13.6	12.7	13.2	11.6	9.5	10.7	4.7	2.4	3.3	0.2	0.2	0.2
20	13.8	12.9	13.1	13.1	11.4	12.2	---	---	---	1.7	0.0	0.8
21	13.5	12.8	13.1	13.8	11.8	12.7	---	---	---	2.4	0.0	0.9
22	13.6	11.8	12.8	12.5	12.0	12.3	3.8	0.4	1.9	0.3	0.2	0.2
23	14.0	10.4	11.8	12.1	11.5	11.8	11.3	3.3	6.4	0.2	0.1	0.2
24	11.6	10.6	11.1	13.7	11.8	12.5	6.5	2.8	4.3	0.2	0.2	0.2
25	12.5	11.2	11.8	13.8	9.8	12.8	2.8	0.9	1.8	0.2	0.0	0.1
26	14.3	10.5	12.1	9.8	7.2	8.3	1.7	0.3	1.0	1.5	0.0	0.6
27	14.0	11.4	12.4	9.1	6.3	7.7	1.8	0.0	0.6	1.6	0.0	0.5
28	15.1	11.6	12.9	11.8	9.1	10.5	1.1	0.0	0.4	0.3	0.0	0.2
29	13.7	12.6	13.1	9.8	7.6	8.6	3.0	0.6	1.8	0.4	0.0	0.2
30	15.9	13.4	14.5	9.3	7.4	8.4	4.2	2.3	3.4	1.0	0.0	0.3
31	17.4	14.2	15.5	---	---	---	7.3	4.1	5.5	2.8	0.0	0.9
MONTH	21.0	9.7	14.4	16.8	5.4	10.5	12.4	0.0	5.2	13.3	0.0	3.9
DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	3.0	0.0	1.0	5.2	1.7	3.2	14.1	9.5	11.6	16.5	13.6	14.9
2	3.1	0.0	1.1	5.1	1.8	3.1	12.3	9.6	10.9	14.3	11.6	13.1
3	2.0	0.9	1.4	5.2	0.6	2.5	9.6	7.5	8.3	15.7	10.0	12.6
4	4.8	1.6	2.8	5.7	0.6	3.0	12.2	6.5	9.3	---	---	---
5	5.8	1.8	3.5	6.8	3.5	4.7	14.2	8.0	11.1	16.8	10.8	13.5
6	5.6	1.8	3.6	8.0	2.6	5.0	17.1	10.3	13.6	13.3	11.5	12.4
7	6.1	2.6	4.2	10.5	4.9	7.4	18.2	13.6	15.6	17.4	10.1	13.5
8	7.4	3.8	5.4	9.6	3.2	6.9	16.3	13.8	15.4	19.7	12.2	15.5
9	7.8	5.5	6.6	4.8	1.1	2.9	17.8	11.8	14.4	21.4	13.2	16.8
10	7.6	4.0	6.5	5.9	1.4	3.3	18.1	11.1	14.4	22.2	14.7	17.9
11	4.7	1.9	3.1	6.8	2.8	4.8	18.8	12.3	15.0	23.0	16.1	19.1
12	5.4	2.0	3.4	8.0	3.8	5.7	15.0	11.3	13.1	21.8	17.7	19.4
13	5.9	2.2	4.1	8.9	4.8	6.3	17.6	11.2	13.7	17.7	15.1	16.4
14	6.8	3.9	4.9	10.2	4.8	6.9	17.3	10.4	13.6	22.4	14.2	17.6
15	7.4	4.9	6.1	9.7	3.7	6.3	16.9	10.3	13.1	19.6	17.3	18.3
16	8.5	5.7	6.9	8.3	4.5	6.3	16.6	9.3	12.5	21.5	16.3	18.4
17	7.1	4.5	5.6	7.8	5.5	6.3	17.9	9.6	13.4	20.2	15.0	17.2
18	5.4	1.9	3.4	10.7	4.0	7.0	17.9	11.7	14.8	20.9	14.7	17.3
19	4.8	0.3	2.1	11.8	5.5	8.4	20.7	13.0	16.5	18.9	15.1	17.0
20	4.1	0.9	2.5	10.4	8.4	9.1	21.9	15.1	18.2	17.1	13.2	14.3
21	7.6	3.2	5.2	10.8	6.7	8.4	18.3	15.3	17.0	17.1	12.2	14.6
22	8.4	5.8	6.7	12.4	5.4	8.5	15.3	13.0	14.0	19.7	14.7	16.8
23	8.7	5.3	6.6	9.2	6.8	7.7	18.1	12.6	14.6	18.6	15.5	16.7
24	5.6	1.8	3.7	8.3	6.3	7.3	14.2	10.9	12.6	16.3	14.4	15.3
25	5.1	1.4	3.0	8.1	7.3	7.7	14.4	9.8	11.7	14.5	13.7	14.1
26	5.8	1.7	3.7	8.5	7.3	7.9	17.4	10.2	13.5	---	---	---
27	5.7	2.0	3.7	8.0	7.5	7.8	18.9	13.3	15.6	21.2	14.8	17.7
28	3.5	1.5	2.7	8.7	7.4	7.9	18.7	12.8	15.3	19.8	15.7	17.6
29	---	---	---	10.9	8.0	9.3	14.5	13.1	13.8	21.5	15.0	17.9
30	---	---	---	12.9	8.3	10.5	16.3	13.6	14.3	20.5	15.7	17.8
31	---	---	---	10.8	9.5	10	---	---	---	22.8	15.9	18.8
MONTH	8.7	0.0	4.1	12.9	0.6	6.5	21.9	6.5	13.7	23.0	10.0	16.3

01649500 NORTHEAST BRANCH ANACOSTIA RIVER AT RIVERDALE, MD—Continued

TEMPERATURE, WATER, DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	22.7	16.4	19.3	28.4	23.1	25.4	27.9	22.5	24.8	26.9	21.9	24.0
2	19.1	17.4	18.2	27.5	23.5	25.2	29.8	23.0	25.9	27.7	21.2	24.0
3	17.5	16.5	17.0	26.8	22.3	24.4	30.3	24.0	26.7	26.4	21.1	23.4
4	21.1	16.7	18.6	28.5	21.9	24.7	31.0	24.5	27.3	25.0	20.0	22.2
5	24.7	17.7	21.0	27.5	23.1	24.9	31.1	25.3	27.7	25.4	19.4	22.0
6	26.8	20.2	23.0	27.4	23.0	25.1	30.2	25.1	27.1	25.7	19.5	21.9
7	24.1	20.4	22.2	25.3	22.9	24.1	28.9	24.7	26.4	25.4	18.7	21.4
8	26.1	21.2	23.4	22.9	20.3	21.6	28.9	24.1	25.9	25.0	18.1	21.1
9	26.6	21.9	23.9	25.8	20.6	22.8	24.1	22.7	23.3	24.3	19.1	21.5
10	26.5	22.4	24.1	27.5	21.3	23.9	26.4	22.4	24.0	24.7	20.1	22.0
11	28.0	22.5	24.8	27.5	21.7	24.3	28.8	22.9	25.4	24.5	19.2	21.5
12	28.7	22.6	25.2	---	---	---	29.6	24.4	26.7	25.7	19.0	21.8
13	28.9	23.5	25.8	26.7	24.2	25.3	30.2	25.6	27.6	25.4	19.3	21.9
14	29.4	23.7	26.2	26.1	23.1	24.5	29.8	25.8	27.7	25.0	21.1	22.9
15	29.4	24.2	26.3	24.6	22.9	23.6	30.4	25.8	27.6	27.4	22.5	24.4
16	26.5	22.2	24.3	---	---	---	26.1	23.5	24.8	26.8	23.0	24.6
17	26.0	20.2	22.5	24.7	22.6	23.8	27.9	22.5	24.6	27.2	23.2	24.9
18	25.3	18.9	21.8	27.7	23.7	25.4	26.7	22.2	24.4	26.0	22.3	23.8
19	24.0	19.6	21.6	27.8	24.3	25.9	24.2	22.3	23.1	25.5	20.6	22.8
20	22.3	18.7	20.3	29.1	24.4	26.3	27.2	22.2	24.2	25.6	21.8	23.5
21	25.0	17.6	21.0	29.5	23.8	26.2	29.0	24.1	25.9	25.8	20.7	22.7
22	24.3	20.0	21.6	29.9	24.5	26.7	28.5	22.7	25.0	25.1	19.0	21.8
23	26.4	19.0	22.2	27.9	23.2	25.2	26.4	21.8	23.9	25.8	21.3	23.3
24	27.3	19.9	23.2	27.1	21.7	24.2	27.2	21.4	23.7	23.1	20.5	21.4
25	27.8	21.3	24.3	27.4	22.8	25.0	26.5	20.0	22.9	21.8	19.9	20.8
26	29.2	22.0	25.2	30.9	24.4	27.2	23.6	20.4	22.0	23.3	20.2	21.6
27	25.7	23.3	24.4	---	---	---	21.7	21.0	21.3	24.1	19.1	21.3
28	27.8	22.3	24.9	27.4	24.2	25.4	25.2	21.1	22.9	22.6	16.7	19.3
29	---	---	---	25.7	22.4	23.7	26.6	22.0	24.0	21.8	17.2	19.2
30	26.2	22.1	24.0	25.7	22.3	23.7	26.0	23.2	24.4	20.2	14.8	17.1
31	---	---	---	25.4	22.4	23.6	25.9	23.3	24.7	---	---	---
MONTH	29.4	16.4	22.8	30.9	20.3	24.7	31.1	20.0	25.0	27.7	14.8	22.1
YEAR	31.1	0.0	14.1									



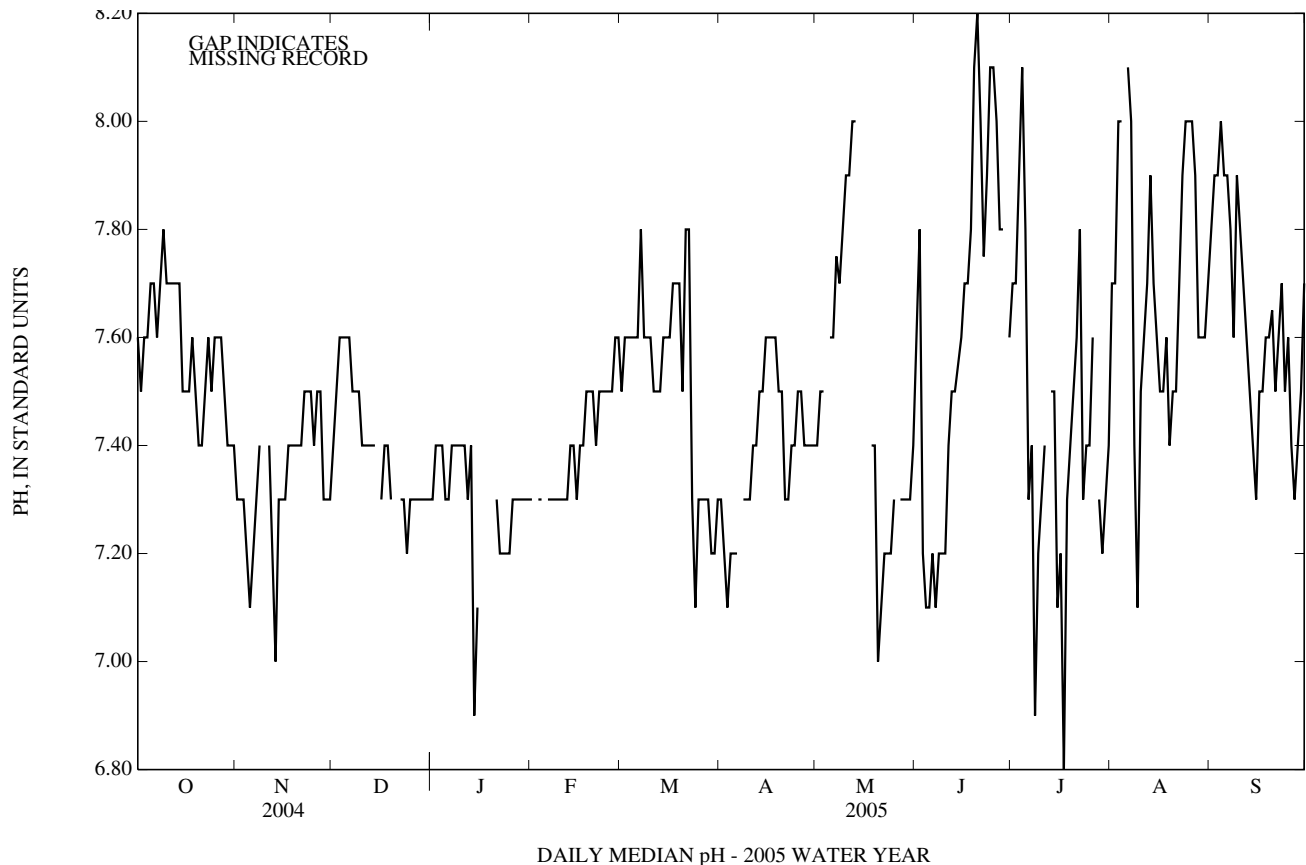
01649500 NORTHEAST BRANCH ANACOSTIA RIVER AT RIVERDALE, MD—Continued

PH, WATER, UNFILTERED, FIELD, STANDARD UNITS WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	7.7	7.5	7.6	8.5	7.2	7.3	7.5	7.2	7.4	7.5	7.3	7.3
2	7.7	7.4	7.5	8.5	7.2	7.3	7.6	7.4	7.5	7.5	7.3	7.4
3	7.8	7.4	7.6	8.3	7.2	7.3	7.8	7.5	7.6	7.5	7.3	7.4
4	7.9	7.5	7.6	7.6	7.1	7.2	7.8	7.6	7.6	7.6	7.3	7.4
5	8.4	7.5	7.7	7.2	7.0	7.1	7.9	7.6	7.6	7.4	7.3	7.3
6	8.6	7.6	7.7	7.3	7.1	7.2	7.8	7.6	7.6	7.4	7.3	7.3
7	7.9	7.6	7.6	7.4	7.2	7.3	7.7	7.5	7.5	7.6	7.3	7.4
8	8.7	7.6	7.7	7.5	7.2	7.4	7.6	7.5	7.5	7.4	7.3	7.4
9	9.0	7.6	7.8	---	---	---	7.7	7.4	7.5	7.5	7.3	7.4
10	9.0	7.5	7.7	---	---	---	7.4	7.3	7.4	7.6	7.3	7.4
11	9.0	7.5	7.7	7.5	7.3	7.4	7.4	7.3	7.4	7.6	7.3	7.4
12	8.8	7.5	7.7	7.6	7.0	7.2	7.4	7.3	7.4	7.8	7.3	7.3
13	8.7	7.5	7.7	7.1	6.9	7.0	7.4	7.3	7.4	7.8	7.3	7.4
14	8.6	7.5	7.7	7.3	7.1	7.3	7.5	7.4	7.4	7.5	6.8	6.9
15	8.1	7.4	7.5	7.4	7.3	7.3	---	---	---	7.1	6.9	7.1
16	8.2	7.4	7.5	7.4	7.3	7.3	7.5	7.3	7.3	---	---	---
17	8.2	7.4	7.5	7.5	7.2	7.4	7.5	7.3	7.4	---	---	---
18	8.4	7.4	7.6	7.6	7.4	7.4	7.6	7.3	7.4	---	---	---
19	7.8	7.4	7.5	7.6	7.4	7.4	7.5	7.3	7.3	7.3	7.2	7.2
20	7.6	7.3	7.4	7.6	7.4	7.4	---	---	---	---	---	---
21	7.5	7.3	7.4	7.7	7.3	7.4	---	---	---	7.3	7.3	7.3
22	7.9	7.4	7.5	7.6	7.3	7.5	7.5	7.3	7.3	7.3	7.2	7.2
23	8.2	7.5	7.6	7.7	7.5	7.5	7.5	7.1	7.3	7.2	7.2	7.2
24	7.9	7.4	7.5	7.6	7.4	7.5	7.2	7.1	7.2	7.2	7.2	7.2
25	8.2	7.5	7.6	7.4	7.4	7.4	7.3	7.2	7.3	7.2	7.2	7.2
26	8.6	7.4	7.6	7.6	7.4	7.5	7.3	7.2	7.3	7.3	7.2	7.3
27	8.8	7.4	7.6	7.6	7.4	7.5	7.3	7.3	7.3	7.3	7.3	7.3
28	8.7	7.4	7.5	7.4	7.1	7.3	7.3	7.3	7.3	7.3	7.2	7.3
29	8.2	7.3	7.4	7.3	7.2	7.3	7.3	7.3	7.3	7.3	7.3	7.3
30	8.6	7.3	7.4	7.4	7.2	7.3	7.4	7.3	7.3	7.3	7.3	7.3
31	8.8	7.2	7.4	---	---	---	7.4	7.3	7.3	7.3	7.3	7.3
MAX	9.0	7.6	7.8	8.5	7.5	7.5	7.9	7.6	7.6	7.8	7.3	7.4
MIN	7.5	7.2	7.4	7.1	6.9	7.0	7.2	7.1	7.2	7.1	6.8	6.9
	FEBRUARY			MARCH			APRIL			MAY		
1	7.4	7.3	7.3	7.7	7.4	7.5	7.4	7.2	7.3	7.4	7.3	7.4
2	---	---	---	7.9	7.5	7.6	7.4	7.0	7.2	7.6	7.4	7.5
3	7.4	7.3	7.3	8.0	7.5	7.6	7.1	7.0	7.1	7.9	7.5	7.5
4	7.3	7.3	7.3	8.1	7.5	7.6	7.3	7.1	7.2	---	---	---
5	---	---	---	8.4	7.5	7.6	7.3	7.2	7.2	8.5	7.4	7.6
6	7.3	7.3	7.3	8.5	7.5	7.6	7.4	7.2	7.2	8.4	7.5	7.6
7	7.3	7.3	7.3	8.9	7.5	7.8	---	---	---	8.7	7.5	7.8
8	7.4	7.1	7.3	7.9	7.5	7.6	7.5	7.2	7.3	8.7	7.5	7.7
9	7.4	7.2	7.3	7.9	7.5	7.6	7.6	7.2	7.3	9.1	7.5	7.8
10	7.4	7.3	7.3	7.7	7.3	7.6	7.8	7.3	7.3	9.3	7.6	7.9
11	7.5	7.3	7.3	7.9	7.3	7.5	8.1	7.3	7.4	9.3	7.6	7.9
12	7.5	7.3	7.3	8.1	7.4	7.5	8.3	7.3	7.4	9.5	7.6	8.0
13	7.6	7.3	7.4	8.5	7.3	7.5	8.6	7.3	7.5	9.4	7.7	8.0
14	7.6	7.3	7.4	8.8	7.3	7.6	8.8	7.3	7.5	---	---	---
15	7.4	7.3	7.3	8.9	7.3	7.6	8.9	7.3	7.6	---	---	---
16	7.5	7.3	7.4	9.0	7.3	7.6	8.8	7.3	7.6	---	---	---
17	7.7	7.4	7.4	9.0	7.3	7.7	8.7	7.3	7.6	---	---	---
18	7.7	7.4	7.5	9.2	7.4	7.7	8.7	7.3	7.6	8.7	7.2	7.4
19	7.7	7.4	7.5	9.3	7.3	7.7	8.7	7.3	7.5	8.3	7.2	7.4
20	7.7	7.4	7.5	9.0	7.3	7.5	8.6	7.2	7.5	7.8	6.8	7.0
21	7.9	7.4	7.4	9.2	7.3	7.8	7.8	7.1	7.3	7.1	6.8	7.1
22	8.0	7.4	7.5	9.3	7.3	7.8	7.4	7.1	7.3	7.3	7.1	7.2
23	8.2	7.4	7.5	7.4	6.9	7.3	7.7	7.2	7.4	7.3	7.2	7.2
24	7.8	7.4	7.5	7.2	6.9	7.1	7.6	7.3	7.4	7.3	7.1	7.2
25	7.8	7.5	7.5	7.3	7.2	7.3	7.8	7.4	7.5	7.4	7.1	7.3
26	7.9	7.5	7.5	7.4	7.3	7.3	7.8	7.3	7.5	---	---	---
27	8.0	7.5	7.6	7.4	7.3	7.3	7.9	7.3	7.4	7.6	7.2	7.3
28	7.7	7.5	7.6	7.5	7.0	7.3	7.9	7.3	7.4	7.7	7.2	7.3
29	---	---	---	7.2	7.0	7.2	7.7	7.3	7.4	8.1	7.2	7.3
30	---	---	---	7.4	7.2	7.2	7.5	7.2	7.4	8.5	7.2	7.3
31	---	---	---	7.3	7.2	7.3	---	---	---	8.9	7.2	7.4
MAX	8.2	7.5	7.6	9.3	7.5	7.8	8.9	7.4	7.6	9.5	7.7	8.0
MIN	7.3	7.1	7.3	7.2	6.9	7.1	7.1	7.0	7.1	7.1	6.8	7.0

01649500 NORTHEAST BRANCH ANACOSTIA RIVER AT RIVERDALE, MD—Continued
 PH, WATER, UNFILTERED, FIELD, STANDARD UNITS—CONTINUED WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
1	9.2	7.2	7.6	8.1	7.6	7.7	8.8	7.3	7.7	8.9	7.6	7.8
2	9.3	7.2	7.8	8.1	7.6	7.7	9.1	7.3	7.7	9.0	7.6	7.9
3	7.4	7.1	7.2	8.5	7.6	7.9	9.2	7.3	8.0	9.1	7.7	7.9
4	7.4	7.0	7.1	9.1	7.8	8.1	9.4	7.3	8.0	9.1	7.7	8.0
5	7.6	7.0	7.1	8.7	7.2	7.8	---	---	---	9.1	7.7	7.9
6	8.1	7.0	7.2	8.3	7.1	7.3	9.4	7.3	8.1	9.2	7.6	7.9
7	7.1	7.0	7.1	8.3	7.2	7.4	9.3	7.3	8.0	8.9	7.5	7.8
8	7.3	7.1	7.2	7.3	6.8	6.9	9.0	7.0	7.4	9.0	7.4	7.6
9	7.6	7.0	7.2	7.3	7.0	7.2	7.3	7.0	7.1	9.1	7.4	7.9
10	7.6	7.1	7.2	7.5	7.2	7.3	7.9	7.2	7.5	9.1	7.3	7.8
11	8.2	7.1	7.4	7.9	7.2	7.4	8.6	7.4	7.6	9.0	7.3	7.7
12	8.6	7.2	7.5	---	---	---	8.8	7.4	7.7	9.0	7.3	7.6
13	8.9	7.2	7.5	8.6	7.3	7.5	9.0	7.4	7.9	8.9	7.3	7.5
14	9.0	7.2	7.5	8.4	6.8	7.5	9.0	7.4	7.7	8.8	7.2	7.4
15	8.9	7.2	7.6	7.2	6.8	7.1	9.1	7.4	7.6	8.7	7.1	7.3
16	9.0	7.2	7.7	7.4	6.8	7.2	8.4	7.3	7.5	8.7	7.2	7.5
17	9.3	7.3	7.7	7.0	6.7	6.8	8.2	7.3	7.5	8.7	7.2	7.5
18	9.3	7.3	7.8	7.5	7.0	7.3	8.5	7.4	7.6	8.9	7.2	7.6
19	9.4	7.3	8.1	7.7	7.3	7.4	7.6	7.4	7.4	8.9	7.3	7.6
20	9.4	7.4	8.2	8.0	7.3	7.5	8.1	7.4	7.5	8.9	7.3	7.7
21	9.5	7.4	8.0	8.6	7.3	7.6	8.4	7.4	7.5	8.9	7.3	7.5
22	9.2	7.4	7.8	8.9	7.4	7.8	8.8	7.4	7.7	9.0	7.3	7.6
23	9.4	7.4	7.9	7.7	7.1	7.3	9.0	7.6	7.9	9.0	7.3	7.7
24	9.5	7.5	8.1	8.5	7.2	7.4	9.2	7.6	8.0	8.3	7.3	7.5
25	9.5	7.5	8.1	8.3	7.1	7.4	9.2	7.6	8.0	8.8	7.3	7.6
26	9.5	7.4	8.0	8.9	7.1	7.6	9.2	7.6	8.0	8.9	7.2	7.4
27	8.8	7.5	7.8	---	---	---	8.7	7.6	7.9	8.4	7.1	7.3
28	9.0	7.6	7.8	7.9	7.1	7.3	8.0	7.5	7.6	8.7	7.2	7.4
29	---	---	---	8.0	7.1	7.2	8.4	7.5	7.6	8.9	7.2	7.5
30	7.8	7.5	7.6	7.7	7.1	7.3	8.6	7.5	7.6	9.0	7.3	7.7
31	---	---	---	8.2	7.2	7.4	8.5	7.5	7.7	---	---	---
MAX	9.5	7.6	8.2	9.1	7.8	8.1	9.4	7.6	8.1	9.2	7.7	8.0
MIN	7.1	7.0	7.1	7.0	6.7	6.8	7.3	7.0	7.1	8.3	7.1	7.3
YEAR	MAX	MAXIMUM 9.5		MINIMUM 7.0								
	MIN	MAXIMUM 7.8		MINIMUM 6.7								
	MEDIAN	MAXIMUM 8.2		MINIMUM 6.8								



01649500 NORTHEAST BRANCH ANACOSTIA RIVER AT RIVERDALE, MD—Continued

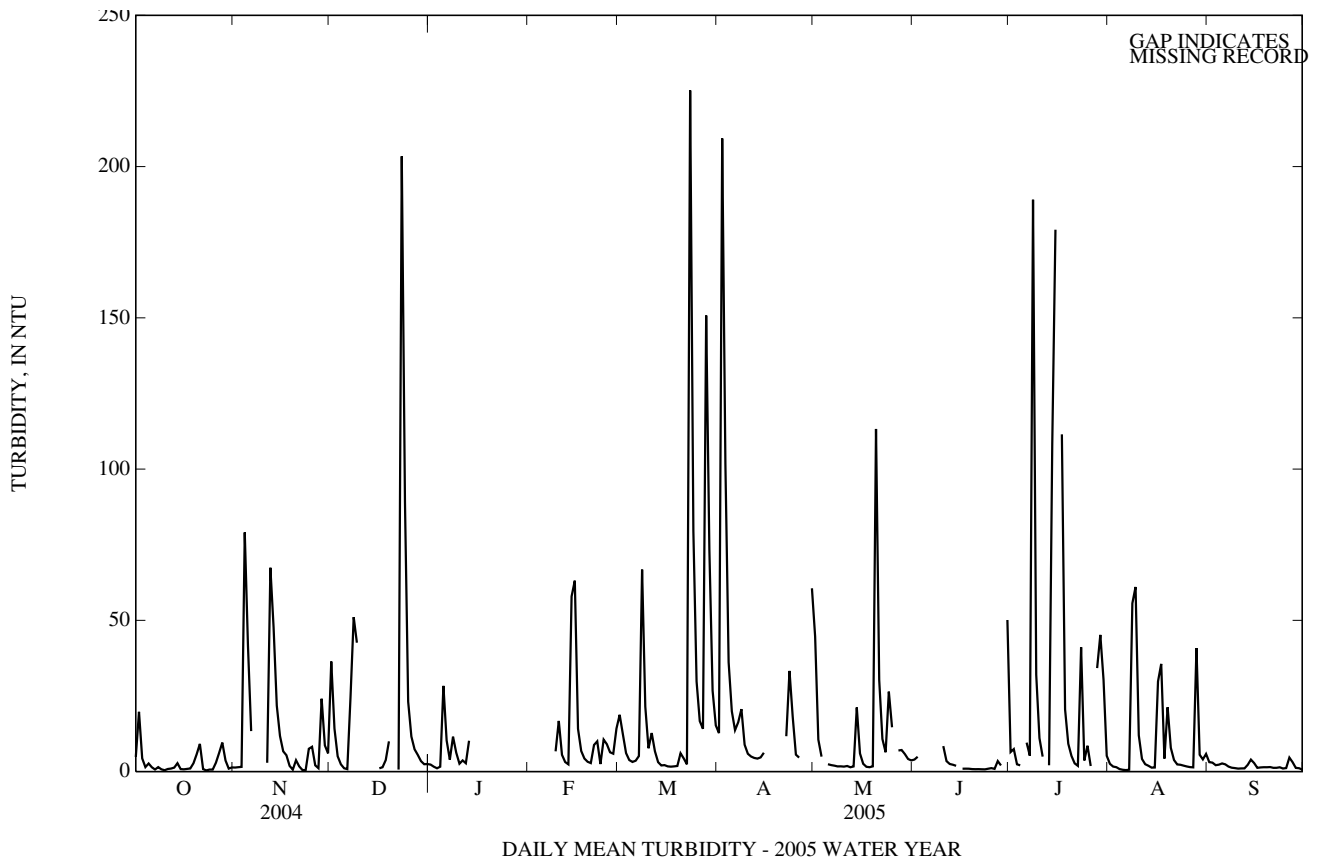
TURBIDITY, WATER, UNFILTERED, NEPHELOMETRIC TURBIDITY UNITS
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	15	3.0	4.8	6.8	0.2	1.3	61	4.8	36	3.4	1.6	2.3
2	82	2.3	20	14	0.0	1.5	24	8.0	14	2.3	1.0	1.6
3	7.5	2.3	4.4	4.3	0.0	1.6	8.0	3.0	5.1	2.4	0.8	1.1
4	2.5	0.6	1.5	230	1.3	79	3.9	1.4	2.4	5.4	0.9	1.6
5	5.7	0.8	2.7	92	20	42	1.6	0.6	1.1	96	1.8	28
6	3.6	0.5	1.4	21	7.7	13	11	0.4	0.8	18	5.3	10
7	1.6	0.0	0.7	---	---	---	470	0.4	24	5.5	2.6	4.0
8	13	0.0	1.5	22	2.1	7.0	320	15	51	22	2.3	12
9	7.8	0.0	0.8	---	---	---	310	9.0	43	11	3.5	6.3
10	0.6	0.1	0.5	---	---	---	---	---	---	3.8	1.7	2.6
11	1.2	0.4	0.9	10	1.0	2.9	---	---	---	62	0.9	3.7
12	1.3	0.7	1.0	150	2.4	67	---	---	---	8.9	1.3	2.8
13	36	0.3	1.3	93	24	48	---	---	---	95	1.3	10
14	52	0.0	2.8	42	13	22	---	---	---	---	---	---
15	7.8	0.0	0.8	20	7.6	12	---	---	---	---	---	---
16	2.0	0.0	0.7	10	4.8	6.7	2.1	0.7	1.1	---	---	---
17	2.5	0.0	0.9	11	1.9	5.4	2.6	0.4	1.4	---	---	---
18	2.1	0.1	1.0	2.8	1.0	1.9	25	0.2	3.8	---	---	---
19	50	0.2	2.8	12	0.2	0.7	190	0.8	10	---	---	---
20	62	0.2	5.7	33	0.3	3.8	---	---	---	---	---	---
21	24	2.1	9.2	5.3	0.7	1.7	---	---	---	---	---	---
22	2.2	0.0	0.8	1.2	0.1	0.5	1.3	0.3	0.7	---	---	---
23	0.8	0.0	0.4	2.1	0.0	0.5	980	0.4	200	---	---	---
24	4.4	0.0	0.7	96	0.2	7.5	260	33	89	---	---	---
25	0.9	0.2	0.7	16	3.0	8.2	35	15	23	---	---	---
26	10	0.0	2.9	3.6	1.4	2.1	16	8.1	12	---	---	---
27	14	0.1	6.2	4.2	0.5	1.1	10	5.3	7.4	---	---	---
28	52	0.4	9.6	94	3.1	24	7.4	4.2	5.5	---	---	---
29	14	0.0	3.7	16	5.4	8.7	4.8	2.4	3.5	---	---	---
30	7.5	0.1	1.0	9.9	4.2	6.0	3.6	1.9	2.4	---	---	---
31	14	0.0	1.4	---	---	---	3.3	1.8	2.5	---	---	---
MONTH	82	0.0	3.0	230	0.0	14	980	0.2	23	96	0.8	6.6
	FEBRUARY			MARCH			APRIL			MAY		
1	---	---	---	24	13	19	65	8.6	13	140	18	45
2	---	---	---	20	8.2	12	680	38	210	18	6.3	11
3	---	---	---	8.5	4.9	6.1	190	53	100	6.4	3.9	4.9
4	---	---	---	5.4	3.1	3.8	53	26	36	---	---	---
5	---	---	---	4.4	2.7	3.2	26	15	20	3.7	1.9	2.4
6	---	---	---	7.5	2.5	3.6	32	11	14	3.1	1.7	2.1
7	---	---	---	21	2.5	5.1	78	9.5	16	5.0	1.4	2.0
8	---	---	---	130	2.8	67	33	12	21	2.5	1.4	1.7
9	8.4	5.5	6.7	42	10	21	12	6.6	8.9	2.8	1.2	1.7
10	150	5.8	17	11	5.6	7.7	7.0	5.1	5.9	7.3	1.2	1.6
11	11	3.9	5.5	210	3.8	13	7.2	4.1	5.0	6.5	1.0	1.9
12	4.1	2.4	3.2	12	4.4	6.7	9.9	3.5	4.5	9.1	1.0	1.4
13	3.2	1.9	2.4	7.4	2.1	3.1	12	3.0	4.3	12	1.2	1.7
14	230	2.1	58	3.2	1.5	2.0	16	2.8	4.7	270	1.1	21
15	170	22	63	5.3	1.3	2.1	25	2.7	6.2	21	3.4	6.0
16	23	8.5	14	5.8	1.4	1.7	---	---	---	8.1	1.0	2.6
17	9.1	5.0	6.8	2.4	1.4	1.6	---	---	---	3.4	0.5	1.6
18	5.5	3.3	4.3	5.9	1.0	1.7	---	---	---	1.8	1.1	1.5
19	4.2	2.8	3.2	18	1.0	1.9	---	---	---	2.4	1.3	1.7
20	3.6	2.3	2.8	41	1.4	6.1	---	---	---	210	2.0	110
21	110	2.6	8.8	41	1.5	4.3	---	---	---	59	16	30
22	35	3.0	10	10	1.0	2.4	70	3.9	12	17	6.6	11
23	3.2	1.8	2.5	490	1.3	230	230	2.8	33	23	4.9	6.4
24	24	1.7	11	160	43	79	37	6.2	18	80	3.9	26
25	14	7.0	9.1	45	21	30	14	3.4	5.6	32	7.6	15
26	8.4	4.1	6.4	24	13	17	16	2.7	4.6	---	---	---
27	7.3	4.8	5.9	78	9.7	14	---	---	---	14	3.5	7.0
28	34	3.0	14	510	16	150	---	---	---	19	3.4	7.1
29	---	---	---	190	39	73	---	---	---	11	2.7	5.8
30	---	---	---	39	18	27	210	4.0	61	8.9	2.6	4.2
31	---	---	---	19	12	15	---	---	---	7.4	2.3	3.7
MONTH	230	1.7	13	510	1.0	27	680	2.7	29	270	0.5	12

POTOMAC RIVER BASIN

01649500 NORTHEAST BRANCH ANACOSTIA RIVER AT RIVERDALE, MD—Continued
 TURBIDITY, WATER, UNFILTERED, NEPHELOMETRIC TURBIDITY UNITS—CONTINUED
 WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	8.9	1.5	4.0	13	3.4	6.5	3.8	1.8	2.6	4.5	2.3	3.1
2	7.8	1.8	4.9	18	0.8	7.4	2.5	1.2	1.7	4.7	1.9	3.0
3	---	---	---	4.2	0.9	2.4	13	0.9	1.5	5.0	1.6	2.1
4	---	---	---	5.1	1.3	2.1	3.3	0.4	0.8	3.3	1.7	2.3
5	---	---	---	---	---	---	3.4	0.2	0.6	5.4	1.6	2.7
6	---	---	---	32	2.8	9.6	1.7	0.3	0.5	7.6	1.6	2.4
7	---	---	---	35	1.6	5.3	1.1	0.4	0.6	3.5	1.0	1.7
8	---	---	---	590	21	190	360	0.6	56	4.9	0.9	1.3
9	---	---	---	55	19	32	180	19	61	3.2	0.8	1.2
10	17	5.3	8.4	21	6.5	11	32	6.2	12	3.0	0.7	1.0
11	6.8	2.6	3.5	6.6	4.0	5.0	15	2.5	4.2	2.4	0.8	1.0
12	3.8	2.0	2.5	---	---	---	7.4	1.5	2.5	2.1	0.7	1.1
13	6.4	1.7	2.3	6.2	1.5	2.1	10	1.0	1.9	5.8	1.0	2.2
14	7.8	1.3	1.9	770	2.0	110	5.1	0.8	1.3	5.9	2.4	4.0
15	---	---	---	640	64	180	4.6	0.8	1.4	14	1.2	2.8
16	1.5	0.6	1.0	---	---	---	140	1.1	30	2.9	0.8	1.2
17	1.6	0.6	1.0	280	34	110	410	6.7	36	5.9	0.8	1.4
18	2.9	0.5	1.0	50	13	21	9.1	2.3	4.3	5.7	0.8	1.4
19	1.9	0.5	0.8	13	7.0	9.2	60	2.0	21	3.9	0.8	1.4
20	1.3	0.5	0.8	7.5	3.6	5.2	26	4.4	7.8	4.8	0.8	1.5
21	1.4	0.5	0.8	3.6	2.1	2.7	20	1.9	3.8	2.3	0.7	1.2
22	1.7	0.5	0.8	2.7	1.4	1.9	8.0	1.7	2.4	2.7	0.7	1.3
23	1.4	0.5	0.7	140	1.4	41	6.6	1.5	2.3	5.7	0.5	1.4
24	2.8	0.6	0.9	6.4	2.4	3.7	4.4	1.2	2.0	6.4	0.6	1.0
25	3.0	0.7	1.1	70	2.6	8.5	4.2	1.1	1.7	5.2	0.6	1.2
26	2.5	0.4	0.9	2.8	1.2	1.8	2.8	1.0	1.5	69	0.7	4.6
27	79	0.5	3.5	---	---	---	4.7	0.9	1.4	6.3	1.6	3.1
28	5.4	1.1	2.0	130	11	34	230	1.5	41	2.4	0.5	1.2
29	---	---	---	250	4.8	45	8.4	3.1	5.6	2.4	0.5	1.1
30	200	12	50	100	8.7	30	6.4	2.9	4.0	1.6	0.4	0.7
31	---	---	---	9.3	3.2	5.2	19	2.9	5.8	---	---	---
MONTH	200	0.4	4.4	770	0.8	33	410	0.2	10	69	0.4	1.9
YEAR	980	0.0	15									



01649500 NORTHEAST BRANCH ANACOSTIA RIVER AT RIVERDALE, MD—Continued



Photo by U.S. Geological Survey personnel

01649500 NORTHEAST BRANCH ANACOSTIA RIVER AT RIVERDALE, MD

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 mi².

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, missing record), which are fair. 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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec 23	1645	772	5.91	Apr 3	0115	810	6.08
Jan 14	1000	*1,950	*9.13	Jul 8	0630	966	6.68
Mar 23	1600	770	5.90	Jul 23	0130	674	5.46
Apr 2	1700	1,490	8.27				

Minimum discharge, 1.4 ft³/s, Sept. 29, 30.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.2	6.5	58	e13	e8.0	24	25	48	12	9.6	15	4.0
2	12	7.4	23	e12	e8.6	22	583	25	11	8.1	8.7	3.8
3	6.6	7.8	17	e13	e9.0	17	232	21	34	6.2	7.5	3.7
4	5.5	78	14	e14	e12	16	45	19	20	5.8	6.5	3.4
5	5.2	28	13	25	21	15	32	19	15	5.5	5.8	3.2
6	5.1	10	13	19	25	15	27	18	37	6.3	5.4	3.2
7	4.9	8.6	22	15	24	15	25	18	47	7.1	5.4	3.2
8	4.5	8.4	23	26	23	56	35	17	17	311	10	3.2
9	4.4	8.1	51	e18	23	25	26	15	13	e24	39	3.0
10	4.6	8.3	87	e15	26	18	25	15	13	e11	13	3.0
11	5.4	8.2	38	14	e16	17	23	14	12	e8.0	8.2	3.0
12	4.7	157	21	e14	e15	16	23	13	11	e6.8	6.3	2.9
13	4.4	64	17	e15	e13	15	21	12	9.8	e6.4	5.5	2.7
14	4.7	16	15	691	e30	15	20	12	9.7	e14	5.0	2.7
15	5.7	12	14	49	42	14	20	15	9.0	e142	5.0	3.1
16	6.5	11	13	26	22	13	19	12	7.8	e87	17	3.2
17	5.0	10	12	19	20	12	19	11	6.8	e48	9.7	2.9
18	4.8	9.2	12	16	18	12	18	11	6.3	e15	5.9	2.6
19	7.2	8.8	12	e14	15	12	18	11	6.3	17	16	2.4
20	9.0	10	13	e12	e13	12	17	136	6.3	10	8.8	2.3
21	16	10	11	e11	e11	12	17	30	6.3	11	6.7	2.3
22	7.2	8.4	10	e19	e10	12	21	18	6.7	8.9	5.5	2.0
23	6.3	8.4	212	e13	e8.7	328	44	17	7.9	100	4.7	1.9
24	6.6	13	60	e11	e12	69	32	60	6.2	11	4.5	1.9
25	6.6	19	24	e10	17	32	22	46	5.5	13	4.4	2.0
26	6.3	11	19	e14	16	26	20	22	5.4	8.4	4.4	3.1
27	6.1	9.1	15	e9.7	16	24	20	18	5.3	23	4.5	3.9
28	5.9	26	19	e8.6	17	267	18	16	5.3	13	5.9	2.4
29	5.8	15	15	e8.3	---	80	16	16	34	71	4.8	2.0
30	6.2	13	e14	e10	---	34	86	16	32	27	4.6	1.6
31	6.1	---	e14	e8.7	---	27	---	16	---	32	4.5	---
TOTAL	195.5	610.2	901	1,163.3	491.3	1,272	1,549	737	418.6	1,067.1	258.2	84.6
MEAN	6.31	20.3	29.1	37.5	17.5	41.0	51.6	23.8	14.0	34.4	8.33	2.82
MAX	16	157	212	691	42	328	583	136	47	311	39	4.0
MIN	4.4	6.5	10	8.3	8.0	12	16	11	5.3	5.5	4.4	1.6
CFSM	0.30	0.96	1.38	1.78	0.83	1.94	2.45	1.13	0.66	1.63	0.39	0.13
IN.	0.34	1.08	1.59	2.05	0.87	2.24	2.73	1.30	0.74	1.88	0.46	0.15

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1924 - 1983, 1988 - 2005, BY WATER YEAR (WY)

MEAN	14.5	19.3	22.7	26.6	33.3	32.8	30.4	24.3	20.8	15.7	16.3	17.5
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 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1924 - 1983, 1988 - 2005	
	ANNUAL TOTAL	9,242.1		8,747.8		
ANNUAL MEAN	25.3		24.0		22.7	
HIGHEST ANNUAL MEAN					45.7	
LOWEST ANNUAL MEAN					8.45	
HIGHEST DAILY MEAN	264	Feb 6	691	Jan 14	2,370	Jun 22, 1972
LOWEST DAILY MEAN	4.4	(a)	1.6	Sep 30	0.00	(b)
ANNUAL SEVEN-DAY MINIMUM	4.7	Oct 8	2.1	Sep 19	0.00	Sep 5, 1966
MAXIMUM PEAK FLOW			1,950	Jan 14	(c)11,000	Jun 22, 1972
MAXIMUM PEAK STAGE			9.13	Jan 14	15.89	Jun 22, 1972
INSTANTANEOUS LOW FLOW			1.4	(d)	0.00	(f)
ANNUAL RUNOFF (CFSM)	1.20		1.14		1.08	
ANNUAL RUNOFF (INCHES)	16.29		15.42		14.62	
10 PERCENT EXCEEDS	46		34		37	
50 PERCENT EXCEEDS	17		13		14	
90 PERCENT EXCEEDS	5.8		4.5		4.7	

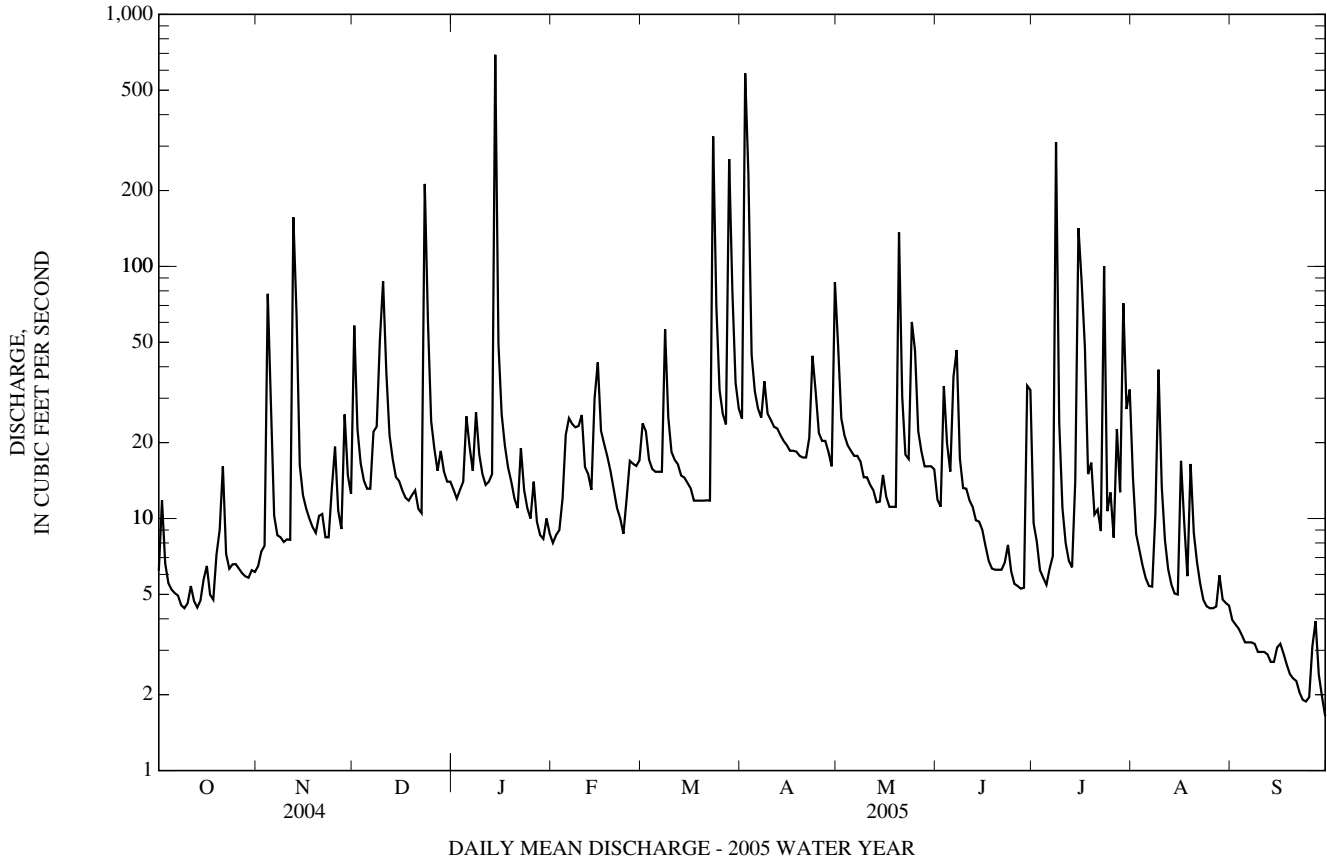
a July 21, Sept. 13, Oct. 9, 13.

b Aug. 30, 31, Sept. 1, 3, 5-11, 1966, July 27-31, Aug. 1-12, 19, 20, 1999, Aug. 21-23, 2002.

c From rating curve extended above 1,200 ft³/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.

d Sept. 29, 30.

f Aug. 29-31, Sept. 1-12, 1966, July 18, 19, 24-31, Aug. 1-14, 18-20, 1999, Aug. 20-24, 2002.



