Water Resources Data Maryland and Delaware Water Year 1995

Volume 1. Surface-Water Data

U.S. GEOLOGICAL SURVEY WATER-DATA REPORT MD-DE-95-1
Prepared in cooperation with the States of Maryland and Delaware
and with other agencies

CALENDAR FOR WATER YEAR 1995

1994

OCTOBER

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1995

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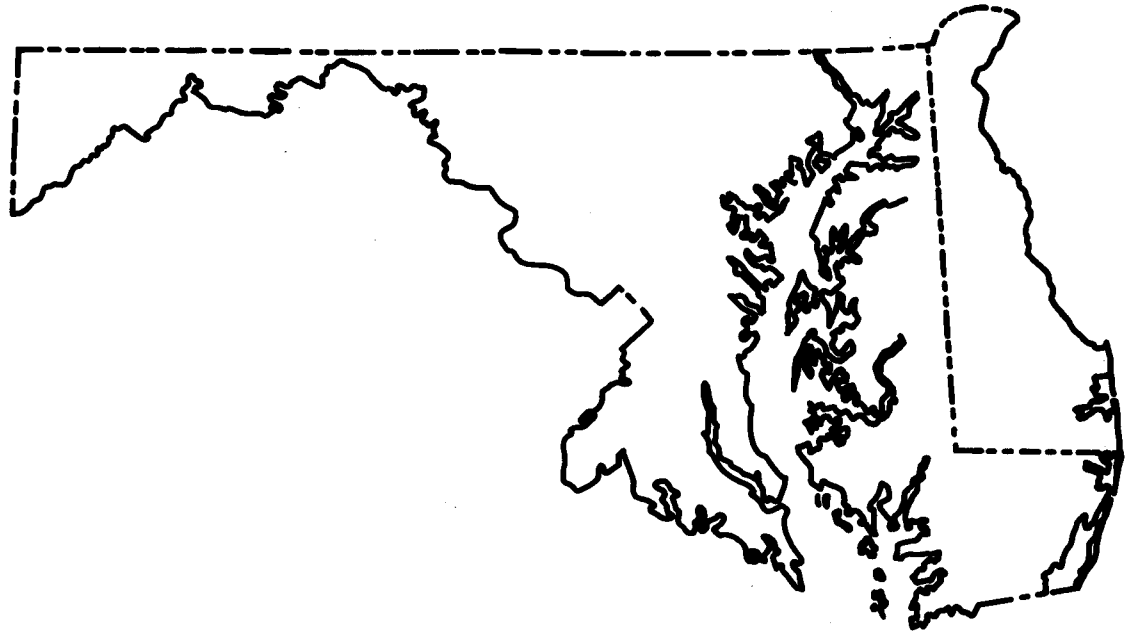
Water Resources Data Maryland and Delaware Water Year 1995

Volume 1. Surface-Water Data

by R.W. James, R.H. Simmons, and B.M.Helinsky



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT MD-DE-95-1
Prepared in cooperation with the States of Maryland and Delaware and with other agencies

UNITED STATES DEPARTMENT OF THE INTERIOR

BRUCE BABBITT, Secretary

U.S. GEOLOGICAL SURVEY

Robert M. Hirsch, Director

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Towson, Maryland 21286

1995

PREFACE

This volume of the annual hydrologic data report of Maryland and Delaware 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 the District of Columbia are contained in two volumes:

Volume 1. Surface-Water Data

Volume 2. Ground-Water Data

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

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This report was prepared under the general supervision of J. M. Gerhart, District Chief, MD-DE-DC District, and W. J. Carswell, Jr., Regional Hydrologist, Northeastern Region, and in cooperation with the States of Maryland and Delaware and with other agencies.

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15. Supplementary Notes

Prepared in cooperation with the states of Maryland and Delaware and with other agencies.

16. Abstract (Limit: 200 words)

Water resources data for the 1995 water year for Maryland and Delaware 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 98 gaging stations; stage and contents 1 reservoir; and water quality at 45 gaging stations. Also included are data for 3 crest-stages and 7 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 and Delaware.

17. Document Analysis a. Descriptors
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ILLUSTRATIONS

[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]

[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]

The following continuous-record surface-water discharge (gaging stations) in Maryland, Delaware, and the District of Columbia have been discontinued. Daily streamflow records (discharge) were collected and published for the period of record, expressed in water years, shown for each station.

NORTH ATLANTIC SLOPE BASINS	Station number	Drainage area (mi^2)	Period of record
DELAWARE RIVER BASIN			
Delaware River:			
Christina River near Bear, DE	01478040	40.6	1977-82
White Clay Creek above Newark, DE	01478500	66.7	1952-59, 1962-80
Mill Creek at Mill Creek Road at Hockessin, DE	01479197	3.66	1990-95
Mill Creek at Stanton, DE	01479500	12.4	1931-33
Little Mill Creek near Newport, DE	01480095	5.24	1991-95
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
Wiggins Millpond Outlet (head of Appoquinimink River):			
Noxontown Lake Outlet near Middletown, DE (d)	01483153	8.85	1993-94
Drawyer Creek tributary near Odessa, MD	01483170	4.68	1978-80
LEIPSIC RIVER BASIN			
Leipsic River near Cheswold, DE	01483500	9.35	1931-33, 1943-57
ST. JONES RIVER BASIN			
Fork Branch (head of St. Jones River)			
Mudstone Branch at Chestnut Grove, DE (d)	01483670	8.96	1993-94
MURDERKILL RIVER BASIN			
Murderkill River near Felton, DE	01484000	13.6	1931-34, 1960-85
BROADKILL RIVER BASIN			
Broadkill River:			
Beaverdam Creek near Milton, DE	01484270	6.10	1971-80
Sowbridge Branch (head of Primehook Creek) near Milton, DE	01484300	7.08	1957-78
INDIAN RIVER BASIN			
Cow Bridge Branch (head of Indian River):			
Vines Creek at Omar, DE	01484548	13.6	1985-88
WICOMICO RIVER BASIN			
Andrews Branch (head of Wicomico River):			
Beaverdam Creek near Salisbury, MD	01486500	19.5	1930-32, 1938-75
NANTICOKE RIVER BASIN			
Nanticoke River:			
James Branch (head of Broad Creek):			
Trap Pond Outlet (head of Hitch Pond Branch) near Laurel, DE	01487500	16.7	1951-71
Broad Creek:			
Holly Ditch near Laurel, DE	01488000	2.19	1951-56
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
TRANSQUAKING RIVER BASIN			
Transquaking River:			
Chicamacomico River near Salem, MD	01490000	15.0	1951-80
CHOPTANK RIVER BASIN			
Tappahanna Ditch (head of Choptank River):			
Tidy Island Creek (continuation of Tappahanna Ditch):			
Culbreth Marsh Ditch near Chapeltown, DE	01490500	11.6	1951-56
Choptank River:			
Tuckahoe Creek near Ruthsburg, MD	01491500	85.2	1951-56
Kings Creek:			
Beaverdam Branch at Matthews, MD	01492000	5.85	1950-81
WYE RIVER BASIN			
Wye River:			
Wye East River:			
Sallie Harris Creek near Carmichael, MD	01492500	4.60	1951-56
CHESTER RIVER BASIN			
Chester River:			
Southeast Creek at Church Hill, MD	01494000	12.5	1951-56
SASSAFRAS RIVER BASIN			
Sassafras River:			
Jacobs Creek near Sassafras, MD	01494500	5.39	1951-56
ELK RIVER BASIN			
Big Elk Creek (head of Elk River):			
Little Elk Creek at Childs, MD	01495500	26.8	1949-58
Long Creek near Chesapeake City, MD	01495800	4.36	1978-81

NORTH ATLANTIC SLOPE BASINS--Continued	Station number	Drainage area (mi^2)	Period of record
NORTHEAST RIVER BASIN			
Northeast Creek (head of Northeast River) at Leslie, MD	01496000	24.3	1949-84
PRINCIPIO CREEK BASIN			
Principio Creek near Principio Furnace, MD	01496200	9.03	1967-92
SUSQUEHANNA RIVER BASIN			
Susquehanna River:			
Broad Creek at Mill Creek, MD	01578000	16.4	1905-09
Octoraro Creek near Rising Sun, MD	01578500	193	1932-58, 1969-77
Basin Run at Liberty Grove, MD	01579000	5.31	1949-58
Octoraro Creek at Rowlandsville, MD	01579500	210	1896-99
Deer Creek near Kalmia, MD	01580200	125	1967-77
Deer Creek near Churchville, MD	01580500	141	1905-09
BUSH RIVER BASIN			
Bynum Run (head of Bush River) near Bel Air, MD	01581000	7.50	1951-55
Bynum Run at Bel Air, MD	01581500	8.52	1944-51, 1955-70
Church Creek:			
Cranberry Run at Aberdeen, MD	01581657	4.16	1988-89
Cranberry Run at Perryman, MD	01581658	5.22	1987-89
GUNPOWDER RIVER BASIN			
Gunpowder Falls (head of Gunpowder River):			
Western Run:			
Delaware Run:			
Slade Run near Glyndon, MD	01583000	2.09	1947-81
Piney Run at Dover, MD	01583100	12.3	1982-88
Beaverdam Run:			
Baisman Run:			
Pond Branch at Oregon Ridge, MD	01583570	0.16	1983-86
Baisman Run at Broadmoor, MD	01583580	1.47	1964-69
Gunpowder Falls near Carney, MD	01584000	314	1949-64
Little Gunpowder Falls at Laurel Brook, MD	01584500	36.1	1927-70
Little Gunpowder Falls near Bel Air, MD	01585000	43	1904-09
Bird River:			
Whitemarsh Run (head of Bird River):			
Honeygo Run at White Marsh, MD	01585105	2.65	1990-93
Windlass Run near White Marsh, MD	01585107	2.03	1992-93
BACK RIVER BASIN			
Herring Run (head of Back River):			
West Branch Herring Run at Idlewylde, MD	01585200	2.13	1957-65, 1966-87
Stemmers Run (head of Northeast Creek) at Rossville, MD	01585300	4.46	1959-72, 1974-89
Brien Run at Stemmers Run, MD	01585400	1.97	1958-87
PATAPSCO RIVER BASIN			
North Branch Patapsco River near Reistertown, MD	01586500	91.0	1927-54
North Branch Patapsco River near Marriottsville, MD	01587000	165	1930-60
South Branch Patapsco River at Henryton, MD	01587500	64.4	1948-80
Piney Run near Sykesville, MD	01588000	11.4	1931-58
Patapsco River at Woodstock, MD	01588500	251	1896-1909
Patapsco River at Hollofield, MD	01589000	285	1944-92, 1994-95
West Branch Herbert Run:			
East Branch Herbert Run at Arbutus, MD	01589100	2.47	1957-89
Gwynns Falls near Owings Mills, MD	01589200	4.90	1958-75
Gwynns Falls at Villa Nova, MD	01589300	32.5	1957-88
Dead Run at Franklintown, MD	01589330	5.52	1960-87
Jones Falls at Sorrento, MD	01589440	25.2	1966-88
Jones Falls at Maryland Avenue at Baltimore, MD	01589478	58.3	1981-82
Jones Falls near mouth at Baltimore, MD	01589480	60.4	1981-82
Curtis Creek:			
Furnace Creek:			
Sawmill Creek at Crain Highway at Glen Burnie, MD	01589512	8.24	1984-85, 1990-94
Marley Creek at Harundale, MD	01589522	4.79	1984-85
SEVERN RIVER BASIN			
Severn Run (head of Severn River)			
South Fork Jabez Branch at Millersville, MD	01589795		(a)1989-90
SOUTH RIVER BASIN			
North River (head of South River) near Annapolis, MD	01590000	8.50	1932-74
Bacon Ridge Branch at Chesterfield, MD	01590500	6.92	1943-52, 1975-90
RHODE RIVER BASIN			
Rhode River:			
Muddy Creek:			
North Fork Muddy Creek at South River, MD	01590700	0.88	1972-76

NORTH ATLANTIC SLOPE BASINS--Continued	Station number	Drainage area (mi^2)	Period of record
PATUXENT RIVER BASIN			
Patuxent River:			
Cattail Creek near Cookesville, MD	01591350	8.37	1977-81
Cattail Creek at Roxbury Mills, MD	01591500	27.7	1944-56
Patuxent River near Burtonsville, MD	01592000	127	1911-45
Little Patuxent River:			
Middle Patuxent River near Simpsonville, MD	01593710	48.4	1987-95
Dorsey Run near Jessup, MD	01594400	11.6	1948-58
Western Branch near Largo, MD	01594500	30.2	1950-75
Cocktown Creek near Huntingtown, MD	01594600	3.85	1957-76
St. Leonard Creek near St. Leonard, MD	01594800	6.73	1957-68
POTOMAC RIVER BASIN			
North Branch Potomac River:			
South Fork Sand Run near Wilson, MD	01594934	1.55	1980-86
North Branch Potomac River at Kitzmiller, MD	01595500*	225	1950-85
North Branch Potomac River at Barnum, WV	01595800*	266	1966-85
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
North Branch Potomac River at Pinto, MD	01600000*	596	1939-85
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
Sawpit Run near Oldtown, MD	01609500	5.08	1948-58
Sideling Hill Creek at Bellegrove, MD	01610155	102	1967-77
Little Tonoloway Creek near Hancock, MD	01612500	16.9	1947-63
Potomac River at Shepherdstown, WV	01618000	5,936	1928-53, (a)1954-63, 1964-92
Antietam Creek near Waynesboro, MD	01619000	93.5	1948-51, 1966-81
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:			
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, M	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	(a)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
Rock Creek at Q Street, Washington, DC	01649000	75.8	1892-94, 1929-33

NORTH ATLANTIC SLOPE BASINS--Continued	Station number	Drainage area (mi^2)	Period of record
POTOMAC RIVER BASIN--Continued			
Potomac River--Continued			
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
Northwest Branch Anacostia River near Colesville, MD	01650500	21.1	1924-83
Anacostia River:			
Beaverdam Branch Anacostia River at Kenilworth Avenue, Washington, D.C.	01652000	14	1911-12
Henson Creek (head of Broad Creek) at Oxon Hill, MD	01653500	16.7	1948-78
Mattawoman Creek near Pomonkey, MD	01658000	54.8	1959-72
Wicomico River:			
Chaptico Creek at Chaptico, MD	01661000	10.4	1947-72
OHIO RIVER BASIN			
MONONGAHELA RIVER BASIN			
Monongahela River:			
Youghiogheny River:			
South Branch Casselman River near Bittenger, MD	03077940	3.22	1976-81
Casselman River:			
Big Piney Run near Salisbury, PA	03078500	24.5	1932-70

* Currently operated as a crest-stage partial-record station.
a Daily values data unpublished, available at Towson, MD office.