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 mi².

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 (power failure), 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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan 14	0900	3,170	5.27	Jun 6	2345	3,720	5.58
Mar 23	1515	1,840	4.39	Jul 8	0700	3,690	5.56
Apr 2	1300	2,850	5.08	Jul 15	1530	*5,000	*6.20

Minimum discharge, 5.1 ft³/s, Sept. 25.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	14	134	27	33	78	56	130	25	25	30	9.4
2	57	15	46	25	29	49	1,210	48	22	67	24	8.5
3	22	e14	27	26	30	33	509	39	114	19	21	7.9
4	16	e210	23	27	35	30	113	35	42	16	18	7.5
5	14	100	21	81	42	31	79	35	27	21	16	7.5
6	12	25	21	40	46	31	70	35	150	27	19	7.7
7	12	18	74	30	43	32	63	35	271	22	19	7.9
8	12	16	81	85	41	167	94	32	41	936	80	7.6
9	11	15	116	43	43	58	56	30	38	69	84	7.6
10	11	e16	198	30	55	38	49	29	32	31	41	7.3
11	11	e17	94	28	34	36	47	28	26	23	21	7.1
12	13	e240	46	28	29	34	45	27	22	20	e17	7.4
13	12	e150	34	30	28	30	44	25	19	19	e14	7.3
14	14	e44	29	1,370	85	28	43	52	19	40	e13	7.2
15	14	e34	27	132	90	27	42	39	20	418	e13	10
16	18	24	25	66	41	27	40	25	16	251	28	7.0
17	17	21	25	49	34	27	40	23	15	141	31	7.0
18	14	20	24	37	29	26	40	23	14	42	15	6.6
19	17	20	29	36	27	26	40	22	13	43	58	6.8
20	31	25	30	40	26	30	39	521	14	27	26	6.7
21	60	26	24	35	32	28	50	87	14	23	17	7.1
22	22	20	23	27	31	27	67	39	14	29	13	6.9
23	15	19	401	37	27	808	81	32	17	292	11	6.2
24	16	38	158	34	47	170	75	124	16	34	10	7.7
25	15	58	51	35	53	72	40	97	14	34	9.9	5.6
26	e16	28	37	39	39	54	35	41	14	25	10	8.6
27	e14	21	32	34	36	49	32	31	16	112	11	14
28	e15	62	29	27	51	600	30	26	17	70	30	8.5
29	13	30	31	27	---	212	30	27	93	92	13	7.0
30	e16	22	28	46	---	77	236	27	97	68	11	6.4
31	e15	---	27	40	---	57	---	34	---	51	10	---
TOTAL	568	1,362	1,945	2,611	1,136	2,992	3,395	1,798	1,252	3,087	733.9	230.0
MEAN	18.3	45.4	62.7	84.2	40.6	96.5	113	58.0	41.7	99.6	23.7	7.67
MAX	60	240	401	1,370	90	808	1,210	521	271	936	84	14
MIN	11	14	21	25	26	26	30	22	13	16	9.9	5.6
CFSM	0.37	0.92	1.27	1.70	0.82	1.95	2.29	1.17	0.84	2.02	0.48	0.16
IN.	0.43	1.03	1.46	1.97	0.86	2.25	2.56	1.35	0.94	2.32	0.55	0.17

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 2005, BY WATER YEAR (WY)

MEAN	29.7	42.5	51.1	55.4	64.6	72.9	62.5	56.2	44.7	37.5	37.5	40.5
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)

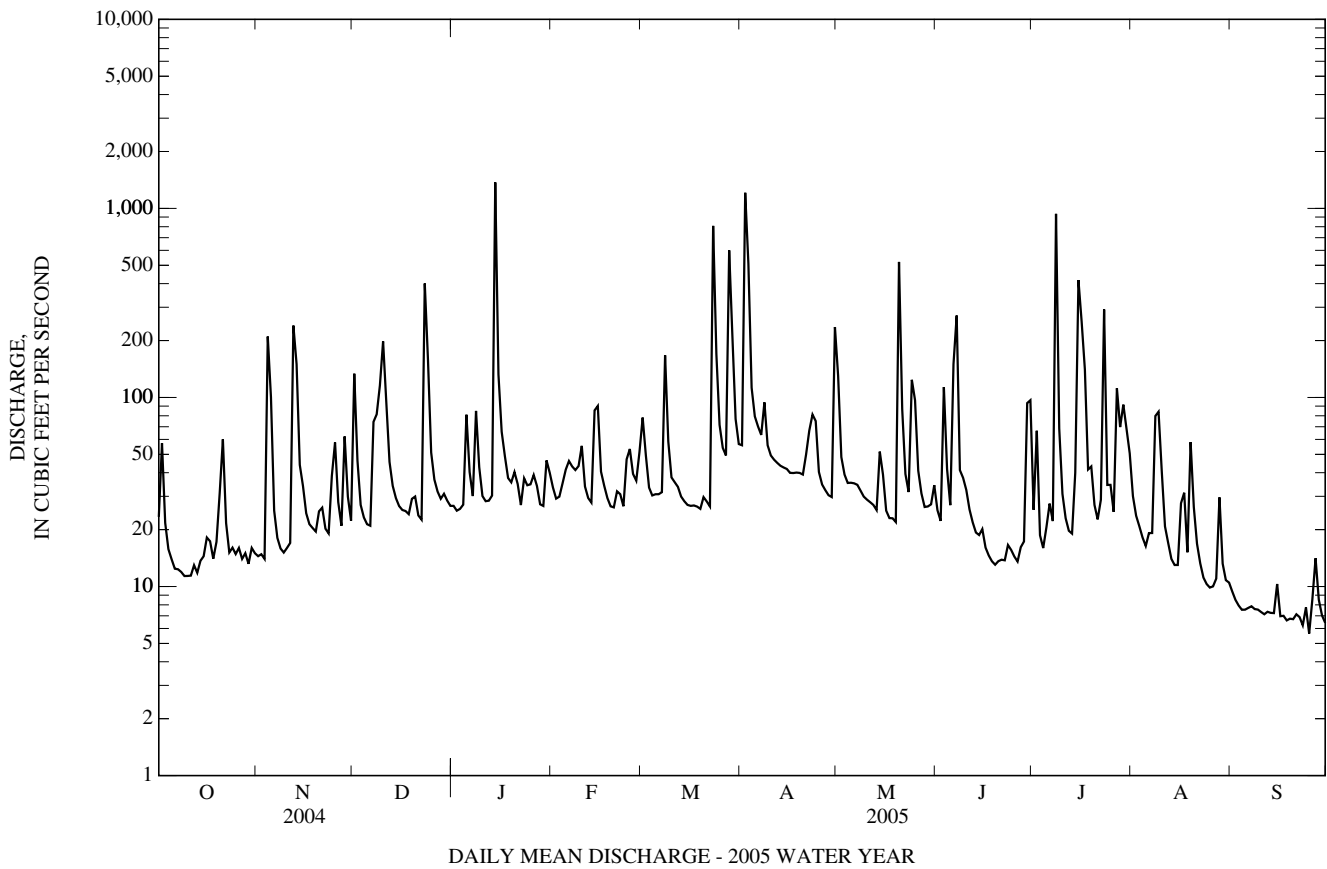
01651000 NORTHWEST BRANCH ANACOSTIA RIVER NEAR HYATTSVILLE, MD—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1938 - 2005	
ANNUAL TOTAL	22,443		21,109.9			
ANNUAL MEAN	61.3		57.8		49.6	
HIGHEST ANNUAL MEAN					97.2	2003
LOWEST ANNUAL MEAN					20.8	1947
HIGHEST DAILY MEAN	1,120	Jul 27	1,370	Jan 14	5,050	Sep 26, 1975
LOWEST DAILY MEAN	11	(a)	5.6	Sep 25	0.40	(b)
ANNUAL SEVEN-DAY MINIMUM	12	Oct 6	6.7	Sep 19	0.60	Sep 7, 1966
MAXIMUM PEAK FLOW			5,000	Jul 15	(c)18,000	Jun 22, 1972
MAXIMUM PEAK STAGE			6.20	Jul 15	14.47	Jun 22, 1972
INSTANTANEOUS LOW FLOW			5.1	Sep 25	0.20	Sep 11, 1966
ANNUAL RUNOFF (CFSM)	1.24		1.17		1.00	
ANNUAL RUNOFF (INCHES)	16.90		15.90		13.64	
10 PERCENT EXCEEDS	99		93		95	
50 PERCENT EXCEEDS	36		29		24	
90 PERCENT EXCEEDS	14		11		6.8	

a Sept. 13, 25-27, Oct. 9-11.

b Sept. 8, 11, 1966.

c From rating curve extended above 4,000 ft³/s on basis of the average of slope-area and step-backwater measurements of peak flow.



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--

DISSOLVED OXYGEN: October 2004 to September 2005.
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. Organics data for this period available from George Mason University.

EXTREMES FOR PERIOD OF DAILY RECORD--

DISSOLVED OXYGEN: Maximum, 19.3 mg/L, Apr. 17, 2005; minimum, 4.0 mg/L, Sept. 17-18, 2005.
SPECIFIC CONDUCTANCE: Maximum, 6,960 microsiemens/cm, on several days; minimum, 57 microsiemens/cm, July 27, 2004.
WATER TEMPERATURE: Maximum, 30.5°C, July 27, 2005; minimum, 0.0°C, on several days.
pH: Maximum, 9.4 standard units, on several days; minimum, 6.7 standard units, July 28, 2004.
TURBIDITY: Maximum, 880 FNU, Jan. 14, 2005; minimum, 0.0 FNU, on many days.

EXTREMES FOR CURRENT YEAR--

DISSOLVED OXYGEN: Maximum, 19.3 mg/L, Apr. 17, 2005; minimum, 4.0 mg/L, Sept. 17, 18, 2005.
SPECIFIC CONDUCTANCE: Maximum, 6,960 microsiemens/cm, Feb. 26, Mar. 2, 2005; minimum, 75 microsiemens/cm, July 8, 2005.
WATER TEMPERATURE: Maximum, 30.5°C, July 27, 2005; minimum, 0.0°C, on several days.
pH: Maximum, 9.4 standard units, Sept. 2, 17, 19, 22, 2005; minimum, 6.9 standard units, May 15, 16, June 10, 2005.
TURBIDITY: Maximum, 880 FNU, Jan. 14, 2005; minimum, 0.0 FNU, on many days.

01651000 NORTHWEST BRANCH ANACOSTIA RIVER NEAR HYATTSVILLE, MD—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

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)	Specific conductance, wat unfltrd uS/cm 25 degC (00095)
OCT												
14...	1225	Blank	1028	80020	--	--	--	--	--	--	--	--
14...	1230	Environmental	1028	80020	14	10	4.3	749	10.8	109	8.0	353
NOV												
16...	1310	Blank	1028	9724	--	--	--	--	--	--	--	--
16...	1315	Environmental	1028	80020	24	10	23	774	11.2	79	7.4	291
DEC												
07...	1045	Environmental	1028	80020	130	10	32	756	--	--	6.3	264
07...	1047	Replicate	1028	80020	--	10	--	--	--	--	--	--
07...	1050	Replicate	1028	80020	--	10	--	--	--	--	--	--
JAN												
11...	1110	Blank	1028	80020	--	--	--	--	--	--	--	--
11...	1111	Blank	1028	80020	--	--	--	--	--	--	--	--
11...	1115	Environmental	1028	80020	29	10	4.4	773	11.6	92	7.5	311
11...	1116	Replicate	1028	80020	--	10	--	--	--	--	--	--
FEB												
08...	1300	Environmental	1028	80020	40	50	20	--	15.8	--	7.6	827
08...	1305	Replicate	1028	80020	--	50	--	--	--	--	--	--
MAR												
09...	1245	Environmental	1028	80020	50	10	17	765	13.4	101	7.6	1,020
09...	1250	Replicate	1028	80020	--	10	--	--	--	--	--	--
23...	0630	Environmental	1028	80020	459	50	78	--	11.2	--	7.5	458
23...	0930	Environmental	1028	80020	790	50	210	--	11.9	--	7.6	330
23...	1130	Environmental	1028	80020	1,110	50	240	--	12.0	--	--	305
23...	1400	Environmental	1028	80020	1,790	50	310	--	12.0	--	--	272
23...	1401	Replicate	1028	80020	--	10	320	--	11.5	--	7.4	256
23...	1402	Replicate	1028	82105	--	10	--	--	--	--	--	--
23...	1403	Replicate	1028	82105	--	10	--	--	--	--	--	--
23...	1404	Replicate	1028	82105	--	10	--	--	--	--	--	--
23...	1405	Replicate	1028	82105	--	10	--	--	--	--	--	--
23...	1406	Replicate	1028	80020	--	10	--	--	--	--	--	--
23...	1930	Environmental	1028	80020	1,060	50	440	--	12.3	--	--	261
23...	2330	Environmental	1028	80020	476	50	760	--	12.2	--	--	271
28...	1215	Environmental	1028	80020	1,230	50	220	--	11.7	--	7.6	211
28...	1217	Replicate	1028	82105	--	50	--	--	--	--	--	--
28...	1845	Environmental	1028	80020	1,440	50	370	--	--	--	7.5	187
29...	1315	Environmental	1028	80020	152	50	87	--	--	--	7.3	279
29...	1317	Replicate	1028	82105	--	50	--	--	--	--	--	--
APR												
02...	1315	Environmental	1028	80020	2,850	50	550	--	10.2	--	7.5	140
02...	1316	Replicate	1028	80020	--	50	--	--	--	--	--	--
12...	1245	Environmental	1028	80020	44	10	4.3	766	13.0	125	8.3	370
MAY												
03...	0900	Replicate	1028	80020	--	50	8.9	--	12.5	--	--	350
03...	0930	Environmental	1028	80020	39	10	E1.0	763	11.5	106	7.6	351
03...	1800	Environmental	1028	80020	37	50	8.1	E770	14.7	--	--	354
20...	1000	Environmental	1028	80020	1,110	50	120	--	10.3	--	7.4	123
20...	1005	Replicate	1028	80020	--	50	--	--	--	--	--	--
20...	1200	Environmental	1028	80020	1,410	50	130	--	10.6	--	7.3	114
JUN												
15...	1145	Environmental	1028	80020	25	10	.8	755	9.8	124	7.7	384
JUL												
06...	1030	Environmental	1028	80020	21	70	7.2	--	--	--	7.3	308
08...	0545	Environmental	1028	80020	2,180	50	190	--	8.8	--	7.4	75
08...	0700	Environmental	1028	80020	3,690	50	350	--	8.7	--	7.2	87
08...	0800	Environmental	1028	80020	2,660	50	E370	--	8.8	--	7.1	77
08...	0845	Environmental	1028	80020	1,980	50	460	--	8.8	--	7.1	86
08...	1400	Environmental	1028	80020	814	50	420	--	9.0	--	7.1	99
15...	1445	Environmental	1028	80020	2,870	50	420	--	8.0	--	7.4	99
15...	1545	Environmental	1028	80020	3,950	50	330	--	8.0	--	7.5	83
AUG												
24...	0940	Blank	1028	80020	--	--	--	--	--	--	--	--
24...	0945	Environmental	1028	80020	10	10	3.6	768	11.1	129	7.5	358
SEP												
29...	1000	Environmental	1028	9724	6.7	70	1.9	--	7.8	--	--	417

Agency collecting sample: 1028 - U.S. Geological Survey

Agency analyzing sample: 80020 - USGS-National Water Quality Lab, Denver, CO

82105 - USGS-Kentucky Sediment Laboratory

9724 - Maryland Department of Health and Mental Hygiene Lab, Baltimore, MD

Sampling method: 10 - Equal width increments (EWI)

50 - Point sample-automatic sampler

70 - Grab sample

01651000 NORTHWEST BRANCH ANACOSTIA RIVER NEAR HYATTSVILLE, MD—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Total nitrogen, wat flt by analysis, mg/L (62854)	Total nitrogen, wat unf by analysis, mg/L (62855)	Total nitrogen, water, fltrd, mg/L (00602)	Total nitrogen, water, unfltrd mg/L (00600)	Ortho-phosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, fltrd, mg/L (00666)	Phosphorus, water, unfltrd mg/L (00665)	Organic carbon, water, unfltrd mg/L (00680)	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Enterococci, Defined Substr. Tech., water, MPN (99601)	E coli, Defined Substr. Tech., MPN/100 mL (50468)	Aluminum, water, fltrd, ug/L (01106)	Aluminum, water, unfltrd recoverable, ug/L (01105)
OCT 14...	--	--	--	--	<.006	E.002	<.004	<.4	--	--	--	M	E2
14...	--	--	--	--	--	--	--	2.3	<2.0	10	390	18	107
NOV 16...	--	--	--	--	--	--	--	--	--	<10	<10	--	--
16...	--	--	1.3	1.4	.006	.012	.055	5.0	<2.0	40	1,100	10	322
DEC 07...	--	--	1.5	1.8	.024	.036	.099	9.0	5.0	1,900	3,400	12	512
07...	--	--	1.5	1.7	.022	.035	.079	8.0	5.1	1,600	4,900	12	514
07...	1.43	1.68	--	--	--	.03	.09	--	--	--	--	--	--
JAN 11...	--	--	--	--	<.006	<.004	<.004	<.4	3.4	<10	<10	E1	E1
11...	<.06	<.06	--	--	--	<.02	<.02	--	--	--	--	--	--
11...	--	--	1.7	1.7	.009	.013	.028	3.3	3.8	10	90	17	88
11...	1.78	1.68	--	--	--	E.01	E.01	--	--	--	--	--	--
FEB 08...	--	--	1.9	1.9	E.003	.007	.033	--	--	--	--	4	211
08...	1.88	1.89	--	--	--	<.02	.03	--	--	--	--	--	--
MAR 09...	--	--	1.6	1.7	<.006	.011	.048	5.2	2.9	90	2,800	16	318
09...	1.55	1.68	--	--	--	E.01	.03	--	--	--	--	--	--
23...	--	--	1.9	3.5	.018	.030	.33	--	--	--	--	19	1,830
23...	--	--	1.4	3.8	.019	.031	.45	--	--	--	--	69	4,960
23...	--	--	1.4	3.6	.017	.034	.46	--	--	--	--	59	5,190
23...	--	--	--	--	--	--	--	--	--	--	--	--	5,580
23...	--	--	1.5	3.2	.025	.049	.42	26.1	--	--	--	52	7,740
23...	--	--	--	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--	--	--	--
23...	1.31	2.66	--	--	--	.04	.58	--	--	--	--	--	--
23...	--	--	1.6	3.3	.018	.036	.41	--	--	--	--	220	8,820
23...	--	--	1.7	3.3	.013	.029	.43	--	--	--	--	128	8,870
28...	--	--	1.1	3.0	.028	.040	.50	--	--	--	--	28	4,720
28...	--	--	--	--	--	--	--	--	--	--	--	--	--
28...	--	--	1.2	3.6	.027	.043	.60	--	--	--	--	75	9,190
29...	--	--	1.5	2.0	.010	.022	.172	--	3.0	460	860	39	1,990
29...	--	--	--	--	--	--	--	--	--	--	--	--	--
APR 02...	--	--	.81	5.5	.017	.032	.93	--	--	--	--	34	9,980
02...	--	--	.80	5.7	.019	.032	.91	--	--	--	--	33	9,850
12...	--	--	1.4	1.5	<.006	.005	.015	2.5	<2.0	<10	310	22	53
MAY 03...	--	--	1.4	1.3	<.006	.011	.026	--	<2.0	30	170	21	73
03...	--	--	1.4	1.3	<.006	.011	.024	4.7	<2.0	40	70	22	66
03...	--	--	1.5	1.4	<.006	.011	.025	--	<2.0	--	--	27	71
20...	--	--	.89	2.6	.013	.029	.35	--	--	--	--	30	2,930
20...	.85	2.38	--	--	--	.03	.41	--	--	--	--	--	--
20...	--	--	1.0	2.6	.006	.026	.36	--	--	--	--	53	--
JUN 15...	--	--	1.3	1.3	<.006	.015	.023	4.8	<2.0	50	450	23	--
JUL 06...	--	--	--	--	--	--	--	8.8	3.5	700	>2,000	--	--
08...	--	--	--	--	--	--	--	--	--	--	--	59	4,330
08...	--	--	.79	2.4	.027	.047	.63	--	--	--	--	85	8,720
08...	--	--	.82	3.2	.025	.045	.55	--	--	--	--	98	7,980
08...	--	--	.90	3.7	.020	.040	.58	--	--	--	--	105	10,000
08...	--	--	.94	2.6	.018	.041	.48	--	--	--	--	141	8,170
15...	--	--	1.3	3.9	.016	.034	.86	--	--	--	--	58	10,300
15...	--	--	1.1	3.0	.034	.057	.57	--	--	--	--	57	8,110
AUG 24...	--	--	--	--	<.006	<.004	<.004	<.4	<2.0	<10	<10	<2	<2
24...	--	--	1.2	1.3	.008	.021	.04	3.4	<2.0	30	270	21	89
SEP 29...	--	--	--	--	--	--	--	--	<2.0	70	310	--	--

01651000 NORTHWEST BRANCH ANACOSTIA RIVER NEAR HYATTSVILLE, MD—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—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)	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 <.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											
14...	<.06	<.2	<.2	.29	<.16	<.6	E1	--	<1	--	--
14...	.62	50.9	52	2.16	2.89	2.8	5	--	3	.11	3045
NOV											
16...	--	--	--	--	--	--	--	--	--	--	--
16...	2.19	96.3	100	4.48	4.21	2.8	7	--	--	--	3045
DEC											
07...	4.83	79.2	122	2.54	4.50	6.9	22	--	41	14	3045
07...	4.91	79.3	121	2.34	4.54	6.8	22	--	42	--	3045
07...	--	--	--	--	--	--	--	--	--	--	3045
JAN											
11...	E.06	<.2	M	<.06	E.08	<.6	E1	--	<1	--	--
11...	--	--	--	--	--	--	--	--	--	--	--
11...	.30	108	101	3.46	3.24	4.8	6	--	4	.31	3045
11...	--	--	--	--	--	--	--	--	--	--	3045
FEB											
08...	.60	12.7	145	.66	4.17	1.8	13	--	6	.65	8010
08...	--	--	--	--	--	--	--	--	--	--	8010
MAR											
09...	1.19	124	133	3.33	4.61	6.5	13	--	15	2.0	3045
09...	--	--	--	--	--	--	--	--	--	--	3045
23...	22.9	64.0	314	3.49	14.3	13.5	100	--	201	249	8010
23...	45.1	61.4	592	2.64	28.3	16.4	164	--	471	1,000	8010
23...	39.9	59.6	593	3.01	24.7	20.9	143	--	480	1,440	8010
23...	33.2	--	531	--	22.0	--	121	70	670	3,240	8010
23...	44.8	62.5	732	2.95	30.3	5.3	149	26	2,100	--	3051
23...	--	--	--	--	--	--	--	56	881	--	3051
23...	--	--	--	--	--	--	--	68	798	--	3051
23...	--	--	--	--	--	--	--	51	976	--	3051
23...	--	--	--	--	--	--	--	40	1,350	--	3051
23...	--	--	--	--	--	--	--	--	--	--	3051
23...	27.1	82.0	745	4.23	24.1	9.8	79	81	874	2,500	8010
23...	22.2	62.9	682	3.90	21.5	5.9	70	--	725	932	8010
28...	45.0	20.7	347	1.87	20.3	10.9	143	--	556	1,850	8010
28...	--	--	--	--	--	--	--	--	497	--	8010
28...	51.0	26.1	714	2.74	29.3	17.8	147	76	989	3,850	8010
29...	4.85	46.1	122	3.02	6.48	5.4	21	--	81	33	8010
29...	--	--	--	--	--	--	--	--	109	--	8010
APR											
02...	150	14.9	653	1.75	46.2	13.6	377	63	1,700	13,100	8010
02...	142	15.4	644	1.66	45.7	13.3	385	--	--	--	8010
12...	.21	73.2	83	2.45	2.42	2.6	3	--	2	.24	3045
MAY											
03...	.37	84.2	86	2.45	3.36	8.2	10	--	2	--	8010
03...	.29	78.1	81	2.48	3.37	6.0	8	--	3	.32	3045
03...	.41	61.5	75	2.78	2.91	3.6	6	--	3	.30	8010
20...	28.0	5.5	453	2.08	15.4	7.2	101	57	423	1,270	8010
20...	--	--	--	--	--	--	--	--	--	--	8010
20...	24.2	11.5	512	2.81	16.7	17.6	91	--	--	--	8010
JUN											
15...	--	62.0	--	3.00	--	4.5	--	--	3	.20	3045
JUL											
06...	--	--	--	--	--	--	--	--	7	.40	3070
08...	56.6	6.8	599	1.97	23.4	9.0	158	57	623	3,670	8010
08...	63.9	19.5	1,160	2.29	34.7	6.1	154	62	1,020	10,200	8010
08...	45.3	30.1	1,030	2.70	29.7	8.8	118	--	844	6,060	8010
08...	47.8	36.9	1,150	2.90	32.4	7.4	121	78	1,040	5,560	8010
08...	24.1	32.8	782	3.23	21.4	3.3	62	87	761	1,670	8010
15...	114	3.8	1,090	2.42	57.8	10.5	293	53	1,460	11,300	8010
15...	94.7	2.3	773	1.84	43.3	4.3	183	59	992	10,600	8010
AUG											
24...	<.06	<.2	M	<.06	<.16	E.4	5	--	--	--	--
24...	.46	72.4	75	2.65	3.11	2.6	5	--	4	.11	3045
SEP											
29...	--	--	--	--	--	--	--	--	--	--	3070

Remark codes used in this table:

< -- Less than.

> -- Greater than.

E -- Estimated.

M-- Presence verified but not quantified.

Sampler type: 8010 - Other-automatic sampler
3051 - US DH-95 Teflon bottle

3045 - US DH-81 Teflon cap and nozzle
3070 - Grab sample

01651000 NORTHWEST BRANCH ANACOSTIA RIVER NEAR HYATTSVILLE, MD—Continued

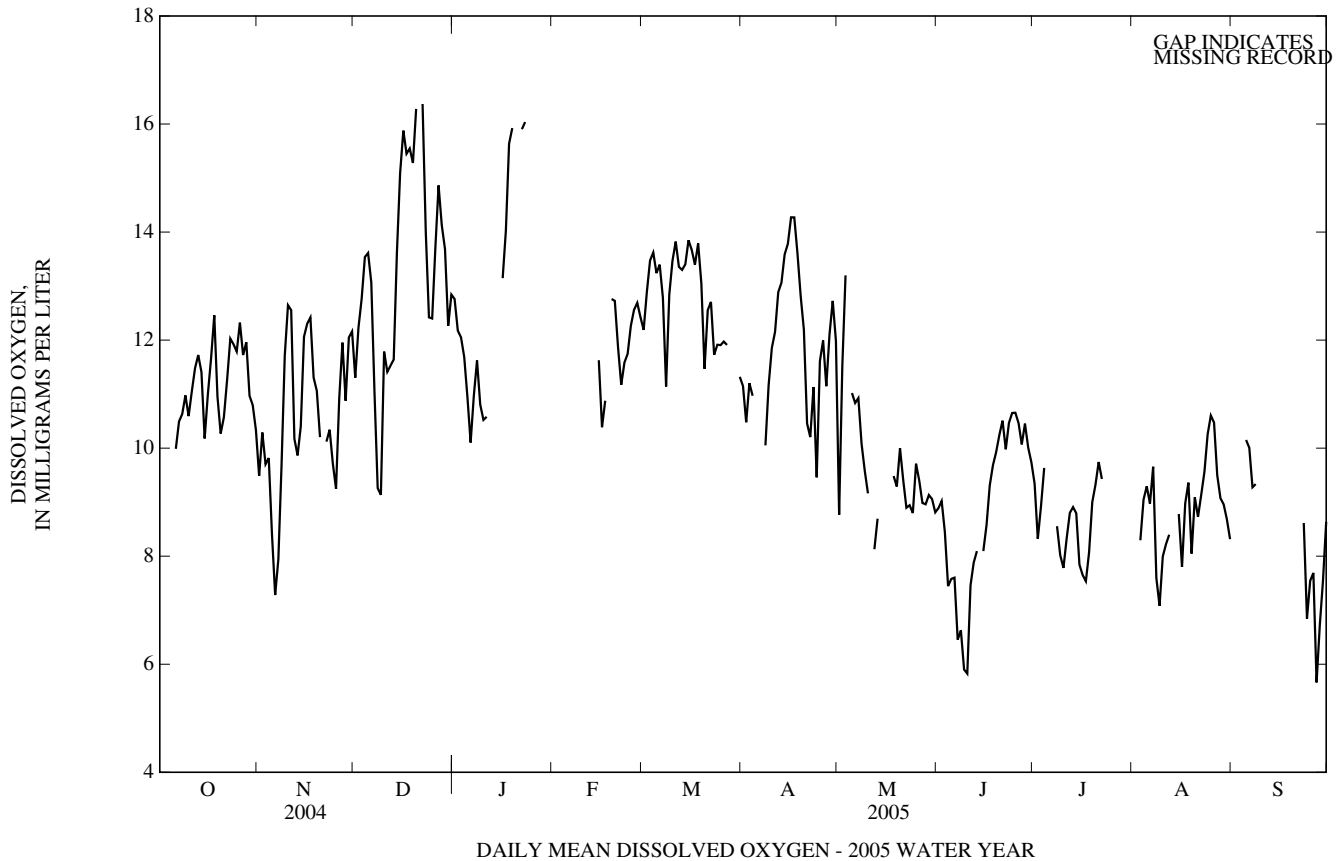
DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	12.7	7.1	9.5	11.9	10.7	11.3	13.6	11.3	12.8
2	---	---	---	14.0	7.8	10.3	12.5	11.8	12.2	12.8	11.4	12.2
3	---	---	---	13.1	7.8	9.7	13.2	12.2	12.8	13.0	11.0	12.1
4	---	---	---	11.6	8.0	9.8	14.0	13.0	13.5	12.3	11.1	11.7
5	---	---	---	11.1	5.9	8.4	14.1	13.1	13.6	11.6	9.9	10.9
6	11.5	8.9	10	8.6	6.2	7.3	13.5	12.4	13.1	11.6	8.0	10.1
7	12.4	9.4	10.5	9.4	6.5	7.9	12.4	9.9	11.0	11.8	9.7	11.0
8	13.1	9.3	10.6	11.2	7.5	9.7	10.1	7.9	9.3	12.0	10.9	11.6
9	14.2	8.9	11.0	12.7	10.4	11.7	12.2	7.3	9.1	12.2	9.8	10.8
10	13.8	8.8	10.6	13.8	11.7	12.6	12.4	11.1	11.8	11.3	9.1	10.5
11	15.0	8.9	11.1	13.5	11.5	12.6	11.7	10.6	11.4	11.2	10.0	10.6
12	14.3	9.5	11.5	12.2	7.6	10.2	12.2	10.9	11.5	---	---	---
13	15.3	9.7	11.7	11.6	9.0	9.9	12.5	10.5	11.6	12.3	9.9	11.6
14	14.9	9.4	11.4	11.4	8.6	10.4	14.5	12.3	13.6	---	---	---
15	12.8	8.6	10.2	14.0	10.0	12.1	16.0	14.0	15.1	---	---	---
16	14.0	9.1	11.0	13.5	11.0	12.3	16.3	15.3	15.9	13.4	12.8	13.1
17	14.5	9.8	11.7	14.1	11.6	12.4	15.9	15.1	15.5	14.8	13.1	14.0
18	16.3	10.3	12.5	11.7	10.8	11.3	16.1	15.1	15.5	16.0	14.8	15.6
19	12.7	9.9	10.9	11.6	10.6	11.1	15.9	14.6	15.3	16.0	15.6	15.9
20	11.2	9.4	10.3	10.9	9.0	10.2	17.0	15.0	16.3	---	---	---
21	11.3	9.3	10.6	---	---	---	---	---	---	---	---	---
22	13.0	10.3	11.3	10.7	9.7	10.1	16.7	15.7	16.4	16.0	15.7	15.9
23	16.7	10.5	12.0	10.9	9.9	10.3	15.7	12.0	14.0	16.4	15.7	16.0
24	14.2	10.4	11.9	10.2	8.6	9.7	13.2	11.1	12.4	---	---	---
25	14.1	10.2	11.8	10.1	8.7	9.2	14.1	10.9	12.4	16.1	15.8	16.0
26	15.1	10.8	12.3	12.0	9.8	10.9	15.0	10.9	13.7	---	---	---
27	14.0	10.2	11.7	13.0	10.2	12.0	15.4	13.9	14.9	---	---	---
28	15.3	10.3	12.0	11.7	10.4	10.9	15.2	13.1	14.1	---	---	---
29	13.7	9.4	11.0	12.8	11.2	12.0	14.8	12.4	13.7	---	---	---
30	14.4	8.9	10.8	12.8	11.8	12.2	13.4	11.5	12.3	---	---	---
31	14.1	8.1	10.3	---	---	---	13.7	11.6	12.8	---	---	---
MONTH	16.7	8.1	11.2	14.1	5.9	10.6	17.0	7.3	13.2	16.4	8.0	12.8
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	13.0	11.6	12.2	12.2	9.9	11.1	10.5	7.5	8.8
2	---	---	---	14.0	11.8	12.9	10.8	10.0	10.5	13.0	10.0	11.5
3	---	---	---	14.8	12.3	13.5	11.4	10.8	11.2	14.8	10.8	13.2
4	---	---	---	15.2	12.3	13.6	11.6	10.2	11.0	---	---	---
5	---	---	---	15.3	11.6	13.2	---	---	---	12.9	9.3	11.0
6	---	---	---	15.4	11.8	13.4	---	---	---	13.0	9.0	10.8
7	---	---	---	15.1	10.9	12.8	---	---	---	12.8	8.7	10.9
8	---	---	---	12.3	9.8	11.1	11.2	9.2	10.1	12.2	8.0	10.1
9	---	---	---	14.2	9.9	12.8	13.1	9.8	11.2	12.0	7.6	9.6
10	---	---	---	16.0	10.0	13.5	15.0	9.9	11.9	11.5	7.2	9.2
11	---	---	---	15.7	12.1	13.8	15.5	9.9	12.2	---	---	---
12	---	---	---	15.6	11.4	13.4	16.3	10.3	12.9	10.7	6.2	8.1
13	---	---	---	15.9	11.5	13.3	16.2	11.0	13.1	11.2	6.7	8.7
14	---	---	---	16.0	11.3	13.4	17.7	11.0	13.6	---	---	---
15	13.1	10.0	11.6	16.4	11.5	13.8	17.6	11.0	13.8	---	---	---
16	11.1	9.7	10.4	16.7	11.2	13.7	18.0	11.0	14.3	---	---	---
17	12.1	9.4	10.9	16.3	11.1	13.4	19.3	10.2	14.3	---	---	---
18	---	---	---	16.5	11.6	13.8	18.6	9.2	13.6	11.2	8.2	9.5
19	13.8	11.8	12.8	16.1	10.7	13.1	18.8	8.9	12.8	11.1	8.0	9.3
20	13.7	12.1	12.7	14.5	9.5	11.5	17.0	8.6	12.2	10.6	8.5	10.0
21	13.0	10.4	11.9	15.7	9.5	12.6	13.6	8.2	10.5	10.3	8.2	9.4
22	12.5	10.2	11.2	15.5	10.2	12.7	11.2	8.6	10.2	9.7	7.3	8.9
23	13.3	10.1	11.6	12.5	9.8	11.7	14.7	8.5	11.1	9.9	7.3	8.9
24	12.8	10.8	11.7	12.2	11.6	11.9	11.1	4.4	9.5	9.7	7.7	8.8
25	13.3	11.4	12.3	12.5	11.5	11.9	14.3	8.7	11.6	10.0	9.2	9.7
26	14.0	11.4	12.6	12.7	11.3	12.0	14.1	9.7	12.0	10.0	8.3	9.4
27	14.2	11.5	12.7	12.7	11.3	11.9	13.6	9.2	11.1	10.2	7.8	9.0
28	13.6	11.6	12.4	---	---	---	14.9	9.6	12.1	10.2	7.6	9.0
29	---	---	---	---	---	---	15.7	10.5	12.7	10.6	8.0	9.1
30	---	---	---	---	---	---	12.5	10.4	12.0	10.8	7.8	9.1
31	---	---	---	12.0	10.7	11.3	---	---	---	10.1	7.7	8.8
MONTH	14.2	9.4	11.9	16.7	9.5	12.8	19.3	4.4	11.9	14.8	6.2	9.6

01651000 NORTHWEST BRANCH ANACOSTIA RIVER NEAR HYATTSVILLE, MD—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER—CONTINUED
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	10.3	7.6	8.9	10.7	8.0	9.3	---	---	---	---	---	---
2	10.5	7.5	9.0	9.6	6.0	8.3	---	---	---	---	---	---
3	8.8	7.8	8.4	10.8	6.2	8.9	12.0	5.8	8.3	---	---	---
4	8.6	5.7	7.4	11.6	6.8	9.6	14.9	5.3	9.0	---	---	---
5	9.3	5.4	7.6	---	---	---	16.2	4.9	9.3	16.5	5.9	10.2
6	9.8	5.0	7.6	---	---	---	15.4	4.3	9.0	16.9	6.1	10.0
7	8.0	5.1	6.5	---	---	---	16.8	4.7	9.7	14.9	6.4	9.3
8	7.4	5.7	6.6	9.1	7.0	8.6	15.9	4.5	7.6	16.9	5.6	9.3
9	6.9	4.8	5.9	8.4	7.3	8.0	8.5	5.8	7.1	---	---	---
10	7.7	4.2	5.8	8.8	6.8	7.8	9.8	6.7	8.0	17.3	5.4	9.7
11	8.9	6.2	7.5	10.4	6.7	8.3	11.1	6.1	8.2	---	---	---
12	9.8	6.1	7.9	10.7	6.6	8.8	12.5	5.6	8.4	---	---	---
13	10.4	6.4	8.1	11.2	7.1	8.9	---	---	---	---	---	---
14	---	---	---	13.1	6.9	8.8	---	---	---	15.6	5.0	8.8
15	10.4	6.2	8.1	9.1	7.3	7.8	13.7	5.3	8.8	---	---	---
16	10.9	6.4	8.6	8.3	7.0	7.7	10.9	5.8	7.8	---	---	---
17	11.7	7.3	9.3	8.1	7.0	7.5	11.7	7.1	9.0	---	---	---
18	11.9	7.7	9.7	9.5	7.0	8.1	12.9	6.7	9.4	---	---	---
19	12.2	8.0	9.9	10.0	7.9	9.0	9.4	6.7	8.0	---	---	---
20	12.5	8.3	10.2	11.0	7.9	9.3	11.1	6.8	9.1	---	---	---
21	12.5	8.8	10.5	12.4	7.6	9.7	12.0	6.7	8.7	14.4	4.8	7.5
22	12.2	8.4	10	12.2	6.9	9.4	13.4	6.7	9.1	---	---	---
23	12.7	8.6	10.5	---	---	---	13.6	6.8	9.6	17.8	5.0	8.6
24	13.7	8.6	10.7	---	---	---	15.3	6.9	10.3	9.4	5.4	6.8
25	13.6	8.5	10.7	---	---	---	15.7	7.9	10.6	10.5	5.4	7.5
26	14.0	8.2	10.5	---	---	---	14.6	7.7	10.5	12.2	5.2	7.7
27	13.1	8.2	10.1	---	---	---	11.8	7.6	9.5	7.7	4.4	5.7
28	12.6	8.4	10.5	---	---	---	11.5	6.8	9.1	11.3	5.2	6.7
29	12.0	8.5	10.0	---	---	---	12.9	6.4	9.0	10.8	5.5	7.5
30	10.5	8.8	9.7	---	---	---	12.5	6.3	8.7	12.6	6.1	8.6
31	---	---	---	---	---	---	12.3	5.9	8.3	---	---	---
MONTH	14.0	4.2	8.8	13.1	6.0	8.6	16.8	4.3	8.9	17.8	4.4	8.3
YEAR	19.3	4.2	10.8									



01651000 NORTHWEST BRANCH ANACOSTIA RIVER NEAR HYATTSVILLE, MD—Continued

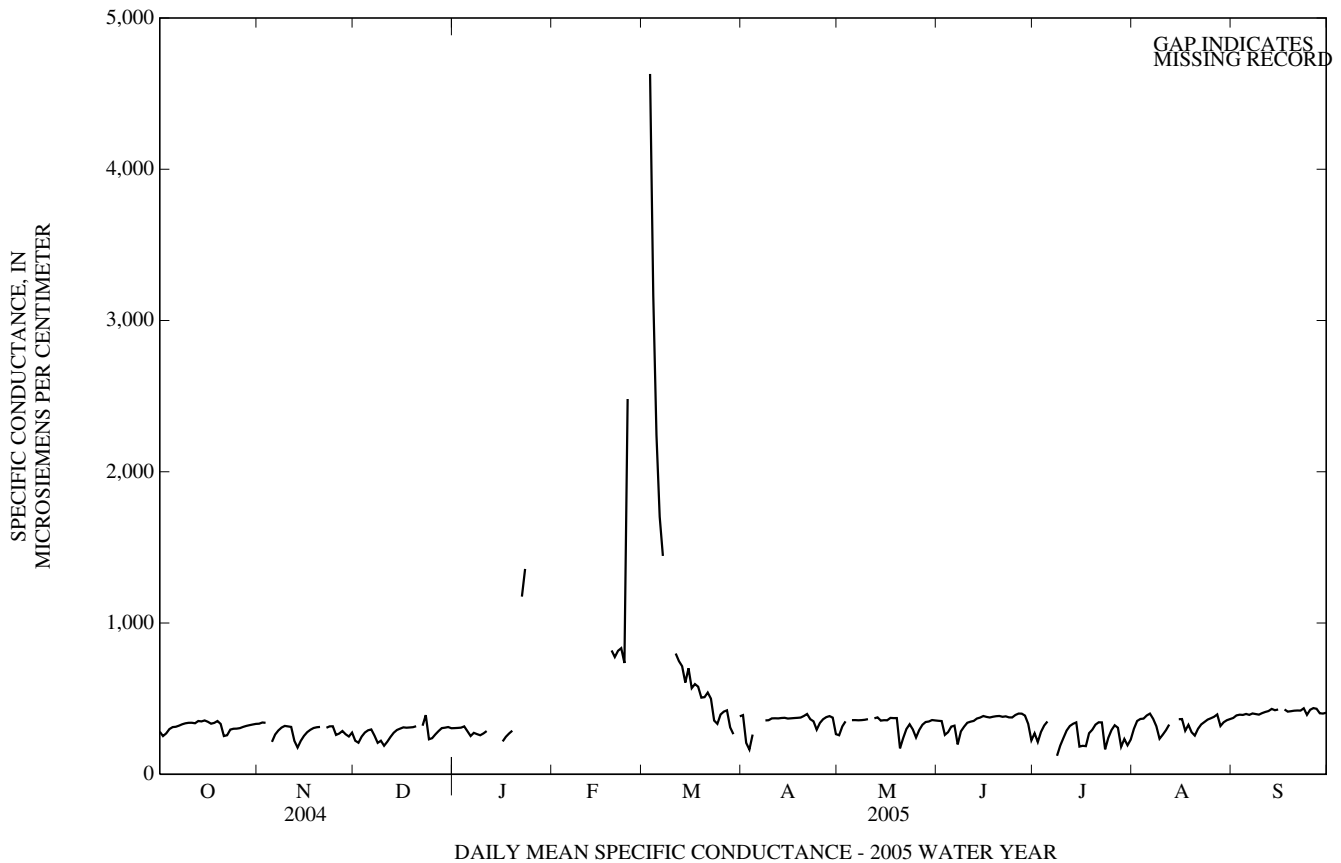
SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	303	260	281	339	331	334	288	183	222	306	304	305
2	285	235	252	345	338	342	231	189	208	307	305	306
3	283	258	270	343	338	340	263	231	249	310	306	308
4	312	283	299	---	---	---	290	263	276	325	310	316
5	319	306	312	249	176	214	295	288	291	321	249	285
6	322	308	314	280	249	263	298	295	296	263	246	253
7	325	318	321	301	280	290	299	209	255	281	263	274
8	336	323	331	319	301	309	222	186	208	288	234	265
9	341	333	337	327	314	320	254	156	222	264	242	258
10	343	338	340	325	310	317	203	165	188	277	264	270
11	345	338	340	318	307	313	233	197	215	291	277	286
12	349	323	337	314	150	221	261	233	247	---	---	---
13	368	334	352	206	151	177	287	261	275	312	295	305
14	358	342	349	238	206	221	297	287	293	---	---	---
15	372	346	356	270	238	254	312	297	302	---	---	---
16	372	326	347	287	270	278	313	305	310	236	200	217
17	340	327	334	303	287	294	313	304	308	258	236	248
18	347	337	340	309	303	306	313	308	309	279	258	270
19	363	339	352	313	308	311	323	303	311	293	277	288
20	345	314	333	322	306	313	333	304	318	---	---	---
21	323	227	253	---	---	---	---	---	---	---	---	---
22	271	248	258	315	300	307	328	316	321	1,300	1,010	1,170
23	312	271	295	320	314	317	997	153	391	1,550	1,030	1,360
24	308	296	301	333	290	317	263	164	231	---	---	---
25	305	298	302	290	240	260	242	236	239	1,700	1,210	1,380
26	311	299	305	278	263	269	277	242	263	---	---	---
27	321	306	313	294	278	286	295	277	286	---	---	---
28	324	315	320	325	228	264	313	295	305	---	---	---
29	331	322	325	264	228	250	311	305	308	---	---	---
30	332	326	329	282	264	276	316	307	312	---	---	---
31	339	331	333	---	---	---	307	301	304	---	---	---
MONTH	372	227	317	345	150	284	997	153	275	1,700	200	440
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	---	---	---	---	---	---	427	382	391	296	182	258
2	---	---	---	---	---	---	402	121	207	336	296	316
3	---	---	---	6,070	3,650	4,630	213	124	164	359	336	350
4	---	---	---	3,710	2,700	3,170	320	213	262	---	---	---
5	---	---	---	2,700	1,940	2,240	---	---	---	362	354	358
6	---	---	---	1,940	1,570	1,700	---	---	---	360	355	358
7	---	---	---	1,700	1,350	1,440	---	---	---	360	352	357
8	---	---	---	---	---	---	405	296	356	360	356	358
9	---	---	---	---	---	---	368	349	357	362	358	360
10	---	---	---	---	---	---	375	366	369	367	360	364
11	---	---	---	885	733	798	373	366	370	---	---	---
12	---	---	---	795	690	748	372	367	369	373	368	370
13	---	---	---	856	632	714	376	368	372	381	369	376
14	---	---	---	717	585	607	378	368	373	386	236	355
15	---	---	---	907	611	700	373	362	368	370	346	358
16	---	---	---	620	547	569	373	366	370	378	345	357
17	---	---	---	704	539	596	375	369	372	379	368	373
18	---	---	---	694	518	579	376	370	373	376	369	371
19	839	794	818	520	495	507	382	371	375	375	369	371
20	795	753	775	561	494	510	393	377	385	369	109	171
21	1,300	749	816	565	511	540	429	384	399	267	194	240
22	1,140	751	834	512	491	500	411	335	364	322	267	299
23	751	725	736	605	258	355	373	302	350	342	320	331
24	5,670	722	2,480	373	274	333	319	282	295	352	228	296
25	---	---	---	412	373	395	356	319	339	272	225	243
26	---	---	---	417	409	414	383	356	364	324	272	293
27	6,030	3,430	4,680	454	417	423	390	369	378	338	319	327
28	---	---	---	481	187	310	396	376	385	353	338	345
29	---	---	---	307	196	265	377	370	374	355	344	349
30	---	---	---	---	---	---	403	181	265	365	330	358
31	---	---	---	392	379	383	---	---	---	395	317	356
MONTH	6,030	722	1,590	6,070	187	937	429	121	346	395	109	332

01651000 NORTHWEST BRANCH ANACOSTIA RIVER NEAR HYATTSVILLE, MD—Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	366	328	353	286	262	271	340	259	301	396	349	372
2	354	349	352	341	173	213	361	340	352	403	372	389
3	366	208	260	297	253	280	411	349	365	404	378	394
4	296	258	278	352	297	322	383	359	368	400	382	392
5	332	296	315	361	300	349	404	380	389	411	390	399
6	352	87	321	---	---	---	413	370	401	410	376	393
7	258	87	197	---	---	---	399	346	366	414	392	402
8	300	258	283	298	75	122	360	178	317	407	383	398
9	352	272	314	220	148	189	277	187	235	405	378	394
10	387	285	340	264	220	240	278	247	262	413	394	404
11	384	333	348	315	264	289	313	278	292	416	399	412
12	361	339	353	327	311	319	343	313	328	439	399	418
13	373	360	368	344	326	333	---	---	---	446	412	432
14	380	371	375	400	267	343	---	---	---	433	408	423
15	402	365	385	273	76	183	371	358	364	460	403	428
16	391	366	379	256	87	188	443	284	365	---	---	---
17	385	364	375	243	140	186	301	278	288	443	411	428
18	384	378	380	299	243	272	334	301	327	419	404	414
19	387	380	384	325	263	294	343	198	278	432	397	417
20	405	377	385	337	318	328	285	232	256	427	412	420
21	382	377	380	362	332	343	314	285	300	441	397	422
22	388	379	383	362	311	343	341	314	330	437	398	421
23	385	365	376	369	108	165	350	341	346	444	427	436
24	382	369	376	267	211	241	369	350	361	436	362	393
25	406	381	392	311	267	292	377	367	370	442	416	426
26	406	397	401	340	311	324	385	377	380	455	420	437
27	454	392	401	376	118	308	411	382	396	473	407	433
28	413	368	388	227	114	182	404	245	319	418	390	403
29	377	150	333	303	136	233	363	318	344	419	393	401
30	262	163	224	221	135	192	362	353	357	425	401	407
31	---	---	---	259	215	229	376	361	365	---	---	---
MONTH	454	87	347	400	75	261	443	178	335	473	349	411
YEAR	6,070	75	408									



01651000 NORTHWEST BRANCH ANACOSTIA RIVER NEAR HYATTSVILLE, MD—Continued

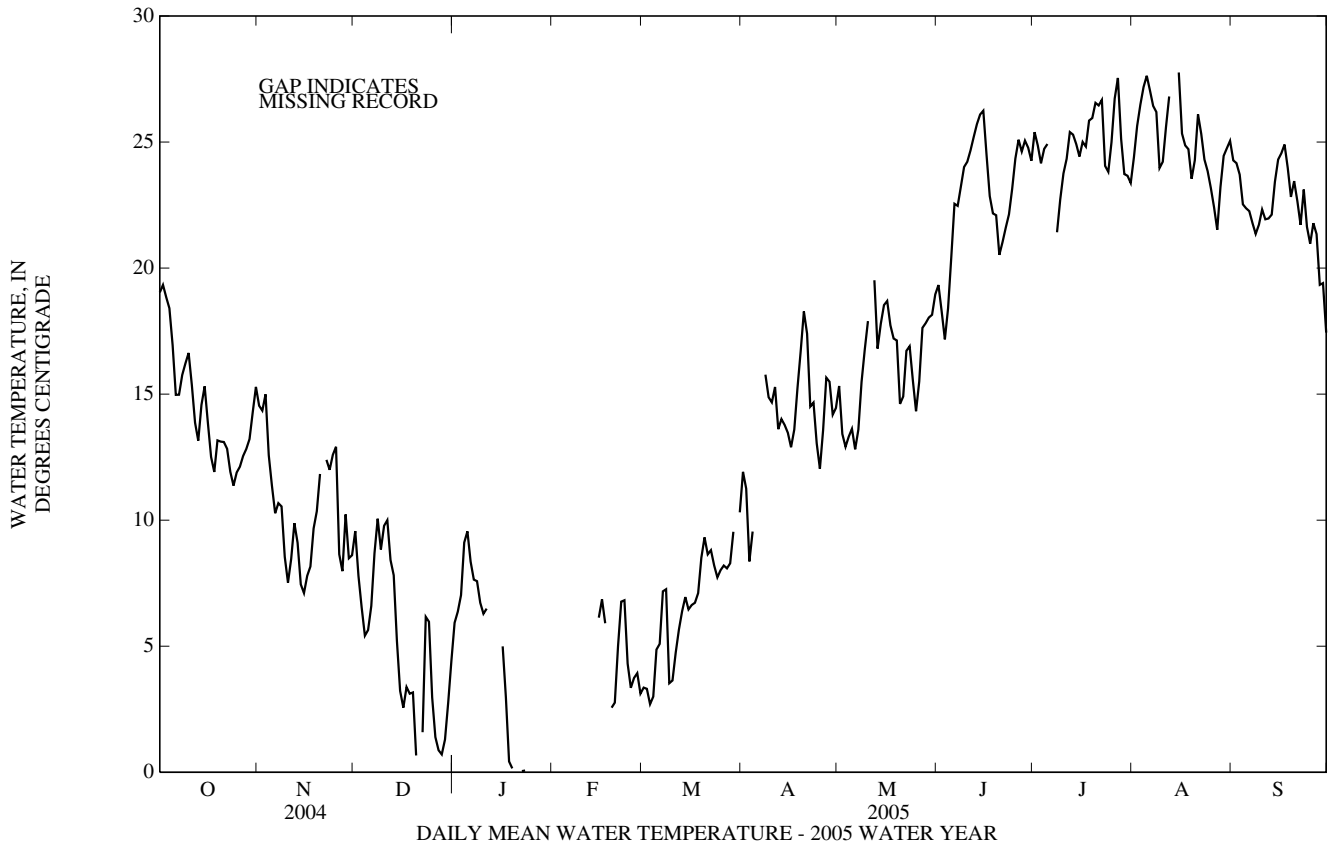
TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	20.1	17.7	19.0	15.5	13.5	14.5	10.5	8.4	9.6	6.8	5.1	5.9
2	19.8	18.9	19.3	15.7	13.0	14.3	8.4	7.1	7.8	6.6	6.2	6.4
3	20.0	17.9	18.8	15.9	14.0	15.0	7.3	5.8	6.5	8.3	6.3	7.0
4	19.9	17.3	18.4	14.0	11.6	12.6	6.1	4.5	5.4	10.0	8.3	9.1
5	18.2	14.1	16.9	12.1	10.6	11.4	6.7	4.5	5.6	9.9	9.0	9.6
6	16.6	13.5	15.0	11.2	9.2	10.3	7.4	5.9	6.6	9.0	8.1	8.4
7	16.9	13.2	15.0	11.9	9.4	10.7	10.9	7.4	8.7	8.1	7.2	7.6
8	17.6	14.1	15.8	11.3	9.4	10.5	11.3	9.3	10.1	7.8	7.3	7.6
9	17.4	15.0	16.2	9.4	7.8	8.5	9.7	8.0	8.8	7.3	6.4	6.7
10	18.2	15.8	16.6	8.5	6.4	7.5	10.4	9.2	9.8	6.6	5.9	6.3
11	16.6	14.3	15.4	9.6	7.4	8.5	10.5	8.9	10.0	6.7	6.3	6.5
12	15.2	12.6	13.9	10.6	9.2	9.9	8.9	7.8	8.4	---	---	---
13	14.0	12.3	13.2	9.8	7.9	9.1	8.4	6.3	7.8	11.6	7.7	8.9
14	15.9	13.3	14.6	8.2	6.5	7.5	6.3	4.3	5.2	---	---	---
15	15.9	14.4	15.3	8.1	5.8	7.1	4.3	2.4	3.2	---	---	---
16	14.8	12.7	13.9	8.9	6.6	7.8	3.3	1.5	2.6	5.5	4.4	5.0
17	13.8	11.6	12.5	9.0	7.2	8.2	4.3	2.5	3.4	4.8	1.1	3.0
18	13.3	10.4	11.9	10.9	8.6	9.7	3.9	2.1	3.1	1.1	0.1	0.4
19	13.6	12.7	13.2	10.9	9.5	10.4	4.2	2.5	3.2	0.3	0.1	0.2
20	13.3	12.9	13.1	12.8	10.9	11.8	2.5	0.2	0.7	---	---	---
21	13.5	12.9	13.1	---	---	---	---	---	---	---	---	---
22	13.4	12.2	12.8	12.7	12.2	12.4	2.7	0.6	1.6	0.2	0.0	0.0
23	13.0	10.9	11.9	12.2	11.8	12.0	10.9	2.6	6.2	0.3	0.0	0.1
24	11.7	11.0	11.4	13.7	12.0	12.6	8.1	4.6	6.0	---	---	---
25	12.5	11.4	11.9	14.0	10.2	12.9	4.6	2.4	3.0	0.8	0.1	0.4
26	13.4	10.9	12.1	10.2	7.9	8.6	2.4	1.0	1.4	---	---	---
27	13.7	11.8	12.5	9.0	6.9	8.0	1.5	0.5	0.9	---	---	---
28	14.0	11.9	12.8	11.2	9.0	10.2	1.0	0.5	0.7	---	---	---
29	13.6	12.8	13.2	9.1	7.8	8.5	2.4	0.8	1.3	---	---	---
30	15.2	13.5	14.3	9.1	7.8	8.6	3.4	2.4	2.8	---	---	---
31	16.7	14.3	15.3	---	---	---	5.6	3.4	4.4	---	---	---
MONTH	20.1	10.4	14.5	15.9	5.8	10.3	11.3	0.2	5.2	11.6	0.0	5.2
DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	4.9	1.9	3.4	14.0	9.9	11.9	17.1	13.9	15.3
2	---	---	---	4.9	2.0	3.3	12.8	9.9	11.3	14.2	12.3	13.4
3	---	---	---	4.4	1.0	2.7	9.9	7.8	8.4	14.9	10.7	12.9
4	---	---	---	4.7	1.1	3.0	12.4	7.1	9.5	14.9	12.0	13.3
5	---	---	---	6.3	3.8	4.9	---	---	---	15.7	11.3	13.6
6	---	---	---	7.2	3.0	5.1	---	---	---	14.0	12.0	12.8
7	---	---	---	9.1	5.3	7.2	---	---	---	16.1	10.8	13.6
8	---	---	---	9.2	4.1	7.3	16.5	14.5	15.8	18.1	12.8	15.5
9	---	---	---	4.8	2.2	3.5	17.5	12.5	14.9	19.6	13.9	16.8
10	---	---	---	5.5	1.8	3.6	17.5	11.7	14.7	20.6	15.2	17.9
11	---	---	---	6.0	3.1	4.7	17.9	12.8	15.3	---	---	---
12	---	---	---	7.2	4.3	5.7	15.2	12.0	13.6	21.2	18.3	19.5
13	---	---	---	8.1	5.1	6.4	16.6	11.9	14.0	18.3	15.7	16.8
14	---	---	---	9.1	5.2	6.9	16.2	11.2	13.8	21.8	14.8	17.8
15	7.4	4.8	6.1	8.5	4.3	6.5	15.7	11.2	13.5	19.5	17.9	18.5
16	8.0	5.6	6.9	7.8	5.4	6.6	15.4	10.3	12.9	20.7	17.0	18.7
17	6.8	5.1	5.9	7.7	6.1	6.7	16.2	10.7	13.6	19.7	16.2	17.7
18	---	---	---	9.5	4.7	7.1	17.6	12.6	15.2	19.0	15.3	17.2
19	3.9	1.0	2.6	10.6	6.5	8.5	19.0	14.1	16.7	18.2	15.8	17.1
20	3.7	1.6	2.8	10.1	8.8	9.3	20.5	15.9	18.3	16.9	13.4	14.6
21	7.3	3.4	5.0	10.1	7.5	8.6	19.0	15.9	17.4	17.4	12.6	14.9
22	7.9	5.9	6.8	11.1	6.7	8.8	15.9	13.7	14.5	19.0	14.5	16.7
23	8.2	5.7	6.8	10.0	7.2	8.2	16.5	13.2	14.7	17.9	15.9	16.9
24	6.3	2.2	4.3	8.8	6.8	7.7	14.2	11.7	13.0	16.7	14.6	15.6
25	5.2	2.0	3.4	8.4	7.6	8.0	13.8	10.4	12.0	14.7	14.0	14.3
26	5.3	1.9	3.7	8.8	7.6	8.2	16.3	10.7	13.6	17.6	13.4	15.5
27	5.2	2.5	3.9	8.4	7.8	8.1	17.9	13.8	15.7	20.2	15.2	17.6
28	4.2	1.9	3.1	9.2	7.8	8.3	17.8	13.3	15.5	19.3	16.3	17.8
29	---	---	---	10.9	8.6	9.5	15.4	13.7	14.2	20.1	15.8	18.0
30	---	---	---	---	---	---	15.8	14.0	14.5	20.0	16.3	18.1
31	---	---	---	11.3	9.6	10.3	---	---	---	21.6	16.5	19.0
MONTH	8.2	1.0	4.7	11.3	1.0	6.6	20.5	7.1	14.0	21.8	10.7	16.2

01651000 NORTHWEST BRANCH ANACOSTIA RIVER NEAR HYATTSVILLE, MD—Continued

TEMPERATURE, WATER, DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	JUNE			JULY			AUGUST			SEPTEMBER		
				MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	21.6	17.0	19.3	27.7	23.4	25.4	26.4	22.5	24.4	27.1	22.4	24.3			
2	19.2	17.7	18.3	26.6	23.6	24.9	28.1	23.3	25.6	27.2	21.8	24.2			
3	17.7	16.8	17.2	25.7	22.6	24.2	28.8	24.5	26.5	26.3	21.8	23.7			
4	20.2	16.7	18.4	27.7	22.4	24.7	29.8	25.1	27.2	24.9	20.7	22.5			
5	23.2	17.8	20.4	27.6	23.5	24.9	30.1	25.7	27.6	25.2	20.1	22.4			
6	25.2	20.2	22.6	---	---	---	29.1	25.6	27.0	25.2	20.1	22.3			
7	24.5	20.9	22.5	---	---	---	28.2	25.1	26.4	25.0	19.5	21.8			
8	25.7	21.0	23.2	23.4	20.6	21.4	28.2	24.7	26.2	24.7	18.9	21.4			
9	26.0	22.2	24.0	25.3	20.6	22.7	24.7	23.3	24.0	24.3	19.6	21.7			
10	25.9	23.1	24.2	26.2	21.5	23.8	26.1	22.8	24.2	24.6	20.7	22.3			
11	26.9	22.7	24.7	26.6	22.2	24.3	27.7	23.5	25.6	24.8	19.9	21.9			
12	27.4	23.2	25.2	27.6	23.3	25.4	28.8	25.0	26.8	25.1	19.8	22.0			
13	28.0	23.9	25.7	26.4	24.5	25.3	---	---	---	25.3	19.9	22.1			
14	28.2	24.1	26.1	26.4	24.0	24.9	---	---	---	25.3	22.0	23.4			
15	28.4	24.7	26.2	25.9	23.5	24.4	30.0	26.1	27.8	26.3	22.8	24.3			
16	25.8	22.7	24.5	27.0	23.9	25.0	26.4	24.3	25.3	26.1	23.2	24.6			
17	25.4	21.0	22.9	26.3	23.7	24.8	27.0	23.1	24.9	27.2	23.4	24.9			
18	24.8	19.8	22.2	27.7	24.2	25.9	26.5	23.0	24.7	26.2	22.7	24.0			
19	24.2	20.4	22.1	27.1	24.6	26.0	24.3	22.6	23.5	25.1	21.0	22.8			
20	21.8	19.5	20.5	28.9	24.9	26.6	26.6	22.4	24.3	25.4	22.0	23.4			
21	23.9	18.4	21.0	28.5	24.6	26.5	28.6	24.6	26.1	25.3	21.0	22.7			
22	23.7	20.5	21.6	28.8	24.7	26.7	27.9	23.4	25.3	24.2	19.6	21.7			
23	24.9	19.7	22.1	26.5	22.5	24.1	26.7	22.3	24.3	24.8	21.5	23.1			
24	26.2	20.6	23.1	25.8	21.8	23.8	26.4	21.9	23.8	23.4	20.6	21.6			
25	27.3	21.8	24.3	27.3	23.0	25.0	26.2	20.6	23.2	22.1	20.0	21.0			
26	28.2	22.7	25.1	29.3	24.4	26.7	23.7	21.0	22.4	23.1	20.5	21.8			
27	25.9	23.7	24.6	30.5	25.0	27.5	21.9	21.3	21.5	23.3	19.7	21.3			
28	27.6	22.8	25.1	26.5	24.1	25.1	25.3	21.3	23.2	21.9	17.5	19.3			
29	26.1	23.4	24.8	24.6	22.6	23.7	26.7	22.8	24.5	21.1	17.7	19.4			
30	26.3	22.5	24.3	25.1	22.6	23.7	26.3	23.6	24.8	19.9	15.5	17.4			
31	---	---	---	24.1	22.5	23.4	26.2	23.6	25.0	---	---	---			
MONTH	28.4	16.7	22.9	30.5	20.6	24.9	30.1	20.6	25.0	27.2	15.5	22.3			
YEAR	30.5	0.0	15.1												



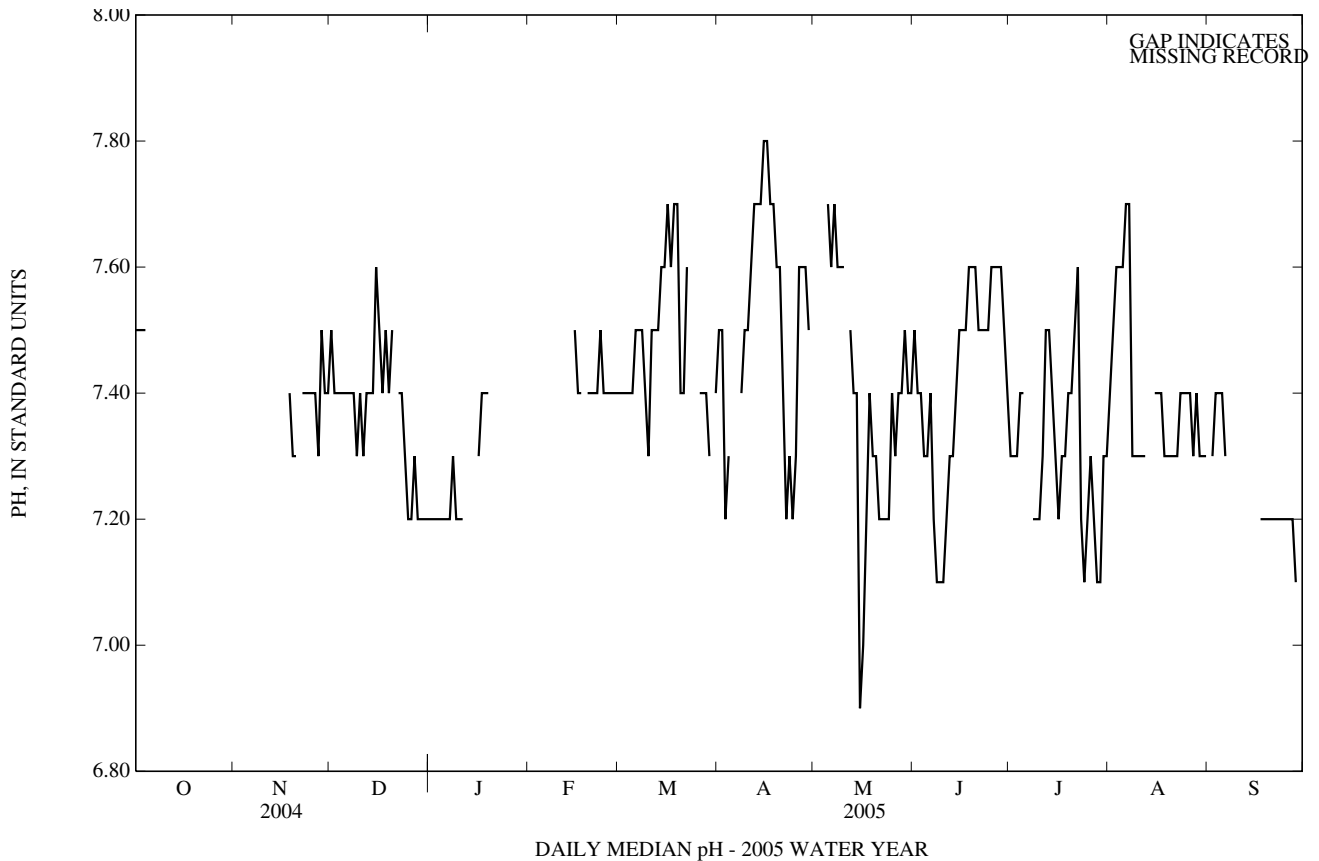
01651000 NORTHWEST BRANCH ANACOSTIA RIVER NEAR HYATTSVILLE, MD—Continued

PH, WATER, UNFILTERED, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	7.7	7.5	7.5	---	---	---	7.6	7.4	7.5	7.2	7.2	7.2
2	7.6	7.4	7.5	---	---	---	7.5	7.3	7.4	7.2	7.2	7.2
3	7.5	7.4	7.5	---	---	---	7.4	7.3	7.4	7.3	7.1	7.2
4	7.6	7.5	7.5	---	---	---	7.4	7.4	7.4	7.2	7.2	7.2
5	---	---	---	---	---	---	7.4	7.4	7.4	7.2	7.1	7.2
6	---	---	---	---	---	---	7.4	7.4	7.4	7.2	7.1	7.2
7	---	---	---	---	---	---	7.6	7.2	7.4	7.2	7.2	7.2
8	---	---	---	---	---	---	7.5	7.3	7.4	7.4	7.1	7.3
9	---	---	---	---	---	---	7.6	7.3	7.3	7.3	7.2	7.2
10	---	---	---	---	---	---	7.5	7.3	7.4	7.3	7.2	7.2
11	---	---	---	---	---	---	7.4	7.2	7.3	7.2	7.1	7.2
12	---	---	---	---	---	---	7.4	7.4	7.4	---	---	---
13	---	---	---	---	---	---	7.4	7.4	7.4	7.6	7.4	7.5
14	---	---	---	---	---	---	7.6	7.4	7.4	---	---	---
15	---	---	---	---	---	---	7.6	7.4	7.6	---	---	---
16	---	---	---	---	---	---	7.5	7.4	7.5	7.3	7.3	7.3
17	---	---	---	---	---	---	7.5	7.4	7.4	7.4	7.3	7.4
18	---	---	---	7.4	7.3	7.4	7.5	7.4	7.5	7.4	7.3	7.4
19	---	---	---	7.4	7.3	7.3	7.6	7.4	7.4	7.4	7.3	7.4
20	---	---	---	7.4	7.2	7.3	7.6	7.4	7.5	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	7.5	7.3	7.4	7.5	7.4	7.4	---	---	---
23	---	---	---	7.5	7.4	7.4	7.6	7.3	7.4	---	---	---
24	---	---	---	7.5	7.3	7.4	7.3	7.2	7.3	---	---	---
25	---	---	---	7.5	7.3	7.4	7.2	7.2	7.2	---	---	---
26	---	---	---	7.4	7.3	7.4	7.2	7.1	7.2	---	---	---
27	---	---	---	7.4	7.3	7.3	7.3	7.2	7.3	---	---	---
28	---	---	---	7.5	7.3	7.5	7.3	7.2	7.2	---	---	---
29	---	---	---	7.4	7.3	7.4	7.3	7.2	7.2	---	---	---
30	---	---	---	7.4	7.3	7.4	7.2	7.2	7.2	---	---	---
31	---	---	---	---	---	---	7.2	7.2	7.2	---	---	---
MAX	7.7	7.5	7.5	7.5	7.4	7.5	7.6	7.4	7.6	7.6	7.4	7.5
MIN	7.5	7.4	7.5	7.4	7.2	7.3	7.2	7.1	7.2	7.2	7.1	7.2
	FEBRUARY			MARCH			APRIL			MAY		
1	---	---	---	7.6	7.3	7.4	7.8	7.3	7.5	---	---	---
2	---	---	---	7.7	7.3	7.4	7.6	7.1	7.5	---	---	---
3	---	---	---	7.6	7.3	7.4	7.2	7.2	7.2	---	---	---
4	---	---	---	7.6	7.3	7.4	7.3	7.2	7.3	---	---	---
5	---	---	---	7.8	7.2	7.4	---	---	---	8.4	7.4	7.7
6	---	---	---	7.9	7.3	7.5	---	---	---	8.2	7.4	7.6
7	---	---	---	8.2	7.2	7.5	---	---	---	8.4	7.4	7.7
8	---	---	---	7.5	7.2	7.5	7.8	7.3	7.4	8.4	7.4	7.6
9	---	---	---	7.4	7.3	7.4	8.1	7.3	7.5	8.4	7.4	7.6
10	---	---	---	7.6	7.2	7.3	8.4	7.3	7.5	8.4	7.4	7.6
11	---	---	---	7.7	7.3	7.5	8.7	7.3	7.6	---	---	---
12	---	---	---	7.9	7.3	7.5	8.4	7.3	7.7	8.1	7.3	7.5
13	---	---	---	8.1	7.3	7.5	8.8	7.4	7.7	7.9	7.3	7.4
14	---	---	---	8.4	7.3	7.6	8.8	7.4	7.7	8.1	7.2	7.4
15	7.7	7.4	7.5	8.4	7.3	7.6	8.9	7.4	7.8	7.2	6.9	6.9
16	7.4	7.3	7.4	8.4	7.3	7.7	8.9	7.4	7.8	7.3	6.9	7.0
17	7.6	7.2	7.4	8.4	7.3	7.6	8.8	7.4	7.7	7.8	7.0	7.2
18	---	---	---	8.6	7.4	7.7	9.0	7.3	7.7	7.7	7.2	7.4
19	7.5	7.3	7.4	8.6	7.3	7.7	8.7	7.3	7.6	7.6	7.2	7.3
20	7.5	7.3	7.4	7.9	7.2	7.4	8.6	7.3	7.6	7.4	7.2	7.3
21	7.5	7.2	7.4	8.4	7.2	7.4	7.7	7.2	7.4	7.3	7.1	7.2
22	7.6	7.2	7.4	8.4	7.3	7.6	7.3	7.1	7.2	7.3	7.1	7.2
23	7.9	7.2	7.5	---	---	---	7.7	7.2	7.3	7.3	7.1	7.2
24	7.6	7.3	7.4	---	---	---	7.3	7.1	7.2	7.3	7.1	7.2
25	7.6	7.3	7.4	---	---	---	7.5	7.1	7.3	7.5	7.2	7.4
26	7.5	7.3	7.4	7.5	7.3	7.4	8.0	7.2	7.6	7.5	7.3	7.3
27	7.7	7.3	7.4	7.5	7.3	7.4	8.0	7.3	7.6	7.5	7.2	7.4
28	7.5	7.3	7.4	7.6	7.4	7.4	8.1	7.4	7.6	7.6	7.3	7.4
29	---	---	---	7.4	7.3	7.3	7.8	7.3	7.5	7.7	7.3	7.5
30	---	---	---	---	---	---	---	---	---	7.8	7.3	7.4
31	---	---	---	7.5	7.3	7.4	---	---	---	7.7	7.3	7.4
MAX	7.9	7.4	7.5	8.6	7.4	7.7	9.0	7.4	7.8	8.4	7.4	7.7
MIN	7.4	7.2	7.4	7.4	7.2	7.3	7.2	7.1	7.2	7.2	6.9	6.9

01651000 NORTHWEST BRANCH ANACOSTIA RIVER NEAR HYATTSVILLE, MD—Continued
 PH, WATER, UNFILTERED, FIELD, STANDARD UNITS, —CONTINUED WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
1	7.9	7.3	7.5	7.5	7.3	7.3	7.9	7.2	7.4	---	---	---
2	7.7	7.3	7.4	7.5	7.1	7.3	8.5	7.3	7.5	9.4	7.2	7.3
3	7.5	7.3	7.4	7.5	7.2	7.3	8.7	7.3	7.6	9.2	7.2	7.4
4	7.4	7.2	7.3	7.6	7.3	7.4	9.0	7.3	7.6	9.1	7.2	7.4
5	7.6	7.1	7.3	7.6	7.2	7.4	9.1	7.3	7.6	8.8	7.1	7.4
6	7.7	7.2	7.4	---	---	---	9.1	7.2	7.7	8.9	7.2	7.3
7	7.4	7.1	7.2	---	---	---	9.2	7.2	7.7	---	---	---
8	7.2	7.0	7.1	7.4	7.0	7.2	8.9	7.2	7.3	---	---	---
9	7.2	7.1	7.1	7.3	7.2	7.2	7.4	7.1	7.3	---	---	---
10	7.3	6.9	7.1	7.4	7.1	7.2	7.5	7.2	7.3	---	---	---
11	7.4	7.1	7.2	7.6	7.2	7.3	7.8	7.1	7.3	---	---	---
12	7.6	7.1	7.3	8.1	7.2	7.5	7.9	7.1	7.3	---	---	---
13	7.8	7.2	7.3	8.2	7.2	7.5	---	---	---	---	---	---
14	8.1	7.2	7.4	8.4	7.3	7.4	---	---	---	---	---	---
15	8.2	7.3	7.5	7.8	7.2	7.3	8.4	7.2	7.4	---	---	---
16	8.0	7.2	7.5	7.4	7.2	7.2	7.6	7.2	7.4	---	---	---
17	8.1	7.3	7.5	7.3	7.2	7.3	7.9	7.2	7.4	9.4	7.0	7.2
18	8.2	7.3	7.6	7.5	7.2	7.3	8.0	7.2	7.3	9.0	7.0	7.2
19	8.1	7.4	7.6	7.6	7.3	7.4	7.5	7.2	7.3	9.4	7.0	7.2
20	8.0	7.4	7.6	7.8	7.3	7.4	7.6	7.2	7.3	9.3	7.1	7.2
21	8.0	7.4	7.5	8.4	7.3	7.5	7.8	7.1	7.3	8.4	7.0	7.2
22	7.9	7.3	7.5	8.6	7.3	7.6	7.9	7.2	7.3	9.4	7.0	7.2
23	8.0	7.3	7.5	7.5	7.1	7.2	8.0	7.2	7.4	8.8	7.1	7.2
24	8.1	7.3	7.5	7.2	7.0	7.1	8.2	7.2	7.4	7.4	7.1	7.2
25	8.2	7.4	7.6	7.3	7.0	7.2	8.3	7.2	7.4	7.4	7.0	7.2
26	8.2	7.4	7.6	7.5	7.1	7.3	8.1	7.2	7.4	7.6	7.0	7.2
27	7.8	7.4	7.6	7.9	7.1	7.2	7.6	7.2	7.3	7.3	7.1	7.2
28	8.0	7.4	7.6	7.2	7.0	7.1	7.7	7.2	7.4	7.4	7.1	7.1
29	7.9	7.4	7.5	7.3	7.0	7.1	7.9	7.2	7.3	---	---	---
30	7.5	7.3	7.4	7.4	7.1	7.3	7.9	7.2	7.3	---	---	---
31	---	---	---	7.6	7.2	7.3	7.8	7.2	7.3	---	---	---
MAX	8.2	7.4	7.6	8.6	7.3	7.6	9.2	7.3	7.7	9.4	7.2	7.4
MIN	7.2	6.9	7.1	7.2	7.0	7.1	7.4	7.1	7.3	7.3	7.0	7.1
YEAR	MAX		MAXIMUM	9.4	MINIMUM	7.2						
	MIN		MAXIMUM	7.5	MINIMUM	6.9						
	MEDIAN		MAXIMUM	7.8	MINIMUM	6.9						