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

NORTH ATLANTIC SLOPE BASINS	Station number	Drainage area (mi^2)	Period of record
DELAWARE RIVER BASIN			
Delaware River:			
Christina River near Bear, DE	01478040	40.6	1983-91
White Clay Creek:			
Pike Creek near Newark, DE	01478950	6.04	1969-75
Mill Creek at Hockessin, DE	01479200	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
SMYRNA RIVER BASIN			
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
LEIPSIC RIVER BASIN			
Leipsic River near Cheswold, DE	01483500	9.35	1958-75
ST. JONES RIVER BASIN			
St. Jones River:			
Puncheon Branch at Dover, DE	01483720	b2.3	1966-75
MURDERKILL RIVER BASIN			
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
BROADKILL RIVER BASIN			
Broadkill River:			
Beaverdam Creek near Milton, DE	01484270	6.10	1966-75
INDIAN RIVER BASIN			
Indian River:			
Whartons Branch near Millsboro, DE	01484531	5.8	1986-88
Pepper Creek at Dagsboro, DE	01484550	8.78	1960-75
Blackwater Creek near Clarksville, DE	01484600	3.5	1986-88
WICOMICO RIVER BASIN			
Andrews Branch (head of Wicomico River) near Delmar, MD	01486100	b4.1	1966-76
NANTICOKE RIVER BASIN			
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
CHOPTANK RIVER BASIN			
Tappahanna Ditch (head of Choptank River) near Hartly, DE	01490470	5.93	1961-73
Tidy Island Creek (continuation of Tappahanna Creek):			
Culbreth Marsh Ditch:			
Beachy Neidig Ditch near Willow Grove, DE	01490490	b2.3	1966-75
Culbreth Marsh Ditch (Shades Branch) near Chapeltown, 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
WYE RIVER BASIN			
Wye River:			
Wye East River:			
Sallie Harris Creek near Carmichael, MD	01492500	8.09	1957-81
Skipton Creek:			
Mill Creek near Skipton, MD	01492550	b4.6	1966-76
CHESTER RIVER BASIN			
Andover Branch (head of Chester River):			
Southeast Creek at Church Hill, MD	01494000	12.5	1957-65
Browns Branch:			
Browns Branch tributary near Church Hill, MD	01494020	b1.7	1971-78
NORTHEAST RIVER BASIN			
Northeast Creek (head of Northeast River):			
Northeast River tributary near Charlestown, MD	01496080	b1.7	1967-76
SUSQUEHANNA RIVER BASIN			
Susquehanna River:			
Broad Creek:			
Broad Creek tributary at Whiteford, MD	01577940	0.77	1971-86
Octoraro Creek:			
Basin Run at West Nottinhgam, MD	01578800	b1.3	1967-76
Basin Run at Liberty Grove, MD	01579000	5.31	1965-76
Bush River Basin			
Bynum Run (head of Bush River) at Bel Air, MD	01581500	8.52	1971-72
GUNPOWDER RIVER BASIN			
Gunpowder Falls (head of Gunpowder River):			
Piney Creek near Hereford, MD	01582510	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
PATAPSCO RIVER BASIN			
North Branch Patapsco River:			
South Branch Patapsco River:			
Hay Meadow Branch:			
Hay Meadow Branch tributary at Poplar Springs, MD	01587050	0.54	1966-76
Piney Run near Sykesville, MD	01588000	11.4	1959-74
Patapsco River:			
Gwynns Falls at Owings Mills, MD	01589220	9.12	1958-65, 1967-68
Gwynns Falls at McDonough, MD	01589240	19.3	1958-68, 1971-84
Jones Falls at Brooklandville, MD	01589400	19.7	1958-65, 1968
PATUXENT RIVER BASIN			
Patuxent River:			
Little Patuxent River:			
Little Patuxent River tributary at Guilford Downs, MD	01593350	0.95	1966-76
Dorsey Run near Jessup, MD	01594400	11.6	1959-68
Mill Branch near Mitchellville, MD	01594445	b1.1	1967-76
POTOMAC RIVER BASIN			
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
Antietam Creek:			
Little Antietam Creek:			
Dog Creek:			
Dog Creek tributary near Locust Grove, MD	01619475	0.10	1966-76

b Approximately.

NORTH ATLANTIC SLOPE BASINS--Continued	Station number	Drainage area (mi^2)	Period of record
POTOMAC RIVER BASIN --Continued			
Catoctin Creek:			
Little Catoctin Creek at Harmony, MD	01637000	8.8	1961-67, 1969-77
Hollow Road Creek (head of Cone Branch) near Middletown, MD	01637600	2.3	1965-74, 1977
Monocacy River:			
Piney Creek:			
Piney Creek tributary at Taneytown, MD	01639095	0.62	1967-76
Big Pipe Creek:			
Little Pipe Creek at Avondale, MD	01640000	8.10	1959-65, 1967-80
Owens Creek:			
Owens Creek tributary near Rocky Ridge, MD	01640700	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
OHIO RIVER BASIN			
MONONGAHELA RIVER BASIN			
Monongahela River:			
Youghiogheny River:			
Little Youghiogheny River:			
Little Youghiogheny River tributary near Deer Park, MD	03075450	0.57	1965-76
Toliver Run:			
Toliver Run tributary near Hoyes Run, MD	03075600	0.53	1965-86
Youghiogheny River tributary near Friendsville, MD	03076505	0.22	1965-76
North Branch Casselman River:			
North Branch Casselman River tributary at Foxtown, MD	03077700	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.

NORTH ATLANTIC SLOPE BASINS	Station number	Drainage area (mi^2)	Type of record	Period of record
DELAWARE RIVER BASIN				
Delaware River:				
Christina River:				
White Clay Creek:				
Red Clay Creek at Wooddale, DE	01480000	47.0	T	1953-81
Brandywine Creek at Wilmington, DE	01481500	314	T	1957-61
				1971-73
				1975-80
			SED	1947-80
CHOPTANK RIVER BASIN				
Choptank River near Greensboro, MD	01491000	113	SC, T	1975-91
			SED	1981-91
SUSQUEHANNA RIVER BASIN				
Susquehanna River at Conowingo, MD	01578310	27,100	SC, T	1979-81
				1984-92
			SED	1980-81
				1984-92
RHODE RIVER BASIN				
Rhode River:				
Muddy Creek:				
North Fork Muddy Creek at South River, MD	01590710	0.89	T	1971-78
Rhode River near South River, MD	01590720	18.0	SC, pH, T, DO	1971-83
PATUXENT RIVER BASIN				
Patuxent River near Bowie, MD	01594440	348	SC, T	1978-80
				1986-91
			SED	1986-91
Patuxent River at Benedict, MD	01594700	742	T	1964-69
POTOMAC RIVER BASIN				
North Branch Potomac River:				
Laurel Run at Dobbin Road near Wilson, MD	01594930	8.23	SC, T	1981-88
			pH	1984-88
Sand Run:				
South Fork Sand Run near Wilson, MD	01594934	1.55	SC, pH, T	1981-86
North Fork Sand Run near Wilson, MD	01594936	1.91	SC, T	1981-88
			pH	1985-88
North Branch Potomac River at Kitzmiller, MD	01595500	225	SC, pH, DO	1981-85
			T	1961-85
North Branch Potomac River at Barnum, WV	01595800	266	SC, pH, T, DO	1981-85
North Branch Potomac River at Luke, MD	01598500	404	T	1961-81
North Branch Potomac River at Pinto, MD	01600000	596	SC, pH, T, DO	1981-85
North Branch Potomac River near Cumberland, MD	01603000	875	T, SED	1965-79
Potomac River at Hancock, MD	01613000	4,073	T	1952-64
				1966-75
Conococheague Creek at Fairview, MD	01614500	495	T, SED	1967-80
Potomac River at Shepherdstown, WV	01618000	5,936	SC, T	1981
Antietam Creek near Sharpsburg, MD	01619500	281	T	1963-75
Shenandoah River at Millville, WV	01636500	3,040	SC, T	1980-83
Potomac River at Point of Rocks, MD	01638500	9,651	T, SED	1961-93
Monocacy River at Bridgeport, MD	01639000	173	T, SED	1990-93
Hunting Creek near Foxville, MD	01640965	2.14	SC, T	1988-91
Hunting Creek tributary near Foxville, MD	01640970	4.01	SC, T	1988-91
Fishing Creek:				
Fishing Creek tributary near Lewistown, MD	01641510	0.40	SC, T	1988-90
Monocacy River at Reich's Ford Bridge near Frederick, MD	01643020		T, SED	1961-93
Watts Branch at Rockville, MD	01645200	3.70	T	1957-67
Potomac River at Great Falls, MD	01645500	11,430	SC, T	1973-78
Potomac River at Chain Bridge at Washington, DC	01646580	11,570	SC, pH, T, DO	1978-81
			SED	1979-81
Rock Creek:				
North Branch Rock Creek:				
Williamsburg Run near Olney, MD	01647685	2.25	SED	1967-68
North Branch Rock Creek near Rockville, MD	01647740	12.5	SED	1967-77
Northeast Branch Anacostia River:				
Northwest Branch Anacostia River:				
Browns Creek:				
Nursery Run at Cloverly, MD	01650085	0.35	SED	1967-68
Northwest Branch Anacostia River near Colesville, MD	01650500	21.1	SED	1967-75
Potomac River at Indian Head, MD	01655480	12,160	SC, pH, T, DO	1978-81
Potomac River at Piney Point, MD	01661475	---	SC, pH, T, DO	1980-81
OHIO RIVER BASIN				
MONONGAHELA RIVER BASIN				
Monongahela River:				
Youghiogheny River at Friendsville, MD	03076500	295	T	1963-75

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

NORTH ATLANTIC SLOPE BASINS	Station number	Drainage area (mi^2)	Period of record
DELAWARE RIVER BASIN			
Delaware River:			
Naaman Creek:			
South Branch Naaman Creek near Claymont, DE	01477400	3.83	1955-66, 1968-71
Christina River near Newark, DE	01477850	3.76	1981-83
West Branch Christina River near Newark, DE	01477860	4.20	1981-83
Belltown Run near Glascow, DE	01478009	3.35	1978-81
Muddy Run at Glascow, DE	01478024	5.43	1978-81
Muddy Run near Cooches Bridge, DE	01478028	8.21	1978-80
White Clay Creek:			
White Clay Creek tributary near Ogletown, DE	01478878	3.68	1978-80
Brandywine Creek:			
Rocky Run at Talleyville, DE	01481350	1.76	1957-59, 1966
Wilson Run at Guyencort, DE	01481400	1.62	1957-59
North Fork Wilson Run at Guyencort, DE	01481430	1.12	1957-59
Wilson Run at Rockland, DE	01481440	3.05	1957-63
Husbands Run at Rockland, DE	01481460	1.28	1957-59
Squirrel Run at Montchanin, DE	01481480	1.67	1957-59
Alapocas Run at Concord, DE	01481530	0.81	1957-59
Red Lion Creek at Red Lion, DE	01482300	3.20	1955-60, 1962-71
Dragon Creek at Kirkwood, DE	01482400	1.93	1978-81
Dragon Creek tributary at Kirkwood, DE	01482405	0.16	1978-81
Joy Run near Summit Bridge, DE	01482670	1.26	1978-80
Scott Run near Boyds Corner, DE	01482690	2.18	1978-81
Appoquinimink River:			
Wiggins Millpond Outlet (head of Appoquinimink River) at Townsend, DE	01483150	3.82	1957-60, 1962-66, 1968-71, 1978-80
Drawyer Creek near Mt. Pleasant, DE	01483160	1.54	1978-80
Drawyer Creek tributary near Odessa, DE	01483165	1.79	1978-80
SMYRNA RIVER BASIN			
Providence Creek (head of Smyrna River) at Clayton, DE	01483300	11.8	1955-60, 1962-63, 1966, 1968-69
Smyrna River:			
Mill Creek at Smyrna, DE	01483350	4.77	1955-57, 1959-60, 1962-63, 1966, 1968-69
ST. JONES RIVER BASIN			
Fork Branch (head of St. Jones River) at Dupont, DE	01483650	7.50	1955-57, 1959-60, 1962-66, 1968-71
Maidstone Branch at Dupont, DE	01483680	17.3	1955-57, 1959-60, 1962-66, 1968-71
MURDERKILL RIVER BASIN			
Murderkill River:			
Browns Branch near Houston, DE	01484020	12.4	1955-71
Spring Creek:			
Hudson Branch (head of Spring Creek) near Canterbury, DE	01484040	8.40	1955-60
Pratt Branch near Felton, DE	01484050*	3.29	1955-57, 1959-60, 1962-71
Double Run near Magnolia, DE	01484060	5.68	1955-57, 1959-60, 1962-64, 1966-71
MISSPILLION RIVER BASIN			
Beaverdam Branch (head of Misspillion River):			
Cedar Creek near Lincoln, DE	01484200	7.21	1955-60, 1962-63, 1966, 1968-69

NORTH ATLANTIC SLOPE BASINS--Continued	Station number	Drainage area (mi^2)	Period of record
BROADKILL RIVER BASIN			
Pemberton Branch (head of Broadkill River) near Milton, DE	01484240	6.68	1955-66, 1968-71
Broadkill River:			
Beaverdam Creek near Milton, DE	01484270	6.10	1955-71
INDIAN RIVER BASIN			
Indian River:			
Sheep Pen Ditch near Shortly, DE	01484510	a5.4	1986-88
Iron Branch at Millsboro, DE	01484530	a8.0	1985-88
Whartons Branch near Millsboro, DE	01484531*	a5.8	1968-69, 1971, 1985-88
Swan Creek near Warwick, DE	01484535	a7.2	1985-88
Pepper Creek at Dagsboro, DE	01484550*	8.78	1955-71, 1985-88
Blackwater Creek near Clarkesville, DE	01484600*	a3.5	1968-69, 1971, 1985-88
Love Creek at Robinsonville, DE	01484655	a12	1985-88
Chapel Branch at Angola, DE	01484677	a8.0	1985-88
DIRICKSON CREEK BASIN			
Bearhole Ditch (head of Dirickson Creek) at Bunting, DE	01484700	a6.4	1968-71, 1985-88
WICOMICO RIVER BASIN			
Andrews Branch (head of Wicomico River):			
Leonard Pond Run near Delmar, MD	01486200	13.4	1950-51, 1964, 1969-71
NANTICOKE RIVER BASIN			
Nanticoke River (Gravelly Fork):			
Deep Creek at Old Furnace, DE	01487100	33.0	1955-60, 1962-63, 1968
Tyndall Branch near Hardscrabble, De	01487120	12.7	1955-63, 1966
Lewes Creek:			
Butler Mill Branch near Woodland, De	01487300	6.96	1955-63, 1966, 1968-69
James Branch (head of Broad Creek):			
Elliott Pond Branch (Chipman Pond Branch) near Laurel, DE	01487700	8.55	1955-66, 1968-71
Chicone Creek at Reids Grove, MD	01489395	4.69	1951-53, 1969-71
Baron Creek at MD-DE State Corner	01489400	8.93	1950-52, 1969-70
CHOPTANK RIVER BASIN			
Choptank River near Choptank, MD	01490550	a58	1985-87
Forge Branch at Greensboro, MD	01491060	9.84	1952-53
Watts Creek near Denton, MD	01491180	a11	1964-75
Tuckahoe CreeK:			
Knott Millpond near Hillsboro, MD	01491800	8.45	1952-53, 1968-71
Cabin Creek at Cabin Creek, MD	01492080	6.05	1952-53
WYE RIVER BASIN			
Wye River:			
Wye East River:			
Skipton Creek:			
Mill Creek near Wye Mills, MD	01492560	5.72	1952-53
CHESTER RIVER BASIN			
Andover Branch (head of Chester River):			
Cypress Branch at Millington, MD	01492980	a38	1964-66, 1968-75
Mills Branch near Millington, MD	01492990	9.98	1953-54, 1968-71
Chester River:			
Foreman Branch at Ewingville, MD	01493480	5.27	1953-54
Langford Creek:			
East Fork Langford Creek:			
Mill Pond Outlet near Langford, MD	01494035	5.10	1953-54, 1968-71
Old Mill Stream Branch (head of Corsica River) at Centerville, MD	01494100	11.2	1964-71

a Approximately.

NORTH ATLANTIC SLOPE BASINS--Continued	Station number	Drainage area (mi^2)	Period of record
SASSAFRAS RIVER BASIN			
Sassafras River:			
Sassafras River tributary at Ginns Corner, MD	01494450	3.81	1982-83
Duffy Creek near Cecilton, MD	01494480	1.45	1968-71, 1982
WORTON CREEK BASIN			
Mill Creek (head of Worton Creek) at Hanesville, MD	01494600	4.63	1953-54, 1968-71
ELK RIVER BASIN			
Big Elk Creek (head of Elk River):			
Gramies Run at Elk Mills, MD	01494995	3.05	1981-83
Little Elk Creek at Rock Church, MD	01495480	17.8	1982-83
Laurel Run near Elkton, MD	01495520	3.87	1982-83
Dogwood Run at Elkton, MD	01495525	1.62	1982-83
Mill Creek near Elkton, MD	01495540	4.32	1968-70, 1982
Elk River:			
Perch Creek near Elkton, MD	01495550	a6.0	1964-75, 1978-80, 1982-83
Back Creek near Mt. Pleasant, DE	01495700	4.40	1968-69
Bohemia River:			
Sandy Branch at Bohemia Creek, MD	01495925	2.58	1968-70, 1982
Little Bohemia Creek near Warwick, MD	01495935	2.45	1953-54
Scotchman Creek:			
Scotchman Creek tributary near Cecilton, MD	01495950	1.40	1982-83
NORTHEAST RIVER BASIN			
Northeast Creek (head of Northeast River):			
Little Northeast Creek:			
West Branch Little Northeast Creek at Zion, MD	01496030	3.32	1981-83
Little Northeast Creek at Mechanic Valley, MD	01496050	a14	1964-75
Northeast River:			
Northeast River tributary at North East, MD	01496055	1.55	1982-83
Stony Run near North East, MD	01496060	8.23	1982-83
Northeast River tributary at Charlestown, MD	01496085*	1.03	1982-83
Hance Point Creek at Hance Point, MD	01496100	1.36	1983
PRINCIPIO CREEK BASIN			
Principio Creek:			
Principio Creek tributary at Belvedere, MD	01496225	2.08	1982-83
MILL CREEK BASIN			
Mill Creek at Jackson, MD	01496250	3.73	1982-83
SUSQUEHANNA RIVER BASIN			
Susquehanna River:			
Broad Creek at Pylesville, MD	01577950	11.3	1956-59, 1962-63, 1966
Conowingo Creek at Oakwood, MD	01578300	34.4	1982-83
Octoraro Creek:			
Stone Run near Rising Sun, MD	01578475	2.24	1982-83
Stone Run at Rising Sun, MD	01578480	6.71	1982-83
Love Run at Richardsmere, MD	01578490	3.55	1982-83
Octoraro Creek tributary at Richardsmere, MD	01578515	3.27	1982-83
Deer Creek at Gorsuch Mills, MD	01579875	a25	1975-79
Big Branch at Harkins, MD	01579900	6.39	1975-79
Little Deer Creek near Federal Hill, MD	01579925	14.0	1975-79
Stout Bottle Branch near Ady, MD	01580170	7.13	1980-82
SWAN CREEK BASIN			
Swan Creek at Swan Creek, MD	01580700	13.2	1956-59, 1962-63, 1966
BUSH RIVER BASIN			
Bynum Run (head of Bush River) at Bush, MD	01581600	22.5	1956-59, 1962-63, 1966
James Run at Bush, MD	01581650	11.1	1956-59, 1962-63, 1966
Bush River:			
Grays Run at Stepney, MD	01581660	5.35	1956-59, 1962-63, 1966
Winters Run (head of Otter Point Creek) near Bel Air, MD	01581750	37.0	1954-59, 1962-63, 1966

a Approximately.

NORTH ATLANTIC SLOPE BASINS--Continued	Station number	Drainage area (mi^2)	Period of record
GUNPOWDER RIVER BASIN			
Gunpowder Falls (head of Gunpowder River):			
Grave Run near Beckleysville, MD	01581830	7.68	1977-82
Georges Run at Armacost, MD	01581850	13.0	1956-59, 1962, 1966
Georges Run near Beckleysville, MD	01581870	15.8	1977-82
Little Falls:			
Beetree Run at Bently Springs, MD	01581960	9.72	1975-79
Third Mine Branch near Stablersville, MD	01581980	5.27	1975-79
Green Branch at Phoenix, MD	01582900	4.45	1973, 1975-79
Western Run:			
Blackrock Run at Coopersville, MD	01583200	9.38	1956-59, 1962-63, 1966
Little Gunpowder Falls at Hess, MD	01584200	16.5	1956-59, 1962-63, 1966
PATAPSCO RIVER BASIN			
North Branch Patapsco River:			
Deep Run at Lawndale, MD	01585700	6.70	1975-82
Beaver Run at Finksburg, MD	01586200	12.7	1957-59, 1961-63, 1966
Middle Run near Finksburg, MD	01586550	6.18	1973, 1975-79
Morgan Run near Gamber, MD	01586600	26.0	1957-59, 1961-63, 1966
Little Morgan Run near Eldersburg, MD	01586650	7.13	1973, 1975-79
South Branch Patapsco River at Woodbine, MD	01587070	11.4	1975-79, 1988-90
Gillis Falls at Woodbine, MD	01587170	19.4	1957-59
Patapsco River:			
Rockburn Branch at Elkridge, MD	01589040	3.69	1988-90
Deep Run at Hanover, MD	01589080	18.0	1975-79, 1988-90
Stony Run at Elkridge, MD	01589090	a9.4	1955, 1964-67
Gwynns Falls:			
Red Run near Owings Mills, MD	01589230	7.39	1975-79
Gwynns Falls at Baltimore, MD	01589345	50.7	1980-82
Jones Falls at Eccleston, MD	01589370	2.86	1976-79
SEVERN RIVER BASIN			
Severn Run (head of Severn River) at Benfield, MD	01589800	a24	1964-67
PATUXENT RIVER BASIN			
Patuxent River at Mullinix, MD	01590800	10.7	1988-90
Cabin Branch near Florence, MD	01590900	8.36	1975-79, 1988-90
Cattail Creek:			
Cattail Creek tributary at Carrs Mill, MD	01591200	3.93	1956-59, 1961-63, 1966, 1988-90
Cattail Creek tributary at Daisy, MD	01591375	3.12	1977-82, 1988-90
Dorsey Branch near Knollwood, MD	01591475	3.78	1964, 1988-90
Hawlings River near Unity, MD	01591650	5.08	1977-82
Little Patuxent River at Pine Orchard, MD	01593200	7.03	1956-59, 1961-64, 1966, 1988-90
Red Hill Branch at Columbia, MD	01593300	5.98	1988-90
Middle Patuxent River near West Friendship, MD	01593600	11.4	1956-59, 1961-64, 1966, 1988-90
Middle Patuxent River tributary near Dayton, MD	01593650	4.25	1977-82
Middle Patuxent River tributary near Columbia, MD	01593675	9.12	1988-90
Middle Patuxent River tributary near Clarksville, MD	01593700	6.24	1977-82, 1988-90
Hammond Branch at Scaggsville, MD	01594100	3.01	1956-59, 1962-64, 1966, 1988-90
Hammond Branch near Laurel, MD	01594200	6.83	1988-90
Towsers Branch at Conoways, MD	01594300	5.69	1975-80

a Approximately.

NORTH ATLANTIC SLOPE BASINS--Continued	Station number	Drainage area (mi^2)	Period of record
PATUXENT RIVER BASIN--Continued			
Patuxent River--Continued			
Dorsey Run at Jessup, MD	01594395	6.59	1964, 1989-91
Stocketts Run near Hardesty, MD	01594455	6.68	1977-80
Rock Branch at Bayard, MD	01594465	6.73	1977-80
Western Branch:			
Northeast Branch at Kolbes, MD	01594490	7.74	1977-80
Collington Branch at Upper Marlboro, MD	01594525	22.9	1964-66, 1975-79
Mataponi Creek near Naylor, MD	01594535	a14	1964-66, 1982
Lyons Creek at Lyons Creek, MD	01594545	a15	1964-67
POTOMAC RIVER BASIN			
North Branch Potomac River:			
Glade Run at Steyer, MD	01594975	8.86	1977-82
Savage River:			
Little Savage River near Avilton, MD	01596200	1.95	1979-82
Big Run near Swanton, MD	01596600	13.4	1977-82
Crabtree Creek:			
Middle Fork near Swanton, MD	01597100	10.8	1977-82
Georges Creek near Midland, MD	01598770	13.1	1979-82
Woodland Creek at Ocean, MD	01598775	5.49	1979-82
Mill Run at Morrison, MD	01598980	7.35	1979-82
Mill Run at Rawlings, MD	01599800	2.84	1979-82
POTOMAC RIVER BASIN--Continued			
Potomac River:			
Wills Creek at Ellerslie, MD	01601100	185	1979-82
Jennings Run:			
North Branch Jennings Run at Barrelsville, MD	01601300	a12	1964-74
Jennings Run at Corriganville, MD	01601325	37.7	1975-79
Collier Run at Spring Gap, MD	01604150	a11	1964-74
Mill Run at Oldtown, MD	01605425	10.6	1975-79
Seven Springs Run at Oldtown, MD	01605475	9.16	1975-82
Town Creek:			
Murley Branch near Flintstone, MD	01608950	11.9	1977-78, 1980-82
Maple Run near Town Creek, MD	01608975	7.10	1977-78, 1980-82
Fifteen Mile Creek near Piney Grove, MD	01610060	20.2	1975-79
Deep Run near Little Orleans, MD	01610065	6.26	1975-79
Fifteen Mile Creek at Little Orleans, MD	01610075	61.6	1975-79
Sideling Hill Creek:			
Bear Creek at Forest Park, MD	01610150*	10.4	1975-79, 1985-87
Potomac River tributary at Woodmont, MD	01610170	3.29	1985-87
Tonoloway Creek at Hancock, MD	01613100	113	1985-87
Ditch Run near Hancock, MD	01613150*	4.80	1975-79
Licking Creek:			
Lanes Run near Forsythe, MD	01613540	9.98	1980-82, 1985-87
Licking Creek near Pectonville, MD	01613545	212	1985-87
Conococheague Creek:			
Little Conococheague Creek near Charlton, MD	01614050	18.1	1985-87
Rockdale Run at Fairview, MD	01614525	9.67	1976-79, 1981-82, 1985-87
Rush Run near Huyett, MD	01614575	5.20	1976-79, 1981-82, 1985-87
Meadow Brook at Conococheague, MD	01614625	6.77	1976-79, 1981-82, 1985-87
Conococheague Creek tributary near Huyett, MD	01614675	7.94	1977-79, 1981-82, 1985-87
Conococheague Creek at Williamsport, MD	01614705	564	1985-87
Downey Branch near Downesville, MD	01617600	3.00	1976-79, 1981-82
Marsh Run:			
St. James Run at Spielman, MD	01617780	7.14	1977-79, 1981-82, 1985-87