01651000 NORTHWEST BRANCH ANACOSTIA RIVER NEAR HYATTSVILLE, MD—Continued

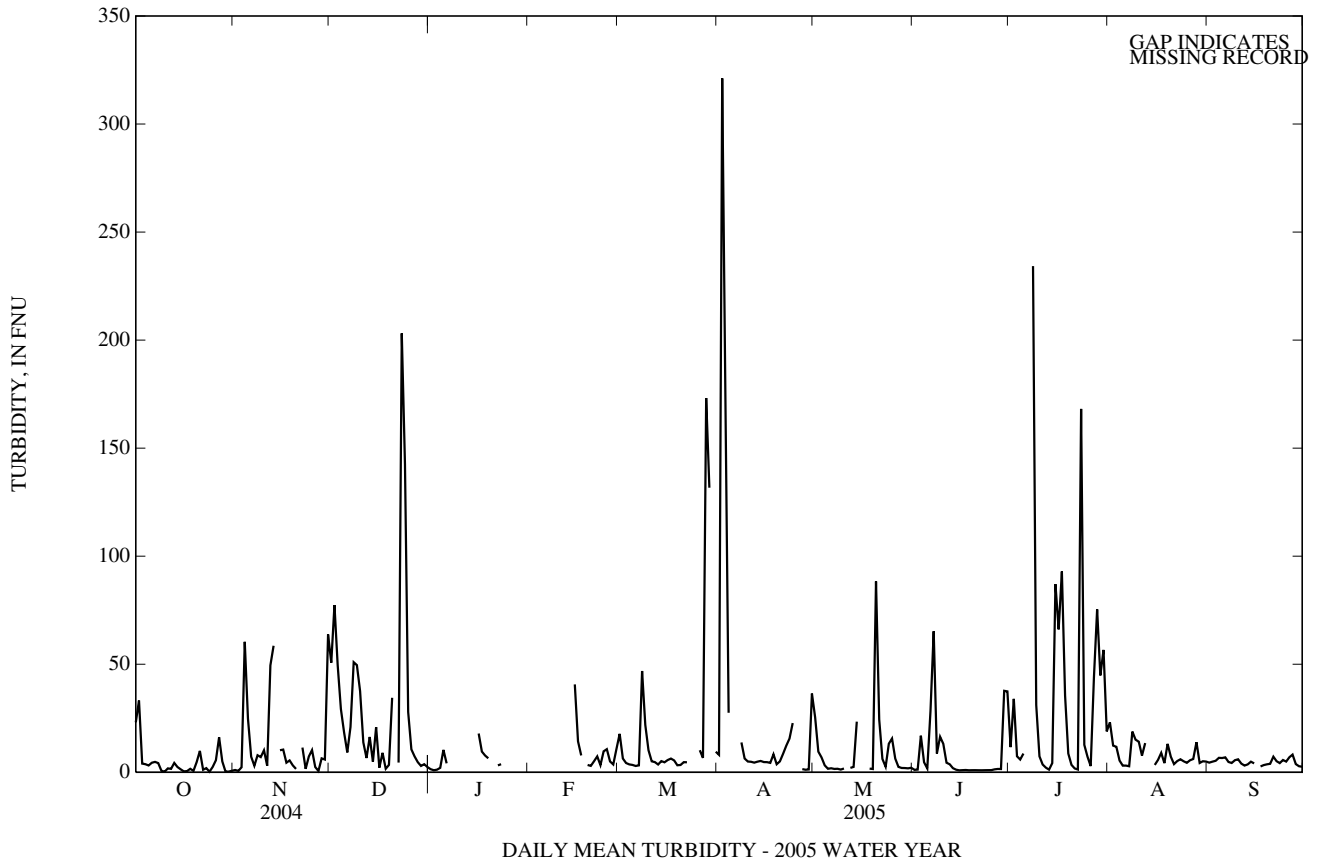
TURBIDITY, WATER, UNFILTERED, FORMAZIN NEPHELOMETRIC UNITS (FNU)
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	60	4.6	23	3.0	0.0	1.0	95	13	51	2.9	1.0	1.4
2	97	7.5	33	1.3	0.0	0.6	140	30	77	1.3	0.5	0.9
3	7.5	2.1	4.0	28	0.0	2.3	130	19	50	1.9	0.7	1.2
4	7.8	1.4	3.7	500	0.0	60	63	9.0	29	5.2	1.1	2.0
5	7.7	0.2	3.1	57	9.7	25	47	2.2	18	24	0.6	10
6	15	0.5	4.4	10	4.8	7.2	38	2.5	9.2	10	2.6	4.1
7	20	0.5	4.8	4.9	1.4	3.0	140	3.4	21	---	---	---
8	19	0.4	4.2	27	0.8	7.9	170	23	51	---	---	---
9	2.2	0.0	0.7	27	1.7	7.0	210	14	50	---	---	---
10	2.7	0.0	0.3	57	1.3	10	55	26	38	---	---	---
11	9.0	0.0	1.8	7.7	0.8	3.0	27	9.1	14	---	---	---
12	10	0.0	1.6	220	0.7	49	11	3.7	6.6	---	---	---
13	34	0.0	4.3	140	19	59	170	2.0	16	54	0.7	2.8
14	8.7	0.2	2.4	---	---	---	21	1.8	4.9	---	---	---
15	8.7	0.0	1.4	100	3.1	10	200	1.1	21	---	---	---
16	5.0	0.0	0.4	58	2.2	10	4.9	0.8	2.1	30	11	18
17	0.9	0.1	0.5	14	0.3	4.4	66	0.6	9.0	15	7.1	9.6
18	20	0.0	1.6	15	0.4	5.5	4.7	0.6	1.6	17	5.5	7.8
19	8.5	0.0	0.7	8.1	0.6	3.2	21	0.3	3.4	23	4.7	6.5
20	16	0.0	4.7	6.3	0.3	1.6	240	2.8	34	---	---	---
21	24	2.0	9.9	---	---	---	---	---	---	---	---	---
22	8.6	0.1	1.2	170	0.1	11	15	0.8	4.5	5.1	2.4	3.2
23	6.6	0.2	1.9	4.6	0.1	1.6	720	0.8	200	6.9	2.9	3.7
24	1.9	0.0	0.3	22	0.0	7.3	560	46	140	---	---	---
25	9.5	0.0	2.5	22	4.3	10	46	18	28	22	2.9	6.1
26	25	0.0	5.6	5.0	0.5	2.4	18	6.6	11	---	---	---
27	97	0.0	16	8.4	0.0	0.6	11	5.0	7.3	---	---	---
28	28	0.0	5.0	18	0.0	6.4	8.6	3.5	4.7	---	---	---
29	1.5	0.0	0.3	36	1.9	5.9	7.5	1.6	2.9	---	---	---
30	0.7	0.0	0.3	300	1.4	64	7.4	1.5	3.7	---	---	---
31	1.2	0.0	0.7	---	---	---	5.7	1.5	2.4	---	---	---
MONTH	97	0.0	4.7	500	0.0	14	720	0.3	30	54	0.5	5.5
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	27	10	18	40	4.7	8.1	85	12	25
2	---	---	---	11	4.4	6.4	800	29	320	15	7.0	9.5
3	---	---	---	7.0	3.4	4.3	380	43	170	10	4.6	6.9
4	---	---	---	14	2.9	3.6	46	17	28	9.7	0.8	3.2
5	---	---	---	21	2.5	3.4	---	---	---	3.8	0.9	1.6
6	---	---	---	9.2	2.5	2.9	---	---	---	5.0	0.9	1.8
7	---	---	---	10	2.5	3.2	---	---	---	6.0	0.7	1.5
8	---	---	---	100	2.6	4.7	58	7.5	14	5.3	0.6	1.6
9	---	---	---	44	11	22	8.4	4.8	6.4	2.8	0.6	1.2
10	---	---	---	14	6.9	10	6.2	4.5	5.0	4.0	0.9	1.7
11	---	---	---	7.5	3.6	5.1	9.2	3.9	4.8	---	---	---
12	---	---	---	11	3.2	4.7	5.7	3.8	4.5	3.8	0.7	2.0
13	---	---	---	9.5	2.7	3.6	8.0	4.1	4.9	6.7	1.2	2.5
14	---	---	---	12	2.6	5.2	8.4	4.2	5.2	190	2.1	23
15	98	22	41	18	2.4	4.6	7.0	3.9	4.7	---	---	---
16	23	10	14	15	2.4	5.7	7.5	4.1	4.7	---	---	---
17	11	4.6	7.8	31	2.3	6.3	8.7	3.4	4.3	---	---	---
18	---	---	---	41	2.3	5.5	14	4.3	8.3	4.7	0.9	1.7
19	4.1	2.9	3.4	8.5	2.3	3.2	12	2.9	3.7	3.3	1.0	1.5
20	3.8	2.6	2.9	7.0	2.1	3.4	17	3.2	5.0	140	1.1	88
21	19	2.6	5.1	9.5	2.8	4.7	21	3.5	8.5	61	9.6	24
22	17	2.9	7.3	18	1.8	4.6	25	6.0	12	11	3.4	6.2
23	5.4	2.8	3.3	---	---	---	83	4.1	16	4.4	1.2	2.6
24	24	2.6	9.7	---	---	---	43	14	23	32	2.0	13
25	19	7.0	11	---	---	---	---	---	---	24	10	16
26	8.7	3.8	5.0	20	6.6	10	---	---	---	11	3.7	6.3
27	6.1	2.7	3.6	12	4.4	6.7	3.1	0.9	1.5	4.7	1.5	2.5
28	30	2.6	11	480	10	170	2.7	0.7	1.2	3.6	1.1	2.0
29	---	---	---	330	36	130	2.5	0.7	1.3	4.1	0.9	1.9
30	---	---	---	---	---	---	130	1.3	36	3.9	0.9	1.8
31	---	---	---	14	6.9	9.5	---	---	---	3.6	1.2	2.1
MONTH	98	2.6	9.6	480	1.8	19	800	0.7	28	190	0.6	9.3

01651000 NORTHWEST BRANCH ANACOSTIA RIVER NEAR HYATTSVILLE, MD—Continued

TURBIDITY, WATER, UNFILTERED, FORMAZIN NEPHELOMETRIC UNITS (FNU)
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	2.4	0.2	1.1	22	7.1	12	37	13	23	20	1.7	4.5
2	2.5	0.5	1.2	110	10	34	17	8.9	12	15	1.5	4.9
3	60	1.5	17	23	3.0	7.4	26	4.8	12	44	1.8	5.3
4	8.8	2.8	4.6	13	1.9	5.9	12	2.9	5.4	53	1.8	6.7
5	3.2	0.8	1.8	22	2.8	8.7	11	1.4	3.1	56	2.0	6.6
6	520	0.7	28	---	---	---	12	1.0	3.1	80	2.0	6.9
7	440	17	65	---	---	---	10	0.8	2.8	51	0.9	4.8
8	17	5.2	8.7	480	10	230	320	0.7	19	40	1.1	4.3
9	76	4.7	16	79	12	31	42	8.2	15	54	1.3	5.6
10	27	4.5	13	14	3.5	7.4	32	6.7	14	34	1.3	6.0
11	10	2.4	4.4	6.9	1.8	3.6	15	5.5	7.7	24	0.9	4.0
12	6.0	2.4	3.7	5.2	0.6	2.1	34	4.7	14	17	1.0	3.1
13	4.7	0.9	1.9	2.5	0.4	1.2	---	---	---	38	1.1	3.6
14	3.2	0.3	1.2	32	0.4	4.2	---	---	---	19	1.4	4.9
15	2.6	0.4	0.9	500	22	87	9.6	0.6	3.4	21	1.8	4.1
16	1.9	0.5	1.0	240	6.7	66	27	1.1	5.7	---	---	---
17	1.9	0.5	1.1	210	40	93	19	4.7	9.0	11	0.1	2.7
18	1.7	0.4	0.9	200	8.7	36	9.2	1.9	4.2	14	0.8	3.3
19	2.2	0.5	0.9	17	3.8	8.7	30	3.1	13	9.9	1.1	3.7
20	2.0	0.6	1.0	5.0	2.0	3.4	12	4.3	7.2	12	1.5	3.9
21	3.0	0.4	0.9	2.8	1.1	1.8	9.9	2.2	3.8	45	1.6	7.2
22	1.6	0.6	0.9	3.1	0.5	1.3	16	2.1	5.2	19	1.9	5.1
23	1.5	0.5	0.9	690	0.5	170	22	2.7	6.0	13	2.2	4.2
24	1.6	0.4	1.0	29	3.9	13	18	1.5	5.1	26	2.1	5.7
25	1.8	0.4	1.0	15	3.4	7.2	13	1.6	4.4	18	2.2	5.0
26	4.1	0.3	1.3	5.6	1.1	2.9	39	2.0	5.6	60	2.0	6.9
27	6.0	0.4	1.5	250	0.9	44	41	2.6	6.1	39	3.2	8.2
28	6.9	0.3	1.5	260	20	75	51	2.6	14	21	1.3	3.8
29	260	0.0	38	260	9.7	45	22	1.3	4.3	16	0.2	2.8
30	130	17	37	150	26	57	18	1.8	5.1	8.5	0.2	2.5
31	---	---	---	28	12	19	19	1.9	5.0	---	---	---
MONTH	520	0.0	8.6	690	0.4	37	320	0.6	8.2	80	0.1	4.8
YEAR	800	0.0	15									



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 current year.

GAGE.--Water-stage recorder. Datum of gage is 0.0 ft NAVD 1988.

REMARKS.--Records good except for winter periods (frozen gage); Jan. 14, March 3, 9, 28, 30, Apr. 2, 3, July 15, when the stage exceeded maximum or minimum recordable levels; Aug. 25, dead battery. 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.--Maximum elevation, unknown; minimum elevation, unknown.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, unknown; minimum elevation, unknown.

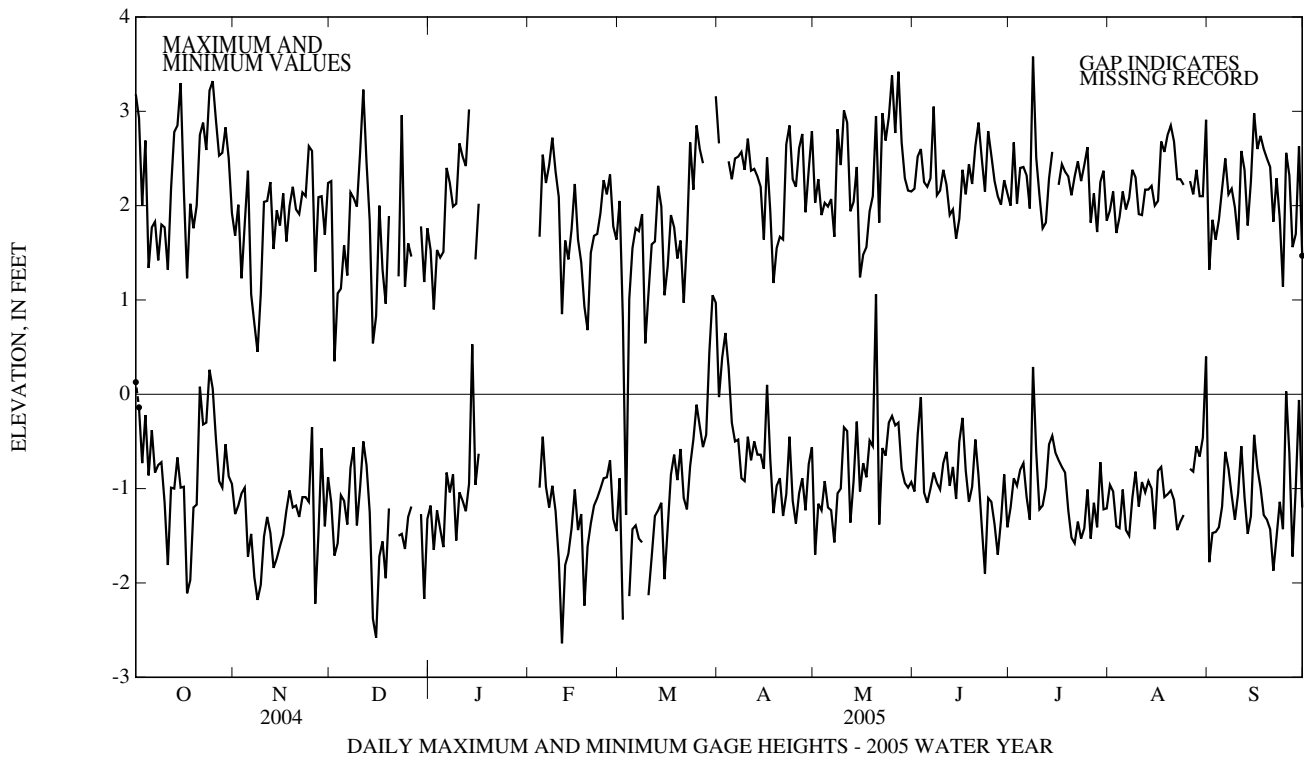
GAGE HEIGHT, FEET
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

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	3.18	0.13	1.68	-1.27	2.26	-1.15	1.53	-1.18	---	---	2.05	-0.89
2	2.93	-0.14	2.01	-1.18	0.35	-1.71	0.90	-1.65	---	---	0.80	-2.39
3	2.00	-0.73	1.23	-1.05	1.07	-1.58	1.53	-1.23	---	---	-1.28	---
4	2.69	-0.22	1.81	-0.99	1.12	-1.07	1.45	-1.43	1.67	-0.99	1.01	-2.14
5	1.34	-0.86	2.37	-1.72	1.58	-1.13	1.51	-1.62	2.54	-0.45	1.55	-1.43
6	1.77	-0.38	1.06	-1.48	1.26	-1.38	2.40	-0.83	2.24	-0.98	1.76	-1.39
7	1.83	-0.83	0.75	-1.94	2.14	-0.78	2.24	-1.04	2.43	-1.20	1.73	-1.53
8	1.42	-0.75	0.45	-2.18	2.08	-0.56	1.99	-0.85	2.72	-0.97	1.91	-1.57
9	1.80	-0.72	1.06	-2.02	1.99	-1.39	2.02	-1.55	2.36	-1.24	0.54	---
10	1.77	-1.15	2.04	-1.51	2.56	-0.99	2.66	-1.04	2.09	-1.75	1.07	-2.13
11	1.32	-1.81	2.05	-1.30	3.23	-0.50	2.52	-1.13	0.85	-2.64	1.59	-1.72
12	2.18	-0.99	2.25	-1.47	2.46	-0.75	2.42	-1.24	1.63	-1.81	1.62	-1.29
13	2.78	-1.00	1.54	-1.84	1.84	-1.25	3.02	-0.95	1.43	-1.69	2.21	-1.23
14	2.85	-0.67	1.95	-1.74	0.54	-2.38	---	0.53	1.75	-1.42	1.99	-1.15
15	3.30	-0.99	1.79	-1.61	0.83	-2.58	1.43	-0.96	2.23	-1.01	1.05	-1.96
16	2.16	-0.98	2.13	-1.49	2.00	-1.72	2.02	-0.63	1.64	-1.44	1.36	-1.41
17	1.23	-2.11	1.62	-1.23	1.32	-1.56	---	---	1.40	-1.27	1.90	-0.85
18	2.02	-1.97	2.00	-1.02	0.96	-1.95	---	---	0.93	-2.24	1.77	-0.64
19	1.76	-1.20	2.20	-1.20	1.89	-1.21	---	---	0.68	-1.61	1.44	-0.91
20	2.00	-1.17	1.96	-1.18	---	---	---	---	1.50	-1.37	1.63	-0.58
21	2.75	0.08	1.91	-1.30	---	---	---	---	1.68	-1.18	0.97	-1.10
22	2.88	-0.32	2.14	-1.09	1.25	-1.50	---	---	1.70	-1.10	1.65	-1.22
23	2.59	-0.30	2.10	-1.09	2.96	-1.48	---	---	1.92	-1.00	2.67	-0.76
24	3.22	0.26	2.63	-1.14	1.14	-1.64	---	---	2.27	-0.89	2.17	-0.48
25	3.32	0.06	2.58	-0.35	1.60	-1.30	---	---	2.12	-0.88	2.85	-0.11
26	2.91	-0.47	1.30	-2.22	1.46	-1.19	---	---	2.33	-0.70	2.60	-0.34
27	2.53	-0.92	2.09	-1.48	---	---	---	---	1.78	-1.32	2.45	-0.56
28	2.56	-0.99	2.10	-0.57	---	---	---	---	1.64	-1.45	---	-0.43
29	2.83	-0.53	1.69	-1.40	1.78	-1.27	---	---	---	---	2.42	0.45
30	2.50	-0.87	2.24	-0.88	1.19	-2.17	---	---	---	---	---	1.05
31	1.92	-0.95	---	---	1.76	-1.32	---	---	---	---	3.16	0.97
MAX	3.32	0.26	2.63	-0.35	3.23	-0.50	3.02	0.53	2.72	-0.45	3.16	1.05
MIN	1.23	-2.11	0.45	-2.22	0.35	-2.58	0.90	-1.65	0.68	-2.64	-1.28	-2.39

01651750 ANACOSTIA RIVER AQUATIC GARDENS AT WASHINGTON, DC—Continued

GAGE HEIGHT, FEET—CONTINUED
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

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
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	2.66	-0.03	2.03	-1.70	2.18	-1.03	2.00	-1.20	1.95	-0.96	1.32	-1.78
2	---	0.39	2.28	-1.16	2.52	-0.43	2.67	-0.89	2.15	-1.03	1.85	-1.47
3	---	0.65	1.90	-1.23	2.60	-0.03	2.02	-0.97	1.71	-1.40	1.64	-1.46
4	2.47	0.28	2.03	-0.92	2.25	-1.04	2.40	-0.80	1.88	-1.42	1.85	-1.41
5	2.28	-0.30	1.99	-1.20	2.20	-1.15	2.41	-0.73	2.15	-1.01	2.18	-1.19
6	2.50	-0.50	2.07	-1.23	2.29	-1.00	2.32	-1.09	1.96	-1.44	2.50	-0.61
7	2.52	-0.48	1.67	-1.57	3.05	-0.83	1.97	-1.33	2.08	-1.50	2.12	-0.79
8	2.57	-0.89	2.81	-1.05	2.11	-0.94	3.58	0.29	2.38	-1.10	2.18	-1.07
9	2.38	-0.92	2.43	-1.00	2.16	-1.01	2.51	-0.61	2.30	-0.82	1.98	-1.33
10	2.71	-0.45	3.01	-0.35	2.38	-0.73	2.11	-1.22	1.91	-1.19	1.64	-1.05
11	2.37	-0.70	2.88	-0.39	2.22	-0.61	1.76	-1.18	1.90	-0.93	2.58	-0.55
12	2.39	-0.50	1.94	-1.36	1.90	-0.97	1.82	-0.99	2.17	-1.04	2.38	-1.09
13	2.31	-0.64	2.04	-0.92	1.96	-0.77	2.29	-0.53	2.17	-0.92	1.79	-1.48
14	2.20	-0.64	2.41	-0.29	1.65	-1.11	2.57	-0.44	2.21	-1.00	2.26	-1.29
15	1.64	-0.79	1.24	-1.03	1.86	-0.50	---	-0.62	2.00	-1.43	2.98	-0.43
16	2.51	0.10	1.48	-0.73	2.38	-0.25	2.22	-0.70	2.05	-0.81	2.60	-0.78
17	1.94	-0.69	1.56	-0.88	2.12	-0.81	2.44	-0.77	2.68	-0.77	2.74	-0.99
18	1.18	-1.26	1.94	-0.49	2.44	-1.14	2.36	-0.83	2.57	-1.09	2.60	-1.28
19	1.55	-0.97	2.10	-0.55	2.23	-0.98	2.31	-1.23	2.75	-1.06	2.50	-1.33
20	1.67	-0.89	2.95	1.06	2.63	-0.48	2.11	-1.52	2.85	-1.02	2.41	-1.43
21	1.64	-1.29	1.82	-1.38	2.88	-0.87	2.31	-1.58	2.68	-1.12	1.83	-1.87
22	2.65	-1.06	2.98	-0.57	2.50	-1.40	2.47	-1.35	2.28	-1.44	2.29	-1.51
23	2.85	-0.45	2.69	-0.65	2.15	-1.90	2.26	-1.53	2.28	-1.35	1.86	-1.14
24	2.28	-1.13	2.94	-0.30	2.79	-1.10	2.43	-1.42	2.22	-1.28	1.14	-1.43
25	2.20	-1.37	3.38	-0.23	2.53	-1.14	2.62	-1.01	---	---	2.56	0.03
26	2.61	-1.05	2.77	-0.33	2.26	-1.38	1.82	-1.53	2.26	-0.79	2.32	-0.63
27	2.76	-0.89	3.42	-0.30	2.10	-1.70	2.13	-1.15	2.12	-0.82	1.56	-1.72
28	1.93	-1.23	2.67	-0.79	2.01	-1.34	1.72	-1.41	2.38	-0.55	1.70	-0.98
29	2.38	-0.74	2.29	-0.94	2.27	-0.85	2.25	-0.72	2.10	-0.66	2.63	-0.06
30	2.79	-0.56	2.16	-0.99	2.13	-1.41	2.37	-1.22	2.10	-0.46	1.47	-1.20
31	---	---	2.15	-0.93	---	---	1.84	-1.21	2.91	0.40	---	---
MAX	2.85	0.65	3.42	1.06	3.05	-0.03	3.58	0.29	2.91	0.40	2.98	0.03
MIN	1.18	-1.37	1.24	-1.70	1.65	-1.90	1.72	-1.58	1.71	-1.50	1.14	-1.87
YEAR	HIGH HIGH	MAXIMUM UNKNOWN				MINIMUM -1.28						
	LOW LOW	MAXIMUM 1.06				MINIMUM UNKNOWN						



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 mi².

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 ft³/s, which are fair, and 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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec 23	1515	372	4.09	Apr 2	1200	428	4.33
Jan 14	0500	*579	*4.91	May 20	0940	369	4.08
Mar 28	1200	543	4.78	Jul 8	0605	428	4.33

Minimum discharge, 0.41 ft³/s, Aug. 25, 26.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.0	1.7	8.5	2.2	2.3	8.1	7.9	7.6	1.6	3.3	0.71	0.53
2	10	1.7	2.5	2.2	2.2	3.4	67	2.4	1.6	2.9	1.7	0.53
3	2.4	1.8	2.5	2.2	2.2	2.6	22	2.0	10	1.3	2.0	0.49
4	2.0	35	1.9	2.1	3.1	2.5	6.2	1.9	2.1	1.3	1.1	0.57
5	1.8	4.4	1.9	4.3	2.9	2.3	4.7	1.8	1.7	9.4	0.96	0.53
6	1.7	2.5	2.3	2.4	2.6	2.2	4.3	1.9	20	4.5	0.84	0.54
7	1.7	2.0	7.5	2.2	2.4	2.2	4.8	1.8	18	2.9	0.69	0.58
8	1.6	2.0	4.6	4.3	2.0	22	11	1.7	3.5	49	11	0.60
9	1.6	2.1	14	2.3	2.0	3.7	4.0	1.8	7.0	2.4	2.6	0.60
10	1.6	2.1	9.3	2.1	3.3	2.9	3.5	1.8	2.4	1.8	0.89	0.62
11	1.6	1.7	6.8	2.8	1.9	3.5	3.5	1.8	1.7	1.5	0.72	0.60
12	1.6	47	3.4	3.1	1.8	2.7	3.2	2.2	1.6	1.4	1.2	0.58
13	2.2	10	2.7	4.2	1.7	2.4	3.1	2.1	1.6	1.1	0.86	0.68
14	1.8	3.3	2.3	104	10	2.2	2.9	26	2.5	1.1	1.2	0.70
15	1.8	2.8	2.2	5.9	3.9	2.2	2.9	3.0	2.2	5.4	1.1	0.63
16	1.9	2.4	2.0	3.4	2.5	2.0	2.7	1.7	1.5	5.2	3.0	0.91
17	1.7	2.3	2.0	e2.6	1.9	2.0	2.7	1.6	1.3	1.8	1.0	1.9
18	1.6	2.4	1.9	e2.0	1.7	2.1	2.6	1.5	1.8	1.4	0.59	0.55
19	4.0	2.5	3.1	2.2	1.7	2.0	2.4	1.5	1.1	1.5	5.0	0.49
20	2.9	2.7	2.4	2.7	1.7	3.2	2.7	112	1.2	1.7	0.88	0.81
21	4.5	2.3	1.8	2.3	5.9	2.2	3.3	5.4	1.6	2.3	0.62	0.79
22	1.8	2.0	1.7	2.4	3.1	2.1	4.5	2.9	1.2	1.4	0.56	0.53
23	1.7	2.3	25	2.4	2.1	77	6.0	2.4	1.0	5.2	0.56	0.59
24	1.8	3.0	4.3	2.4	5.7	7.4	2.8	11	1.1	0.82	0.53	0.57
25	2.2	4.6	3.0	2.8	4.9	5.3	2.2	3.2	1.1	1.9	0.43	0.60
26	3.2	2.1	2.7	3.3	3.6	4.0	2.1	2.4	1.2	1.1	0.48	0.85
27	2.2	2.0	2.3	2.6	2.8	3.8	2.0	2.1	1.4	1.6	0.69	0.70
28	1.5	6.3	2.2	2.1	6.0	64	2.0	1.8	1.5	1.0	6.0	0.56
29	1.6	2.2	2.2	2.1	---	7.8	2.0	1.5	10	1.1	0.60	0.57
30	1.6	2.2	2.2	4.2	---	4.9	25	1.5	1.8	1.0	0.53	0.54
31	1.6	---	2.2	3.2	---	4.1	---	1.6	---	0.65	0.53	---
TOTAL	71.2	161.4	133.4	189.0	87.9	258.8	216.0	213.9	106.3	118.97	49.57	19.74
MEAN	2.30	5.38	4.30	6.10	3.14	8.35	7.20	6.90	3.54	3.84	1.60	0.66
MAX	10	47	25	104	10	77	67	112	20	49	11	1.9
MIN	1.5	1.7	1.7	2.0	1.7	2.0	2.0	1.5	1.0	0.65	0.43	0.49
CFSM	0.70	1.64	1.31	1.86	0.96	2.55	2.20	2.10	1.08	1.17	0.49	0.20
IN.	0.81	1.83	1.51	2.14	1.00	2.94	2.45	2.43	1.21	1.35	0.56	0.22

e Estimated

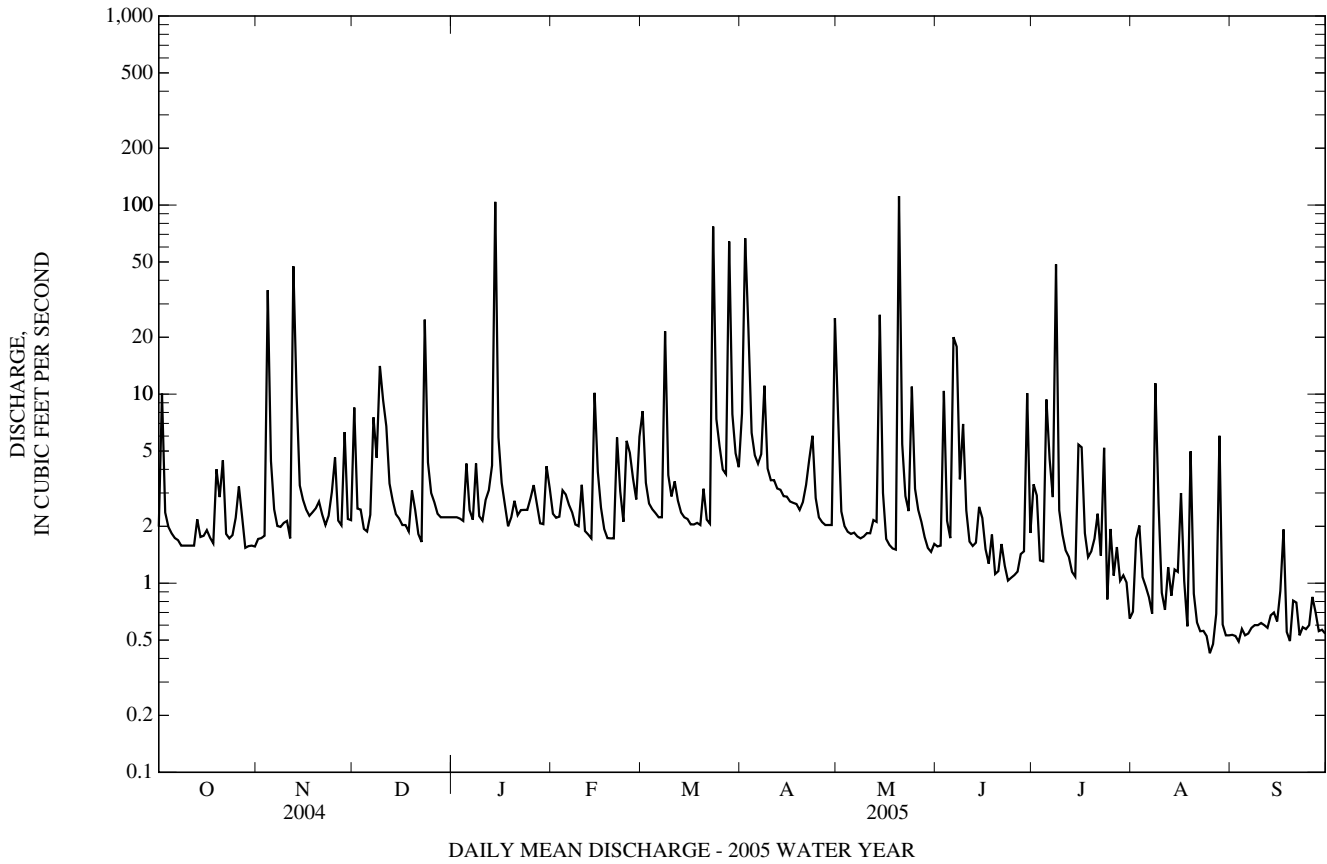
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 2005, BY WATER YEAR (WY)

MEAN	2.92	4.22	4.41	5.40	5.30	7.73	4.83	4.88	4.21	3.97	3.08	4.07
MAX	9.08	7.38	9.57	9.71	11.3	15.7	7.20	8.78	12.7	9.99	7.10	13.0
(WY)	(1996)	(2004)	(1997)	(1996)	(1998)	(1994)	(2005)	(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	0.66
(WY)	(1999)	(2002)	(2002)	(2002)	(2002)	(2002)	(1995)	(1999)	(2002)	(2002)	(1998)	(2005)

01651800 WATTS BRANCH AT WASHINGTON, D.C.—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1992 - 2005	
ANNUAL TOTAL	1,946.3		1,626.18		4.60	
ANNUAL MEAN	5.32		4.46		7.25	
HIGHEST ANNUAL MEAN					1.76	
LOWEST ANNUAL MEAN					204	
HIGHEST DAILY MEAN	(e)150	Jul 4	112	May 20	Sep 16, 1999	
LOWEST DAILY MEAN	1.3	May 30	0.43	Aug 25	(a)	
ANNUAL SEVEN-DAY MINIMUM	1.6	Jul 10	0.53	Aug 30	0.19	
MAXIMUM PEAK FLOW			579	Jan 14	(b,e)1,800	Jul 4, 2004
MAXIMUM PEAK STAGE			4.91	Jan 14	(c)8.50	Sep 23, 2003
INSTANTANEOUS LOW FLOW			0.41	(d)	UNKNOWN	
ANNUAL RUNOFF (CFSM)	1.62		1.36		1.40	
ANNUAL RUNOFF (INCHES)	22.07		18.44		19.05	
10 PERCENT EXCEEDS	9.3		6.2		9.4	
50 PERCENT EXCEEDS	2.5		2.2		2.0	
90 PERCENT EXCEEDS	1.7		0.70		0.72	

- e Estimated.
- a Sept. 7, 12, 20, 2002.
- b From rating curve extended above 260 ft³/s.
- c From high water mark (affected from backwater).
- d Aug. 25, 26.



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 mi².

PERIOD OF RECORD.--October 1965 to September 2005 (discontinued).

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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov 13	0630	724	6.75	Mar 28	1945	806	6.93
Jan 15	0215	*993	*7.29	Apr 3	0730	840	7.00
Mar 24	0030	664	6.61	May 21	0515	960	7.23

Minimum discharge, 0.00 ft³/s, Sept. 11-30.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	13	50	31	41	82	79	102	26	12	6.3	3.5
2	44	13	44	31	40	74	333	58	24	14	5.4	2.1
3	43	12	35	30	41	55	643	47	58	8.9	4.5	0.85
4	26	95	31	31	44	50	176	41	46	6.7	3.5	0.43
5	20	214	30	35	57	49	111	38	32	18	2.9	0.41
6	17	42	29	35	56	48	92	37	27	83	3.2	0.21
7	16	29	54	31	51	47	85	35	163	18	2.5	0.10
8	16	24	51	36	48	149	124	32	43	171	2.0	0.05
9	14	21	64	35	46	90	85	29	28	43	17	0.03
10	14	20	212	33	45	61	73	28	32	18	17	0.02
11	13	25	98	30	38	56	67	26	22	13	7.5	0.01
12	12	256	77	32	35	52	64	24	19	11	5.7	0.00
13	13	524	56	30	33	47	63	23	17	11	4.3	0.00
14	16	92	47	608	47	43	59	22	15	11	3.0	0.00
15	15	58	43	397	100	41	55	86	14	95	2.3	0.00
16	19	47	40	90	53	40	53	33	17	89	2.0	0.00
17	16	40	40	68	45	40	51	23	17	25	8.9	0.00
18	13	37	38	54	38	39	51	20	12	17	4.1	0.00
19	14	38	38	50	35	37	48	19	11	13	4.2	0.00
20	25	35	39	54	34	40	48	503	10	12	11	0.00
21	26	41	33	51	40	47	46	451	11	9.7	4.8	0.00
22	20	34	36	43	83	38	55	74	10	14	2.8	0.00
23	16	33	61	45	49	305	80	56	9.8	56	1.6	0.00
24	15	34	90	42	49	348	111	79	8.6	15	0.91	0.00
25	15	46	45	45	58	93	56	94	7.7	11	0.73	0.00
26	15	41	38	48	58	77	49	57	7.0	11	0.50	0.00
27	14	31	35	50	63	67	45	46	6.9	7.6	0.81	0.00
28	13	76	31	34	60	374	42	39	7.5	11	21	0.00
29	14	45	34	34	---	418	38	35	8.4	8.6	8.5	0.00
30	15	35	34	45	---	123	99	32	31	8.4	4.5	0.00
31	14	---	33	43	---	90	---	30	---	7.2	4.2	---
TOTAL	572	2,051	1,586	2,221	1,387	3,120	2,981	2,219	740.9	849.1	167.65	7.71
MEAN	18.5	68.4	51.2	71.6	49.5	101	99.4	71.6	24.7	27.4	5.41	0.26
MAX	44	524	212	608	100	418	643	503	163	171	21	3.5
MIN	12	12	29	30	33	37	38	19	6.9	6.7	0.50	0.00
CFSM	0.47	1.73	1.30	1.81	1.25	2.55	2.52	1.81	0.63	0.69	0.14	0.01
IN.	0.54	1.93	1.49	2.09	1.31	2.94	2.81	2.09	0.70	0.80	0.16	0.01

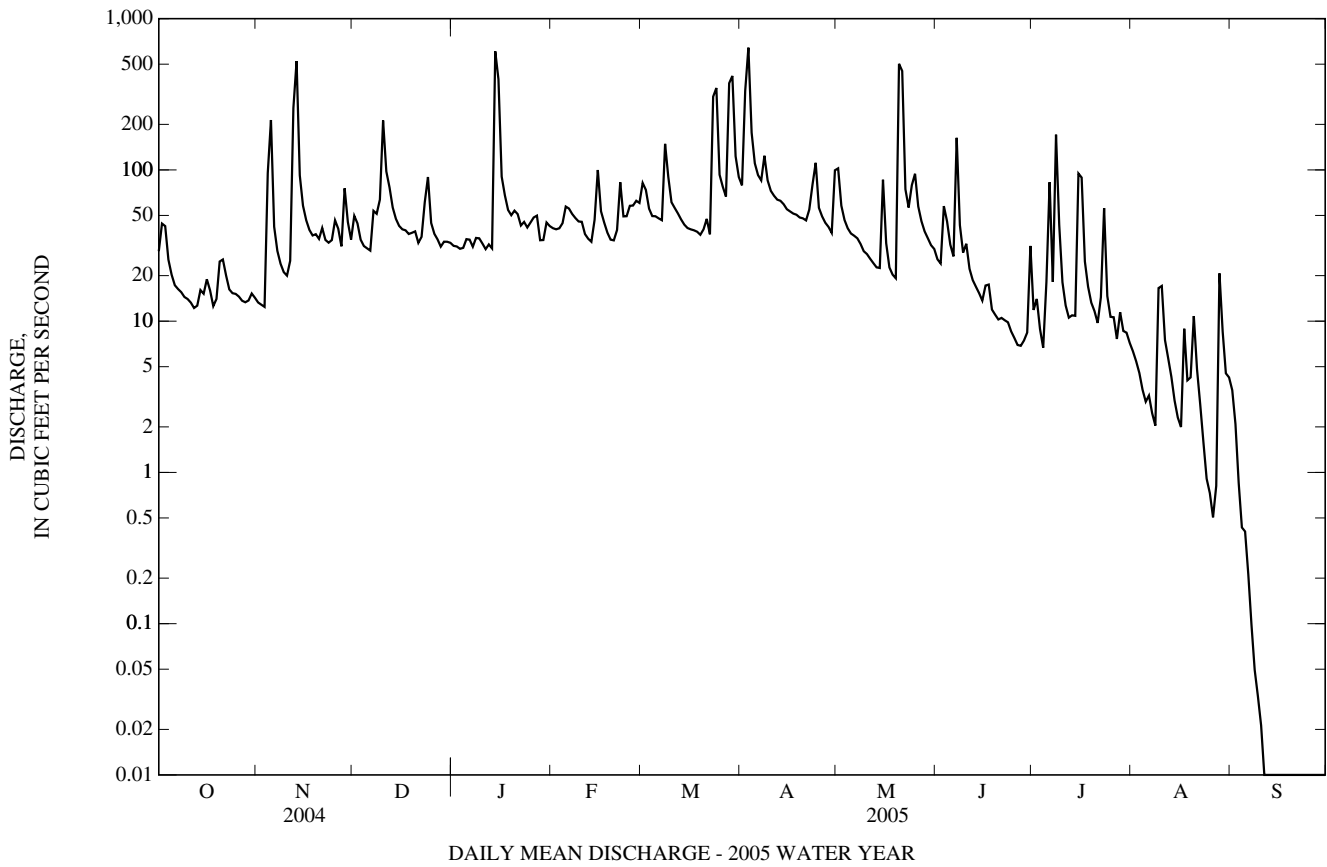
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 2005, BY WATER YEAR (WY)

MEAN	27.0	34.1	52.5	62.0	70.3	84.1	66.2	48.0	32.8	19.8	20.3	30.6
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 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1966 - 2005	
ANNUAL TOTAL	18,110.6		17,902.36		45.5	
ANNUAL MEAN	49.5		49.0		85.9	
HIGHEST ANNUAL MEAN					8.86	
LOWEST ANNUAL MEAN					2002	
HIGHEST DAILY MEAN	761	Feb 7	643	Apr 3	4,500	Sep 6, 1979
LOWEST DAILY MEAN	6.0	Sep 4	0.00	(a)	0.00	(b)
ANNUAL SEVEN-DAY MINIMUM	6.7	Sep 1	0.00	Sep 12	0.00	Jul 9, 1966
MAXIMUM PEAK FLOW			993	Jan 15	(c)8,540	Sep 6, 1979
MAXIMUM PEAK STAGE			7.29	Jan 15	11.21	Sep 6, 1979
INSTANTANEOUS LOW FLOW			0.00	(d)	0.00	(f)
ANNUAL RUNOFF (CFSM)	1.25		1.24		1.15	
ANNUAL RUNOFF (INCHES)	17.06		16.86		15.66	
10 PERCENT EXCEEDS	82		89		90	
50 PERCENT EXCEEDS	35		34		24	
90 PERCENT EXCEEDS	12		2.2		1.5	

- a Sept. 12-30.
- b Many days.
- c From rating curve extended above 1,700 ft³/s on basis of contracted-opening measurement of peak flow at bridge 100 ft upstream.
- d No flow at times in 1966, 1970, 1977, 1980-83, 1985-89, 1991-95, 1997-99, 2002, 2005.
- f Sept. 11-30.



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 mi².