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

NORTH ATLANTIC SLOPE BASINS--Continued	Station number	Drainage area (mi^2)	Period of record
POTOMAC RIVER BASIN--Continued			
Potomac River--Continued			
Antietam Creek:			
Little Antietam Creek at Leitersburg, MD	01619050	24.5	1976-79, 1981-82, 1985-87
West Branch at Paramount, MD	01619145	5.07	1977-79, 1981-82
Marsh Run at Fiddlesburg, MD	01619150	a31	1965-74, 1976-79, 1985-87
Landis Spring Branch near Benevola, MD	01619275	6.60	1976-79, 1981-82, 1985-87
Beaver Creek at Benevola, MD	01619325	22.9	1975-79, 1985-87
Little Beaver Creek at Benevola, MD	01619350	8.70	1975-79, 1985-87
Little Antietam Creek at Keedysville, MD	01619480	a24	1964-67, 1976-79, 1985-87
Sharmans Branch near Antietam, MD	01619525	4.62	1977-79, 1981-82
Isreal Creek at Weverton, MD	01636730	13.2	1975-79, 1985-87
Catoctin Creek:			
Little Catoctin Creek near Brunswick, MD	01636850	8.64	1977-83
Middle Creek at Ellerton, MD	01636975	22.7	1977-82
Catoctin Creek at Olive, MD	01638050	112	1977-83
Potomac River tributary at Point of Rocks, MD	01638520	3.04	1982-83
Tuscarora Creek at Tuscarora, MD	01638600	20.3	1975-79, 1982-83
Monocacy River:			
Piney Creek at Taneytown, MD	01639100	22.9	1956-59, 1961-63, 1966
Piney Creek near Keysville, MD	01639150	34.4	1982-83
Toms Creek:			
Friends Creek near Emmitsburg, MD	01639325	12.2	1977-83
Toms Creek near Keysville, MD	01639390	88.1	1982-83
Double Pipe Creek:			
Big Pipe Creek (head of Double Pipe Creek) at Bachman Mills, MD	01639400	9.39	1956-59, 1961-63, 1966
Deep Run at Union Mills, MD	01639420	5.46	1975-79
Silver Run near Silver Run, MD	01639440	8.77	1975-82
Big Pipe Creek near Mayberry, MD	01639450	51.6	1956-59, 1962-63, 1966
Bear Branch near Mayberry, MD	01639465	13.9	1975-82
Meadow Branch near Uniontown, MD	01639470	12.6	1956-59, 1961-63, 1966
Little Pipe Creek:			
Wolfpit Branch at Linwood, MD	01640100	2.01	1956-59, 1961-63, 1966
Little Pipe Creek at Union Bridge, MD	01640150	40.4	1956-59, 1962-63, 1966
Beaver Dam Creek near Union Bridge, MD	01640160	7.04	1977-82
Little Pipe Creek at Keymar, MD	01640200	80.0	1982-83
Owens Creek near Thurmont, MD	01640600	14.4	1975-79
Little Owens Creek near Thurmont, MD	01640650	6.16	1975-79
Beaver Branch at Rocky Ridge, MD	01640720	6.53	1977-82
Owens Creek near Rocky Ridge, MD	01640750	38.8	1982-83
Fishing Creek near Utica, MD	01641600	17.9	1982-83
Tuscarora Creek near Frederick, MD	01641900	16.5	1975-79, 1982-83
Israel Creek near Walkersville, MD	01642050	a29	1964-66, 1975-79, 1982-83

a Approximately.

NORTH ATLANTIC SLOPE BASINS--Continued	Station number	Drainage area (mi^2)	Period of record
POTOMAC RIVER BASIN--Continued			
Monocacy River--Continued:			
Linganore Creek near New London, MD	01642430	45.2	1980-82
Bens Branch near New Market, MD	01642450	11.8	1975-82
Bush Creek at Ijamsville, MD	01643100	a17.5	1964-66
Bush Creek at Reels, MD	01643110	29.7	1982-83
Ballenger Creek near Lime Kiln, MD	01643125	20.2	1975-83
Bennett Creek:			
Little Bennett Creek at Hyattstown, MD	01643400	12.8	1968-69, 1975-79
Broad Run at Elmer, MD	01643615	14.0	1975-82
Seneca Creek:			
Little Seneca Creek at Boyds, MD	01644400	a21	1964-67
Bucklodge Branch near Dawsonville, MD	01644425	8.47	1975-82
Great Seneca Creek:			
Goshen Branch at Goshen, MD	01644480	7.63	1975-77, 1979
Dry Seneca Creek near Seneca, MD	01645050	19.2	1975-82
Rock Run near Cabin John, MD	01646220	a4.8	1964-67
Rock Creek at Redland, MD	01647620	7.45	1977-82
Northeast Branch Anacostia River:			
Paint Branch at College Park, MD	01649200	17.5	1980-82
Oxon Run (head of Oxon Creek) at Washington, DC	01652580	6.84	1980-82
Piscataway Creek:			
Tinkers Creek at Piscataway, MD	01653625	15.9	1975-82
Mattawoman Creek near Waldorf, MD	01657900	16.9	1980-82
Chicamuxen Creek:			
Reeder Run at Chicamuxen, MD	01658300	a5.6	1964-67
Nanjemoy Creek:			
Burgess Creek:			
Mill Run (head of Nanjemoy Creek) Welcome, MD	01660650	9.89	1980-82
Port Tobacco Creek (head of Port Tobacco River) near Marshalls Corner, MD	01660740	15.8	1977-82
Wicomico River:			
Zekiah Swamp Run (head of Wicomico River) near Malcolm, MD	01660905	12.1	1975-82
Clark Run near Bel Alton, MD	01660930	10.4	1975-79
Gilbert Swamp Run near Olivers Shop, MD	01660950	a32	1964-65
McIntosh Run:			
Brooks Run near Hollywood, MD	01661200	5.76	1980-82
Mcintosh Run at Tintop Hill, MD	01661300	12.1	1964-66, 1982
Glebe Run at Leonardtown, MD	01661410	5.81	1980-82
OHIO RIVER BASIN			
MONONGAHELA RIVER BASIN			
Monongahela River:			
Youghiogheny River:			
Cherry Creek near Crellin, MD	03075350	16.7	1977-82
Snowy Creek:			
Laurel Run at Crellin, MD	03075400	10.9	1964-74
Little Youghiogheny River at Loch Lynn Heights, MD	03075475	13.2	1975-79
Muddy Creek at Swallow Falls State Park, MD	03075700	17.8	1977-82
Cherry Creek near McHenry, MD	03075900	12.3	1973, 1975-79
Bear Creek:			
South Branch Bear Creek near Accident, MD	03076580	6.01	1964-74
South Branch Bear Creek near Friendsville, MD	03076590	16.8	1975-79
Casselman River:			
North Branch Casselman River near Grantsville, MD	03077925	24.4	1975-80
South Branch Casselman River near Grantsville, MD	03077950	20.8	1975-79

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WATER RESOURCES DATA - MARYLAND AND DELAWARE, 1995

VOLUME 1. SURFACE WATER SURFACE-WATER-QUALITY DATA

INTRODUCTION

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

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 98 gaging stations; stage and contents at 1 reservoir; and water quality at 45 gaging stations. Also included are data for 3 crest-stages, and 7 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 involved in 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 and Delaware.

This series of annual reports for Maryland and Delaware began with the 1961 water year with a report 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 thru 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 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 Books and Open-File Reports Section, Federal Center, Bldg. 41, Box 25286, Denver, CO 80225.

Publications similar to this report are published annually by the 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-95-1."** 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 in microfiche by the National Technical Information Service, U.S. Department of Commerce, Springfield, VA 22161. Data for the 1991-94 water years are also available on Compact Disc - Read Only Memory **(CD-ROM)**.

Additional information, including current prices, for ordering specific reports may be obtained from the District Chief at the address given on the back of the title page or by telephone (410) 512-4800.

COOPERATION

The U.S. Geological Survey and agencies of the State of Maryland have had cooperative agreements for the collection of water-resource records from 1896 to 1909 and since 1924. Similar cooperative agreements have been had 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, E. T. Cleaves, director.

Delaware Geological Survey, R. R. Jordan, State geologist.

Maryland Department of Environment; Chesapeake Bay and Special Projects Program, R. M. Summers, division chief.

District of Columbia Department of Public Works, William B. Johnson, director.

Maryland State Highway Administration, Hal Kasshoff, administrator.

Assistance with funds or services was given by the U.S. Army Corps of Engineers for collecting records at 15 gaging stations and 5 water-quality stations throughout Maryland and Delaware.

The following organizations aided in collecting records:

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

Maryland: Maryland Water Resources Administration, Washington Suburban Sanitary Commission, Upper Potomac River Commission, Baltimore City, Prince Georges County.

Organizations that provided data are acknowledged in station descriptions.

SUMMARY OF HYDROLOGIC CONDITIONS

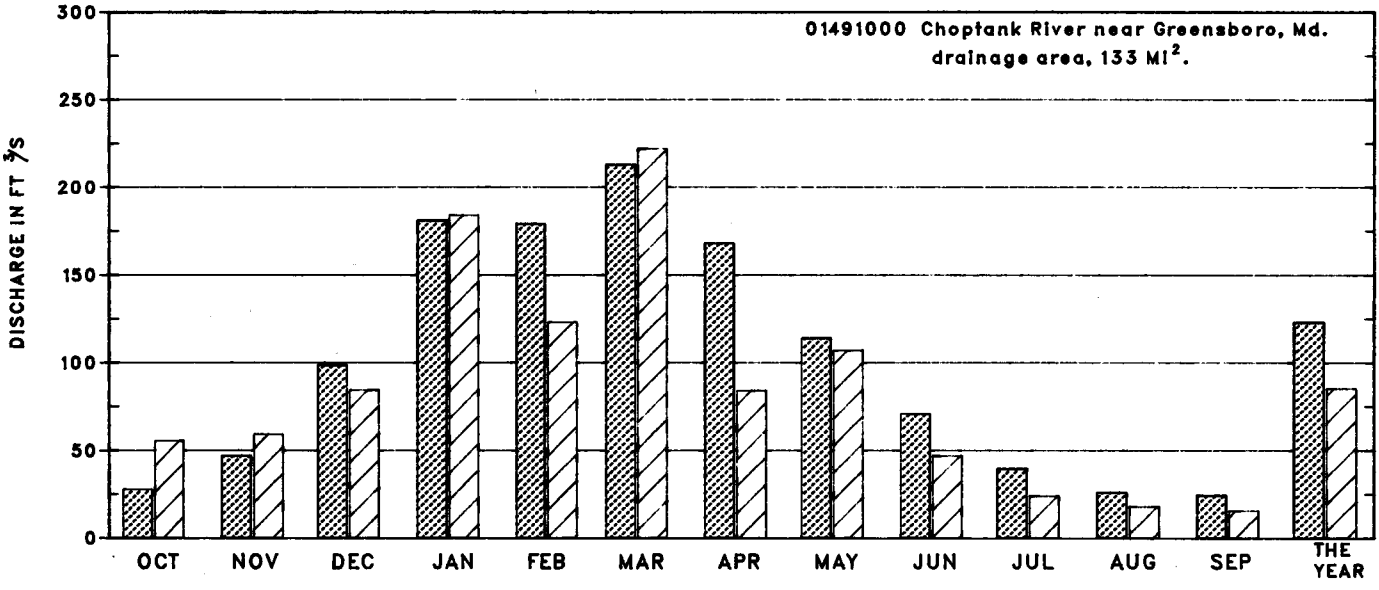
Streamflow at the start of the 1995 water year was in the normal range except for the Eastern Shore which remained in the excessive range (upper 25 percent of the record) following above normal rainfall (0.4 to 1.3 inches) during September 1994. During October 1994 flows were in the normal range throughout the bi-state area. Rainfall during the month was about 2 inches below normal. November 1994 flows remained in the normal range, except for western Maryland where flows moved into the deficient range (lower 25 percent of the record). During December 1994, flows were in the normal range throughout the bi-state area. Flows were in the normal range during January 1995 on the Eastern Shore and rose from the normal range to the excessive range throughout the remainder of the bi-state area following above normal rainfall (1 to 2 inches). In Februray 1995, flows remained in the normal range on the Eastern Shore but moved from the excessive to the deficient range throughout the remainder of the bi-state area following below normal rainfall (1 to 2 inches). Flows in March 1995 remained in the deficient range, except for central Maryland where flows returned to the normal range and the Eastern Shore where flows remained in the normal range. In April 1995, flows were deficient throughout the bi-state area following below normal rainfall (0.5 to 2 inches). Flows in May 1995 returned to the normal range following above normal rainfall (2 inches). June 1995 flows remained in the normal range throughout the bi-state area. July 1995 flows increased in western Maryland and in the Washington, D.C. area from the normal into the excessive range following above normal rainfall (1.5 inches). Flows on the Eastern Shore and central Maryland remained in the normal range. For the month of August 1995, flows in western Maryland remained in the excessive range while flows throughout the remainder of the bi-state area moved into or remained in the normal range. In September 1995 all areas were in the normal range except for the Washington, D.C. area where flows moved into the deficient range following below normal rainfall (1 to 2 inches).

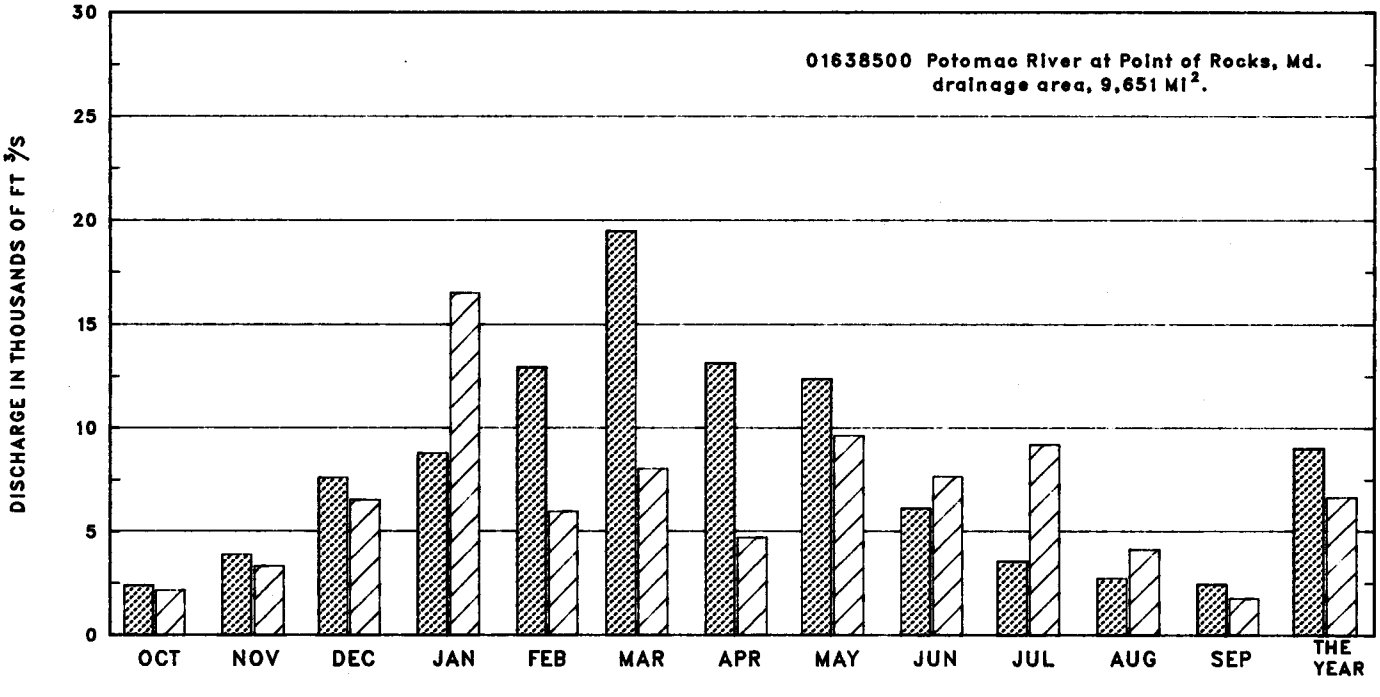
During the 1995 water year, flows were in the normal range at three of the four index stations: Potomac River at Paw Paw, W.Va. in western Maryland, and Seneca Creek at Dawsonville in central Maryland, and Choptank River at Greensboro on the Eastern Shore of Maryland. The fourth index station, Potomac River near Washington, D.C. in central Maryland, had flows in the deficient range. Only one record monthly mean was set during the 1995 water year. At the Potomac River Washington, D.C. site a new monthly minimum mean was set for April 1995. The new record monthly means was 20 percent less than the previous record set in 1969.

Monthly and annual mean discharges in water year 1995 are compared to long-term averages (reference period 1961-90) for two representative streamflow-gaging stations in figure 1. Data for the station, Potomac River at Point of Rocks in central Maryland, reflect runoff conditions in the Potomac River basin, excluding the Coastal Plain. Data for the station, Choptank River near Greensboro on the Eastern Shore of Maryland, reflect runoff from a 113 mi^2 (square mile) area, of which 21.6 mi^2 is in Delaware in the central part of the Delmarva peninsula.

Average freshwater inflow to the Chesapeake Bay was estimated to be 59,700 ft^3/s (cubic feet per second), on the basis of flows of the James, Potomac, and Susquehanna Rivers. This is 78 percent of the long-term average during the reference period 1951-95. Flows for October and November averaged 50 percent and 38 percent above normal. During December flows averaged 14 percent below normal. For January flows averaged 81 percent above normal following heavy rains. Inflow during January set a new record monthly mean. The new record was 30 percent greater than the record set in 1979. Flows in February averaged 36 percent above normal. Flows in March and April were normal. In May, flows were 60 percent above normal. The monthly mean inflow for May was the third highest recorded. Flows for June averaged 23 percent above normal. July flows where 68 percent above normal. The monthly mean inflow was the fourth highest recorded. The months of August and September were below normal 33 and 56 percent respectively.

The combined storage in the three major water-supply reservoirs in the Baltimore City Municipal System (combined usable capacity of 85,340 million gallons) decreased from 94 percent of capacity from September 1994, to 74 percent of capacity at the end of September 1995.





Median of monthly and yearly mean discharge for 30–year period 1961–90.

Monthly and yearly mean discharge for 1995 water year.

FIGURE 1. COMPARISON OF DISCHARGE AT TWO LONG–TERM REPRESENTATIVE GAGING STATIONS DURING THE 1995 WATER YEAR WITH MEDIAN DISCHARGE FOR INDICATED PERIOD.

SPECIAL NETWORKS AND PROGRAMS

National Stream Quality Accounting Network (NASQAN) is a nationwide data-collection network designed by the U.S. Geological Survey to meet many of the information needs of government agencies and other groups involved in natural or regional water-quality planning and management. The 384 or so sites in **NASQAN** are generally located at the downstream ends of hydrologic accounting units designated by the U.S. Geological Survey Office of Water Data Coordination in consultation with the Water Resources Council. The objectives of **NASQAN** are: (1) to obtain information on the quality and quantity of water moving within and from the United States through a systematic and uniform process of data collection, summarization, analysis, and reporting such that the data may be used for; (2) description of the areal variability of water quality in the Nation's rivers through analysis of data from this and other programs; (3) detection of changes or trends with time in the pattern of occurrence of water-quality characteristics; and (4) providing a nationally consistent data base useful for water-quality assessment and hydrologic research.

National Water-Quality Assessment (NAWQA) Program of the U.S. Geological Survey is a long-term program with goals to describe the status and trends of water-quality conditions for a large, diverse, and geographically distributed part of the Nation's ground- and surface-water resources, and to identify, describe, and explain the major natural and human factors that affect these observed conditions and trends.

Assessment activities have begun in more than one-third of the study units and ultimately will be conducted in 60 study units (major watersheds and aquifer systems) that represent a wide range of environmental settings nationwide and that account for a large percentage of the Nation's water use. A wide array of chemical constituents will be measured in ground water, surface water, streambed sediments, and fish tissues. The coordinated application of comparative hydrologic studies at a wide range of spatial and temporal scales will provide information for decision making by water-resources managers and a foundation for aggregation and comparison of findings to to address water-quality issues of regional and national interest.

Radiochemical Program is a network of regularly sampled water-quality stations where samples are collected to be analyzed for radioisotopes. The streams that are sampled represent major drainage basins in the conterminous United States.

Tritium Network is a network of stations which has been established to provide baseline information on the occurrence of tritium in the Nation's surface waters. In addition to the surface-water stations in the network, tritium data are also obtained at a number of precipitation stations. The purpose of the precipitation stations is to provide an estimate sufficient for hydrologic studies of the tritium input to the United States.

EXPLANATION OF THE RECORDS

The surface-water and ground-water records published in this report are for the 1995 water year that began October 1, 1994, and ended September 30, 1995. A calendar of the water year is provided on the inside of the front cover. The records contain streamflow data, stage and content data for lakes and reservoirs, water-quality data for surface and ground water, and ground-water-level data. The locations of the stations and wells where the data were collected are shown in figure 3. The following sections of the introductory text are presented to provide users with a more detailed explanation of how the hydrologic data published in this report were collected, analyzed, computed, and arranged for presentation.

Station Identification Numbers

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

Downstream Order System

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

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

Latitude-Longitude System

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

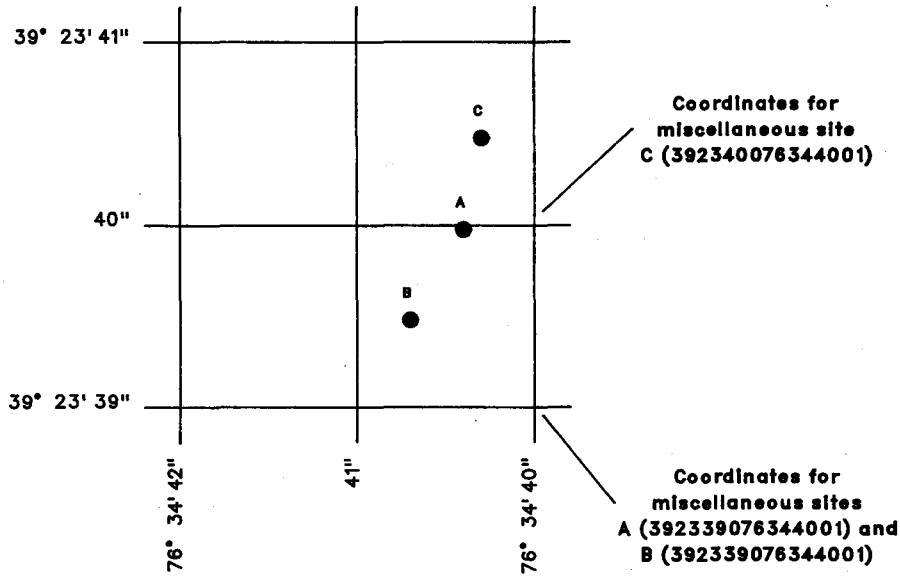


Figure 2.--System for numbering miscellaneous sites (latitude and longitude)

Records of Stage and Water Discharge

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

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

Data Collection and Computation

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

Continuous records of stage are obtained with analog recorders that trace continuous graphs of stage or with digital recorders that punch stage values on paper tapes at selected time intervals. Measurements of discharge are made with current meters using methods adopted by the Geological Survey as a result of experience accumulated since 1880. These methods are described in standard textbooks, in Water-Supply Paper 2175, and in U.S. Geological Survey Techniques of Water-Resources Investigations (**TWRI's**), Book 3, Chapter A1 through A19 and Book 8, Chapters A2 and B2. The methods are consistent with the American Society for Testing and Materials (**ASTM**) standards and generally follow the standards of the International Organization for Standards (**ISO**).

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

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

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

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

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

Data Presentation

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

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

Station manuscript

The manuscript provides, 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 to follow clarify information presented under the various headings of the station description.

LOCATION.--Information on locations is obtained from the most accurate maps available. The location of the gaging station 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 indicates the period for which records have been published for the station or for an equivalent station. An equivalent station is one that was in operation at a time that the present station was not and whose location was such that flow at it can reasonably be considered equivalent to flow at the present station.

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

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

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

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

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

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

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

Although rare, occasionally the records of a discontinued gaging station may need revision. Because, for these stations, there would be no current or, possibly, future station manuscript published to document the revision in a **"Revised Records"** entry, users of data for these stations who obtained the record from previously published data reports may wish to contact the District Office (address given on the back of the title page of this report) to determine if the published records were ever revised after the station was discontinued. Of course, if the data for a discontinued station were obtained by computer retrieval, the data would be current and there would be no need to check because 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 skeleton stage-capacity table when daily contents are given.

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

Data table of daily mean values

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

Statistics of monthly mean data

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

Summary statistics

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

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

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

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

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

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

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

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

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

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

INSTANTANEOUS PEAK FLOW.--The maximum instantaneous discharge occurring for the water year or for the designated period.

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

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

ANNUAL RUNOFF.--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 second 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) indicates the depth to which the drainage area would be covered if all of the runoff for a given time period were uniformly distributed on it.

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

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

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

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

Identifying Estimated Daily Discharge

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

Accuracy of the Records

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

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

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

Discharge at many stations, as indicated by the monthly mean, may not reflect natural runoff due to the effects of diversion, consumption, regulation by storage, increase or decrease in evaporation due to artificial causes, or to other factors. For such stations, figures of cubic feet per second per square mile and of runoff, in inches, are not published unless satisfactory adjustments can be made for diversions, for changes in contents of reservoirs, or for other changes 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 Records Available

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

Records of Surface-Water Quality

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

Classification of records

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

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

Arrangement of Records

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

On-site Measurements and Sample Collection

In obtaining water-quality data, a major concern needs to be assuring that the data obtained represent the in situ quality of the water. To assure this, certain measurements, such as water temperature, pH, and dissolved oxygen, need to be made onsite when the samples are taken. To assure that measurements made in the laboratory also represent the in situ water, carefully prescribed procedures need to be followed in collecting the samples, in treating the samples to prevent changes in quality pending analysis, and in shipping the samples to the laboratory. Procedures for onsite measurements and for collecting, treating, and shipping samples are given in publications on **"Techniques of Water-Resources Investigations,"** Book 1, Chap. D2; Book 3, Chap. C2; Book 5, Chap. A1, A3, and A4. These references are listed under **"PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS"** section of this report. These methods are consistent with ASTM standards and generally follow ISO standards. Also, detailed information on collecting, treating, and shipping samples may be obtained from the Geological Survey Maryland and Delaware offices.

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

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

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

Water temperature

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

Sediment

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

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

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

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

Laboratory Measurements

Sediment samples, samples for biochemical-oxygen demand (**BOD**), samples for indicator bacteria, and daily samples for specific conductance are analyzed locally. All other samples are analyzed in the Geological Survey laboratory in Arvada, Colorado. Methods used to analyze sediment samples and to compute sediment records are described in TWRI Book 5, Chapter C1. Methods used by the U.S. Geological Survey laboratories are given in TWRI Book 1, Chapter D2; Book 3, Chapter C2; and Book 5, Chapters A1, A3, A4, and A5. These methods are consistent with ASTM standards and generally follow ISO standards.

Data Presentation

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

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

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

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

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

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

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

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

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

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

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

Remark Codes

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

PRINTED OUTPUT	REMARK
E	Estimated value
>	Actual value is known to be greater than the value shown
<	Actual value is known to be less than the value shown
K	Results based on colony count outside the acceptance range (non-ideal colony count)
L	Biological organism count less than 0.5 percent (organism may be observed rather than counted)
D	Biological organism count equal to or greater than 15 percent (dominant)
&	Biological organism estimated as dominant

ACCESS TO WATSTORE DATA

The U.S. Geological Survey is the principal Federal water-data agency and, as such, collects and disseminates about 70 percent of the water data currently being used by numerous State, local, private, and other Federal agencies to develop and manage our water resources. As part of the Geological Survey's program of releasing water data to the public, a large-scale computerized system has been developed for the storage and retrieval of water data collected through its activities. The National WATer Data STOrage and REtrieval System (WATSTORE) was established in 1972 to provide an effective and efficient means for the processing and maintenance of water data collected through the activities of the U.S. Geological Survey and to facilitate release of the data to the public. A variety of useful products, ranging from data tables to complex statistical analyses such as Log Pearson Type III, can be produced using WATSTORE. The system resides on the central computer facilities of the U.S. Geological Survey at its National Center in Reston, Virginia, and consists of related files and data bases.

* **Station Header File** - Contains descriptive information on more than 440,000 sites throughout the United States and its territories where the U.S. Geological Survey collects or has collected data.

* **Daily Values File** - Contains more than 220 million daily values of stream flows, stages, reservoir contents, water temperature, specific conductance, sediment concentrations, sediment discharges, and ground-water levels.

* **Peak Flow File** - Contains approximately 500,000 maximum (peak) streamflow and gage-height values at surface-water sites.

* **Water Quality File** - Contains approximately 2 million analyses of water samples that describe the chemical, physical, biological, radio-chemical characteristics of both surface and ground water.