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 estimated daily discharges, which are fair. Maximum discharge, 12,000 ft³/s, from rating curve extended above 6,600 ft³/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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan 14	0945	*3,460	*10.56	May 20	1645	2,420	9.43
Mar 28	2130	2,410	9.42	Jul 8	0845	2,530	9.57
Apr 2	1645	2,380	9.38				

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.4	5.6	56	11	e13	58	19	158	11	11	6.2	3.6
2	40	5.6	13	9.5	e12	25	686	29	9.8	10	6.0	2.8
3	9.8	5.7	10	9.4	14	17	245	20	89	6.8	5.1	2.8
4	8.3	230	9.1	9.4	21	15	57	18	20	6.3	4.6	2.5
5	6.7	37	8.6	16	20	15	36	16	13	6.3	4.6	2.4
6	6.1	11	8.3	11	17	15	30	15	11	102	20	2.3
7	6.1	9.1	54	9.8	15	14	28	15	145	12	4.9	2.1
8	6.1	7.8	47	30	15	182	94	16	17	832	73	2.0
9	6.2	7.0	107	11	15	30	28	13	12	29	123	1.9
10	6.0	6.8	116	9.9	29	20	23	12	12	14	15	1.8
11	5.2	6.7	40	9.7	13	19	20	12	12	10	7.6	2.0
12	5.0	420	18	12	13	17	18	12	11	9.0	6.3	2.1
13	5.3	99	14	13	12	15	18	11	21	33	5.3	1.6
14	6.2	18	12	950	40	13	17	113	39	21	4.7	5.8
15	20	13	10	41	36	13	16	67	11	231	4.1	6.5
16	19	11	10	23	17	13	14	16	9.8	86	26	2.4
17	9.0	9.8	10	19	15	13	14	13	9.3	39	30	1.8
18	5.0	9.4	9.8	14	13	13	15	12	8.9	14	5.5	1.6
19	6.4	9.1	10	13	12	12	14	11	7.4	11	52	1.5
20	27	13	e9.6	e13	12	13	14	812	7.4	9.7	9.6	1.3
21	44	15	8.3	e12	28	12	22	64	7.4	8.9	5.3	1.5
22	8.9	8.8	8.3	e11	36	11	48	25	7.5	8.0	4.0	1.5
23	6.5	8.3	218	e11	13	360	131	30	18	16	3.6	2.4
24	6.2	20	46	e10	27	53	49	124	7.5	6.9	3.5	1.6
25	6.7	22	17	e11	33	26	19	69	7.1	12	3.4	1.3
26	5.8	10	13	e13	22	21	15	22	6.5	7.9	3.1	1.4
27	5.2	8.1	11	e12	21	18	15	16	5.8	33	29	5.9
28	5.3	52	10	e10	25	734	14	14	5.6	33	21	2.1
29	5.5	11	10	e9.7	---	78	13	13	60	15	5.9	1.2
30	7.4	9.1	10	e16	---	23	177	13	97	11	4.3	1.0
31	5.4	---	10	e14	---	17	---	12	---	6.8	3.8	---
TOTAL	319.7	1,098.9	934.0	1,364.4	559	1,885	1,909	1,793	699.0	1,651.6	500.4	70.7
MEAN	10.3	36.6	30.1	44.0	20.0	60.8	63.6	57.8	23.3	53.3	16.1	2.36
MAX	44	420	218	950	40	734	686	812	145	832	123	6.5
MIN	5.0	5.6	8.3	9.4	12	11	13	11	5.6	6.3	3.1	1.0
CFSM	0.44	1.56	1.28	1.87	0.85	2.59	2.71	2.46	0.99	2.27	0.69	0.10
IN.	0.51	1.74	1.48	2.16	0.88	2.98	3.02	2.84	1.11	2.61	0.79	0.11

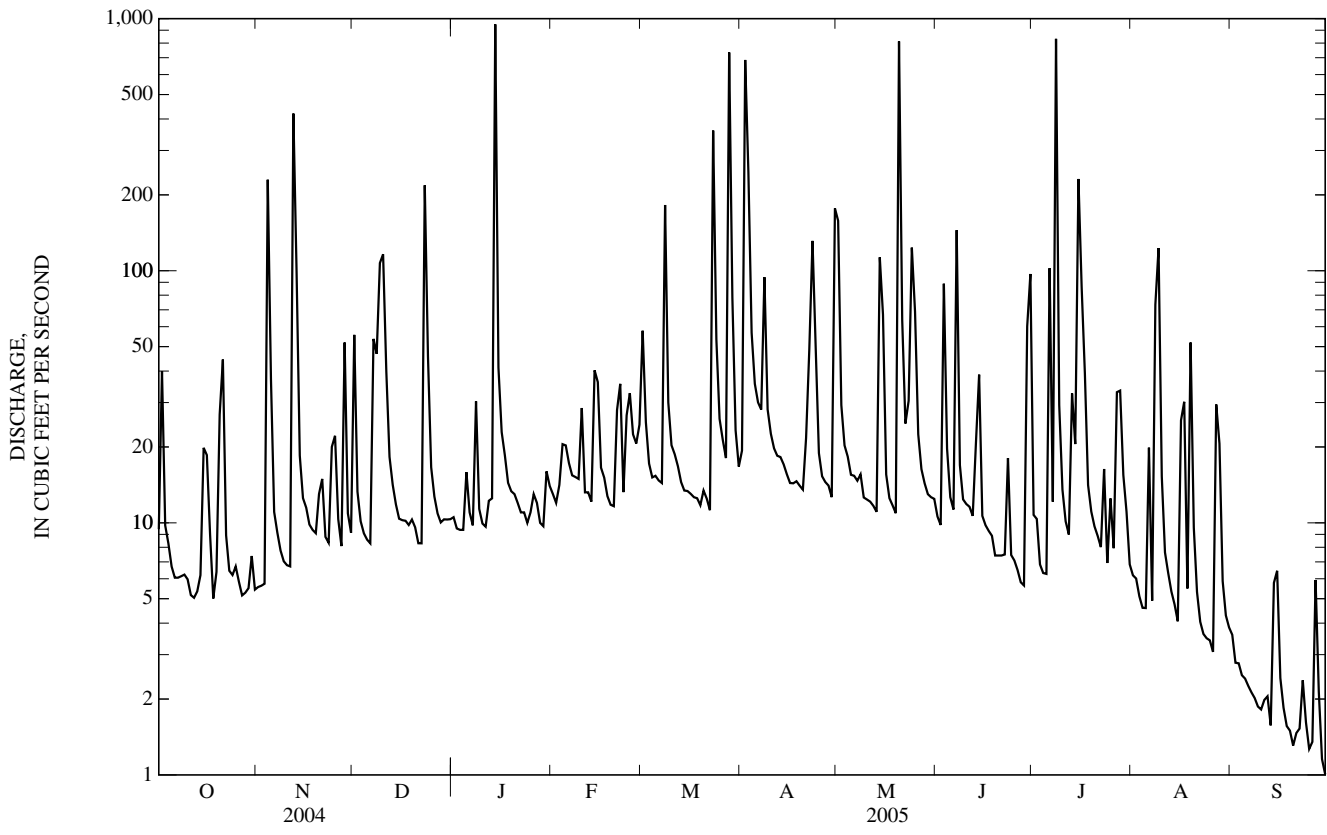
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1948 - 2005, BY WATER YEAR (WY)

MEAN	18.0	24.7	29.1	32.3	36.0	42.6	35.8	33.2	26.4	22.0	22.1	23.2
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 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1948 - 2005	
ANNUAL TOTAL	11,599.7		12,784.7			
ANNUAL MEAN	31.7		35.0		28.7	
HIGHEST ANNUAL MEAN					50.9	2003
LOWEST ANNUAL MEAN					10.8	2002
HIGHEST DAILY MEAN	642	Jun 5	950	Jan 14	e3,300	Jun 22, 1972
LOWEST DAILY MEAN	3.7	Sep 5	1.0	Sep 30	0.00 (a)	Aug 5, 1999
ANNUAL SEVEN-DAY MINIMUM	4.0	Sep 1	1.6	Sep 20	0.00 (b)	Aug 5, 1999
MAXIMUM PEAK FLOW			3,460	Jan 14	12,000	Jun 22, 1972
MAXIMUM PEAK STAGE			10.56	Jan 14	c15.96	Jun 22, 1972
INSTANTANEOUS LOW FLOW			0.94	Sep 30	0.00	(d)
ANNUAL RUNOFF (CFSM)	1.35		1.49		1.22	
ANNUAL RUNOFF (INCHES)	18.36		20.24		16.62	
10 PERCENT EXCEEDS	62		55		52	
50 PERCENT EXCEEDS	14		12		12	
90 PERCENT EXCEEDS	5.9		4.6		3.3	

- 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 No flow part or all of each day Aug. 5-14, 1999 and Aug. 12, 13, 18-24, 2002.
- e Estimated.



DAILY MEAN DISCHARGE - 2005 WATER YEAR

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.

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.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

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)	Specific conductance, wat unfltrd 25 degC (00095)	Temperature, air, deg C (00020)
NOV 03...	1030	Environmental	1028	80020	5.4	40	769	7.7	75	7.1	306	15.5
JAN 05...	1230	Environmental	1028	80020	26	40	756	11.8	104	7.1	312	8.5
MAR 07...	1130	Environmental	1028	80020	14	40	752	15.2	124	7.0	1,150	9.0
MAY 02...	1100	Environmental	1028	80020	29	40	756	13.3	129	7.2	242	19.0
JUL 06...	1015	Blank	1028	80020	--	--	--	--	--	--	--	--
JUL 06...	1045	Environmental	1028	80020	50	40	757	7.0	83	6.6	110	22.5
AUG 18...	1000	Biological	--	80020	--	--	--	--	--	--	--	--
SEP 07...	0945	Environmental	1028	80020	1.9	40	765	9.2	99	7.1	276	22.0

Date	Temperature, water, deg C (00010)	Alkalinity, wat flt inc tit mg/L as CaCO3 (39086)	Bicarbonate, wat flt 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)	Total nitrogen, wat unfltrd by analysis, mg/L (62855)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	Biomass periphyton, ashfree drymass g/m2 (49954)
NOV 03...	15.0	49	60	53.6	7.4	<.04	--	.19	<.008	.28	E.004	<.004	--
JAN 05...	9.2	36	44	55.2	10.4	.05	1.39	1.40	.009	1.73	<.006	.030	--
MAR 07...	5.8	36	44	308	13.4	<.04	--	1.24	E.006	1.46	E.003	.022	--
MAY 02...	13.5	33	40	42.8	9.2	E.03	.83	.84	.008	1.30	<.006	.052	--
JUL 06...	--	--	--	<.20	<.2	<.04	--	<.06	<.008	<.06	<.006	<.004	--
JUL 06...	23.4	16	20	16.0	5.0	.07	.57	.59	.017	1.27	.020	.153	--
AUG 18...	--	--	--	--	--	--	--	--	--	--	--	--	17.9
SEP 07...	19.0	34	41	45.4	8.4	<.04	--	.42	<.008	.67	E.003	.032	--

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 2004 TO SEPTEMBER 2005—CONTINUED

Date	Peri- phyton biomass ash weight, g/m2 (00572)	Peri- phyton biomass dry weight, g/m2 (00573)	Pheo- phytin a, peri- phyton, mg/m2 (62359)	Chloro- phyll a peri- phyton, chromo- fluoro, mg/m2 (70957)	1-Naph- thol, water, fltrd 0.7u GF ug/L (49295)	2,6-Di- ethyl- aniline water fltrd 0.7u GF ug/L (82660)	2Chloro -2',6'- diethyl acet- anilide wat flt ug/L (61618)	CIAT, water, fltrd, ug/L (04040)	2-Ethyl -6- methyl- aniline water, fltrd, ug/L (61620)	3,4-Di- chloro- aniline water, fltrd, ug/L (61625)	3,5-Di- chloro- aniline water, fltrd, ug/L (61627)	4Chloro 2methyl phenol, water, fltrd, ug/L (61633)	Aceto- chlor, water, fltrd, ug/L (49260)
NOV 03...	--	--	--	--	<.09	<.006	<.005	<.006	<.004	<.004	<.004	<.006	<.006
JAN 05...	--	--	--	--	<.09	<.006	<.005	<.008	<.004	<.004	--	<.006	<.006
MAR 07...	--	--	--	--	<.09	<.006	<.005	<.006	<.004	<.004	--	<.006	<.006
MAY 02...	--	--	--	--	M	<.006	<.005	E.011	<.004	E.044	--	E.009	.008
JUL 06...	--	--	--	--	<.09	<.006	<.005	<.006	<.004	<.004	<.004	<.006	<.006
JUL 06...	--	--	--	--	<.09	<.006	<.005	<.006	<.004	E.019	<.004	<.010	<.015
AUG 18...	420	437.3	18	46.0	--	--	--	--	--	--	--	--	--
SEP 07...	--	--	--	--	M	<.006	<.005	<.007	<.004	E.011	<.004	<.006	<.006

Date	Ala- chlor, water, fltrd, ug/L (46342)	alpha- Endo- sulfan, water, fltrd, ug/L (34362)	alpha- HCH, water, fltrd, ug/L (34253)	alpha- HCH-d6, surrog, Sch2003 wat flt percent recovery (99995)	alpha- HCH-d6, surrog, wat flt 0.7u GF percent recovery (91065)	Atra- zine, water, fltrd, ug/L (39632)	Azin- phos- methyl oxon, water, fltrd, ug/L (61635)	Azin- phos- methyl, water, fltrd 0.7u GF ug/L (82686)	Ben- flur- alin, water, fltrd 0.7u GF ug/L (82673)	Butyl- ate, water, fltrd, ug/L (04028)	Car- baryl, water, fltrd 0.7u GF ug/L (82680)	Carbo- furan, water, fltrd 0.7u GF ug/L (82674)	Chlor- pyrifos oxon, water, fltrd, ug/L (61636)
NOV 03...	<.005	<.005	<.005	--	87.8	<.007	<.07	<.050	<.010	<.004	<.041	<.020	<.06
JAN 05...	<.005	--	--	89.2	--	<.007	<.07	<.050	<.010	--	<.041	--	<.06
MAR 07...	<.005	--	--	89.1	--	<.007	<.07	<.050	<.010	--	<.041	--	<.06
MAY 02...	.007	--	--	101	--	.027	<.07	<.050	E.007	--	E.016	--	<.06
JUL 06...	<.005	<.005	--	97.3	--	<.007	<.07	<.050	<.010	--	<.041	<.020	<.06
JUL 06...	<.005	<.005	--	91.8	--	.009	<.07	<.050	<.010	--	E.168	<.020	<.06
AUG 18...	--	--	--	--	--	--	--	--	--	--	--	--	--
SEP 07...	<.005	<.005	--	94.2	--	<.007	<.07	<.050	<.010	--	E.018	<.020	<.06

Date	Chlor- pyrifos water, fltrd, ug/L (38933)	cis- Per- methrin water fltrd 0.7u GF ug/L (82687)	cis- Propi- cona- zole, water, fltrd, ug/L (79846)	Cyana- zine, water, fltrd, ug/L (04041)	Cyclo- ate, water, fltrd, ug/L (04031)	Cyflu- thrin, water, fltrd, ug/L (61585)	Cyper- methrin water, fltrd, ug/L (61586)	DCPA, water fltrd 0.7u GF ug/L (82682)	Desulf- inyl fipro- nil, water, fltrd, ug/L (62170)	Diaz- inon oxon, water, fltrd, ug/L (61638)	Diaz- inon, water, fltrd, ug/L (39572)	Diazi- non-d10 surrog, Sch2003 wat flt percent recovery (99994)	Diazi- non-d10 surrog, wat flt 0.7u GF percent recovery (91063)
NOV 03...	<.005	<.006	<.008	<.018	<.005	<.008	<.009	<.003	<.012	--	<.005	--	94.6
JAN 05...	<.005	<.006	--	--	--	<.008	<.009	<.003	E.006	<.01	<.005	117	--
MAR 07...	<.030	<.006	--	--	--	<.150	<.150	<.003	<.012	<.01	<.005	115	--
MAY 02...	<.007	<.006	--	--	--	<.027	<.009	E.002	E.006	<.01	.009	112	--
JUL 06...	<.005	<.006	<.008	<.018	--	<.027	<.009	<.003	<.012	<.01	<.005	107	--
JUL 06...	E.006	<.006	E.020	<.018	--	<.027	<.009	<.003	E.007	<.01	.022	123	--
AUG 18...	--	--	--	--	--	--	--	--	--	--	--	--	--
SEP 07...	<.005	<.006	<.008	<.018	--	<.027	<.009	<.003	E.007	<.01	.018	124	--

01654000 ACCOTINK CREEK NEAR ANNANDALE, VA—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Dicrotophos, water fltrd, ug/L (38454)	Dieldrin, water, fltrd, ug/L (39381)	Dimethoate, water, fltrd 0.7u GF ug/L (82662)	Disulfoton sulfone water, fltrd, ug/L (61640)	Disulfoton, water, fltrd 0.7u GF ug/L (82677)	Endosulfan sulfate water, fltrd, ug/L (61590)	EPTC, water, fltrd 0.7u GF ug/L (82668)	Ethalfuralin, 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 sulf-oxide, water, fltrd, ug/L (61646)
NOV 03...	<.08	<.009	<.006	<.01	<.02	<.014	<.004	<.009	<.0020	<.004	<.005	<.049	<.04
JAN 05...	<.08	<.009	<.006	--	--	--	--	--	<.0020	<.004	--	<.049	<.04
MAR 07...	<.08	<.009	<.006	--	--	--	--	--	<.0020	<.015	--	<.049	<.04
MAY 02...	<.08	<.009	<.006	--	--	--	--	--	<.0020	<.004	--	<.049	<.04
JUL 06...	<.08	<.009	<.006	<.01	<.02	<.014	<.004	--	<.002	<.004	<.005	<.049	<.04
JUL 06...	<.08	<.009	<.006	<.01	<.02	<.020	<.004	--	<.002	<.004	<.005	<.049	<.04
AUG 18...	--	--	--	--	--	--	--	--	--	--	--	--	--
SEP 07...	<.08	<.009	<.006	<.01	<.02	<.014	<.004	--	<.002	<.004	<.005	<.049	<.04
Date	Fenamiphos, water, fltrd, ug/L (61591)	Desulf-inyl-fipronil amide, wat flt ug/L (62169)	Fipronil sulfide water, fltrd, ug/L (62167)	Fipronil sulfone water, fltrd, ug/L (62168)	Fipronil, water, fltrd, ug/L (62166)	Fonofos oxon, water, fltrd, ug/L (61649)	Fonofos water, fltrd, ug/L (04095)	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)	Mala-oxon, water, fltrd, ug/L (61652)
NOV 03...	<.03	<.029	<.013	<.024	<.016	<.003	<.003	<.013	<.387	<.003	<.004	<.035	<.030
JAN 05...	<.03	<.029	E.008	E.008	E.011	--	<.003	<.013	<.387	<.003	--	--	<.030
MAR 07...	<.03	<.029	<.013	<.024	<.016	--	<.003	<.013	<.538	<.003	--	--	<.030
MAY 02...	<.03	<.029	E.006	<.024	E.024	--	<.003	<.013	<.538	<.003	--	--	<.030
JUL 06...	<.03	<.029	<.013	<.024	<.016	--	<.003	<.013	<.538	<.003	--	--	<.030
JUL 06...	<.03	<.029	E.007	<.024	E.025	--	<.003	.037	<.538	<.003	--	--	<.030
AUG 18...	--	--	--	--	--	--	--	--	--	--	--	--	--
SEP 07...	<.03	E.007	E.008	<.024	<.016	--	<.003	<.013	<.538	<.003	--	--	<.030
Date	Malathion, water, fltrd, ug/L (39532)	Metaxyl, water, fltrd, ug/L (61596)	Methi-althion water, fltrd, ug/L (61598)	Methyl para-oxon, water, fltrd, ug/L (61664)	Methyl para-thion, water, fltrd 0.7u GF ug/L (82667)	Metola-chlor, water, fltrd, ug/L (39415)	Metri-buzin, water, fltrd, ug/L (82630)	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)	Oxy-fluor-fen, water, fltrd, ug/L (61600)	p,p'-DDE, water, fltrd, ug/L (34653)	Para-thion, water, fltrd, ug/L (39542)
NOV 03...	<.027	<.005	<.006	<.03	<.015	<.006	<.006	<.003	<.008	<.007	<.007	<.003	<.010
JAN 05...	<.027	<.005	<.006	<.03	<.015	.007	<.006	--	<.008	--	--	--	--
MAR 07...	<.027	<.005	<.006	<.03	<.015	<.006	<.006	--	<.008	--	--	--	--
MAY 02...	<.027	.008	<.006	<.03	<.015	.027	<.006	--	<.008	--	--	--	--
JUL 06...	<.027	<.005	<.006	<.03	<.015	<.006	<.006	<.003	<.008	--	<.007	--	--
JUL 06...	.035	.027	<.006	<.03	<.015	E.005	<.006	<.003	.010	--	<.007	--	--
AUG 18...	--	--	--	--	--	--	--	--	--	--	--	--	--
SEP 07...	<.027	<.005	<.006	<.03	<.015	<.006	<.006	<.003	<.008	--	<.007	--	--

01654000 ACCOTINK CREEK NEAR ANNANDALE, VA—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Pebulate, water, fltrd 0.7u GF ug/L (82669)	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, 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 03...	<.004	<.022	<.10	<.011	--	--	E.01	<.005	<.004	<.025	<.011	<.02	<.005
JAN 05...	--	<.022	<.10	<.011	<.05	<.008	.01	<.005	<.004	--	--	--	.050
MAR 07...	--	<.022	<.10	<.011	<.05	<.008	<.01	<.005	<.004	--	--	--	.023
MAY 02...	--	.031	<.10	<.011	<.05	<.008	.02	<.005	<.004	--	--	--	.064
JUL 06...	--	<.022	<.10	<.011	--	--	<.01	<.005	<.004	--	<.011	<.02	<.005
JUL 06...	--	E.016	<.10	<.011	--	--	.09	<.005	<.004	--	<.011	<.02	.009
AUG 18...	--	--	--	--	--	--	--	--	--	--	--	--	--
SEP 07...	--	<.022	<.10	<.011	--	<.008	.07	<.005	<.004	--	<.011	<.02	<.010

Date	Tebuconazole, water, fltrd ug/L (62852)	Tebu-thiuron water, fltrd 0.7u GF ug/L (82670)	Tefluthrin, water, fltrd ug/L (61606)	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)	trans-Propiconazole, water, fltrd ug/L (79847)	Triallate, water, fltrd 0.7u GF ug/L (82678)	Tribuphos, water, fltrd ug/L (61610)	Tri-fluralin, water, fltrd 0.7u GF ug/L (82661)	Dichlorvos, water, fltrd ug/L (38775)
NOV 03...	--	<.02	<.008	<.034	<.07	<.02	<.01	<.010	<.01	<.006	<.004	<.009	E.01
JAN 05...	--	<.02	--	--	<.07	<.02	<.01	--	--	--	--	<.009	<.01
MAR 07...	--	<.02	--	--	<.07	<.02	<.01	--	--	--	--	<.009	<.01
MAY 02...	--	<.02	--	--	<.07	<.02	<.01	--	--	--	--	E.007	E.02
JUL 06...	<.01	<.02	<.008	--	<.07	<.02	<.01	<.010	<.01	--	<.004	<.009	<.01
JUL 06...	<.01	<.02	<.008	--	<.07	<.02	<.01	<.010	E.04	--	<.004	<.009	<.01
AUG 18...	--	--	--	--	--	--	--	--	--	--	--	--	--
SEP 07...	<.01	<.02	<.008	--	<.07	<.02	<.01	<.010	<.01	--	<.004	<.009	<.01

Date	Suspended sediment concentration mg/L (80154)	Suspended sediment discharge, tons/d (80155)	Sampler type, code (84164)
NOV 03...	4	.06	3070
JAN 05...	8	.56	3070
MAR 07...	10	.38	3070
MAY 02...	18	1.4	3070
JUL 06...	.0	--	3070
JUL 06...	46	6.2	3070
AUG 18...	--	--	--
SEP 07...	6	.03	3070

Remark codes used in this table:
 < -- Less than.
 E -- Estimated.
 M-- Presence verified but not quantified.
 Sampler type: 3070 - Grab sample

01658000 MATTAWOMAN CREEK NEAR POMONKEY, MD

LOCATION.--Lat 38°35'46.1", long 77°03'21.7", Charles County, Hydrologic Unit 02070011, 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.--54.8 mi².

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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov 13	2115	939	5.77	Apr 3	1846	958	5.79
Jan 15	0800	*1,750	*6.43	May 21	1201	1,130	5.96
Mar 24	1816	755	5.56	May 25	0016	444	5.09
Mar 29	1101	1,130	5.96				

Minimum discharge, 0.00 ft³/s, on many days.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	66	8.7	46	35	51	149	112	124	25	18	0.81	0.00
2	56	8.1	53	33	47	162	385	82	22	7.8	0.05	0.00
3	57	7.8	40	32	51	101	896	52	37	4.3	0.00	0.00
4	32	52	28	33	56	76	691	39	52	2.7	0.00	0.00
5	22	283	24	35	74	68	200	32	36	1.2	0.00	0.00
6	12	180	23	38	74	63	123	28	26	17	0.00	0.00
7	9.8	62	51	34	69	60	99	26	124	24	0.00	0.00
8	9.2	37	86	35	63	142	134	22	66	85	0.00	0.00
9	8.0	26	83	38	57	258	115	17	33	105	0.00	0.00
10	7.1	23	305	33	52	133	82	e14	25	30	0.00	0.00
11	5.6	21	320	30	49	91	68	e12	21	14	0.00	0.00
12	5.0	212	229	34	42	78	60	11	14	9.3	0.00	0.00
13	4.8	763	129	34	37	67	58	11	11	19	0.00	0.00
14	8.5	694	86	626	46	57	53	9.3	8.6	35	0.00	0.00
15	18	167	65	1,390	128	50	50	18	6.5	12	0.00	0.00
16	16	82	56	433	91	48	46	20	4.9	35	0.00	0.00
17	16	61	53	141	64	47	46	13	4.1	31	0.00	0.00
18	11	50	50	80	51	45	44	9.5	3.2	33	0.00	0.00
19	8.7	43	49	60	42	41	42	8.0	e2.5	20	0.00	0.00
20	17	38	46	67	39	39	39	386	e2.0	7.4	0.00	0.00
21	30	41	40	66	48	39	34	961	e1.8	3.5	0.00	0.00
22	27	34	43	48	221	35	36	375	1.8	2.0	0.00	0.00
23	19	30	59	60	132	251	45	84	1.5	0.64	0.00	0.00
24	15	33	100	62	84	666	116	207	0.90	2.1	0.00	0.00
25	13	50	65	49	97	414	63	386	0.55	1.4	0.00	0.00
26	12	49	50	54	95	152	46	169	0.26	0.20	0.00	0.00
27	10	33	43	60	111	103	37	81	0.16	0.00	0.00	0.00
28	9.2	44	35	44	100	355	30	53	0.01	0.00	0.00	0.00
29	8.8	58	38	47	---	999	27	43	2.2	0.26	0.00	0.00
30	9.6	41	39	48	---	472	67	33	29	2.4	0.00	0.00
31	9.5	---	38	53	---	157	---	29	---	2.2	0.00	---
TOTAL	552.8	3,231.6	2,372	3,832	2,071	5,418	3,844	3,354.8	561.98	525.40	0.86	0.00
MEAN	17.8	108	76.5	124	74.0	175	128	108	18.7	16.9	0.03	0.00
MAX	66	763	320	1,390	221	999	896	961	124	105	0.81	0.00
MIN	4.8	7.8	23	30	37	35	27	8.0	0.01	0.00	0.00	0.00
CFSM	0.33	1.97	1.40	2.26	1.35	3.19	2.34	1.97	0.34	0.31	0.00	0.00
IN.	0.38	2.19	1.61	2.60	1.41	3.68	2.61	2.28	0.38	0.36	0.00	0.00

e Estimated

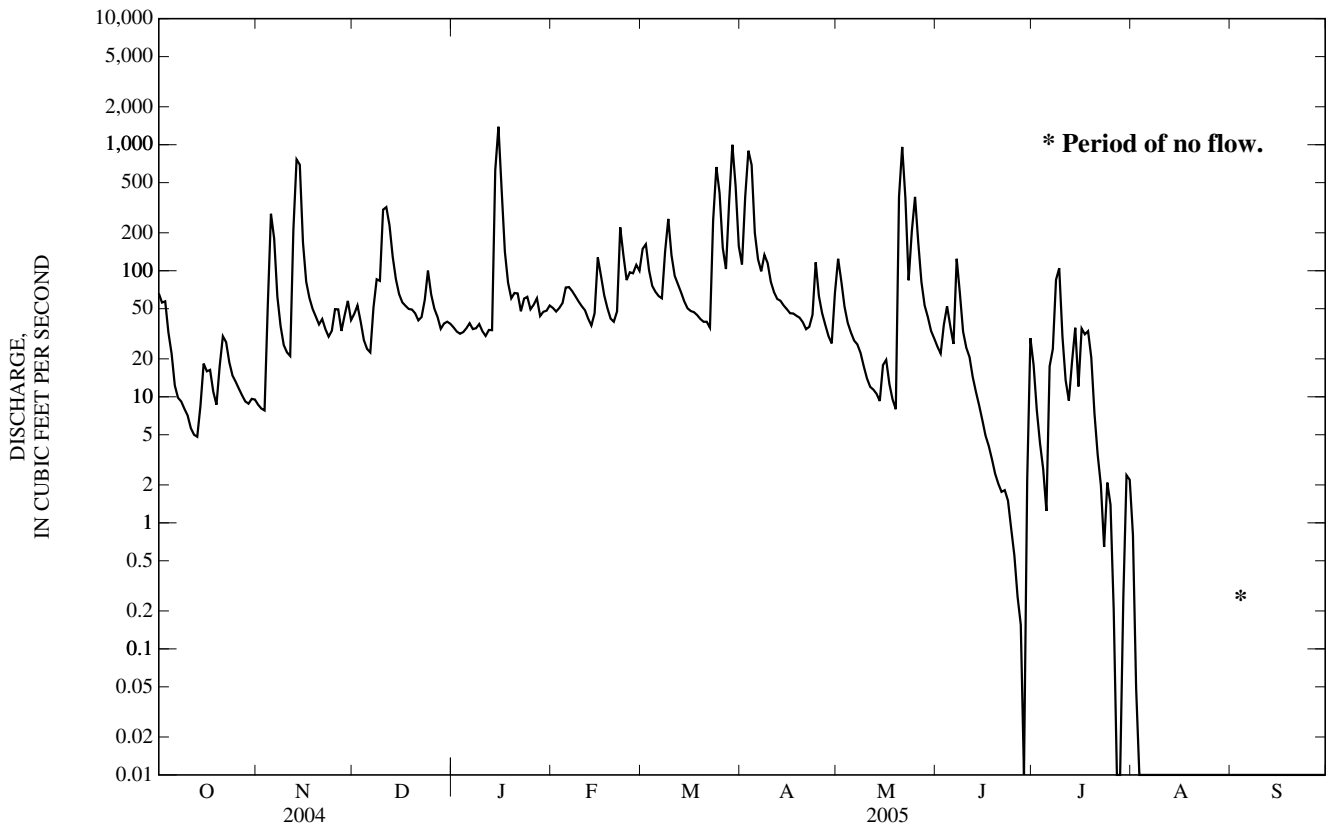
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1950 - 1972, 2001 - 2005, BY WATER YEAR (WY)

MEAN	21.0	41.5	69.6	74.4	108	123	87.8	48.3	40.4	14.2	27.2	20.8
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 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1950 - 1972, 2001 - 2005	
ANNUAL TOTAL	24,596.01		25,764.44		56.9	
ANNUAL MEAN	67.2		70.6		118	
HIGHEST ANNUAL MEAN					9.34	
LOWEST ANNUAL MEAN					2003	
HIGHEST DAILY MEAN	1,140	Feb 7	1,390	Jan 15	5,610	Aug 13, 1955
LOWEST DAILY MEAN	0.01	(a)	0.00	(b)	0.00	(c)
ANNUAL SEVEN-DAY MINIMUM	0.08	Sep 2	0.00	Aug 3	0.00	Jun 29, 1950
MAXIMUM PEAK FLOW			1,750	Jan 15	(d)9,300	Aug 13, 1955
MAXIMUM PEAK STAGE			6.43	Jan 15	7.52	Aug 13, 1955
INSTANTANEOUS LOW FLOW			0.00	(f)	0.00	(g)
ANNUAL RUNOFF (CFSM)	1.23		1.29		1.04	
ANNUAL RUNOFF (INCHES)	16.70		17.49		14.12	
10 PERCENT EXCEEDS	144		137		129	
50 PERCENT EXCEEDS	35		35		23	
90 PERCENT EXCEEDS	5.1		0.00		0.00	

- a Sept. 4-6.
- b July 27, 28, Aug. 3-31, Sept. 1-30.
- c Many days.
- d From rating curve extended above 6,000 ft³/s for the period 1950-1972.
- f June 28, 29, July 24, 27-29, Aug. 2-31, Sept. 1-30.
- g No flow at times in many years.



DAILY MEAN DISCHARGE - 2005 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.--

DISSOLVED OXYGEN: October 2004 to current year.
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 March 2003 to current year. Automatic sampler January 2001 to current year.

REMARKS.--Missing record due to periodic instrument malfunction and periods of no flow. Records good.

EXTREMES FOR PERIOD OF DAILY RECORD--

DISSOLVED OXYGEN: Maximum, 14.3 mg/L, Feb. 2, 2005; minimum, 5.4 mg/L, Nov. 3, 2004.
SPECIFIC CONDUCTANCE: Maximum, 431 microsiemens/cm, Feb. 2, 2005; minimum, 42 microsiemens/cm, May 16, 2003.
WATER TEMPERATURE: Maximum, 27.4°C, July 19, 2005; minimum, 0.0°C, on several days.
pH: Maximum, 7.1 standard units, on several days; minimum, 5.2 standard units, May 16, 2003.
TURBIDITY: Maximum, 800 FNU, Mar. 28, 2005; minimum, 0.0 FNU, on several days.

EXTREMES FOR CURRENT YEAR.--

DISSOLVED OXYGEN: Maximum, 14.3 mg/L, Feb. 2; minimum, 5.4 mg/L, Nov. 3.
SPECIFIC CONDUCTANCE: Maximum, 431 microsiemens/cm, Feb. 2; minimum, 62 microsiemens/cm, May 20.
WATER TEMPERATURE: Maximum, 27.4°C, July 19; minimum, 0.0°C, Dec. 20, 21, 28, Jan. 28, 29.
pH: Maximum, 7.1 standard units, Apr. 19, 20; minimum, 6.0 standard units, Nov. 13, 14, Mar. 28.
TURBIDITY: Maximum, 800 FNU, Mar. 28; minimum, 0.0 FNU, Oct. 19, Nov. 3, 4.

01658000 MATTAWOMAN CREEK NEAR POMONKEY, MD—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Sample type	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Sampling method, code (82398)	Turbidity white light, det ang 90+/-30 corrctd NTRU (63676)	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												
06...	1255	Blank	1028	80020	--	--	--	--	--	--	--	--
06...	1300	Environmental	1028	80020	11	40	--	4.7	771	9.8	96	6.7
NOV												
18...	1030	Environmental	1028	80020	50	10	--	7.1	770	10.6	91	6.6
DEC												
08...	1230	Environmental	1028	80020	86	10	--	9.6	767	10.8	95	6.5
08...	1232	Replicate	1028	80020	--	10	--	--	--	--	--	--
08...	1235	Replicate	1028	80020	--	10	--	--	--	--	--	--
09...	1945	Environmental	1028	80020	95	50	--	42	--	11.9	--	6.6
10...	0145	Environmental	1028	80020	238	50	--	57	--	11.4	--	6.5
10...	0745	Environmental	1028	80020	281	50	--	30	--	11.2	--	6.4
10...	0747	Replicate	1028	80020	--	50	--	--	--	--	--	--
10...	0750	Replicate	1028	80020	--	50	--	--	--	--	--	--
JAN												
13...	1300	Environmental	1028	80020	34	10	--	4.1	763	10.4	90	6.9
13...	1305	Replicate	1028	80020	--	10	--	--	--	--	--	--
14...	1300	Environmental	1028	80020	1,060	50	220	--	--	--	--	--
14...	1305	Replicate	1028	80020	--	50	--	--	--	--	--	--
15...	1300	Environmental	1028	80020	1,600	50	45	--	--	--	--	--
15...	1305	Replicate	1028	80020	--	50	--	--	--	--	--	--
16...	1300	Environmental	1028	80020	333	50	30	--	--	--	--	--
16...	1305	Replicate	1028	80020	--	50	--	--	--	--	--	--
MAR												
08...	1200	Environmental	1028	80020	136	10	--	17	747	10.6	89	7.3
08...	1205	Replicate	1028	80020	--	10	--	--	--	--	--	--
23...	1100	Environmental	1028	80020	138	50	--	47	--	11.8	--	6.4
23...	1105	Replicate	1028	80020	--	50	--	--	--	--	--	--
23...	1715	Environmental	1028	80020	505	50	--	310	--	11.8	--	6.2
23...	2345	Environmental	1028	80020	535	50	--	53	--	11.5	--	6.2
24...	1400	Environmental	1028	80020	731	50	--	22	--	11.4	--	6.2
28...	1700	Environmental	1028	80020	693	50	--	200	--	11.3	--	6.1
29...	1600	Environmental	1028	80020	1,100	50	--	33	--	10.7	--	6.2
APR												
13...	1330	Environmental	1028	80020	58	10	--	2.7	755	10.3	103	6.9
MAY												
10...	0955	Blank	1028	80020	--	--	--	--	--	--	--	--
10...	0956	Blank	1028	80020	--	--	--	--	--	--	--	--
10...	1000	Environmental	1028	80020	16	10	--	1.6	764	9.6	95	7.5
10...	1005	Replicate	1028	80020	--	10	--	--	--	--	--	--
20...	0930	Environmental	1028	80020	200	50	--	290	--	9.3	--	6.5
21...	0445	Environmental	1028	80020	847	50	--	64	--	9.0	--	6.2
JUN												
01...	0930	Environmental	1028	80020	25	10	--	26	--	9.2	--	6.8
01...	0931	Replicate	1028	80020	--	10	--	--	--	--	--	--
01...	0935	Replicate	1028	80020	--	10	--	--	--	--	--	--
01...	0936	Replicate	1028	80020	--	10	--	--	--	--	--	--
JUL												
19...	1345	Environmental	1028	80020	17	10	--	11	763	7.4	93	6.8
19...	1350	Replicate	1028	80020	--	50	--	--	--	--	--	--

Agency collecting sample: 1028 - U.S. Geological Survey

Agency analyzing sample: 80020 - USGS-National Water Quality Lab, Denver, CO

Sampling method: 10 - Equal width increments (EWI)

40 - Multiple verticals

50 - Point sample-automatic sampler

01658000 MATTAWOMAN CREEK NEAR POMONKEY, MD—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Specif. conduc- tance, wat unfl 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		Ammonia water, fltrd, mg/L as N (00608)	Nitrate water, fltrd, mg/L as N (00618)	Nitrite		Organic nitro- gen, water, fltrd, mg/L (00607)	Organic nitro- gen, water, unfltrd mg/L (00605)	Total nitro- gen, wat flt by anal ysis, mg/L (62854)
					org-N, water, fltrd, mg/L as N (00623)	org-N, water, unfltrd mg/L as N (00625)			nitrite water, fltrd, mg/L as N (00631)	nitrite water, fltrd, mg/L as N (00613)			
OCT													
06...	--	--	--	--	<.10	<.10	<.010	--	<.016	<.002	--	--	--
06...	130	--	15.0	2	.26	.34	.010	--	.139	E.001	.25	.33	--
NOV													
18...	106	17.5	9.1	--	.30	.29	.022	.19	.189	.002	.28	.27	--
DEC													
08...	109	17.5	9.9	--	.43	.97	.082	.64	.643	.007	.35	.89	--
08...	--	--	--	--	--	--	--	--	--	--	--	--	--
08...	--	--	--	--	--	--	--	--	--	--	--	--	.41
09...	97	--	9.3	--	.20	.67	.013	.40	.398	.003	.18	.66	--
10...	87	--	9.6	--	.36	.80	.023	.26	.263	.004	.34	.78	--
10...	88	--	9.8	--	.35	.60	.016	.26	.265	.003	.34	.58	--
10...	--	--	--	--	.34	.59	.017	.26	.264	.003	.32	.58	--
10...	--	--	--	--	--	--	--	--	--	--	--	--	.64
JAN													
13...	128	19.0	9.0	--	.31	.28	.013	.24	.240	.002	.29	.27	--
13...	--	--	--	--	--	--	--	--	--	--	--	--	.50
14...	--	--	--	--	.50	1.6	.045	.33	.336	.003	.45	1.5	--
14...	--	--	--	--	--	--	--	--	--	--	--	--	.80
15...	--	--	--	--	.40	.59	.017	.24	.244	.004	.38	.57	--
15...	--	--	--	--	--	--	--	--	--	--	--	--	.62
16...	--	--	--	--	.36	.57	.015	.24	.246	.002	.34	.55	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	.62
MAR													
08...	190	.0	7.0	--	.19	.59	.017	.33	.331	.003	.17	.58	--
08...	--	--	--	--	--	--	--	--	--	--	--	--	.54
23...	122	--	7.6	--	.35	.88	.043	.62	.625	.004	.31	.84	--
23...	--	--	--	--	--	--	--	--	--	--	--	--	.95
23...	104	--	7.8	--	.66	2.5	.102	.50	.503	.005	.55	2.4	--
23...	107	--	7.4	--	.47	.91	.043	.39	.396	.004	.43	.86	--
24...	141	--	8.8	--	.39	.55	.018	.35	.353	.003	.37	.53	--
28...	64	--	9.6	--	1.1	2.1	.064	--	.307	E.001	1.0	2.0	--
29...	99	--	11.0	--	.70	.58	.020	--	.266	E.001	.68	.56	--
APR													
13...	126	19.0	14.7	--	.25	.33	.015	.26	.263	.002	.24	.32	--
MAY													
10...	--	--	--	--	<.10	<.10	<.010	--	<.016	<.002	--	--	--
10...	--	--	--	--	--	--	--	--	--	--	--	--	<.06
10...	144	25.0	15.1	--	.34	.42	.056	.25	.255	.006	.29	.36	--
10...	--	--	--	--	--	--	--	--	--	--	--	--	.62
20...	94	--	9.2	--	.70	2.4	.251	.65	.651	.005	.45	2.1	--
21...	77	--	12.6	--	.56	.74	.044	.27	.276	.002	.52	.70	--
JUN													
01...	112	--	16.7	--	.53	.43	.055	.35	.359	.008	.48	.38	--
01...	--	--	--	--	--	--	--	--	--	--	--	--	.72
01...	--	--	--	--	.67	.44	.066	.35	.359	.005	.60	.38	--
01...	--	--	--	--	--	--	--	--	--	--	--	--	.95
JUL													
19...	105	--	27.2	--	.77	.54	.036	.19	.193	.002	.73	.50	--
19...	--	--	--	--	.51	.59	.022	.19	.190	.003	.49	.57	--

01658000 MATTAWOMAN CREEK NEAR POMONKEY, MD—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Total nitrogen, water, unfiltered, mg/L (62855)	Total nitrogen, water, filtered, mg/L (00602)	Total nitrogen, water, unfiltered, mg/L (00600)	Ortho-phosphate, water, filtered, mg/L as P (00671)	Phosphorus, water, filtered, mg/L (00666)	Phosphorus, water, unfiltered, mg/L (00665)	Suspended sediment, sieve diameter <.063mm percent (70331)	Suspended sediment concentration mg/L (80154)	Suspended sediment discharge, tons/d (80155)	Sampler type, code (84164)
OCT										
06...	--	--	--	<.006	<.004	<.004	--	<1	--	--
06...	--	.40	.48	E.004	.009	.049	--	5	.15	3045
NOV										
18...	--	.49	.48	.007	.013	.041	--	9	1.2	3045
DEC										
08...	--	1.1	1.6	.114	.131	.27	79	14	3.3	3045
08...	--	--	--	--	--	--	--	11	--	3045
08...	.52	--	--	--	<.02	.05	--	--	--	3045
09...	--	.60	1.1	.006	.012	.180	--	139	36	8010
10...	--	.63	1.1	.010	.024	.175	--	129	83	8010
10...	--	.62	.86	.009	.021	.098	64	55	42	8010
10...	--	.60	.86	.010	.020	.104	--	55	--	8010
10...	.94	--	--	--	E.02	.09	--	--	--	8010
JAN										
13...	--	.55	.52	<.006	.005	.033	--	3	.28	3045
13...	.46	--	--	--	<.02	.03	--	--	--	3045
14...	--	.83	1.9	.016	.021	.42	42	1,180	3,380	8010
14...	2.13	--	--	--	E.02	.45	--	--	--	8010
15...	--	.64	.83	.011	.028	.111	31	163	704	8010
15...	.88	--	--	--	.03	.11	--	--	--	8010
16...	--	.60	.81	E.003	.012	.080	--	46	41	8010
16...	.80	--	--	--	E.01	.08	--	--	--	8010
MAR										
08...	--	.52	.93	E.003	.009	.081	--	81	30	3045
08...	.74	--	--	--	<.02	E.09	--	--	--	3045
23...	--	.98	1.5	<.006	.010	.188	63	214	80	8010
23...	1.37	--	--	--	<.02	.20	--	--	--	8010
23...	--	1.2	3.0	.010	.027	.56	62	1,360	1,850	8010
23...	--	.87	1.3	.006	.018	.163	48	242	350	8010
24...	--	.74	.90	E.005	.018	.080	--	38	75	8010
28...	--	1.4	2.4	<.006	.018	.59	23	2,890	5,410	8010
29...	--	.97	.84	<.006	.011	.091	--	78	232	8010
APR										
13...	--	.52	.59	E.005	.016	.039	--	6	.94	3045
MAY										
10...	--	--	--	<.006	<.004	<.004	--	1	--	--
10...	<.06	--	--	--	<.02	<.02	--	--	--	--
10...	--	.60	.67	E.003	.009	.054	--	8	.35	3045
10...	.68	--	--	--	<.02	.04	--	--	--	3045
20...	--	1.4	3.0	E.005	.022	.68	33	1,040	562	8010
21...	--	.84	1.0	.013	.039	.122	--	63	144	8010
JUN										
01...	--	.89	.79	.016	.041	.067	--	8	.54	3045
01...	.76	--	--	--	.03	.06	--	--	--	3045
01...	--	1.0	.80	.012	.040	.067	--	7	--	3045
01...	.78	--	--	--	.03	.06	--	--	--	3045
JUL										
19...	--	.96	.73	.017	.055	.076	--	9	.41	3045
19...	--	.70	.78	.022	.046	.102	--	43	--	8010

Remark codes used in this table:

< -- Less than.