* **Ground-Water Site Inventory Data Base** - Contains inventory data for more than 900,000 well, springs, and other sources of ground water. The data includes site location, geohydrologic characteristics, well-construction history, and one-time field measurements such as water temperature.

In 1976, the U.S. Geological Survey opened WATSTORE to the public for direct access. The signing of a Memorandum of Agreement with the Survey is required to obtain direct access to WATSTORE. THe system can be accessed either synchronously or asynchronously. The requestor will be expected to pay all computer costs he/she incurs. Direct access may be obtained by contacting:

U.S. Geological Survey
National Water Data Exchange
421 USGS National Center
Reston, Virginia 22092

In addition to providing direct accesss to WATSTORE, data can be provided in various machine-readable formats on magnetic tape or 5-1/4 inch floppy disk; and, as noted in the introduction, on CD-ROM discs. Beginning with the 1990 water year, all water-data reports will also be available on Compact Disc - Read Only Memory (CD-ROM). All data reports published for the current water year for the entire Nation, including Puerto Rico and the Trust Territories, will be reproduced on a single CD-ROM disc. Information about the availability of specific types of data or products, and user charges, can be obtained locally from each of the Water Resources Division's District offices. (See address on the back of the title page.) A limited number of CD-ROM discs will be available for sale by the Books and Open-File Reports Section, U.S. Geological Survey, Federal Center, Box 25286, Denver, Colorado 80225.

DEFINITION OF TERMS

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

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

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

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

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

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

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

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

Fecal streptococcal bacteria are bacteria found also in the intestine of warm-blooded animals. Their presence in water is considered to verify fecal pollution. They are characterized as Gram-positive, cocci bacteria which are capable of growth in brain-heart infusion broth. In the laboratory they are defined as all the organisms which 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.

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

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 micro-organisms, such as bacteria.

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

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

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

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

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

Bottom material: See Bed material.

Cells/volume refers to the number of cells of any organism which 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, usually milliliters (mL) or liters (L).

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 natural water color or with carbonaceous organic pollution from sewage or industrial wastes.

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

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

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.

Control designates a feature downstream from the gage that determines the stage-discharge relation at the gage. This feature may be a natural constriction of the channel, 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 salt water.

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

Cubic foot per second (ft^3/s) is the rate of discharge representing a volume of 1 cubic foot passing a given point during 1 second and is equivalent to 7.48 gallons per second or 448.8 gallons per minute or 0.02832 cubic meters per second.

Cubic-foot-per-second day 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, approximately 1.9835 acre-feet, about 646,000 gallons, or 2,445 cubic meters.

Discharge is the volume of water (or more broadly, volume of fluid plus suspended sediment) that passes a given point within a given period of time.

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

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

Dissolved refers to that material in a representative water sample which passes through a 0.45 um membrane filter. This is a convenient operational definition used by Federal agencies that collect water data. Determinations of "dissolved" constituents are made on subsamples of the filtrate.

Dissolved-solids concentration of water is determined either analytically by the **"residue-on-evaporation"** method, or mathematically by totaling the concentrations of individual constituents reported in a comprehensive chemical analysis. During the analytical determination of dissolved solids, the bicarbonate (generally a major dissolved component of water) is converted to carbonate. Therefore, in the mathematical calculation of dissolved-solids concentration, the bicarbonate value, in milligrams per liter, is multiplied by 0.492 to reflect the change.

Drainage area of a stream at a specified location is that area, measured in a horizontal plane, enclosed by a topographic divide from which direct surface runoff from precipitation normally drains by gravity into the stream above the specified point. Figures of drainage area given herein include all closed basins, or noncontributing areas, within the area unless otherwise specified.

Drainage basin is a part of the surface of the earth that is occupied by a drainage system, which consists of a surface stream or a body of impounded surface water together with all tributary surface streams and bodies of impounded surface water.

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

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

Hardness of water is a physical-chemical characteristic that is commonly recognized by the increased quantity of soap required to produce lather. It is computed as the sum of equivalents of polyvalent cations and is expressed as the equivalent concentration of calcium carbonate ($CaCO_3$).

Hydrologic Bench-Mark Network is a network of 57 sites in small drainage basins around the country whose purpose is to provide consistent data on the hydrology, including water quality, and related factors in representative undeveloped watersheds nationwide, and to provide analyses on a continuing basis to compare and contrast conditions observed in basins more obviously affected by the activities of man.

Hydrologic unit is a geographic area representing part or all of a surface drainage basin or distinct hydrologic feature as delineated by the Office of Water Data Coordination on the State Hydrologic Unit Maps; each hydrologic unit is identified by an eight-digit number.

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

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

Micrograms per gram (ug/g) 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 liter (UG/L, ug/L) is a unit expressing the concentration of chemical constituents in solution as mass (micrograms) of solute per unit volume (liter) of water. One thousand micrograms per liter is equivalent to one milligram per liter.

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

National Geodetic Vertical Datum of 1929 (NGVD of 1929) is a geodetic datum derived from a general adjustment of the first order level nets of both the United States and Canada. It was formerly called **"Sea Level Datum of 1929"** or **"mean sea level"** in this series of reports. Although the datum was derived from the average sea level over a period of many years at 26 tide stations along the Atlantic, Gulf of Mexico, and Pacific Coasts, it does not necessarily represent local mean sea level at any particular place.

National Stream Quality Accounting Network (NASQAN) is a nationwide data-collection network designed by the U.S. Geological Survey to meet many of the information needs of government agencies and other groups involved in natural or regional water-quality planning and management. The 500 or so sites in **NASQAN** are generally located at the downstream ends of hydrologic accounting units designated by the U.S. Geological Survey Office of Water Data Coordination in consultation with the Water Resources Council. The objectives of **NASQAN** are (1) to obtain information on the quality and quantity of water moving within and from the United States through a systematic and uniform process of data collection, summarization, analysis, and reporting such that the data may be used for, (2) description of the areal variability of water quality in the Nation's rivers through analysis of data from this and other programs, (3) detection of changes or trends with time in the pattern of occurrence of water-quality characteristics, and (4) providing a nationally consistent data base useful for water-quality assessment and hydrologic research.

The **National Trends Network (NTN)** is a 150-station network for sampling atmospheric deposition in the United States. The purpose of the network is to determine the variability, both in location and in time, of the composition of atmospheric deposition, which includes snow, rain, dust particles, aerosols, and gases. The core from which the **NTN** was built was the already-existing deposition-monitoring network of the National Atmospheric Deposition Program **(NADP)**.

The **National Water-Quality Assessment (NAWQA) Program** of the U.S. Geological Survey is a long-term program with goals to describe the status and trends of water-quality conditions for a large, diverse, and geographically distributed part of the Nation's ground- and surface-water resources, and to identify, describe, and explain the major natural and human factors that affect these observed conditions and trends.

Assessement activities have begun in more than one-third of the study units and ultimately will be conducted in 60 study units (major watersheds and aquifer systems) that represent a wide range of environmental settings nationwide and that account for a large percentage of the Nation's water use. A wide array of chemical constituents will be measured in ground water, surface water, streambed sediments, and fish tissues. The coordinated application of comparative hydrologic studies at a wide range of spatial and temporal scales will provide information for decision making by water-resources managers and a foundation for aggregation and comparison of findings to to address water-quality issues of regional and national interest.

Organism is any living entity.

Organism count/area refers to the number of organisms collected and enumerated in a sample and adjusted to the number per area habitat, usually square meter (m^2), acre, or hectare. Periphyton, benthic organisms, and macrophytes are expressed in these terms.

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

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

Parameter Code is a 5-digit number used in the U.S. Geological Survey computerized data system, **WATSTORE**, to uniquely identify a specific constituent. The codes used in **WATSTORE** are the same as those used in the U.S. Environmental Protection Agency data system, **STORET**. The Environmental Protection Agency assigns and approves all requests for new codes.

Partial-record station is a particular site where limited streamflow and/or water-quality data are collected systematically over a period of years for use in hydrologic analyses.

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

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

Classification	Size (mm)	Method of analysis
Clay.....	0.00024 - 0.004	Sedimentation
Silt.....	.004 - .062	Sedimentation
Sand.....	.062 - 2.0	Sedimentation or sieve
Gravel.....	2.0 - 64.0	Sieve

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

Percent composition 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, mass, or volume.

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

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

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

Plankton is the community of suspended, floating, or weakly swimming organisms that live in the open water of lakes and rivers.

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

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

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

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

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

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 by the plants (carbon method).

Milligrams of carbon per area or volume per unit time [mg C/(m^2.time)] for periphyton and macrophytes and [mg C/(m^3.time)] for phytoplankton are units for expressing primary productivity. They define the amount of carbon dioxide consumed as measured by radioactive carbon (carbon 14). The carbon 14 method is of greater sensitivity than the oxygen light and dark bottle method and is preferred for use in unenriched waters. Unit time may be either the hour or day, depending on the incubation period.

Milligrams of oxygen per area or volume per unit time [mg O_2/(m^2.time)] for periphyton and macrophytes and [mg O_2/(m^3.time)] for phytoplankton are the units for expressing primary productivity. They define 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.

Radiochemical program is a network of regularly sampled water-quality stations where samples are collected to be analyzed for radioisotopes. The streams that are sampled represent major drainage basins in the conterminous United States.

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

Return period is the average time interval between occurrences of a hydrological event of a given or greater magnitude, usually expressed in years. May also be called recurrence interval.

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

Sea level: In this report **"sea level"** refers to the National Geodetic Datum of 1929 (NGVD of 1929)--a geodetic datum derived from a general adjustment of the first-order level nets of both the United States and Canada, formerly called Sea Level Datum of 1929.

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

Bed load is the sediment that is transported in a stream by rolling, sliding, or skipping along the bed and very close to it. In this report, bed load is considered to consist of particles in transit within 0.25 ft of the streambed.

Bed load discharge (tons per day) is the quantity of bed load measured by dry weight that moves past a section as bed load in a given time.

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

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

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

Suspended-sediment discharge (tons/day) is the rate at which dry mass of sediment passes a section of a stream or is the quantity of sediment, as measured by dry mass or volume, that passes a section in a given time. It is calculated in units of tons per day as follows: concentration (mg/L) x discharge (ft^3/s) x 0.0027.

Suspended-sediment load is a general term that refers to material in suspension. It is not synonymous with either discharge or concentration.

Total sediment discharge (tons/day) is the sum of the suspended-sediment discharge and the bed-load discharge. It is the total quantity of sediment, as measured by dry mass or volume, that passes a section during a given time.

Total-sediment load or total load is a term which refers to the total sediment (bed load plus suspended-sediment load) that is in transport. It is not synonymous with total-sediment discharge.

7-day 10-year low flow ($7\ Q_{10}$) is the discharge at the 10-year recurrence interval taken from a frequency curve of annual values of the lowest mean discharge for 7 consecutive days (the 7-day low flow).

Sodium-adsorption-ratio (SAR) is the expression of relative activity of sodium ions in exchange reactions within soil and is an index of sodium or alkali hazard to the soil. Waters range in respect to sodium hazard from those which can be used for irrigation on almost all soils to those which are generally unsatisfactory for irrigation.

Solute is any substance that is dissolved in water.

Specific conductance is a measure of the ability of a water to conduct an electrical current. It is expressed in microsiemens per centimeter at 25°C. Specific conductance is related to the type and concentration of ions in solution and can be used for approximating the dissolved-solids content of the water. Commonly, the concentration of dissolved solids (in milligrams per liter) is about 65 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.

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

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.

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

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

Surface area of a lake is that area outlined on the latest U.S.G.S. topographic map as the boundary of the lake and measured by a planimeter in acres. In localities not covered by topographic maps, the areas are computed from the best maps available at the time planimetered. All areas shown are those for the stage when the planimetered map was made.

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

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

Suspended, recoverable is the amount of a given constituent that is in solution after the part of a representative water-suspended sediment sample that is retained on a 0.45 um membrane filter has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all the particulate matter is not achieved by the digestion treatment and thus the determination represents something less than the **"total"** amount (that is, less than 95 percent) of the constituent present in the sample. To achieve comparability of analytical data, equivalent digestion procedures are required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Determinations of **"suspended, recoverable"** constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) **dissolved** and (2) **total recoverable** concentrations of the constituent.

Suspended, total is the total amount of a given constituent in the part of a representative water-suspended sediment sample that is retained on a 0.45 um membrane filter. 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 determine when the results should be reported as **"suspended, total."**

Determinations of **"suspended, total"** constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) **dissolved** and (2) **total** concentrations of the constituent.

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

Kingdom	Animal
Phylum	Arthropoda
Class	Insecta
Order	Ephemeroptera
Family	Ephemeridae
Genus	Hexagenia
Species	Hexagenia limbata

Thermograph is an instrument that continuously records variations of temperature on a chart. The more general term "temperature recorder" is used in the table headings 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 that would be contained in a vessel or reservoir that had received equal quantities of water from the stream each day for the year.

Tons per acre-foot indicates the dry mass of dissolved solids in 1 acre-foot of water. It is computed by multiplying the concentration of the constituent, in milligrams per liter, by 0.00136.

Tons per day (T/DAY) is the quantity of a substance in solution or suspension that passes a stream section during a 24-hour period.

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

Total discharge is the total quantity of any individual constituent, as measured by dry mass or volume, that passes through a stream cross-section per unit of time. This term needs to be qualified, such as **"total sediment discharge," "total chloride discharge,"** and so on.

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

Tritium Network is a network of stations which has been established to provide baseline information on the occurrence of tritium in the Nation's surface waters. In addition to the surface-water stations in the network, tritium data are also obtained at a number of precipitation stations. The purpose of the precipitation stations is to provide an estimate sufficient for hydrologic studies of the tritium input to the United States.

Water year in Geological Survey reports dealing with surface-water supply is the 12-month period October 1 through September 30. The water year is designated by the calendar year in which it ends and which includes 9 of the 12 months. Thus, the year ending September 30, 1985, is called the "1985 water year."

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

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

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

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PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS

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

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

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

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

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

2-D2. **Application of seismic-refraction techniques to hydrologic studies**, by F. P. Haeni: USGS--TWRI Book 2, Chapter d2. 1988. 86 pages.

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

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

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

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

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

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

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

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

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3-A12. **Flurometric procedures for dye tracing**, by J. F. Wilson, Jr., E. D. Cobb, and F. A. Kilpatrick: USGS--TWRI Book 3, Chapter A12. 1986. 41 pages.

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

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3-A19. **Levels of streamflow gaging stations**, by E. J. Kennedy: USGS--TWRI Book 3, Chapter A19. 1990. 27 pages.

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

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6-A3. **A modular finite-element model (MODFE) for areal and axisymetric ground-water-flow problems, Part 1: Model Description and User's Manual**, by L. J. Torak: USGS--TWRI Book 6, Chapter 3. 1993. 136 pages.

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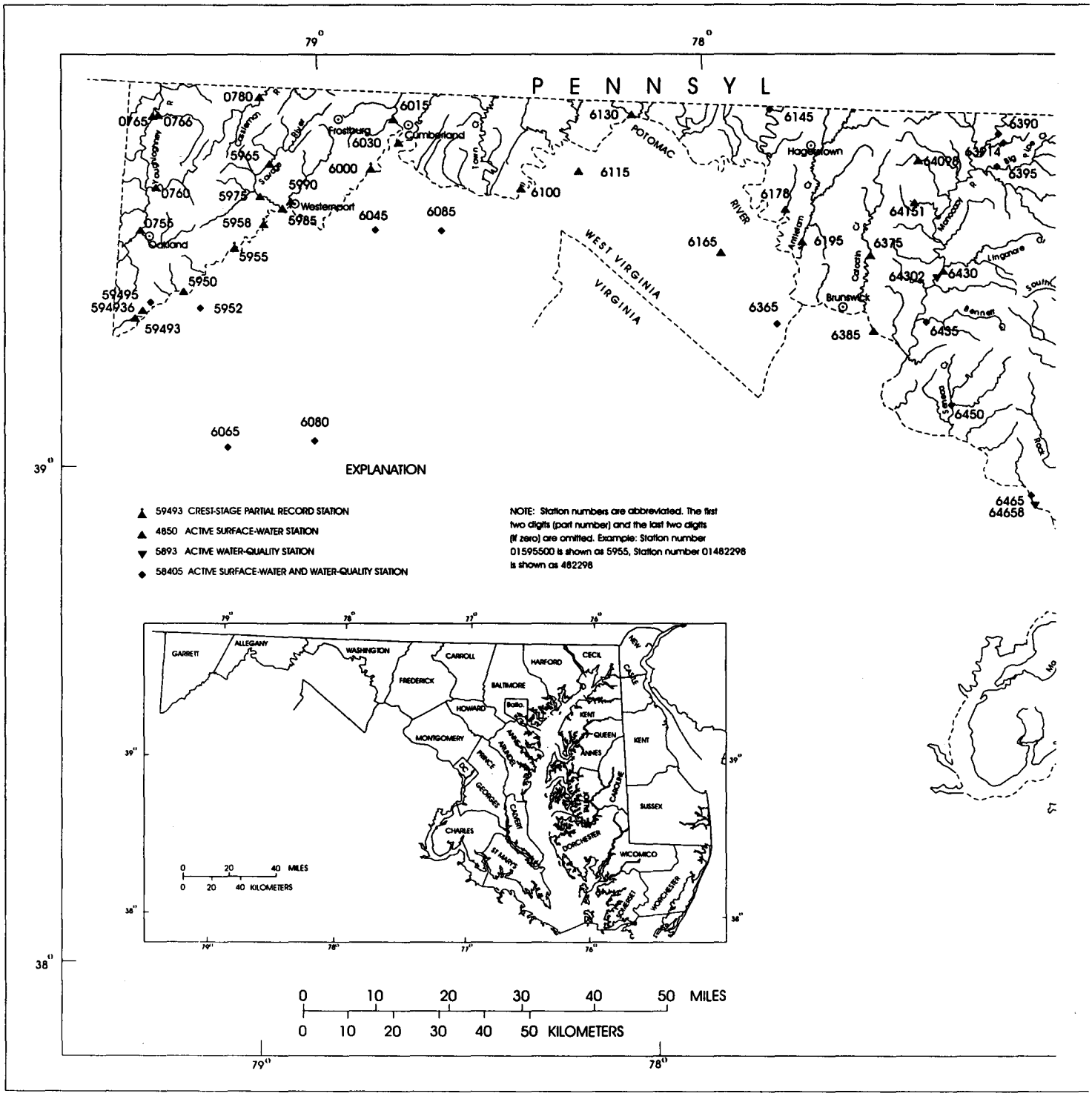
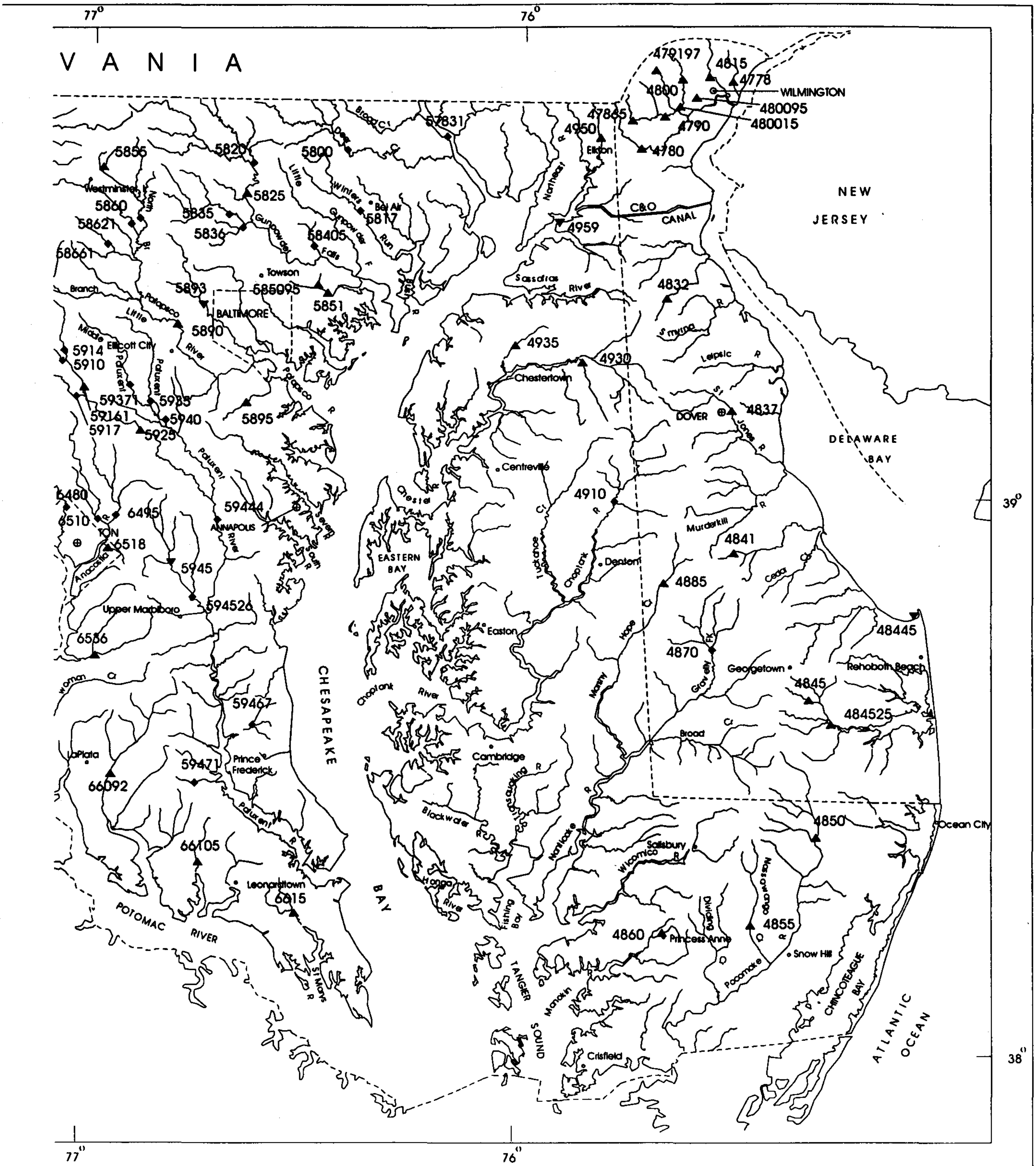
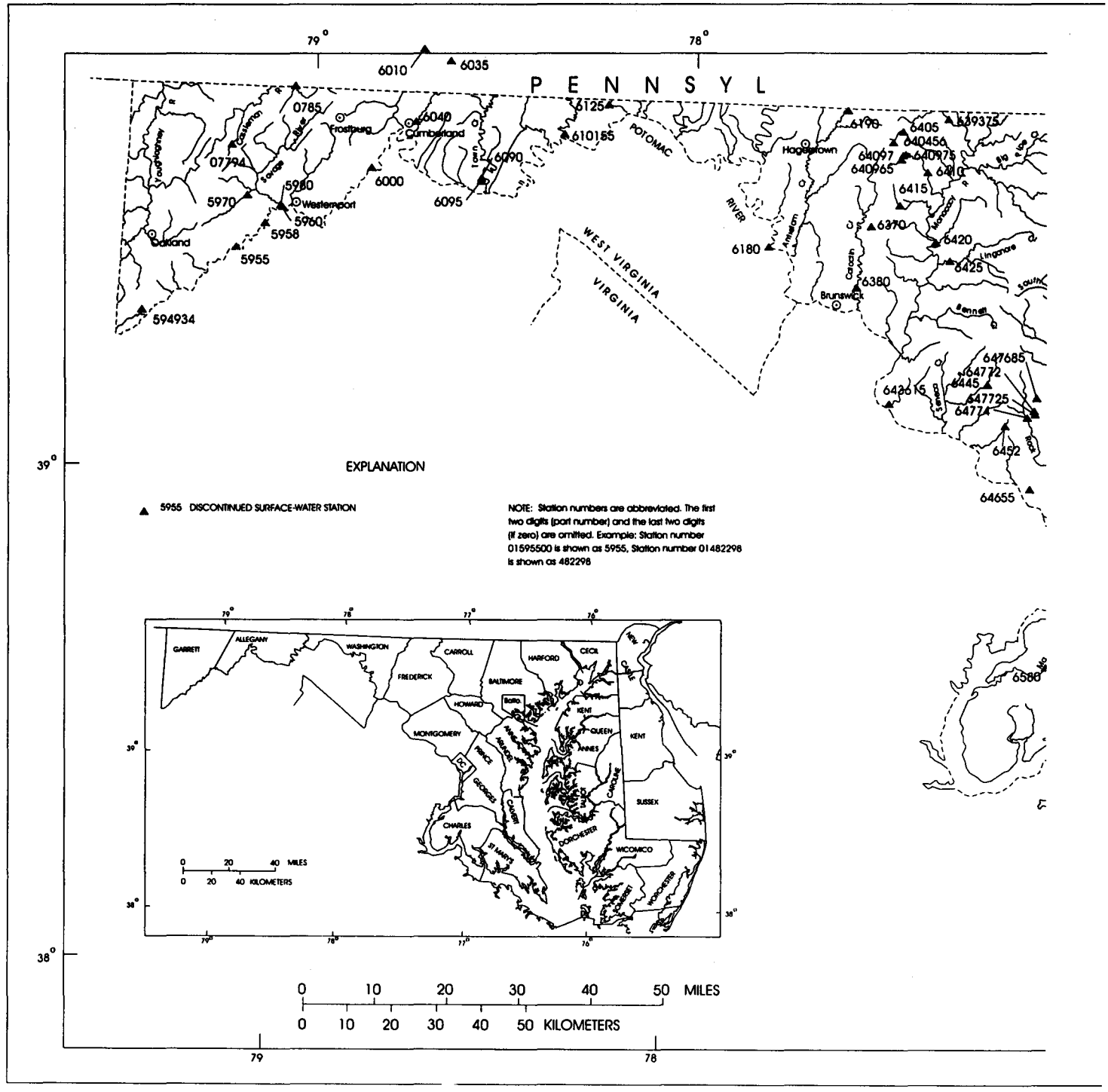


Base map modified from US Geological Survey 1:100 000 DLG

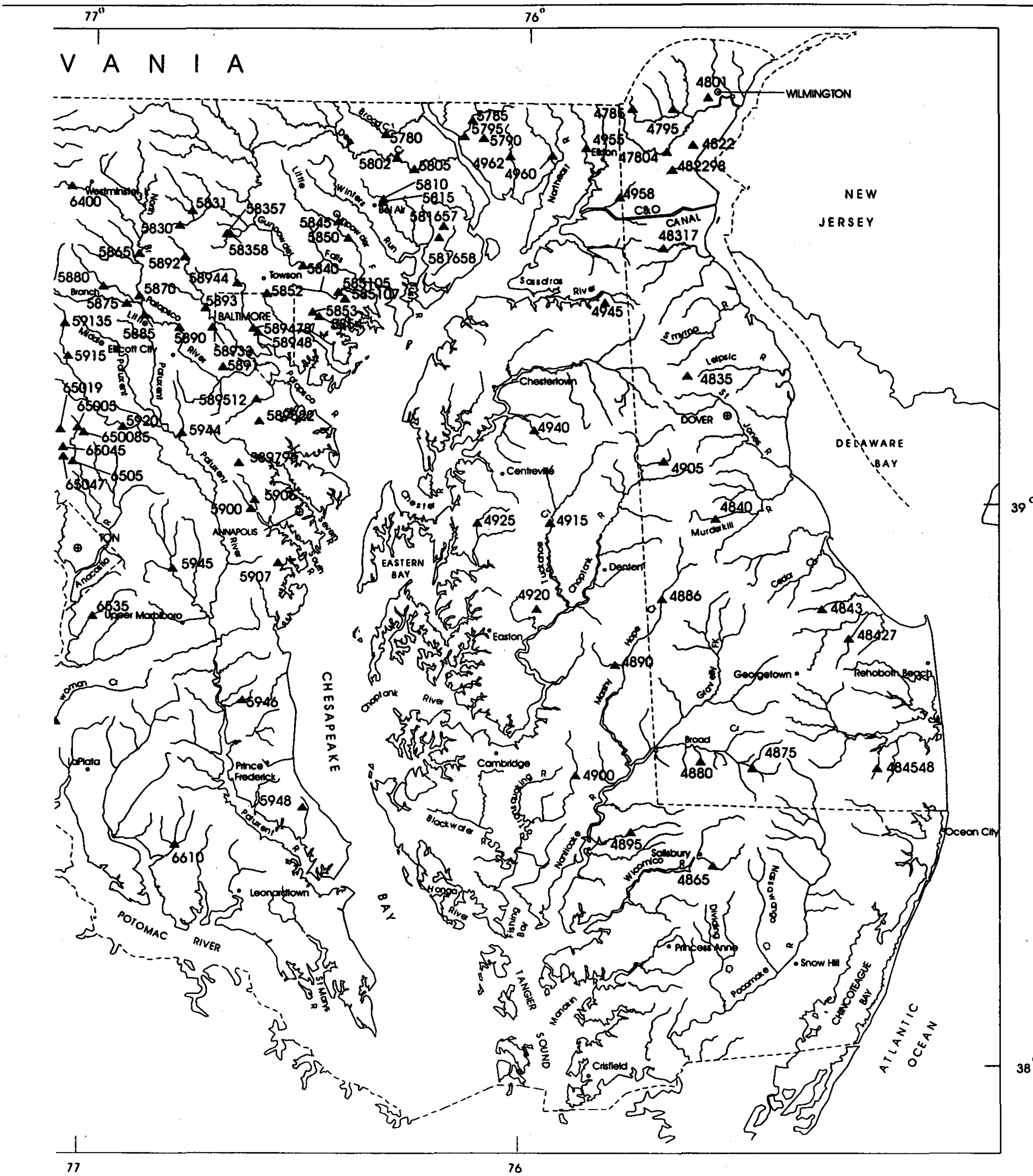
Figure 3. Map of Maryland and Delaware showing location of surface-water, water-quality and crest-stage partial-record stations