E -- Estimated.

Sampler type: 8010 - Other

3045 - US DH-81 Teflon cap and nozzle

01658000 MATTAWOMAN CREEK NEAR POMONKEY, MD—Continued

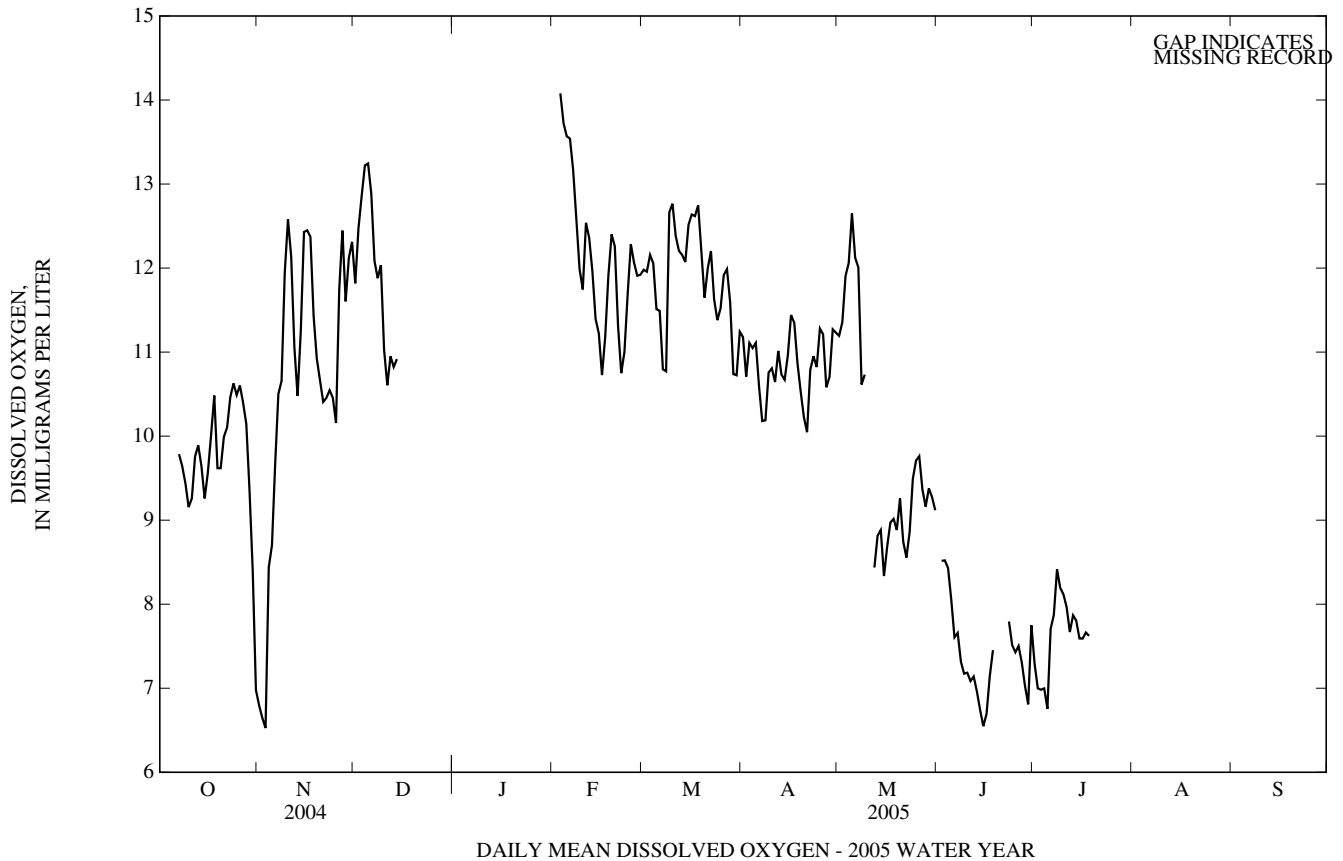
DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	---	---	---	7.2	6.4	6.8	12.1	11.6	11.8	---	---	---
2	---	---	---	7.1	6.0	6.6	12.8	11.9	12.5	---	---	---
3	---	---	---	7.5	5.4	6.5	13.1	12.5	12.9	---	---	---
4	---	---	---	9.8	7.2	8.4	13.5	12.9	13.2	---	---	---
5	---	---	---	9.1	8.4	8.7	13.5	13.0	13.2	---	---	---
6	---	---	---	10.2	8.5	9.7	13.1	12.5	12.9	---	---	---
7	10.1	9.5	9.8	10.9	10.2	10.5	12.5	11.6	12.1	---	---	---
8	9.9	9.3	9.6	11.1	10.4	10.7	12.5	11.6	11.9	---	---	---
9	9.7	9.1	9.4	12.3	11.1	11.9	12.4	11.5	12.0	---	---	---
10	9.4	8.9	9.2	13.1	12.2	12.6	11.5	10.6	11.0	---	---	---
11	9.6	8.9	9.3	12.5	11.5	12.1	10.7	10.5	10.6	---	---	---
12	10.1	9.3	9.8	11.6	10.2	11.1	11.1	10.7	10.9	---	---	---
13	10.2	9.6	9.9	10.9	10.0	10.5	10.9	10.8	10.8	---	---	---
14	10.0	9.2	9.6	11.6	10.5	11.2	11.1	10.8	10.9	---	---	---
15	9.5	9.0	9.3	12.9	11.5	12.4	---	---	---	---	---	---
16	10.0	9.1	9.6	12.9	12.1	12.4	---	---	---	---	---	---
17	10.4	9.5	10.0	12.8	12.0	12.4	---	---	---	---	---	---
18	10.9	10.0	10.5	12.1	10.8	11.4	---	---	---	---	---	---
19	10.0	9.3	9.6	11.1	10.8	10.9	---	---	---	---	---	---
20	9.8	9.3	9.6	10.9	10.3	10.7	---	---	---	---	---	---
21	10.1	9.8	10	10.6	10.3	10.4	---	---	---	---	---	---
22	10.3	10.0	10.1	10.6	10.3	10.5	---	---	---	---	---	---
23	10.8	10.0	10.5	10.7	10.4	10.5	---	---	---	---	---	---
24	10.9	10.4	10.6	10.6	10.0	10.5	---	---	---	---	---	---
25	10.7	10.3	10.5	10.8	9.9	10.2	---	---	---	---	---	---
26	11.0	10.2	10.6	12.2	10.8	11.7	---	---	---	---	---	---
27	10.8	10.1	10.4	12.8	12.0	12.4	---	---	---	---	---	---
28	10.5	9.6	10.1	12.0	11.4	11.6	---	---	---	---	---	---
29	9.6	8.8	9.4	12.4	11.6	12.1	---	---	---	---	---	---
30	8.8	7.4	8.4	12.6	12.1	12.3	---	---	---	---	---	---
31	7.4	6.3	7.0	---	---	---	---	---	---	---	---	---
MONTH	11.0	6.3	9.7	13.1	5.4	10.7	13.5	10.5	11.9	---	---	---
DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	12.3	11.6	12.0	11.6	10.7	11.2	11.7	10.6	11.2
2	---	---	---	12.3	11.6	12.0	10.9	10.4	10.7	12.1	10.6	11.4
3	14.2	13.9	14.1	12.7	11.8	12.2	11.3	10.6	11.1	12.7	11.1	11.9
4	14.0	13.2	13.7	12.6	11.4	12.1	11.8	10.3	11.0	12.7	11.3	12.1
5	14.0	13.2	13.6	11.9	11.1	11.5	11.8	10.6	11.1	13.3	11.9	12.6
6	14.0	13.2	13.5	12.1	10.7	11.5	11.3	9.8	10.6	12.3	11.9	12.1
7	13.6	12.7	13.2	11.5	10.0	10.8	10.6	9.7	10.2	12.8	10.7	12.0
8	13.0	12.1	12.6	12.2	9.7	10.8	10.4	9.9	10.2	11.8	8.7	10.6
9	12.3	11.6	12.0	13.1	12.2	12.7	11.3	10.3	10.8	12.2	8.8	10.7
10	12.0	11.5	11.7	13.3	12.3	12.8	11.5	10.2	10.8	---	---	---
11	12.9	12.0	12.5	12.8	11.9	12.4	11.3	10.1	10.6	---	---	---
12	12.7	11.9	12.4	12.7	11.9	12.2	11.6	10.1	11.0	9.0	8.0	8.4
13	12.3	11.5	12.0	12.6	11.8	12.2	11.5	10.1	10.7	9.4	8.2	8.8
14	11.6	11.0	11.4	12.6	11.7	12.1	11.4	10.2	10.7	9.6	8.0	8.9
15	11.6	10.6	11.2	13.2	12.1	12.5	11.6	10.4	11.0	8.7	8.0	8.3
16	11.0	10.6	10.7	13.1	12.3	12.6	12.2	10.8	11.4	9.1	8.4	8.7
17	11.5	10.6	11.2	13.0	12.3	12.6	12.2	10.5	11.3	9.5	8.5	9.0
18	12.3	11.4	11.9	13.4	12.0	12.7	11.6	10.0	10.9	9.6	8.5	9.0
19	12.9	12.1	12.4	12.8	11.5	12.2	11.4	9.7	10.5	9.3	8.5	8.9
20	12.6	11.7	12.3	12.1	11.4	11.6	11.0	9.4	10.2	9.7	8.6	9.3
21	11.8	10.5	11.3	12.6	11.4	12.0	10.5	9.4	10.0	9.0	8.2	8.7
22	11.0	10.5	10.7	12.9	11.5	12.2	11.2	10.1	10.8	8.9	8.2	8.6
23	11.4	10.5	11.0	11.9	11.4	11.6	11.6	10.4	11.0	9.1	8.6	8.9
24	12.4	10.8	11.7	11.6	11.1	11.4	11.2	10.2	10.8	9.9	8.7	9.5
25	12.7	11.9	12.3	11.8	11.2	11.5	11.8	10.9	11.3	9.9	9.6	9.7
26	12.5	11.5	12.1	12.1	11.7	11.9	11.9	10.4	11.2	10.1	9.3	9.8
27	12.4	11.5	11.9	12.2	11.8	12.0	11.3	10.0	10.6	9.7	8.9	9.4
28	12.2	11.6	11.9	12.0	11.0	11.6	11.3	10.1	10.7	9.4	8.9	9.2
29	---	---	---	11.0	10.3	10.7	11.8	10.6	11.3	9.7	9.1	9.4
30	---	---	---	11.2	10.4	10.7	11.7	10.9	11.2	9.6	9.0	9.3
31	---	---	---	11.5	10.6	11.2	---	---	---	9.4	8.8	9.1
MONTH	14.2	10.5	12.1	13.4	9.7	11.9	12.2	9.4	10.8	13.3	8.0	9.8

01658000 MATTAWOMAN CREEK NEAR POMONKEY, MD—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER—CONTINUED
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	7.6	6.8	7.3	---	---	---	---	---	---
2	8.7	8.3	8.5	7.4	6.7	7.0	---	---	---	---	---	---
3	8.6	8.4	8.5	7.6	6.5	7.0	---	---	---	---	---	---
4	8.6	8.1	8.4	7.8	6.5	7.0	---	---	---	---	---	---
5	8.3	7.7	8.0	7.7	6.1	6.8	---	---	---	---	---	---
6	7.9	7.2	7.6	8.2	6.8	7.7	---	---	---	---	---	---
7	8.2	6.9	7.7	8.1	7.7	7.9	---	---	---	---	---	---
8	7.7	6.9	7.3	8.9	7.8	8.4	---	---	---	---	---	---
9	7.4	7.0	7.2	8.5	8.0	8.2	---	---	---	---	---	---
10	7.4	6.9	7.2	8.4	7.8	8.1	---	---	---	---	---	---
11	7.4	6.8	7.1	8.3	7.5	8.0	---	---	---	---	---	---
12	7.5	6.8	7.1	8.5	7.3	7.7	---	---	---	---	---	---
13	7.3	6.5	7.0	8.5	7.3	7.9	---	---	---	---	---	---
14	7.2	6.3	6.7	8.1	7.4	7.8	---	---	---	---	---	---
15	6.9	6.1	6.5	8.0	7.2	7.6	---	---	---	---	---	---
16	7.1	6.2	6.7	8.0	7.1	7.6	---	---	---	---	---	---
17	7.5	6.7	7.1	7.9	7.3	7.7	---	---	---	---	---	---
18	7.8	6.9	7.5	8.0	7.3	7.6	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	8.4	6.8	7.8	---	---	---	---	---	---	---	---	---
24	8.3	6.5	7.5	---	---	---	---	---	---	---	---	---
25	8.2	5.7	7.4	---	---	---	---	---	---	---	---	---
26	8.1	7.0	7.5	---	---	---	---	---	---	---	---	---
27	8.0	6.6	7.3	---	---	---	---	---	---	---	---	---
28	7.8	6.1	7.0	---	---	---	---	---	---	---	---	---
29	8.3	5.5	6.8	---	---	---	---	---	---	---	---	---
30	8.2	7.3	7.7	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	8.7	5.5	7.4	8.9	6.1	7.6	---	---	---	---	---	---
YEAR	14.2	5.4	10.3									



01658000 MATTAWOMAN CREEK NEAR POMONKEY, MD—Continued

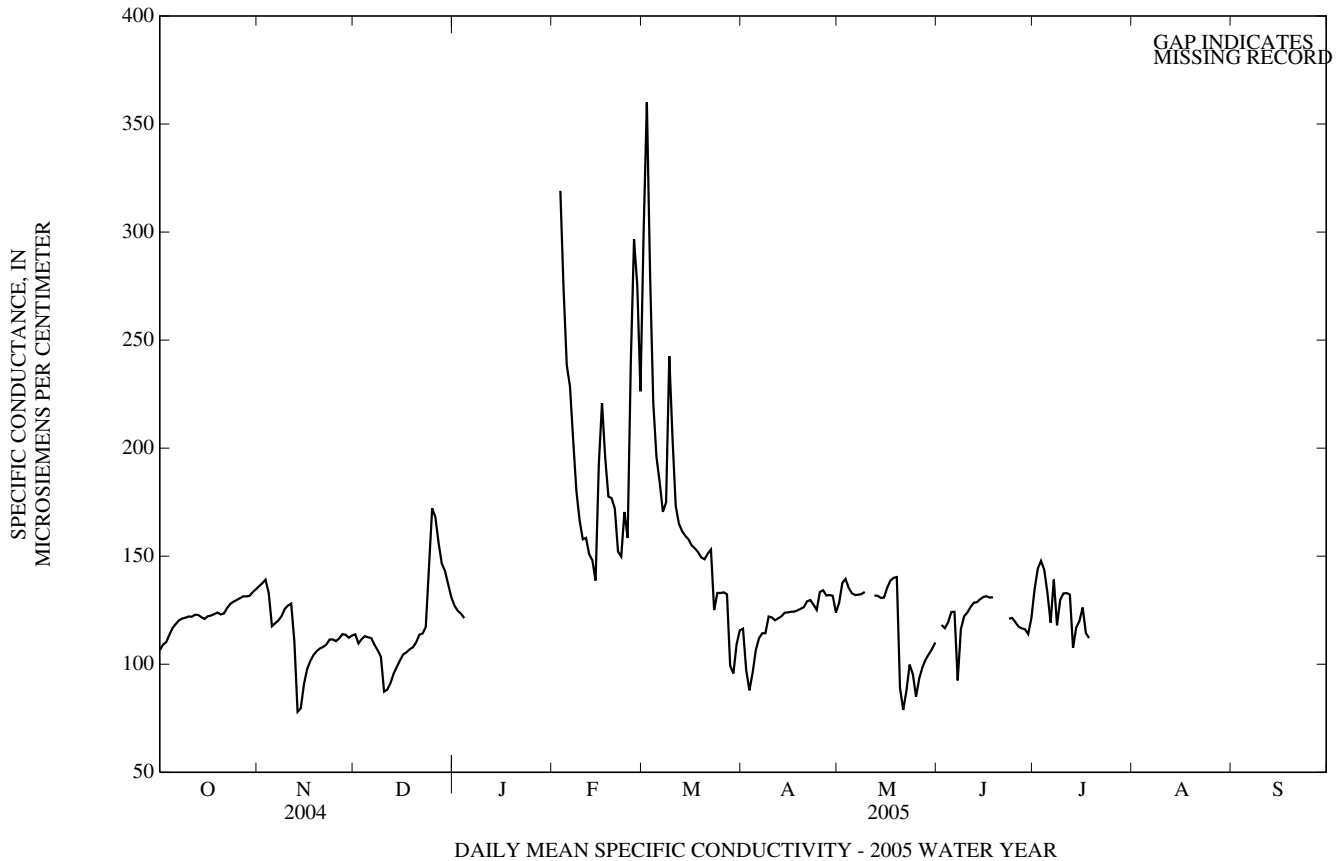
SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	109	104	106	138	136	136	122	109	114	129	125	127
2	111	108	109	138	137	137	112	109	110	126	124	125
3	112	110	110	141	138	139	113	110	112	125	122	123
4	116	111	114	141	112	133	113	113	113	122	121	121
5	118	116	117	121	116	118	113	112	112	---	---	---
6	120	118	119	121	117	119	113	111	112	121	120	120
7	121	120	120	121	119	120	112	107	109	---	---	---
8	122	120	121	123	121	122	108	105	106	---	---	---
9	122	121	122	127	123	126	108	83	103	---	---	---
10	123	122	122	128	127	127	89	84	87	---	---	---
11	123	121	122	129	127	128	90	87	88	---	---	---
12	123	121	123	129	77	110	94	88	91	---	---	---
13	124	122	123	79	76	78	97	94	96	---	---	---
14	123	121	122	84	78	80	101	97	99	---	---	---
15	123	119	121	96	84	91	104	101	102	---	---	---
16	123	120	122	100	96	98	106	103	105	---	---	---
17	123	122	123	103	100	102	106	105	106	---	---	---
18	127	121	123	106	103	104	108	106	107	---	---	---
19	127	120	124	107	105	106	108	107	108	---	---	---
20	125	122	123	108	106	107	112	107	110	---	---	---
21	125	122	123	109	108	108	114	112	114	---	---	---
22	127	125	126	110	108	109	115	113	114	---	---	---
23	129	126	128	112	110	111	139	111	117	---	---	---
24	129	128	129	112	111	111	171	134	145	---	---	---
25	130	129	130	112	109	111	176	169	172	---	---	---
26	131	129	131	113	111	112	173	162	168	---	---	---
27	132	131	131	115	113	114	163	148	156	---	---	---
28	132	131	131	114	113	114	152	140	147	---	---	---
29	133	131	132	113	112	112	149	140	143	---	---	---
30	134	133	133	114	112	113	141	133	137	---	---	---
31	136	134	135	---	---	---	134	128	131	---	---	---
MONTH	136	104	123	141	76	113	176	83	117	129	120	123
DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	351	250	301	118	114	116	136	122	128
2	---	---	---	388	328	360	119	73	97	139	136	138
3	353	290	319	331	237	281	95	80	88	141	137	139
4	304	220	274	242	202	221	102	94	96	137	134	135
5	255	219	238	206	187	196	109	101	107	134	132	133
6	245	210	229	191	176	184	114	109	112	133	131	132
7	218	189	204	179	162	171	115	113	114	133	132	132
8	194	170	180	217	116	175	119	112	114	134	131	133
9	174	156	167	264	215	243	124	119	122	135	132	133
10	161	155	158	230	182	205	124	120	122	---	---	---
11	162	155	158	184	164	173	123	120	120	---	---	---
12	156	146	151	170	160	165	124	120	121	134	130	132
13	150	146	148	168	157	162	125	120	122	133	130	132
14	149	120	139	163	154	159	125	122	124	133	126	131
15	228	127	192	162	153	158	126	122	124	133	127	131
16	229	205	221	160	151	155	126	122	124	138	133	135
17	215	181	196	157	148	154	126	122	124	140	138	139
18	187	172	178	157	147	152	126	123	125	141	139	140
19	181	171	177	154	145	149	127	124	126	141	139	140
20	179	166	172	153	142	149	128	125	126	139	62	89
21	167	98	152	156	146	151	131	128	129	82	75	79
22	178	110	150	158	149	153	132	129	130	96	79	88
23	181	155	170	157	99	125	131	118	128	103	96	100
24	234	140	158	143	107	133	130	116	125	104	81	95
25	281	220	240	140	130	133	136	130	133	91	79	85
26	334	259	297	135	131	133	136	133	134	96	91	93
27	298	249	275	134	129	132	133	131	132	100	96	99
28	250	202	226	130	64	99	133	131	132	104	99	102
29	---	---	---	103	82	96	133	130	132	105	103	105
30	---	---	---	116	103	109	132	114	124	109	105	107
31	---	---	---	116	115	116	---	---	---	112	108	110
MONTH	353	98	199	388	64	171	136	73	121	141	62	118

01658000 MATTAWOMAN CREEK NEAR POMONKEY, MD—Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS—CONTINUED
 WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	139	132	135	---	---	---	---	---	---
2	119	118	118	150	138	144	---	---	---	---	---	---
3	119	114	117	163	141	148	---	---	---	---	---	---
4	121	117	119	146	141	144	---	---	---	---	---	---
5	126	120	124	145	117	133	---	---	---	---	---	---
6	126	111	124	151	103	119	---	---	---	---	---	---
7	113	70	92	141	134	139	---	---	---	---	---	---
8	120	112	116	135	103	118	---	---	---	---	---	---
9	124	120	122	133	120	130	---	---	---	---	---	---
10	126	122	124	134	132	133	---	---	---	---	---	---
11	129	124	126	134	132	133	---	---	---	---	---	---
12	130	127	128	135	114	132	---	---	---	---	---	---
13	130	128	129	121	79	108	---	---	---	---	---	---
14	132	128	130	134	111	117	---	---	---	---	---	---
15	133	130	131	123	117	120	---	---	---	---	---	---
16	133	130	131	138	118	126	---	---	---	---	---	---
17	132	129	131	118	113	114	---	---	---	---	---	---
18	132	130	131	114	108	112	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	127	118	121	---	---	---	---	---	---	---	---	---
24	127	118	121	---	---	---	---	---	---	---	---	---
25	123	117	119	---	---	---	---	---	---	---	---	---
26	119	116	117	---	---	---	---	---	---	---	---	---
27	118	115	117	---	---	---	---	---	---	---	---	---
28	118	114	116	---	---	---	---	---	---	---	---	---
29	118	99	114	---	---	---	---	---	---	---	---	---
30	139	96	121	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	139	70	122	163	79	128	---	---	---	---	---	---
YEAR	388	62	134									



01658000 MATTAWOMAN CREEK NEAR POMONKEY, MD—Continued

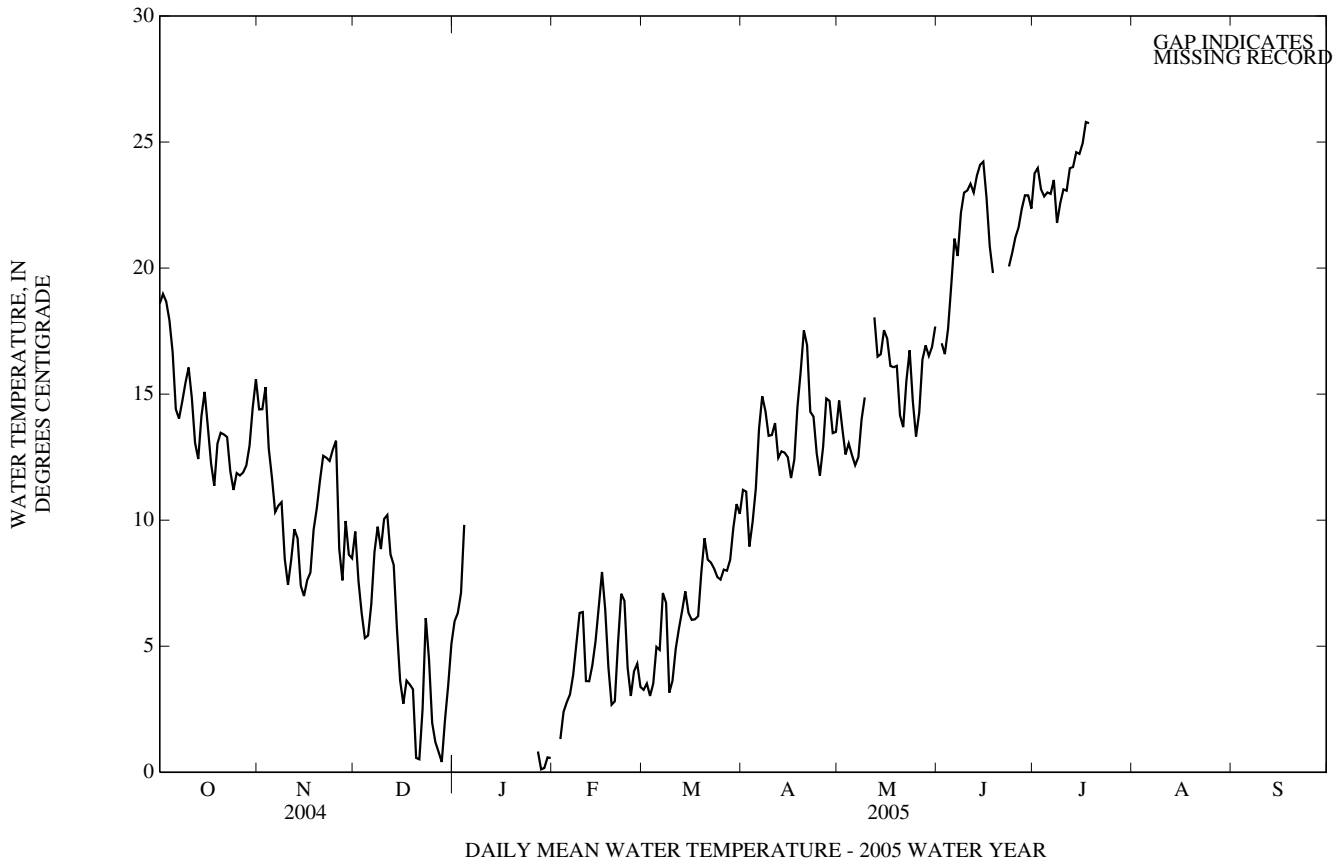
TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	19.3	17.9	18.6	15.0	13.5	14.4	10.5	8.6	9.5	7.1	4.8	6.0
2	19.4	18.6	19.0	15.3	13.2	14.4	8.6	6.8	7.6	6.8	5.9	6.3
3	19.3	17.8	18.7	16.0	14.1	15.3	6.9	5.6	6.3	8.8	5.9	7.1
4	18.6	17.4	17.9	14.1	12.3	12.8	6.0	4.6	5.3	10.9	8.8	9.8
5	17.6	15.2	16.7	12.3	11.0	11.7	6.4	4.5	5.4	---	---	---
6	15.2	13.4	14.4	11.0	9.3	10.3	7.6	5.7	6.7	8.8	7.9	8.2
7	15.0	12.8	14.0	11.6	9.4	10.6	9.8	7.5	8.7	---	---	---
8	15.7	13.5	14.7	11.3	9.4	10.7	10.3	9.2	9.7	---	---	---
9	16.2	14.5	15.4	9.4	7.6	8.5	9.8	8.1	8.9	---	---	---
10	16.7	15.5	16.1	8.3	6.2	7.4	10.4	9.6	10.0	---	---	---
11	15.6	13.9	14.8	9.5	7.4	8.4	10.5	9.4	10.2	---	---	---
12	13.9	12.1	13.1	10.1	9.1	9.6	9.4	8.1	8.6	---	---	---
13	13.2	11.7	12.4	9.9	8.1	9.3	8.7	7.0	8.2	---	---	---
14	15.1	13.2	14.1	8.1	6.5	7.4	7.0	4.6	5.7	---	---	---
15	15.7	14.5	15.1	7.9	5.8	7.0	4.7	2.8	3.6	---	---	---
16	14.5	12.8	13.7	8.6	6.5	7.6	3.4	1.8	2.7	---	---	---
17	12.8	11.5	12.2	8.8	6.8	7.9	4.5	2.9	3.6	---	---	---
18	12.3	10.1	11.4	10.7	8.4	9.6	4.3	2.7	3.5	---	---	---
19	13.5	12.3	13.0	10.9	10.0	10.5	3.9	2.5	3.3	---	---	---
20	13.6	13.4	13.5	12.4	10.7	11.6	2.5	0.0	0.6	---	---	---
21	13.5	13.2	13.4	13.3	12.0	12.6	1.3	0.0	0.5	---	---	---
22	13.6	12.7	13.3	12.6	12.3	12.5	3.9	1.2	2.5	---	---	---
23	12.7	11.2	11.9	12.5	12.2	12.3	8.4	3.9	6.1	---	---	---
24	11.5	10.9	11.2	13.6	12.3	12.8	6.6	3.0	4.5	---	---	---
25	12.4	11.5	11.9	14.1	10.5	13.2	3.0	1.2	2.0	---	---	---
26	12.5	10.9	11.8	10.6	7.5	8.9	1.6	0.8	1.2	---	---	---
27	12.6	11.2	11.9	8.9	6.7	7.6	1.4	0.3	0.8	1.9	0.2	0.8
28	12.8	11.4	12.2	11.0	8.8	10	0.8	0.0	0.4	0.3	0.0	0.1
29	13.4	12.5	13.0	9.5	8.2	8.6	3.3	0.8	2.1	0.4	0.0	0.2
30	15.5	13.4	14.5	9.1	7.8	8.5	4.2	2.7	3.4	0.9	0.2	0.6
31	16.4	15.0	15.6	---	---	---	6.2	4.1	5.1	1.0	0.2	0.6
MONTH	19.4	10.1	14.2	16.0	5.8	10.4	10.5	0.0	5.1	10.9	0.0	4.0
	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	4.5	2.2	3.3	12.7	9.6	11.2	15.7	13.5	14.7
2	---	---	---	4.6	2.4	3.5	11.9	10.2	11.1	15.1	12.8	13.6
3	1.8	0.9	1.3	4.4	1.6	3.0	10.2	8.4	9.0	13.9	11.0	12.6
4	3.6	1.5	2.4	5.0	1.7	3.5	12.9	7.1	9.9	13.6	12.4	13.0
5	4.1	1.5	2.8	5.8	4.3	5.0	13.6	8.7	11.3	14.0	11.0	12.6
6	4.3	1.7	3.1	6.7	3.0	4.9	16.1	10.9	13.6	12.7	11.6	12.2
7	5.1	2.6	3.9	9.3	5.0	7.1	16.1	13.5	14.9	14.2	10.6	12.5
8	6.4	3.8	5.1	8.8	3.7	6.7	15.1	13.4	14.3	15.8	12.0	14.0
9	7.2	5.5	6.3	4.4	1.7	3.2	15.4	11.0	13.3	16.7	12.7	14.9
10	7.1	4.6	6.4	5.2	1.9	3.6	15.7	10.6	13.4	---	---	---
11	4.6	2.8	3.6	6.1	3.4	4.9	16.3	11.6	13.9	---	---	---
12	5.0	2.5	3.6	7.0	4.2	5.7	13.7	11.0	12.5	18.8	17.3	18.0
13	5.4	2.9	4.3	7.7	5.2	6.4	14.9	10.9	12.7	17.5	15.5	16.5
14	6.2	4.6	5.2	8.8	5.9	7.2	15.0	10.3	12.7	18.4	14.7	16.6
15	8.0	5.2	6.6	8.0	4.7	6.3	14.5	10.6	12.5	17.9	17.1	17.5
16	8.9	7.0	7.9	6.9	5.1	6.0	14.2	9.2	11.7	18.1	16.3	17.2
17	7.7	5.3	6.5	6.7	5.4	6.1	15.2	9.4	12.4	17.0	15.0	16.1
18	5.3	2.8	4.2	8.5	3.9	6.2	17.3	11.7	14.5	17.3	14.6	16.1
19	3.8	1.7	2.7	10.1	5.8	7.9	18.4	13.3	15.9	16.7	15.4	16.1
20	3.8	1.8	2.8	10.4	8.6	9.3	19.9	15.1	17.5	16.2	13.1	14.2
21	7.3	3.5	5.1	9.9	7.2	8.4	18.1	15.6	16.9	14.9	12.3	13.7
22	7.8	6.3	7.1	10.6	5.9	8.3	15.6	13.6	14.3	17.2	14.1	15.5
23	7.6	5.8	6.8	9.3	7.3	8.1	15.5	13.1	14.1	17.3	16.1	16.7
24	6.5	2.4	4.1	8.9	6.7	7.7	13.5	11.5	12.6	16.8	13.4	14.7
25	4.3	2.0	3.0	8.0	7.2	7.6	13.1	10.4	11.8	13.5	13.0	13.3
26	5.6	2.3	4.0	8.6	7.4	8.0	14.7	11.0	12.9	16.1	12.7	14.3
27	5.1	3.1	4.3	8.4	7.8	8.0	16.4	13.5	14.8	17.6	14.9	16.4
28	4.5	2.3	3.4	9.7	7.6	8.4	16.3	13.2	14.7	17.4	16.3	16.9
29	---	---	---	11.1	8.7	9.7	14.3	13.0	13.5	17.5	15.3	16.5
30	---	---	---	12.6	8.5	10.6	14.4	12.8	13.5	18.0	15.6	16.9
31	---	---	---	11.6	9.6	10.3	---	---	---	19.1	16.3	17.7
MONTH	8.9	0.9	4.5	12.6	1.6	6.6	19.9	7.1	13.2	19.1	10.6	15.2

01658000 MATTAWOMAN CREEK NEAR POMONKEY, MD—Continued

TEMPERATURE, WATER, DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	JUNE			JULY			AUGUST			SEPTEMBER			
										MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	
1	---	---	---	24.9	22.5	23.8	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2	17.7	16.6	17.0	24.5	23.4	24.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
3	16.9	16.2	16.6	24.1	22.1	23.1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
4	18.4	16.8	17.6	24.4	21.4	22.8	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
5	20.7	18.0	19.3	24.0	21.9	23.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
6	22.8	19.6	21.2	24.3	21.6	22.9	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
7	22.6	18.5	20.5	23.9	22.8	23.5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
8	23.2	20.8	22.2	22.8	20.6	21.8	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
9	24.2	22.0	23.0	23.3	21.6	22.6	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
10	24.1	22.1	23.1	24.3	22.0	23.1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
11	24.3	22.3	23.3	24.2	21.6	23.1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
12	23.9	21.8	23.0	25.1	22.8	24.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
13	24.8	22.5	23.7	24.9	22.8	24.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
14	25.3	22.6	24.1	25.3	24.0	24.6	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
15	25.3	23.2	24.2	25.3	23.8	24.5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
16	23.8	21.5	22.8	26.0	23.8	25.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
17	22.3	19.7	20.9	26.5	25.2	25.8	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
18	21.3	18.1	19.8	26.6	24.7	25.7	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
23	21.5	18.6	20.1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
24	22.0	19.0	20.6	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
25	22.5	19.7	21.2	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
26	23.1	20.1	21.6	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
27	23.5	21.4	22.3	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
28	24.3	21.6	22.9	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
29	23.6	21.4	22.9	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
30	23.5	21.2	22.4	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	25.3	16.2	21.5	26.6	20.6	23.7	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
YEAR	26.6	0.0	11.8																			



01658000 MATTAWOMAN CREEK NEAR POMONKEY, MD—Continued

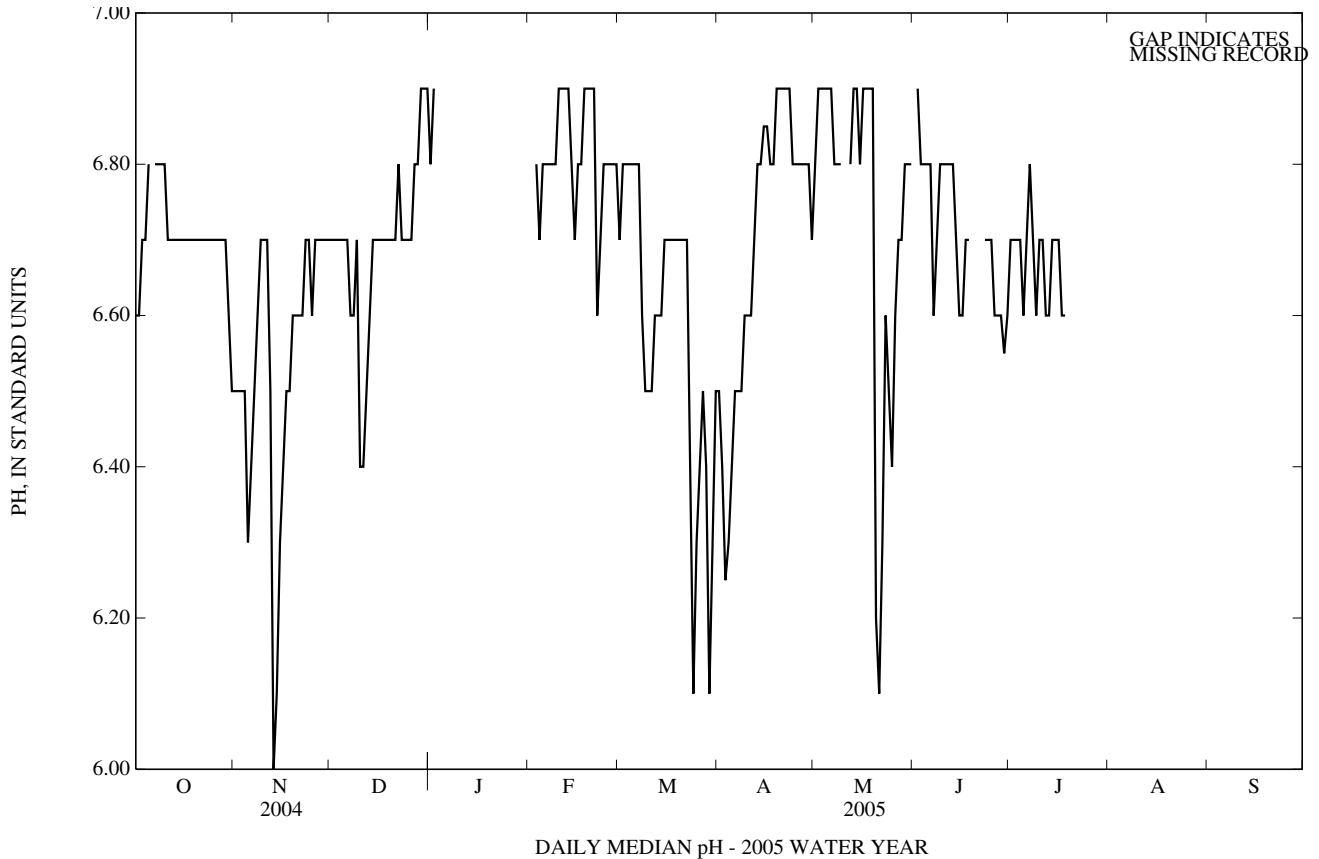
PH, WATER, UNFILTERED, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

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

01658000 MATTAWOMAN CREEK NEAR POMONKEY, MD—Continued

PH, WATER, UNFILTERED, FIELD, STANDARD UNITS, —CONTINUED WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

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



01658000 MATTAWOMAN CREEK NEAR POMONKEY, MD—Continued

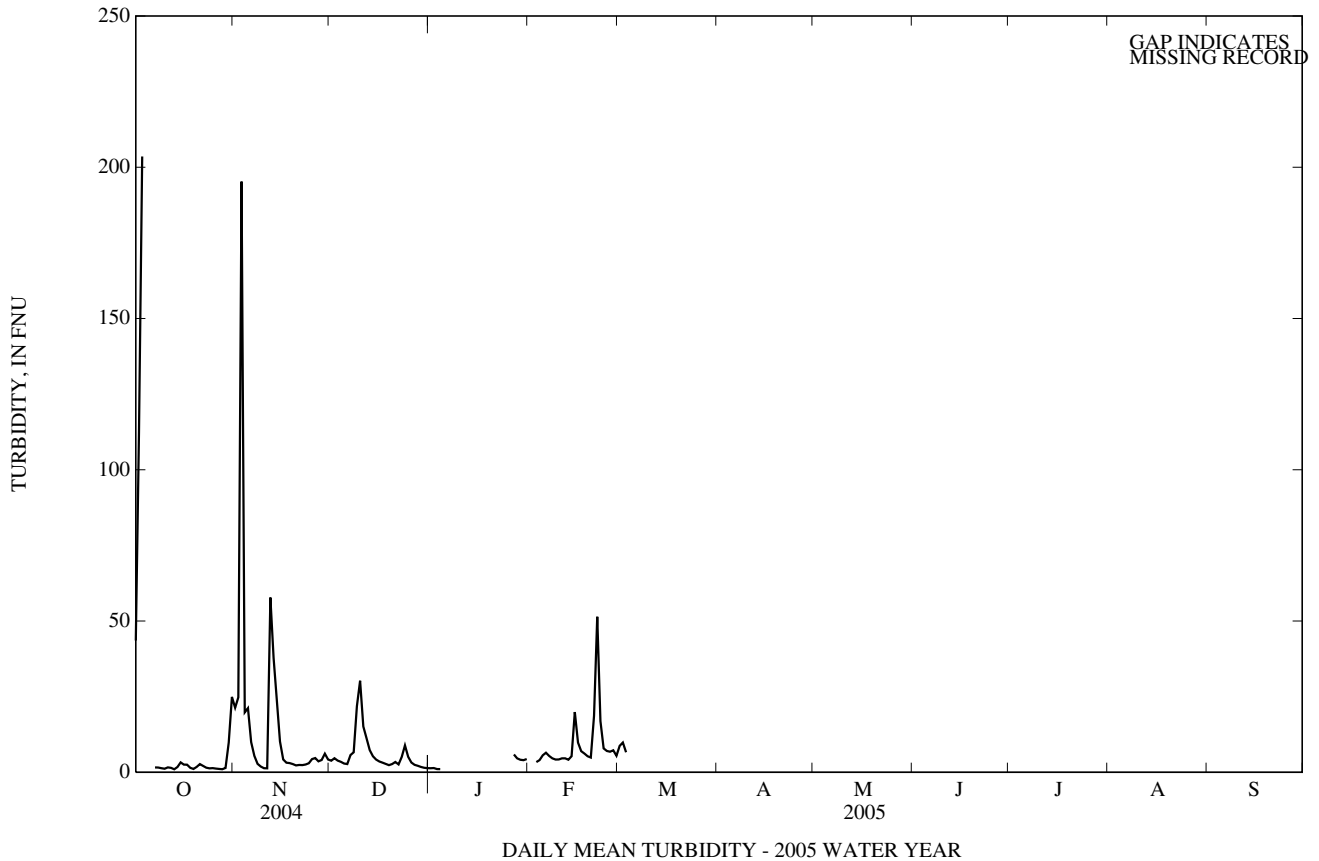
TURBIDITY, WATER, UNFILTERED, FORMAZIN NEPHELOMETRIC UNITS
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	44	---	---	21	5.0	2.7	3.8	3.6	0.6	1.3
2	---	---	110	---	---	25	6.1	3.7	4.6	3.3	0.5	1.4
3	---	---	200	---	---	200	4.7	3.0	3.9	1.9	0.4	1.1
4	---	---	---	97	0.0	20	4.4	2.6	3.4	4.5	0.6	1.0
5	---	---	---	40	13	21	4.4	2.1	2.9	---	---	---
6	---	---	---	14	6.4	10	3.7	2.0	2.7	3.3	1.6	2.1
7	3.6	0.9	1.6	7.8	3.7	5.4	10	2.2	5.7	---	---	---
8	2.6	0.9	1.6	4.6	1.9	2.8	8.4	5.0	6.6	---	---	---
9	2.8	0.6	1.3	12	1.0	1.9	130	4.1	22	---	---	---
10	2.1	0.5	1.2	5.2	0.6	1.3	100	18	30	---	---	---
11	2.7	0.9	1.6	2.2	0.4	1.3	19	12	15	---	---	---
12	2.6	0.6	1.5	150	0.8	58	14	8.6	11	---	---	---
13	2.0	0.2	1.0	67	17	38	11	5.0	7.3	---	---	---
14	6.3	0.5	1.7	33	9.7	24	8.6	3.6	5.3	---	---	---
15	5.6	1.7	3.3	17	4.1	10	5.2	3.1	4.2	---	---	---
16	5.0	1.2	2.5	6.9	2.8	4.2	5.5	2.5	3.6	---	---	---
17	5.6	1.0	2.5	4.3	2.4	3.2	4.1	2.4	3.2	---	---	---
18	6.5	0.4	1.5	3.7	2.4	3.0	4.1	1.9	2.8	---	---	---
19	6.4	0.0	1.1	3.6	1.9	2.7	3.1	1.6	2.4	---	---	---
20	3.5	0.9	1.8	3.2	1.6	2.3	3.7	1.9	2.7	---	---	---
21	4.2	2.0	2.7	3.5	1.6	2.4	5.1	1.8	3.4	---	---	---
22	3.6	1.4	2.1	3.3	1.7	2.4	3.9	1.6	2.6	---	---	---
23	3.0	0.7	1.5	3.7	1.9	2.6	14	1.5	5.1	---	---	---
24	2.2	0.8	1.3	4.2	1.9	3.0	16	5.7	8.9	---	---	---
25	2.5	0.7	1.4	6.4	3.3	4.3	7.2	3.7	5.1	---	---	---
26	3.1	0.5	1.2	6.8	3.4	4.7	5.1	2.1	3.2	---	---	---
27	2.5	0.3	1.1	4.7	2.8	3.6	3.5	1.8	2.5	9.8	4.6	5.9
28	2.3	0.3	1.0	7.2	2.6	4.1	3.6	0.7	2.1	7.2	2.5	4.6
29	4.6	0.5	1.4	7.9	4.8	6.1	2.9	0.9	1.8	7.2	2.3	4.1
30	---	---	9.8	5.8	3.0	4.2	2.3	0.9	1.5	4.7	3.1	4.0
31	---	---	25	---	---	---	2.0	0.8	1.4	7.9	3.0	4.4
MONTH	6.5	0.0	15	150	0.0	16	130	0.7	5.8	9.8	0.4	3.0
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	12	5.3	8.7	10	6.6	---	---	---	---
2	---	---	---	11	6.8	9.8	240	7.9	---	---	---	---
3	4.1	2.6	3.4	7.1	4.2	6.6	56	23	---	---	---	---
4	5.5	3.1	4.0	5.5	3.2	---	31	14	---	---	---	---
5	8.6	3.9	5.6	4.3	2.3	---	14	8.7	---	---	---	---
6	10	4.6	6.5	3.7	2.2	---	14	6.7	---	---	---	---
7	6.9	4.3	5.4	3.6	2.4	---	13	5.6	---	---	---	---
8	5.3	3.7	4.6	61	2.5	---	13	7.4	---	---	---	---
9	4.8	3.4	4.2	28	12	---	13	6.9	---	6.3	3.9	---
10	4.6	3.6	4.2	14	6.8	---	12	5.6	---	---	---	---
11	5.6	3.6	4.6	7.3	4.0	---	8.5	3.8	---	---	---	---
12	5.0	3.8	4.6	5.5	3.3	---	8.1	3.3	---	6.6	4.4	---
13	4.8	3.3	4.1	4.4	3.1	---	5.2	3.1	---	6.8	4.7	---
14	21	3.1	5.3	4.4	2.7	---	5.8	3.6	---	10	5.0	---
15	29	12	20	4.1	2.2	---	5.3	3.0	---	8.6	6.6	---
16	14	6.5	9.8	3.6	2.1	---	4.5	3.0	---	8.9	6.6	---
17	8.1	5.2	7.0	3.2	2.0	---	4.6	2.8	---	8.1	5.9	---
18	10	4.5	6.2	3.6	2.0	---	4.5	3.1	---	8.1	5.8	---
19	5.9	3.9	5.3	3.0	1.6	---	4.8	3.1	---	8.5	5.6	---
20	6.8	3.5	4.9	3.1	1.6	---	8.0	3.4	---	460	6.5	---
21	190	3.0	19	3.0	1.8	---	7.4	4.1	---	64	37	---
22	160	20	51	3.1	1.8	---	8.2	5.1	---	43	31	---
23	22	8.4	17	380	1.9	---	16	6.9	---	33	28	---
24	9.6	5.3	7.9	48	20	---	---	---	---	270	28	---
25	8.3	5.0	7.0	20	11	---	---	---	---	190	28	---
26	8.1	4.3	6.8	12	7.1	---	---	---	---	29	22	---
27	9.4	5.1	7.3	10	4.6	---	---	---	---	23	18	---
28	7.5	3.7	5.5	800	4.8	---	---	---	---	21	16	---
29	---	---	---	63	25	---	---	---	---	16	13	---
30	---	---	---	25	12	---	---	---	---	14	9.7	---
31	---	---	---	15	8.2	---	---	---	---	11	7.4	---
MONTH	190	2.6	8.9	800	1.6	8.4	240	2.8	---	460	3.9	---

01658000 MATTAWOMAN CREEK NEAR POMONKEY, MD—Continued

TURBIDITY, WATER, UNFILTERED, FORMAZIN NEPHELOMETRIC UNITS—CONTINUED
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	13	6.9	---	---	---	---	---	---	---
2	7.7	5.2	---	10	5.9	---	---	---	---	---	---	---
3	13	6.3	---	13	5.4	---	---	---	---	---	---	---
4	14	9.0	---	11	4.7	---	---	---	---	---	---	---
5	10	7.0	---	20	4.0	---	---	---	---	---	---	---
6	23	6.1	---	37	10	---	---	---	---	---	---	---
7	350	21	---	18	6.9	---	---	---	---	---	---	---
8	22	10	---	51	8.9	---	---	---	---	---	---	---
9	11	7.4	---	52	12	---	---	---	---	---	---	---
10	11	7.1	---	14	6.9	---	---	---	---	---	---	---
11	---	---	---	12	6.1	---	---	---	---	---	---	---
12	---	---	---	55	5.5	---	---	---	---	---	---	---
13	8.7	6.2	---	140	12	---	---	---	---	---	---	---
14	---	---	---	43	12	---	---	---	---	---	---	---
15	---	---	---	16	8.1	---	---	---	---	---	---	---
16	---	---	---	30	6.6	---	---	---	---	---	---	---
17	11	5.9	---	23	9.1	---	---	---	---	---	---	---
18	7.9	4.7	---	23	7.7	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	5.8	3.4	---	---	---	---	---	---	---	---	---	---
24	5.8	3.2	---	---	---	---	---	---	---	---	---	---
25	5.5	2.6	---	---	---	---	---	---	---	---	---	---
26	6.5	2.3	---	---	---	---	---	---	---	---	---	---
27	5.2	2.2	---	---	---	---	---	---	---	---	---	---
28	6.8	2.3	---	---	---	---	---	---	---	---	---	---
29	140	2.5	---	---	---	---	---	---	---	---	---	---
30	140	13	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	350	2.2	---	140	4.0	---	---	---	---	---	---	---
YEAR	800	0.0	11									



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 mi².

PERIOD OF RECORD.--June 1983 to September 2005 (discontinued).

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 (recorder malfunction, ice effect), 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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan 15	Unknown	*Unknown	*Unknown	Apr 3	1900	835	3.87
Nov 13	1645	735	3.76	May 21	1215	954	3.99
Mar 29	1615	807	3.84				

Minimum discharge, 0.00 ft³/s, on many days.

REVISIONS.--Revised figures of discharge for the water year 2004, superseding those published in the report for 2004 are given below.

Sept. 28.....32 cfs September 2004.....46.9 cfs

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	114	18	70	56	e100	153	164	161	68	47	2.4	1.3
2	58	18	74	52	e96	169	222	139	60	26	1.3	0.09
3	40	18	67	49	91	130	682	102	85	17	0.22	0.00
4	30	47	57	50	95	113	622	88	115	13	0.00	0.00
5	23	e184	51	51	111	107	276	79	93	12	0.00	0.00
6	17	e214	49	51	111	102	192	73	69	119	6.3	0.00
7	13	98	68	51	103	97	167	71	414	96	15	0.00
8	11	56	105	57	96	138	445	66	349	146	8.6	0.00
9	10	41	101	65	91	235	528	58	114	161	17	0.00
10	9.8	32	225	58	89	166	251	54	85	67	18	0.00
11	8.5	29	307	52	78	126	179	51	72	34	16	0.00
12	7.7	124	306	50	66	114	152	49	57	49	9.9	0.00
13	7.1	643	198	52	63	104	141	47	48	81	2.4	0.00
14	10	555	126	e840	70	94	136	44	41	114	0.28	0.00
15	14	196	94	e1,360	124	88	124	56	34	41	0.00	0.00
16	16	107	81	e580	126	84	114	70	31	29	0.00	0.00
17	16	79	77	e200	100	82	109	55	34	28	1.0	0.00
18	16	69	73	e110	83	80	106	43	27	26	0.13	0.00
19	14	64	72	e80	70	78	105	39	22	19	9.3	e0.00
20	21	61	114	e110	66	77	101	326	20	14	27	e0.00
21	40	61	83	e120	71	83	99	864	19	9.0	19	0.00
22	41	62	66	e100	178	76	98	384	18	3.7	8.5	0.00
23	32	60	78	e100	172	194	104	131	18	1.4	1.2	0.00
24	23	63	120	e98	117	595	153	151	16	1.1	e0.11	0.00
25	22	79	100	e100	118	399	123	389	13	1.5	0.00	0.00
26	20	83	78	104	119	196	99	393	11	1.1	0.00	0.00
27	18	65	68	e120	124	153	90	177	11	0.47	0.00	0.00
28	16	74	59	e84	123	258	83	116	11	0.43	11	0.00
29	16	105	57	e78	---	746	76	97	19	0.00	23	0.00
30	18	81	61	95	---	447	101	84	61	0.52	15	0.00
31	18	---	59	e110	---	211	---	74	---	3.2	7.1	---
TOTAL	720.1	3,386	3,144	5,083	2,851	5,695	5,842	4,531	2,035	1,161.42	219.74	1.39
MEAN	23.2	113	101	164	102	184	195	146	67.8	37.5	7.09	0.05
MAX	114	643	307	1,360	178	746	682	864	414	161	27	1.3
MIN	7.1	18	49	49	63	76	76	39	11	0.00	0.00	0.00
CFSM	0.29	1.41	1.27	2.05	1.27	2.30	2.44	1.83	0.85	0.47	0.09	0.00
IN.	0.34	1.58	1.46	2.37	1.33	2.65	2.72	2.11	0.95	0.54	0.10	0.00

e Estimated

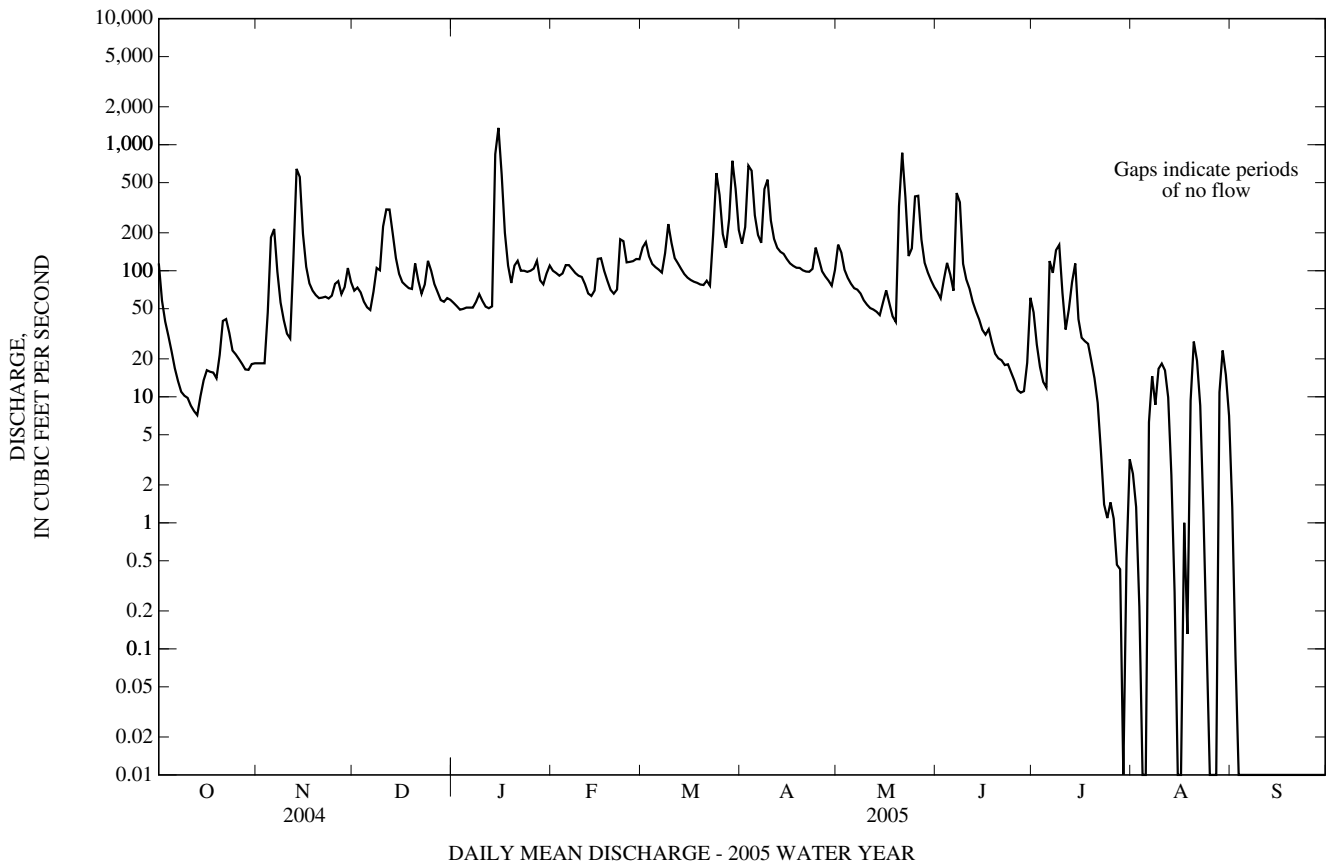
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 2005, BY WATER YEAR (WY)

MEAN	42.2	78.7	109	127	147	183	131	103	68.5	35.8	31.6	43.6
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 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1983 - 2005	
ANNUAL TOTAL	31,331.6		34,669.65		91.8	
ANNUAL MEAN	85.6		95.0		160	
HIGHEST ANNUAL MEAN					2003	
LOWEST ANNUAL MEAN					16.0	
HIGHEST DAILY MEAN	(e)1,040	Feb 7	(e)1,360	Jan 15	2,570	Mar 29, 1994
LOWEST DAILY MEAN	1.2	Sep 5	0.00	Jul 29	0.00	(a)
ANNUAL SEVEN-DAY MINIMUM	1.8	Sep 2	0.00	Sep 3	0.00	Jul 20, 1987
MAXIMUM PEAK FLOW			UNKNOWN		(b)4,080	Sep 17, 1999
MAXIMUM PEAK STAGE			UNKNOWN		5.51	Sep 17, 1999
INSTANTANEOUS LOW FLOW			0.00	(a)	0.00	(c)
ANNUAL RUNOFF (CFSM)	1.07		1.19		1.15	
ANNUAL RUNOFF (INCHES)	14.59		16.14		15.60	
10 PERCENT EXCEEDS	168		187		208	
50 PERCENT EXCEEDS	64		66		54	
90 PERCENT EXCEEDS	10		0.05		1.3	

e Estimated.
 a Many days.
 b From rating curve extended above 1,500 ft³/s.
 c No flow at times in 1983, 1985-89, 1991, 1993, 1995-1999, 2002, 2003, 2005.



01661050 ST. CLEMENT CREEK NEAR CLEMENTS, MD—Continued

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 mi².

PERIOD OF RECORD.--October 1968 to September 2005 (discontinued).

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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan 14	1730	295	3.30	Apr 2	2000	*350	*3.81
Mar 23	1930	261	2.99	Apr 8	0800	279	3.12
Mar 28	1945	318	3.53	May 20	1815	300	3.35

Minimum discharge, 0.00 ft³/s, on many days.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	8.3	20	12	25	48	30	55	17	10	1.3	0.95
2	9.1	7.1	18	12	21	33	172	31	15	5.7	0.98	0.52
3	8.1	6.8	15	12	21	23	196	24	33	4.0	0.43	0.22
4	7.1	30	13	13	25	21	55	22	28	3.2	0.27	0.09
5	6.4	52	12	15	25	21	39	21	18	3.5	0.13	0.03
6	5.1	18	12	15	21	20	35	20	14	8.0	1.0	0.05
7	4.7	12	33	13	19	19	35	20	149	8.7	2.0	1.3
8	4.6	10	24	20	18	62	180	e18	45	55	2.1	0.25
9	4.6	8.8	23	18	18	45	61	e15	23	16	24	0.15
10	4.8	7.7	93	14	21	27	41	e14	18	6.4	45	0.09
11	4.2	7.9	51	13	16	24	35	13	21	e4.2	5.9	0.01
12	4.0	54	38	13	15	27	32	12	14	3.8	2.8	0.00
13	4.2	106	23	13	15	21	30	11	12	4.8	1.8	0.00
14	7.6	28	19	170	21	21	28	11	10	4.7	1.3	0.00
15	7.4	17	16	80	39	18	25	12	7.9	4.9	1.1	0.00
16	7.7	14	15	29	23	17	24	20	6.8	6.0	1.6	0.03
17	6.1	12	16	22	19	17	25	12	5.9	3.2	4.4	0.03
18	4.6	11	15	15	16	17	24	9.7	5.5	2.9	2.3	0.01
19	4.8	11	16	15	15	16	24	12	5.8	2.3	4.5	0.00
20	6.8	11	15	19	15	19	23	210	6.1	1.8	8.7	0.00
21	9.7	14	13	20	20	18	22	117	6.8	1.5	3.6	0.00
22	9.7	13	16	16	52	16	25	40	5.4	1.3	1.9	0.00
23	6.9	15	20	17	25	143	27	27	4.7	1.2	1.3	0.00
24	6.7	14	25	14	24	97	28	49	4.4	0.80	1.3	0.00
25	7.3	19	16	16	26	43	22	66	4.1	0.89	0.93	0.00
26	7.0	19	14	23	27	41	21	44	3.6	0.91	0.71	0.00
27	6.7	13	13	24	30	30	20	28	3.9	0.63	1.2	0.00
28	6.6	83	12	15	31	154	19	22	5.7	0.35	2.9	0.02
29	7.3	32	14	14	---	128	20	19	14	1.00	2.4	0.00
30	8.7	19	14	35	---	41	27	16	32	1.4	1.9	0.00
31	8.0	---	13	32	---	33	---	24	---	1.3	1.7	---
TOTAL	212.5	673.6	657	759	643	1,260	1,345	1,014.7	539.6	170.38	131.45	3.75
MEAN	6.85	22.5	21.2	24.5	23.0	40.6	44.8	32.7	18.0	5.50	4.24	0.12
MAX	16	106	93	170	52	154	196	210	149	55	45	1.3
MIN	4.0	6.8	12	12	15	16	19	9.7	3.6	0.35	0.13	0.00
CFSM	0.37	1.21	1.15	1.32	1.24	2.20	2.42	1.77	0.97	0.30	0.23	0.01
IN.	0.43	1.35	1.32	1.53	1.29	2.53	2.70	2.04	1.09	0.34	0.26	0.01

e Estimated

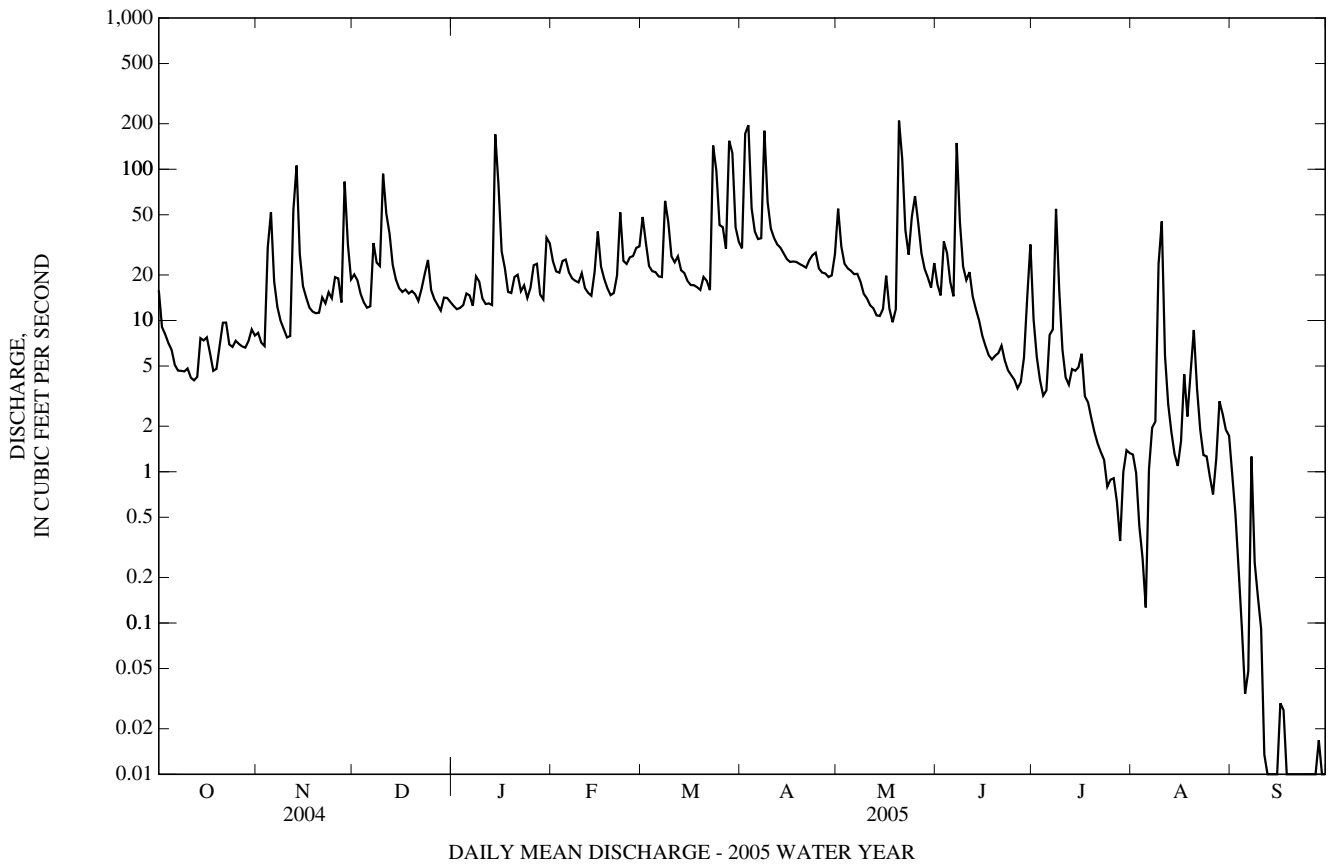
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1969 - 2005, BY WATER YEAR (WY)

MEAN	10.0	15.4	21.0	25.8	29.6	34.2	27.1	21.4	16.2	12.1	10.9	12.8
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 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1969 - 2005	
ANNUAL TOTAL	7,662.6		7,409.98			
ANNUAL MEAN	20.9		20.3		19.7	
HIGHEST ANNUAL MEAN					34.5	1972
LOWEST ANNUAL MEAN					5.83	2002
HIGHEST DAILY MEAN	255	Feb 7	210	May 20	1,580	Jun 22, 1972
LOWEST DAILY MEAN	1.8	Jul 11	0.00	(a)	0.00	(a)
ANNUAL SEVEN-DAY MINIMUM	2.9	Jul 5	0.00	Sep 19	0.00	Aug 31, 1980
MAXIMUM PEAK FLOW			350	Apr 2	(b)4,500	Sep 6, 1979
MAXIMUM PEAK STAGE			3.81	Apr 2	(c)6.96	Sep 6, 1979
INSTANTANEOUS LOW FLOW			0.00	(d)	0.00	(f)
ANNUAL RUNOFF (CFSM)	1.13		1.10		1.06	
ANNUAL RUNOFF (INCHES)	15.41		14.90		14.44	
10 PERCENT EXCEEDS	38		39		38	
50 PERCENT EXCEEDS	15		14		12	
90 PERCENT EXCEEDS	4.4		0.90		1.3	

- a Many days.
- b From rating curve extended above 480 ft³/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 Sept. 5, 6, 11-16, 18-30.
- f No flow at times in 1977, 1980, 1981, 1983, 1985-89, 1991, 1993, 1995, 1999, 2002, 2003, 2005.



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 mi².

PERIOD OF RECORD.--June 1946 to September 2005 (discontinued).

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.--No estimated daily discharges. Records good. 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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov 28	0915	445	4.57	May 20	0915	451	4.61
Jan 14	1830	518	5.10	Jul 8	0830	448	4.59
Apr 2	2115	*689	*6.31				

Minimum discharge, 2.4 ft³/s, Sept. 30.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33	11	22	48	48	65	54	69	17	23	4.9	6.6
2	27	11	18	37	41	47	329	43	15	17	4.5	5.8
3	34	11	16	29	36	37	355	30	44	14	4.1	5.0
4	19	33	15	24	36	33	130	26	30	11	4.0	4.4
5	15	37	15	24	35	32	88	23	22	27	3.4	4.3
6	13	21	15	22	31	31	76	20	18	55	4.3	4.1
7	12	16	45	19	28	30	68	19	146	34	4.1	3.9
8	11	14	34	63	28	80	78	17	43	241	3.8	3.9
9	11	12	32	39	28	54	71	15	30	81	113	3.7
10	11	19	158	29	34	43	58	14	23	50	87	3.6
11	9.8	32	108	25	29	37	50	14	18	34	42	3.4
12	9.5	96	81	23	25	40	41	13	15	24	20	3.4
13	9.5	197	51	21	21	35	35	13	13	18	13	3.4
14	12	62	38	280	25	34	30	12	11	14	10	3.5
15	12	46	30	164	38	28	26	13	10	13	8.7	3.7
16	11	42	26	78	24	28	24	16	9.4	11	43	3.6
17	10	39	24	57	20	27	25	13	8.4	15	57	4.9
18	9.4	38	22	43	21	26	22	12	7.7	25	22	8.4
19	9.5	36	22	35	20	26	20	11	7.3	12	102	4.5
20	11	36	21	32	20	27	20	320	7.1	11	42	3.9
21	12	38	19	29	24	28	20	143	7.1	9.8	24	3.5
22	12	26	20	27	74	25	22	64	6.8	8.3	16	3.2
23	11	16	84	27	38	140	23	46	6.3	6.9	13	3.1
24	11	14	169	23	36	83	25	51	5.9	5.7	11	3.3
25	11	21	132	23	39	55	20	61	5.7	5.9	9.5	3.3
26	11	17	112	33	38	51	18	59	5.7	5.7	8.3	2.9
27	10	13	96	35	42	42	20	39	7.1	5.0	8.6	3.2
28	10	223	82	24	45	197	20	38	13	4.6	9.6	2.8
29	11	57	73	21	---	125	15	28	37	5.1	9.1	2.8
30	12	28	65	86	---	58	17	23	36	5.3	8.0	2.6
31	11	---	56	60	---	45	---	20	---	5.1	7.7	---
TOTAL	411.7	1,262	1,701	1,480	924	1,609	1,800	1,285	625.5	797.4	717.6	118.7
MEAN	13.3	42.1	54.9	47.7	33.0	51.9	60.0	41.5	20.9	25.7	23.1	3.96
MAX	34	223	169	280	74	197	355	320	146	241	113	8.4
MIN	9.4	11	15	19	20	25	15	11	5.7	4.6	3.4	2.6
CFSM	0.55	1.75	2.29	1.99	1.38	2.16	2.50	1.73	0.87	1.07	0.96	0.16
IN.	0.64	1.96	2.64	2.29	1.43	2.49	2.79	1.99	0.97	1.24	1.11	0.18

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1946 - 2005, BY WATER YEAR (WY)

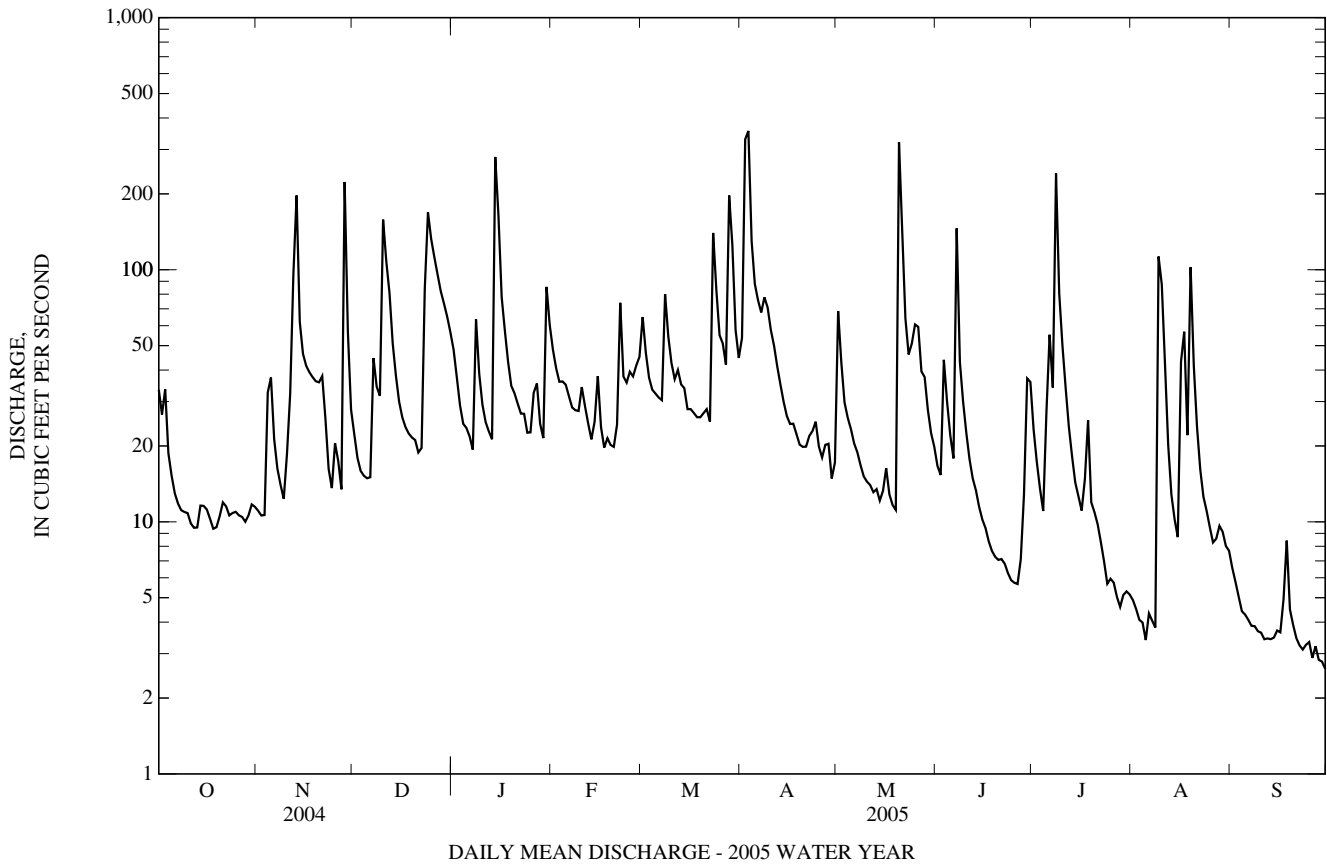
MEAN	12.5	19.8	28.9	34.4	37.4	45.1	34.0	25.3	16.4	16.2	18.1	16.1
MAX	70.3	84.4	98.6	125	213	166	95.9	97.4	68.4	82.4	118	150
(WY)	(1997)	(1957)	(1997)	(1978)	(1998)	(1994)	(1983)	(1990)	(1972)	(2000)	(1955)	(1999)
MIN	2.58	4.29	5.27	6.45	7.67	8.52	6.82	3.71	2.01	1.22	1.29	2.02
(WY)	(1969)	(1982)	(1966)	(1955)	(2002)	(1981)	(1985)	(1999)	(1999)	(1999)	(1995)	(1988)

01661500 ST. MARYS RIVER AT GREAT MILLS, MD—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1946 - 2005	
ANNUAL TOTAL	14,338.4		12,731.9		25.3	
ANNUAL MEAN	39.2		34.9		50.9	
HIGHEST ANNUAL MEAN					7.93	
LOWEST ANNUAL MEAN					1998	
HIGHEST DAILY MEAN	580	Apr 14	355	Apr 3	2,650	Sep 16, 1999
LOWEST DAILY MEAN	5.8	Jul 12	2.6	Sep 30	0.17	Aug 11, 1999
ANNUAL SEVEN-DAY MINIMUM	7.8	Jul 7	3.0	Sep 24	0.22	Aug 7, 1999
MAXIMUM PEAK FLOW			689	Apr 2	(a)7,950	Aug 20, 1969
MAXIMUM PEAK STAGE			6.31	Apr 2	13.34	Aug 20, 1969
INSTANTANEOUS LOW FLOW			2.4	Sep 30	0.13	(b)
ANNUAL RUNOFF (CFSM)	1.63		1.45		1.05	
ANNUAL RUNOFF (INCHES)	22.22		19.73		14.32	
10 PERCENT EXCEEDS	83		73		50	
50 PERCENT EXCEEDS	19		22		12	
90 PERCENT EXCEEDS	10		5.0		3.2	

a From rating curve extended above 1,500 ft³/s on basis of contracted-opening measurement at gage height 12.08 ft.

b Aug. 10-14, 1999.



03075500 YOUGHIOGHENY RIVER NEAR OAKLAND, MD—Continued

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 mi².

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 ft³/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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan 6	0045	3,100	6.13	Mar 8	0930	2,570	5.64
Jan 12	0515	2,300	5.37	Mar 29	0645	*3,990	*6.88
Feb 10	0515	2,500	5.57				

Minimum discharge, 12 ft³/s, on several days.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	66	372	1,110	e122	e91	213	683	452	145	30	55	85
2	59	274	923	160	92	161	882	339	126	26	50	57
3	62	445	648	177	93	e140	846	308	157	23	45	43
4	60	808	451	866	93	e120	834	252	162	22	41	36
5	52	1,300	344	1,970	98	e127	820	211	122	30	36	32
6	46	776	293	2,550	101	163	614	183	108	99	35	29
7	43	505	430	1,460	137	404	459	165	365	51	45	27
8	41	341	485	1,390	379	1,990	413	150	172	851	76	25
9	38	253	435	1,110	1,170	1,060	311	129	148	368	68	23
10	37	209	805	807	2,000	694	251	117	134	174	50	21
11	35	182	948	758	1,040	514	211	109	123	111	40	20
12	34	347	820	1,780	689	409	180	169	168	111	34	19
13	33	337	682	1,060	484	326	158	129	108	578	31	18
14	45	244	520	1,180	941	268	147	107	98	784	27	18
15	48	214	402	873	1,280	235	136	183	86	283	27	18
16	60	198	334	663	939	223	125	132	80	446	27	17
17	116	180	287	510	753	211	112	112	116	863	27	16
18	68	203	e230	391	540	237	102	99	77	703	25	15
19	105	287	e195	e330	420	359	e93	91	61	912	25	15
20	113	477	e160	e270	344	516	79	930	56	743	40	14
21	300	457	e155	e220	673	466	74	748	52	446	273	13
22	165	364	e145	e180	576	397	112	458	54	303	84	13
23	126	310	e150	e165	437	1,070	526	376	58	210	49	13
24	185	343	e153	e150	377	1,410	319	630	46	154	38	12
25	188	934	e143	e135	333	996	468	455	38	127	33	13
26	143	831	e130	e120	279	790	711	369	35	120	29	14
27	130	616	e118	e115	242	650	629	291	32	99	77	18
28	126	521	e107	e110	229	1,290	480	260	30	98	137	20
29	265	402	e100	e105	---	3,310	309	267	33	86	74	21
30	1,350	325	e104	e97	---	1,520	348	200	32	70	62	24
31	646	---	e109	e90	---	948	---	171	---	60	57	---
TOTAL	4,785	13,055	11,916	19,914	14,830	21,217	11,432	8,592	3,022	8,981	1,717	709
MEAN	154	435	384	642	530	684	381	277	101	290	55.4	23.6
MAX	1,350	1,300	1,110	2,550	2,000	3,310	882	930	365	912	273	85
MIN	33	180	100	90	91	120	74	91	30	22	25	12
CFSM	1.15	3.25	2.87	4.79	3.95	5.11	2.84	2.07	0.75	2.16	0.41	0.18
IN.	1.33	3.62	3.31	5.53	4.12	5.89	3.17	2.39	0.84	2.49	0.48	0.20

e Estimated

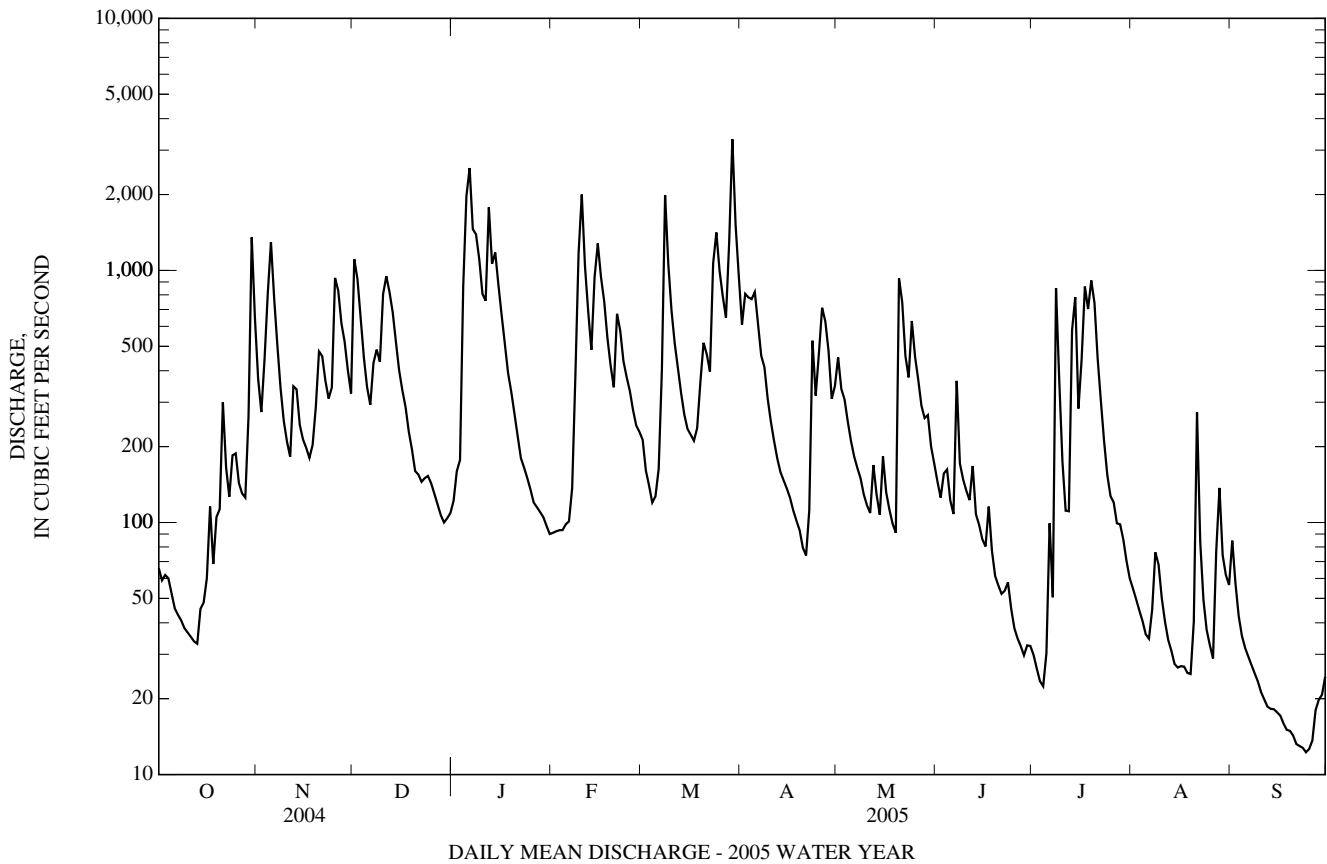
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1941 - 2005, BY WATER YEAR (WY)

MEAN	115	249	396	430	500	621	455	334	213	172	131	98.6
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 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1941 - 2005	
ANNUAL TOTAL	138,628		120,170			
ANNUAL MEAN	379		329		309	
HIGHEST ANNUAL MEAN					528	2003
LOWEST ANNUAL MEAN					193	1947
HIGHEST DAILY MEAN	4,010	Mar 6	3,310	Mar 29	8,740	Jan 19, 1996
LOWEST DAILY MEAN	28	(a)	12	Sep 24	2.5	Oct 4, 1953
ANNUAL SEVEN-DAY MINIMUM	37	Jul 19	13	Sep 20	2.7	Oct 2, 1953
MAXIMUM PEAK FLOW			3,990	Mar 29	(b)14,100	Jan 19, 1996
MAXIMUM PEAK STAGE			6.88	Mar 29	13.06	Jan 19, 1996
INSTANTANEOUS LOW FLOW			12	(c)	2.5	Oct 4, 1953
ANNUAL RUNOFF (CFSM)	2.83		2.46		2.30	
ANNUAL RUNOFF (INCHES)	38.48		33.36		31.32	
10 PERCENT EXCEEDS	830		848		743	
50 PERCENT EXCEEDS	206		165		166	
90 PERCENT EXCEEDS	54		30		24	

a July 25, August 11.
 b From rating curve extended above 7,000 ft³/s.
 c Sept. 21-26.



MONONGAHELA RIVER BASIN

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, 90,000 acre-ft, May 27, elevation, 2,461.2 ft; minimum, 71,800 acre-ft, Feb. 2, elevation, 2,456.2 ft.

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	2,459.0	81,900	
Oct. 31	2,457.8	77,500	-4,400
Nov. 30	2,457.7	77,100	-400
Dec. 31	2,456.9	74,300	-2,800
CAL YR 2004			-400
Jan. 31	2,456.5	72,900	-1,400
Feb. 28	2,457.8	77,500	+4,600
Mar. 31	2,460.0	85,500	+8,000
Apr. 30	2,460.3	86,700	+1,200
May 31	2,460.8	88,500	+1,800
June 30	2,460.7	88,100	-400
July 31	2,459.7	84,400	-3,700
Aug. 31	2,458.7	80,800	-3,600
Sept. 30	2,457.6	76,800	-4,000
WTR YR 2005			-5,100

03076000 DEEP CREEK RESERVOIR NEAR OAKLAND, MD--Continued



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 mi².

PERIOD OF RECORD.--August 1898 to December 1904 and October 1940 to current year. Annual maximum, water years 1905, 1923-31, 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, 7,300 ft³/s, July 27, gage height, 6.35 ft; minimum discharge, 50 ft³/s, Sept. 17.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	244	856	1,690	647	e240	660	1,190	696	291	142	169	132
2	227	625	2,060	487	e235	658	1,250	615	256	133	84	215
3	150	678	1,380	423	231	480	1,410	530	374	66	74	172
4	256	946	1,070	1,280	265	472	1,430	462	435	132	117	81
5	174	2,080	671	3,970	199	412	1,840	403	271	75	138	146
6	123	1,310	616	5,330	206	316	1,640	404	315	141	137	66
7	229	885	894	3,250	246	601	960	434	382	121	110	62
8	300	1,040	972	2,860	468	3,250	879	322	328	1,140	168	59
9	106	1,020	959	2,560	1,600	1,870	749	366	259	1,220	194	127
10	101	706	1,450	1,850	3,390	1,380	553	264	455	345	187	55
11	172	553	1,810	1,660	1,980	942	881	246	218	556	163	54
12	95	647	1,770	3,460	1,310	798	893	268	280	360	190	128
13	93	662	1,590	2,510	941	625	720	356	394	398	144	58
14	109	486	1,390	2,780	1,460	694	474	236	373	1,140	104	56
15	206	534	902	2,310	2,530	520	394	323	180	498	158	55
16	146	492	660	1,900	1,720	448	361	379	170	547	77	127
17	231	457	674	1,490	1,520	543	264	247	285	757	142	54
18	240	414	489	1,120	1,180	495	403	297	184	993	95	56
19	520	442	526	932	870	544	300	205	141	1,060	140	128
20	433	782	712	774	659	752	270	1,270	191	1,100	121	134
21	478	777	430	e640	1,000	761	389	1,250	114	759	275	158
22	436	740	569	e560	1,090	722	416	741	109	670	309	157
23	252	659	1,010	e500	1,020	1,600	843	789	112	450	121	134
24	285	919	998	e450	1,020	2,640	606	1,100	274	240	109	59
25	532	1,530	680	e410	726	1,920	696	892	91	349	124	57
26	332	1,640	588	e370	633	1,500	1,060	768	74	260	140	139
27	284	1,230	683	e330	448	1,120	948	559	141	338	75	70
28	272	1,110	856	e305	570	2,080	763	509	111	163	209	62
29	320	856	887	e280	---	5,830	623	470	68	272	256	67
30	2,230	649	846	e260	---	3,050	558	452	118	182	133	147
31	1,140	---	762	e250	---	1,990	---	325	---	157	121	---
TOTAL	10,716	25,725	30,594	45,948	27,757	39,673	23,763	16,178	6,994	14,764	4,584	3,015
MEAN	346	858	987	1,482	991	1,280	792	522	233	476	148	100
MAX	2,230	2,080	2,060	5,330	3,390	5,830	1,840	1,270	455	1,220	309	215
MIN	93	414	430	250	199	316	264	205	68	66	74	54
(†)	-71.6	-6.71	-45.5	-22.8	82.7	130	20.2	29.3	-6.71	-60.0	-58.5	-67.1
MEAN‡	274	851	942	1,459	1,074	1,410	812	551	226	416	89.5	32.9
CFSM‡	0.93	2.88	3.19	4.95	3.64	4.78	2.75	1.87	0.77	1.41	0.30	0.11
IN.‡	1.07	3.21	3.68	5.71	3.79	5.51	3.07	2.16	0.86	1.63	0.35	0.12

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1898 - 1905, 1941 - 2005, BY WATER YEAR (WY)

MEAN	279	513	833	873	985	1,230	942	697	492	380	296	257
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

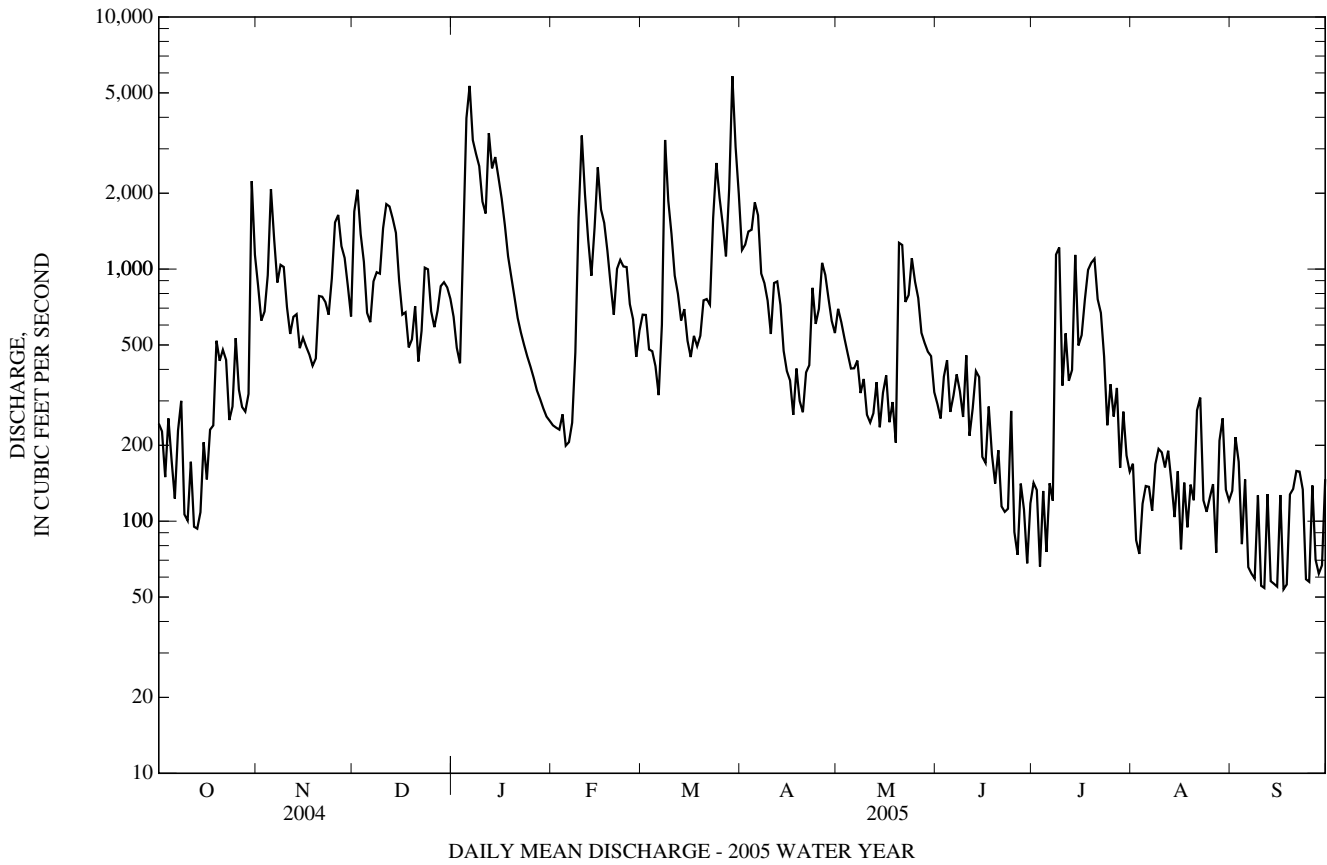
SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1898 - 1905, 1941 - 2005	
	Value	Date	Value	Date	Value	Date
ANNUAL TOTAL	285,050		249,711			
ANNUAL MEAN	779		684		645	
ANNUAL MEAN‡	778		677		648	
HIGHEST ANNUAL MEAN					1,052	1903
LOWEST ANNUAL MEAN					375	1954
HIGHEST DAILY MEAN	7,450	Mar 6	5,830	Mar 29	11,200	Jan 19, 1996
LOWEST DAILY MEAN	76	Aug 10	54	(a)	8.2	Sep 11, 1966
ANNUAL SEVEN-DAY MINIMUM	114	Jan 28	76	Sep 11	29	Sep 21, 1972
MAXIMUM PEAK FLOW			7,300	Jul 27	(b)16,100	Jan 19, 1996
MAXIMUM PEAK STAGE			6.35	Jul 27	(c)14.20	Mar 29, 1924
INSTANTANEOUS LOW FLOW			50	Sep 17		UNKNOWN
ANNUAL RUNOFF (CFSM)	2.64		2.32		2.19	
ANNUAL RUNOFF (CFSM)‡	2.64		2.29		2.20	
ANNUAL RUNOFF (INCHES)	35.95		31.49		29.71	
ANNUAL RUNOFF (INCHES)‡	35.83		31.17		29.84	
10 PERCENT EXCEEDS	1,650		1,550		1,440	
50 PERCENT EXCEEDS	524		452		406	
90 PERCENT EXCEEDS	153		112		106	

‡ Adjusted for change in reservoir contents since October 1940.

a Sept. 11, 17.

b From rating curve extended above 5,800 ft³/s on basis of slope-area measurement of peak flow.

c From floodmarks.



03076600 BEAR CREEK AT FRIENDSVILLE, MD—Continued

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 mi².

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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan 5	2030	1,910	5.49	Feb 2	0930	Unknown	*(a)6.72
Jan 8	1145	773	3.76	Feb 10	0115	669	3.60
Jan 11	2330	1,250	4.47	Mar 8	0430	739	3.71
Jan 18	2315	Unknown	(a)4.80	Mar 29	0315	*2,070	5.71

a Affected by ice.

Minimum discharge, 2.6 ft³/s, Sept. 23, 24, 25.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	30	237	e48	39	77	212	79	45	14	8.8	12
2	27	29	227	53	e39	66	213	70	42	13	8.1	7.9
3	29	37	172	61	38	e56	201	65	70	12	7.7	6.6
4	23	58	134	139	37	e51	200	59	69	12	7.2	5.9
5	21	91	110	1,180	36	e53	232	54	54	13	7.0	5.4
6	19	79	97	1,160	38	57	207	51	67	20	6.9	5.0
7	18	67	98	591	50	129	168	51	135	13	7.0	4.8
8	17	56	97	574	109	541	144	47	95	87	11	4.5
9	16	47	93	432	285	263	118	44	87	41	9.6	4.5
10	16	43	133	251	511	181	103	42	74	25	8.0	4.3
11	15	41	198	352	261	145	91	40	71	18	6.9	3.9
12	15	55	196	738	184	121	80	40	83	50	6.7	3.8
13	15	53	166	384	140	103	72	36	62	56	6.1	3.7
14	18	46	137	297	201	90	64	37	53	37	6.2	3.4
15	17	45	115	219	319	79	56	45	46	28	12	3.3
16	22	44	104	182	250	73	50	37	46	26	8.8	3.3
17	24	44	e91	151	208	72	46	34	43	34	8.6	3.1
18	19	45	e82	e135	160	79	44	31	37	27	6.8	3.1
19	39	67	e74	e118	145	98	43	30	33	22	6.3	3.2
20	34	97	e67	101	114	116	41	115	29	18	7.3	3.2
21	32	103	e60	89	140	115	40	104	26	16	29	3.4
22	28	100	e54	e81	134	108	53	88	28	15	11	3.0
23	25	93	e55	e73	122	269	93	87	30	14	7.4	2.7
24	31	93	e56	e67	115	354	78	105	23	12	6.4	2.7
25	29	133	e55	e61	105	258	91	94	20	12	5.9	2.7
26	27	138	e50	e55	95	218	100	88	18	12	5.8	3.0
27	25	126	e46	e51	84	182	98	77	17	15	8.7	3.9
28	24	142	e42	e48	81	651	90	75	16	18	21	3.3
29	26	128	e39	e46	---	1,400	82	70	15	12	9.5	5.4
30	37	115	e39	e44	---	589	82	56	15	10	8.6	5.5
31	33	---	e44	e42	---	303	---	50	---	9.6	8.5	---
TOTAL	750	2,245	3,168	7,823	4,040	6,897	3,192	1,901	1,449	711.6	278.8	130.5
MEAN	24.2	74.8	102	252	144	222	106	61.3	48.3	23.0	8.99	4.35
MAX	39	142	237	1,180	511	1,400	232	115	135	87	29	12
MIN	15	29	39	42	36	51	40	30	15	9.6	5.8	2.7
CFSM	0.49	1.53	2.09	5.16	2.95	4.55	2.18	1.25	0.99	0.47	0.18	0.09
IN.	0.57	1.71	2.41	5.95	3.07	5.25	2.43	1.45	1.10	0.54	0.21	0.10

e Estimated

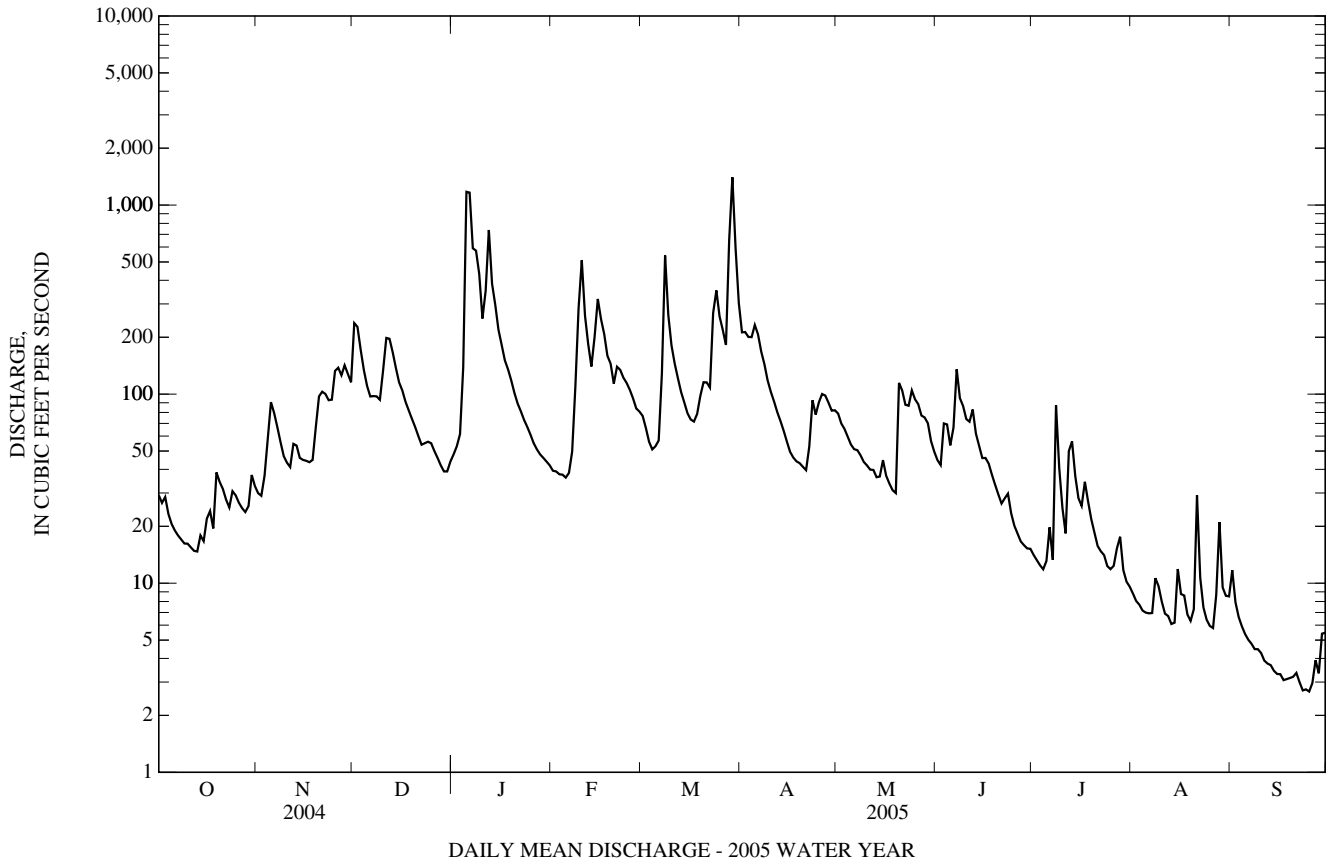
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 2005, BY WATER YEAR (WY)

MEAN	33.1	70.5	114	117	149	193	154	105	57.4	46.6	30.6	34.5
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 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1965 - 2005	
ANNUAL TOTAL	41,810.6		32,585.9		91.7	
ANNUAL MEAN	114		89.3		133	
HIGHEST ANNUAL MEAN					53.4	
LOWEST ANNUAL MEAN					1996	
HIGHEST DAILY MEAN	1,390	Mar 6	1,400	Mar 29	3,100	Sep 14, 1971
LOWEST DAILY MEAN	8.5	Aug 18	2.7	(a)	1.6	(b)
ANNUAL SEVEN-DAY MINIMUM	10	Aug 6	3.0	Sep 20	2.0	Sep 7, 1966
MAXIMUM PEAK FLOW			2,070	Mar 29	(c)4,650	Sep 14, 1971
MAXIMUM PEAK STAGE			6.72	(d)Feb 2	(f)9.60	Sep 14, 1971
INSTANTANEOUS LOW FLOW			2.6	(a)	1.5	Sep 12, 1966
ANNUAL RUNOFF (CFSM)	2.34		1.83		1.88	
ANNUAL RUNOFF (INCHES)	31.81		24.79		25.49	
10 PERCENT EXCEEDS	243		199		225	
50 PERCENT EXCEEDS	61		50		50	
90 PERCENT EXCEEDS	15		6.9		8.4	

- a Sept. 23-25.
- b Sept. 12, 13, 1966.
- c From rating curve extended above 2,000 ft³/s on basis of slope-area measurement of peak flow.
- d Ice jam.
- f From floodmarks.



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 mi².

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, frozen well), 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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan 5	1745	2,070	4.86	Mar 29	0000	*2,840	*5.79
Jan 12	0200	1,680	4.34				

Minimum discharge, 1.5 ft³/s, on several days.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	51	54	462	e56	e51	e86	286	121	55	11	5.8	16
2	45	48	306	83	e50	e73	418	97	49	9.4	5.4	9.2
3	44	66	213	103	e49	e63	372	89	64	8.5	5.1	6.3
4	39	148	168	232	e48	e67	359	80	77	7.8	4.9	5.3
5	35	224	144	1,260	e54	e71	366	71	53	8.3	4.6	4.6
6	32	127	134	1,210	e61	103	271	66	48	12	4.5	4.2
7	30	98	171	561	82	254	221	64	159	12	5.0	4.0
8	29	82	207	649	190	588	208	62	69	210	7.1	3.8
9	28	71	175	442	573	280	165	55	52	65	8.0	3.7
10	26	64	364	313	606	204	139	51	49	29	6.6	3.6
11	25	60	369	492	284	174	123	48	71	17	5.8	3.2
12	23	128	274	1,050	204	160	108	48	63	13	5.6	3.1
13	23	150	222	442	163	145	99	45	45	11	4.8	3.0
14	23	97	182	421	327	137	88	45	39	12	4.5	2.9
15	22	83	155	297	569	116	79	63	34	12	4.8	2.8
16	33	76	e138	238	358	105	71	50	35	12	6.5	2.6
17	47	71	e118	207	276	93	65	42	42	31	7.4	2.3
18	29	72	e100	165	204	109	61	38	31	25	5.6	2.0
19	53	109	e90	e140	177	147	58	36	26	15	5.0	1.7
20	48	174	e82	e117	152	184	56	284	23	12	5.0	1.5
21	64	137	e73	e91	254	154	52	173	21	9.3	10	1.6
22	46	111	e71	e83	238	138	79	105	22	8.1	8.6	1.6
23	37	102	e73	e76	168	590	263	102	30	7.7	5.8	1.5
24	61	149	e74	e69	145	578	151	185	20	7.1	4.6	1.5
25	62	320	e67	e64	137	349	152	130	15	7.1	4.2	1.5
26	46	224	e61	e61	124	309	155	106	13	8.3	4.1	1.7
27	38	168	e55	e59	114	287	122	88	11	8.9	5.8	1.9
28	36	225	e53	e57	e100	1,130	105	85	10	11	19	1.9
29	41	172	e50	e55	---	1,660	96	91	11	8.4	8.8	2.5
30	124	142	e51	e54	---	590	108	71	19	7.0	6.8	3.0
31	74	---	e53	e53	---	377	---	64	---	6.3	7.4	---
TOTAL	1,314	3,752	4,755	9,200	5,758	9,321	4,896	2,655	1,256	622.2	197.1	104.5
MEAN	42.4	125	153	297	206	301	163	85.6	41.9	20.1	6.36	3.48
MAX	124	320	462	1,260	606	1,660	418	284	159	210	19	16
MIN	22	48	50	53	48	63	52	36	10	6.3	4.1	1.5
CFSM	0.68	2.00	2.45	4.75	3.29	4.81	2.61	1.37	0.67	0.32	0.10	0.06
IN.	0.78	2.23	2.83	5.48	3.43	5.55	2.91	1.58	0.75	0.37	0.12	0.06

e Estimated

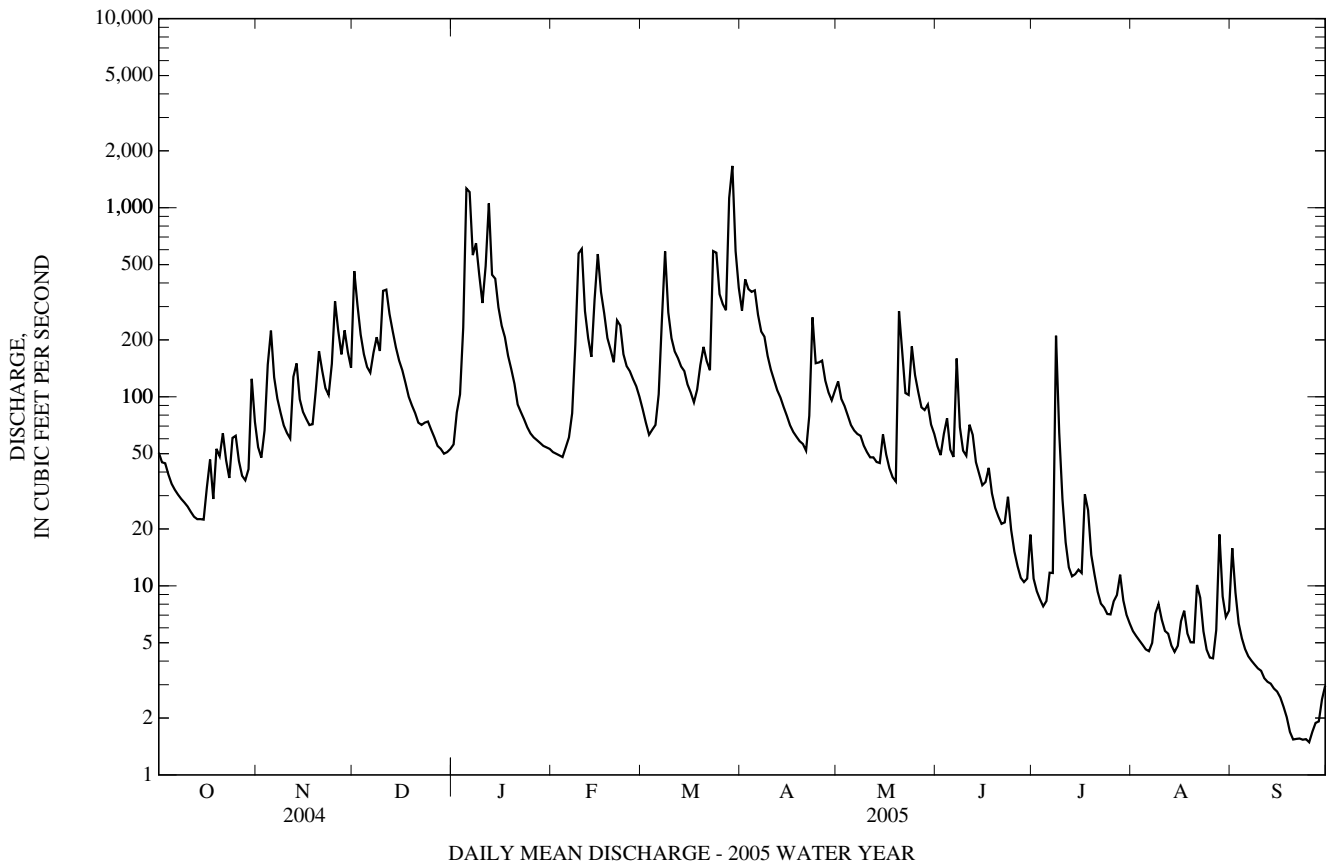
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1947 - 2005, BY WATER YEAR (WY)

MEAN	45.7	91.0	144	163	196	268	211	139	78.3	48.1	38.0	38.8
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 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1947 - 2005	
ANNUAL TOTAL	54,591.4		43,830.8		121	
ANNUAL MEAN	149		120		203	
HIGHEST ANNUAL MEAN					64.2	
LOWEST ANNUAL MEAN					1954	
HIGHEST DAILY MEAN	1,770	Mar 6	1,660	Mar 29	(e)3,600	Jan 19, 1996
LOWEST DAILY MEAN	7.6	Aug 11	1.5	(a)	(b)0.00	Aug 31, 1962
ANNUAL SEVEN-DAY MINIMUM	10	Aug 5	1.6	Sep 19	0.89	Aug 27, 1962
MAXIMUM PEAK FLOW			2,840	Mar 29	(c)8,400	Oct 15, 1954
MAXIMUM PEAK STAGE			5.79	Mar 29	10.70	Oct 15, 1954
INSTANTANEOUS LOW FLOW			1.5	(d)	(b)0.00	Aug 31, 1962
ANNUAL RUNOFF (CFSM)	2.39		1.92		1.94	
ANNUAL RUNOFF (INCHES)	32.49		26.09		26.38	
10 PERCENT EXCEEDS	323		285		282	
50 PERCENT EXCEEDS	91		64		68	
90 PERCENT EXCEEDS	19		5.0		8.3	

- e Estimated
- a Sept. 20, 23-25.
- b Result of regulation from unknown source.
- c From rating curve extended above 1,600 ft³/s on basis of contracted-opening measurement at gage height of 8.13 ft.
- d Sept. 20-26.



ELEVATION AT TIDAL CREST-STAGE PARTIAL-RECORD STATIONS

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 2005

Station No.	Station Name	Location	Period of Record	Annual Maximum	
				Date	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, 2000-05	4-2-05	6.72
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, 2000-05	4-2-05	6.32
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, 2000-05	5-24-05	6.44
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.	2003-05 (Discontinued)	5-26-05	3.34
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.	2003-05 (Discontinued)	5-25-05	4.79
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 2000-05	5-25-05	4.42
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 2001-05	5-26-05	3.47
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 2000-05	4-25-05	4.45

Tidal crest-stage partial-record stations--Continued

Annual maximum stage at tidal crest-stage partial-record stations during water year 2005--Continued

Station No.	Station Name	Location	Period of Record	Annual Maximum	
				Date	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.	2000-05	4-2-05	2.86
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.	2000-05	4-2-05	2.59
NANTICOKE RIVER BASIN					
01488110	Nanticoke River at Sharptown, Md.	Lat 38°32'38", long 75°43'13", Wicomico County, Hydrologic Unit 02060008, on left bank at upstream side of fishing pier (remains of old State Highway 313 bridge), at Sharptown.	1992-95 2005	4-3-05	3.55

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 coverage in a river basin are referred to as miscellaneous sites.

GUNPOWDER RIVER BASIN

0158397925 MINEBANK RUN AT INTERVALE COURT NEAR TOWSON, MD

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 2004 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Sample type	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Sampling method, code (82398)	Carbon dioxide water, unfltrd mg/L (00405)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unfltrd uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)
OCT												
05...	0910	Environmental	1028	80020	.12	40	--	7.5	6.9	524	14.3	13.8
12...	1030	Environmental	1028	80020	.11	40	--	7.9	6.9	547	12.9	12.4
21...	0950	Environmental	1028	80020	.14	40	--	8.4	6.8	353	12.7	12.8
NOV												
01...	1040	Environmental	1028	80020	.10	10	--	6.9	7.0	493	13.4	13.1
18...	1045	Environmental	1028	80020	.16	40	8.4	10.0	7.5	487	12.5	11.1
29...	1045	Environmental	1028	80020	.18	40	--	9.8	7.3	420	8.5	8.9
DEC												
06...	1010	Environmental	1028	80020	.18	40	--	11.0	7.3	464	8.6	8.1
13...	1025	Environmental	1028	80020	.12	40	--	10.2	7.3	508	8.9	8.9
21...	1020	Environmental	1028	80020	.09	40	--	10.8	7.2	624	2.3	6.0
JAN												
03...	1040	Environmental	1028	80020	.10	40	--	9.6	7.2	561	9.9	9.1
18...	1040	Environmental	1028	80020	.15	40	--	11.1	7.2	542	-6.9	4.2
31...	1050	Environmental	1028	80020	.10	40	--	10.7	7.2	1,070	7.3	5.4
FEB												
15...	1050	Environmental	1028	80020	.23	40	--	11.8	7.2	966	8.8	7.1
MAR												
02...	1030	Environmental	1028	80020	.15	40	--	12.4	7.4	640	1.6	5.4
02...	1032	Blank	1028	80020	--	--	--	--	--	--	--	--
15...	1050	Environmental	1028	80020	.13	40	--	11.7	7.4	871	9.3	7.9
29...	1050	Environmental	1028	80020	.45	40	--	10.9	7.2	714	13.5	10.9
APR												
06...	1020	Environmental	1028	80020	.36	40	--	11.7	7.3	636	16.1	11.2
13...	1050	Environmental	1028	80020	.20	40	--	12.2	7.4	670	15.4	11.6
19...	0930	Environmental	1028	80020	.17	40	--	11.8	7.6	668	18.8	14.4
19...	0931	Replicate	1028	80020	--	40	--	--	--	--	--	--
26...	0930	Environmental	1028	80020	.17	40	19	11.9	7.1	655	15.5	12.7
MAY												
03...	0940	Environmental	1028	80020	.15	40	--	10.6	7.0	624	14.8	12.6
10...	0940	Environmental	1028	80020	.12	40	--	8.8	7.1	651	22.7	15.9
17...	0950	Environmental	1028	80020	.11	40	--	8.6	7.0	659	16.2	14.9
23...	0940	Environmental	1028	80020	.17	40	--	8.1	7.2	613	15.0	14.2
JUN												
01...	0930	Environmental	1028	80020	.15	40	--	7.3	7.2	627	23.4	17.4
14...	0940	Environmental	1028	80020	.14	40	--	6.4	6.9	496	28.5	21.6
21...	1000	Environmental	1028	80020	.11	40	--	8.2	7.1	612	23.6	18.6
28...	0940	Environmental	1028	80020	.08	40	--	8.1	7.2	598	26.2	20.0
28...	0942	Blank	1028	80020	--	--	--	--	--	--	--	--
JUL												
05...	0930	Environmental	1028	80020	.06	40	--	7.7	7.1	570	22.6	18.8
12...	0950	Environmental	1028	80020	.44	40	11	8.3	7.2	459	30.3	21.2
19...	0950	Environmental	1028	80020	.38	40	--	7.6	7.2	502	25.6	22.0
26...	0950	Environmental	1028	80020	.22	40	--	6.6	7.0	497	29.9	21.0
AUG												
04...	0820	Environmental	1028	80020	.50	40	--	9.0	7.7	355	24.6	22.8
12...	0730	Environmental	1028	80020	.08	40	--	6.4	7.1	471	20.3	18.2
18...	0940	Environmental	1028	80020	.06	40	--	7.9	7.0	479	24.1	17.9
18...	0941	Replicate	1028	80020	--	40	--	--	--	--	--	--
25...	0950	Environmental	1028	80020	.05	40	--	8.1	7.1	507	20.2	17.1
30...	0940	Environmental	1028	80020	.06	40	--	7.1	7.1	500	20.8	17.1
SEP												
06...	0940	Environmental	1028	80020	.06	40	--	7.5	6.8	501	18.2	16.6
14...	0950	Environmental	1028	80020	.05	40	--	7.5	7.1	486	18.7	16.2
22...	0930	Environmental	1028	80020	.06	40	--	8.3	7.4	495	21.1	16.0
29...	0930	Environmental	1028	80020	.04	40	--	6.6	7.3	497	16.4	15.5

Agency collecting sample: 1028 - U.S. Geological Survey

Agency analyzing sample: 80020 - USGS-National Water Quality Lab, Denver, CO

Sampling method: 40 - Multiple verticals

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Hardness, water, mg/L as CaCO ₃ (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)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Ammonia		Nitrate water, fltrd, mg/L as N (00618)	Nitrite + nitrate water fltrd, mg/L as N (00631)
										org-N, water, fltrd, mg/L as N (00623)	Ammonia water, fltrd, mg/L as N (00608)		
OCT													
05...	--	--	--	--	--	--	--	--	--	<.10	<.04	--	1.05
12...	--	--	--	--	--	--	--	--	--	E.08	<.04	--	1.03
21...	--	--	--	--	--	--	--	--	--	.34	<.04	--	.90
NOV													
01...	--	--	--	--	--	--	--	--	--	E.08	<.04	--	.92
18...	180	44.5	17.8	3.59	18.8	64.4	.4	9.8	14.3	.14	<.04	--	1.21
29...	--	--	--	--	--	--	--	--	--	.23	<.04	--	1.30
DEC													
06...	--	--	--	--	--	--	--	--	--	.11	<.04	--	1.43
13...	--	--	--	--	--	--	--	--	--	.16	<.04	--	1.47
21...	--	--	--	--	--	--	--	--	--	.14	<.04	--	1.55
JAN													
03...	--	--	--	--	--	--	--	--	--	.10	<.04	--	1.43
18...	--	--	--	--	--	--	--	--	--	.16	<.04	--	2.06
31...	--	--	--	--	--	--	--	--	--	.40	.20	1.22	1.25
FEB													
15...	--	--	--	--	--	--	--	--	--	.37	E.03	1.48	1.49
MAR													
02...	--	--	--	--	--	--	--	--	--	.23	.05	1.10	1.13
02...	--	--	--	--	--	--	--	--	--	<.10	<.04	--	<.06
15...	--	--	--	--	--	--	--	--	--	.21	<.04	--	1.33
29...	--	--	--	--	--	--	--	--	--	.38	<.04	--	2.12
APR													
06...	--	--	--	--	--	--	--	--	--	.27	<.04	--	2.16
13...	--	--	--	--	--	--	--	--	--	.56	<.04	--	1.83
19...	--	--	--	--	--	--	--	--	--	.33	<.04	--	1.50
19...	--	--	--	--	--	--	--	--	--	.16	<.04	--	1.49
26...	210	51.7	20.6	3.85	42.6	103	.1	8.5	17.0	.12	<.04	--	1.31
MAY													
03...	--	--	--	--	--	--	--	--	--	.20	<.04	--	1.25
10...	--	--	--	--	--	--	--	--	--	.21	<.04	1.18	1.19
17...	--	--	--	--	--	--	--	--	--	.17	<.04	--	1.01
23...	--	--	--	--	--	--	--	--	--	.22	<.04	--	1.07
JUN													
01...	--	--	--	--	--	--	--	--	--	.20	E.02	--	.88
14...	--	--	--	--	--	--	--	--	--	.41	.09	.57	.59
21...	--	--	--	--	--	--	--	--	--	.15	E.03	--	.85
28...	--	--	--	--	--	--	--	--	--	.26	E.03	.76	.77
28...	--	--	--	--	--	--	--	--	--	E.07	<.04	--	<.06
JUL													
05...	--	--	--	--	--	--	--	--	--	.12	E.02	--	.74
12...	170	42.0	14.9	3.40	23.9	66.0	.5	9.1	15.0	.37	<.04	--	1.58
19...	--	--	--	--	--	--	--	--	--	.23	<.04	--	1.35
26...	--	--	--	--	--	--	--	--	--	.24	<.04	--	.87
AUG													
04...	--	--	--	--	--	--	--	--	--	.19	<.04	--	1.53
12...	--	--	--	--	--	--	--	--	--	E.08	E.02	--	.91
18...	--	--	--	--	--	--	--	--	--	E.07	<.04	--	.84
18...	--	--	--	--	--	--	--	--	--	E.06	<.04	--	.84
25...	--	--	--	--	--	--	--	--	--	.14	<.04	--	.86
30...	--	--	--	--	--	--	--	--	--	.12	<.04	--	.86
SEP													
06...	--	--	--	--	--	--	--	--	--	E.07	<.04	--	.89
14...	--	--	--	--	--	--	--	--	--	.13	<.04	--	.92
22...	--	--	--	--	--	--	--	--	--	.16	<.04	--	.91
29...	--	--	--	--	--	--	--	--	--	E.08	<.04	--	.80

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Nitrite water, fltrd, mg/L as N (00613)	Organic nitro- gen, water, fltrd, mg/L (00607)	Total nitro- gen, water, fltrd, mg/L (00602)	Ortho- phos- phate, water, fltrd, mg/L as P (00671)	Phos- phorus, water, unfltrd mg/L (00665)	Iron, water, fltrd, ug/L (01046)	Mangan- ese, water, fltrd, ug/L (01056)	Sampler type, code (84164)
OCT								
05...	<.008	--	--	<.02	<.04	--	--	3070
12...	<.008	--	--	<.02	<.04	--	--	3070
21...	<.008	--	1.2	<.02	<.04	--	--	3070
NOV								
01...	E.005	--	--	<.02	<.04	--	--	3070
18...	<.008	--	1.3	<.02	<.04	40	21.6	3070
29...	<.008	--	1.5	<.02	E.02	--	--	3070
DEC								
06...	<.008	--	1.5	<.02	<.04	--	--	3070
13...	<.008	--	1.6	<.02	<.04	--	--	3070
21...	<.008	--	1.7	<.02	<.04	--	--	3070
JAN								
03...	<.008	--	1.5	<.02	<.04	--	--	3070
18...	<.008	--	2.2	<.02	<.04	--	--	3070
31...	.032	.20	1.6	<.02	E.03	--	--	3070
FEB								
15...	.013	--	1.9	<.02	E.04	--	--	3070
MAR								
02...	.028	.18	1.4	<.02	<.04	--	--	3070
02...	<.008	--	--	<.02	<.04	--	--	--
15...	E.004	--	1.5	<.02	<.04	--	--	3070
29...	<.008	--	2.5	E.01	E.03	--	--	3070
APR								
06...	E.004	--	2.4	<.02	<.04	--	--	3070
13...	E.006	--	2.4	<.02	E.01	--	--	3070
19...	E.006	--	1.8	<.02	<.04	--	--	3070
19...	E.005	--	1.7	<.02	<.04	--	--	3070
26...	<.008	--	1.4	<.02	<.04	21	39.5	3070
MAY								
03...	<.008	--	1.5	<.02	<.04	--	--	3070
10...	.008	--	1.4	<.02	<.04	--	--	3070
17...	<.008	--	1.2	<.02	<.04	--	--	3070
23...	E.005	--	1.3	<.02	<.04	--	--	3070
JUN								
01...	E.007	--	1.1	<.02	E.03	--	--	3070
14...	.019	.33	1.0	<.02	E.03	--	--	3070
21...	E.005	--	1.0	<.02	E.03	--	--	3070
28...	.009	--	1.0	<.02	<.04	--	--	3070
28...	<.008	--	--	<.02	<.04	--	--	--
JUL								
05...	E.004	--	.86	<.02	E.02	--	--	3070
12...	E.005	--	1.9	<.02	E.02	7	24.1	3070
19...	<.008	--	1.6	<.02	E.02	--	--	3070
26...	<.008	--	1.1	<.02	<.04	--	--	3070
AUG								
04...	<.008	--	1.7	<.02	E.02	--	--	3070
12...	<.008	--	--	<.02	<.04	--	--	3070
18...	<.008	--	--	<.02	<.04	--	--	3070
18...	<.008	--	--	<.02	<.04	--	--	3070
25...	<.008	--	1.0	<.02	<.04	--	--	3070
30...	<.008	--	.98	<.02	<.04	--	--	3070
SEP								
06...	<.008	--	--	<.02	E.03	--	--	3070
14...	<.008	--	1.1	<.02	E.02	--	--	3070
22...	<.008	--	1.1	<.02	<.04	--	--	3070
29...	E.005	--	--	<.02	<.04	--	--	3070

Remark codes used in this table:

< -- Less than.

E -- Estimated.

Sampler type: 3070 Grab sample

GUNPOWDER RIVER BASIN--Continued

0158397968 MINEBANK RUN AT TRANSECT 3 NEAR GLEN ARM, MD

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 2002 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Sample type	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Sampling method, code (82398)	Carbon dioxide water, unfltrd mg/L (00405)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unfltrd uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	
NOV 09...	1150	Environmental	1028	80020	.80	40	7.5	12.6	7.7	860	7.2	7.4	
Date	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)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water, fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)
NOV 09...	320	83.0	27.6	3.81	44.5	131	.2	11.2	20.8	E.09	<.04	1.30	E.004

Agency collecting sample: 1028 - U.S. Geological Survey

Agency analyzing sample: 80020 - USGS-National Water Quality Lab, Denver, CO

Sampling method: 40 - Multiple verticals

POTOMAC RIVER BASIN

01647595 POTOMAC RIVER AT KEY BRIDGE AT WASHINGTON, DC

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 2004 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Sample type	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Sampling method, code (82398)	Barometric pressure, mm Hg (00025)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unfltrd 25 degC (00095)	Temperature, water, deg C (00010)	Silica, water, fltrd, mg/L (00955)	Residue total at 105 deg. C, suspended, mg/L (00530)	Residue volatile, suspended, mg/L (00535)
DEC												
06...	1015	Environmental	1028	80020	8010	761	7.4	216	--	7.3	10	<10
06...	1020	Replicate	1028	80020	8010	--	--	--	--	7.4	10	<10
06...	1025	Replicate	1028	80020	8010	--	--	--	--	7.4	<10	<10
MAR												
14...	1200	Environmental	1028	80020	8010	--	6.8	243	--	5.0	<10	<10
14...	1205	Replicate	1028	80020	8010	--	--	--	5.8	4.9	<10	<10
14...	1210	Replicate	1028	80020	8010	--	--	--	--	4.9	<10	<10

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)	Particulate nitrogen, susp, water, mg/L (49570)	Total nitrogen, wat flt by analysis, mg/L (62854)	Ortho-phosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, fltrd, mg/L (00666)	Phosphorus, water, unfltrd, mg/L (00665)	Total carbon, suspnd sediment total, mg/L (00694)	Inorganic carbon, suspnd sediment total, mg/L (00688)	Organic carbon, suspnd sediment total, mg/L (00689)	Organic carbon, water, fltrd, mg/L (00681)
DEC													
06...	<.04	1.28	1.29	.004	.10	1.41	.022	.029	.044	.6	<.1	.6	2.1
06...	<.04	1.28	1.28	.004	.09	1.40	.022	.029	.046	.4	<.1	.4	2.1
06...	<.04	1.30	1.30	.004	.09	1.51	.020	.030	.045	.5	<.1	.5	2.2
MAR													
14...	<.04	1.33	1.33	.007	.07	1.50	<.006	.005	.015	.5	<.1	.5	2.0
14...	<.04	1.32	1.32	.007	.08	1.51	<.006	E.004	.016	.4	<.1	.4	2.0
14...	<.04	1.32	1.33	.007	.06	1.44	<.006	.005	.014	.4	<.1	.4	2.0

Date	Suspended sediment concentration mg/L (80154)	Sampler type, code (84164)
DEC		
06...	10	8010
06...	--	8010
06...	--	8010
MAR		
14...	6	8010
14...	6	8010
14...	5	8010

Agency collecting sample: 1028 - U.S. Geological Survey

Agency analyzing sample: 80020 - USGS-National Water Quality Lab, Denver, CO


Sampling method: 8010 - Other

Remark codes used in this table:

< -- Less than.

E -- Estimated.

Sampler type: 8010 - Other



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Total length (fish), definition of.....	35		

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:

$$^{\circ}\text{F} = (1.8 \times ^{\circ}\text{C}) + 32$$