77°
76°
V A N I A
479197
4815
4778
WILMINGTON
4800
480095
480015
47865
4790
4780
4950
Elkton
57831
5855
5820
5800
Westminster
5825
5860
5835
58621
5836
Bel Air
5817
58405
58661
Towson
5893
585095
5851
BALTIMORE
5890
Ellicott City
5914
5910
59371
5935
59161
5940
5917
5925
5895
4959
C&O
CANAL
NEW
JERSEY
4832
4935
4930
Chestertown
DOVER
4837
DELAWARE
BAY
Centreville
4910
6480
6510
6495
59444
ANNAPOLIS
6518
5945
EASTERN
BAY
Denton
4841
4885
594526
Upper Marlboro
6536
Easton
48445
4870
Georgetown
Rehoboth Beach
4845
484525
CHESAPEAKE
BAY
59467
Cambridge
LaPlata
59471
Prince Frederick
66092
4850
Ocean City
66105
Salisbury
Leonardtown
6615
POTOMAC
RIVER
4860
Princess Anne
4855
Snow Hill
TANGIER
SOUND
CHINCOTEAGUE
BAY
ATLANTIC
OCEAN
Crisfield
39°
38°
77°
76°



Base map modified from US Geological Survey 1:100 000 DLG

Figure 4. Map of Maryland and Delaware showing location of discontinued surface-water stations


77°
76°
V A N I A
WILMINGTON
NEW JERSEY
C&O CANAL
DELAWARE BAY
CHESAPEAKE BAY
EASTERN BAY
TANGIER SOUND
ATLANTIC OCEAN
CHINCOTEAGUE BAY
POTOMAC RIVER
BALTIMORE
ANNAPOLIS
DOVER
Towson
Ellicott City
Westminster
Bel Air
Elkton
Chestertown
Centreville
Denton
Easton
Cambridge
Georgetown
Rehoboth Beach
Ocean City
Salisbury
Princess Anne
Snow Hill
Crisfield
Prince Frederick
Leonardtown
LaPlata
Upper Marlboro
Sassafras River
Chester
Choptank River
Blackwater R
Nanticoke R
Wicomico R
Pocomoke
Patuxent R
Patapsco R
Gunpowder
Little Winters Run
Northeast
Smyrna R
Leipsic R
St Jones R
Murderkill
Marshy Hope Cr
Broad Cr
Honga River
Fishing Bay
Manokin
Dividing
Nassawango Cr
St Marys R
Anacostia
Severn R
South R
Tuckahoe Cr
39°
38°
77
76

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

REMARK CODES

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

PRINTED OUTPUT	REMARK
E	Estimated value
>	Actual value is known to be greater than the value shown.
<	Actual value is known to be less than the value shown.
K	Results based on colony count outside the acceptance range (non-ideal colony count).
L	Biological organism count less than 0.5 percent (organism may be observed rather than counted).
D	Biological organism count egual to or greater than 15 percent (dominant).
&	Biological organism estimated as dominant.

Dissolved Trace-Element Concentrations

NOTE--Traditionally, dissolved trace-element concentrations have been reported at the microgram per liter (ug/L) level. Recent evidence, mostly from large rivers, indicates that actual dissolved-phase concentrations for a number of trace elements are within the range of 10's to 100's of nanograms per liter (ng/L). Data above the ug/L level should be viewed with caution. Such data may actually represent elevated environmental concentrations from natural or human causes; however, these data could reflect contamination introduced during sampling, processing, or analysis. To confidently produce dissolved trace-element data with insignificant contamination, the U.S. Geological Survey began using new trace-element protocols in water year 1994. Full implementation of the protocols will take place during the 1995 water year.

Change in National Trends Network procedures

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

NORTH ATLANTIC SLOPE BASINS

DELAWARE RIVER BASIN

01477800 SHELLPOT CREEK AT WILMINGTON, DE

LOCATION.--Lat 39°45'39", long 75°31'10", New Castle County, Hydrologic Unit 02040205, on right bank 100 ft east of intersection of 44th and Pine Streets in Clifton Park, 700 ft downstream from bridge on North Market Street in Wilmington, 0.2 mi downstream from Matson Run, and 2.3 mi upstream from mouth.

DRAINAGE AREA.--7.46 mi^2.

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

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 15.16 ft above sea level.

REMARKS.--Records good below 100 ft^3/s and above 4,000 ft^3/s, except those for estimated daily discharges (intake lag, ice effect) and those between 100 and 4,000 ft^3/s, which are fair. Occasional 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 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.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 20	0835	*1,330	*4.93	July 16	0340	1,150	4.60
Mar. 8	2145	1,040	4.42				

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.5	5.4	2.5	10	e2.4	9.7	2.8	6.1	1.6	12	.70	.49
2	3.3	4.1	2.3	e3.5	e3.1	5.8	2.8	20	2.0	2.5	.68	.44
3	1.6	1.7	2.4	e2.3	e6.2	4.4	2.9	4.2	4.8	.89	.64	.43
4	1.5	1.8	2.6	e2.0	8.5	4.0	3.0	2.9	1.7	.94	3.1	.43
5	2.1	1.8	66	e1.8	8.6	3.5	3.0	3.3	1.3	1.3	8.0	.43
6	1.5	1.9	6.5	24	2.7	3.3	3.1	2.5	1.3	.90	26	.44
7	1.7	1.7	3.4	94	2.3	3.1	3.0	2.2	5.6	3.5	2.2	.43
8	1.3	1.8	2.9	6.9	2.3	186	3.1	2.0	1.5	1.3	.95	11
9	1.6	1.9	2.4	4.4	2.2	54	7.0	1.9	1.3	.71	.80	2.3
10	1.6	13	38	3.8	2.3	6.6	8.0	12	1.4	.67	.78	.70
11	1.3	2.5	20	3.8	3.9	4.5	4.0	4.4	2.2	2.5	.73	.59
12	1.2	1.7	4.9	4.1	4.6	3.6	10	2.7	6.8	3.3	.72	.56
13	1.2	1.7	3.3	3.7	2.5	3.3	24	2.2	2.5	.91	.67	2.0
14	1.3	1.7	2.9	4.1	2.2	3.1	5.3	4.6	1.4	.78	6.7	2.3
15	1.4	1.7	2.7	4.9	4.2	2.9	4.0	4.8	1.2	.73	1.3	.62
16	1.4	9.3	2.6	6.1	32	2.9	3.7	2.7	1.1	84	.73	.94
17	1.4	3.1	3.3	5.5	14	2.8	3.5	4.0	1.1	3.4	.64	55
18	1.5	2.5	3.1	5.2	9.1	2.5	3.4	3.3	1.0	23	.57	1.8
19	1.6	4.4	2.8	5.7	7.9	2.4	3.5	16	1.0	1.2	.52	.75
20	1.6	1.6	2.6	154	7.5	2.5	3.3	3.6	1.1	.82	.50	.54
21	1.6	29	2.9	7.3	8.5	18	3.4	2.6	1.1	2.0	.50	.50
22	1.7	6.2	2.7	3.1	4.4	6.5	3.3	2.2	1.1	1.2	.50	46
23	15	2.2	2.9	2.6	6.1	3.7	3.2	2.1	2.8	1.2	.47	4.5
24	3.2	1.8	4.7	2.7	8.6	3.4	7.9	2.0	11	1.1	.45	1.1
25	1.8	1.7	6.1	2.7	3.9	3.1	3.6	20	1.6	1.5	.46	23
26	1.8	1.7	3.4	e2.8	3.6	2.9	3.2	41	1.3	.92	.44	12
27	1.6	5.4	3.0	e2.7	3.9	2.9	3.2	3.3	1.3	.81	.47	2.4
28	1.4	60	3.1	e2.6	60	2.9	3.2	4.3	1.1	3.4	.50	1.2
29	1.5	5.7	3.1	e2.6	---	2.8	3.1	4.7	1.0	20	.50	.93
30	1.5	3.1	3.1	e2.6	---	2.9	17	2.3	1.0	2.6	.48	.81
31	1.5	---	3.4	e2.5	---	2.8	---	1.8	---	.86	.49	---
TOTAL	65.2	182.1	215.6	384.0	227.5	362.8	154.5	191.7	65.2	180.94	62.19	174.63
MEAN	2.10	6.07	6.95	12.4	8.12	11.7	5.15	6.18	2.17	5.84	2.01	5.82
MAX	15	60	66	154	60	186	24	41	11	84	26	55
MIN	1.2	1.6	2.3	1.8	2.2	2.4	2.8	1.8	1.0	.67	.44	.43
CFSM	.28	.81	.93	1.66	1.09	1.57	.69	.83	.29	.78	.27	.78
IN.	.33	.91	1.08	1.91	1.13	1.81	.77	.96	.33	.90	.31	.87

e Estimated

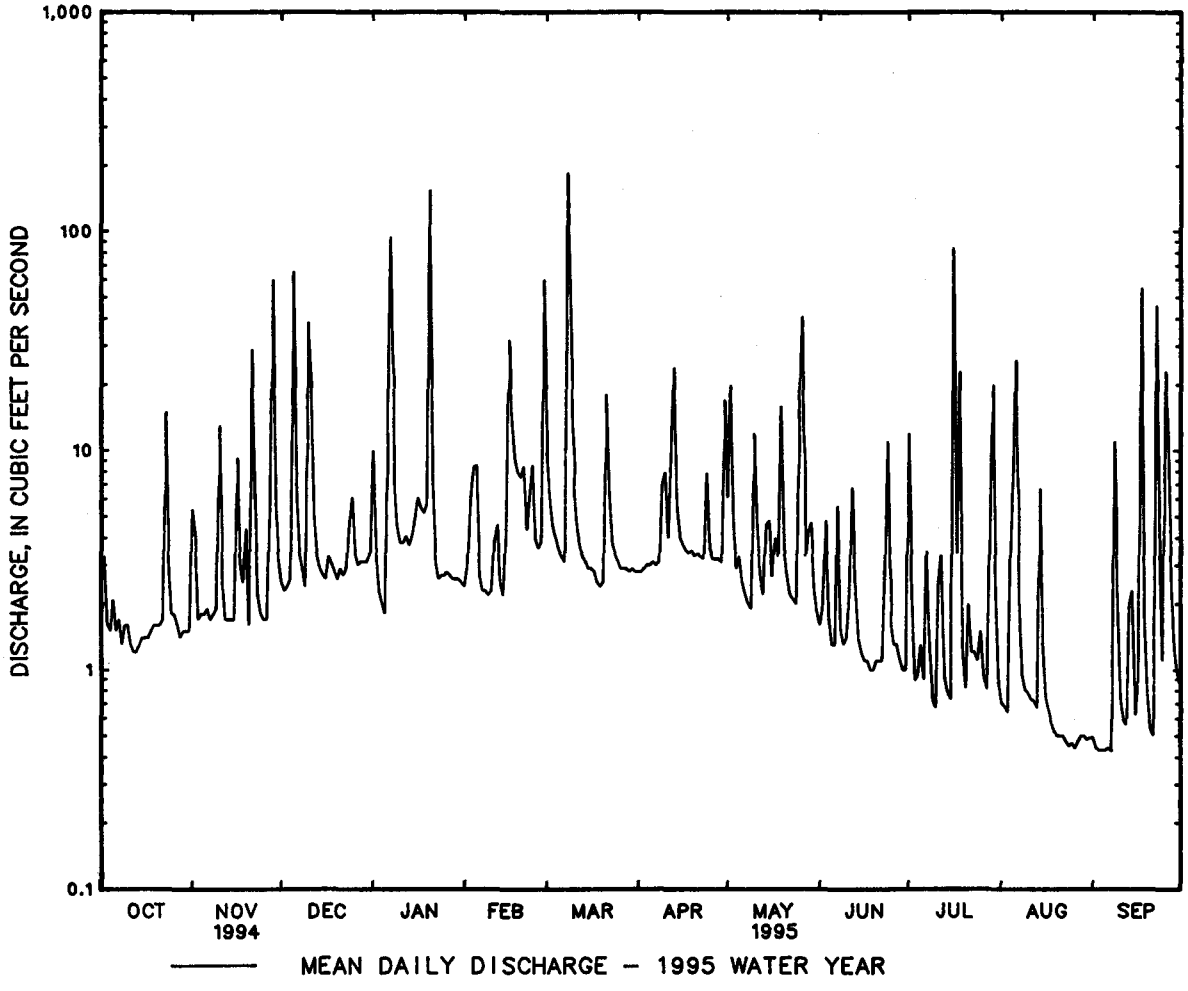
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1946 - 1995, BY WATER YEAR (WY)

MEAN	4.55	8.61	11.4	12.3	13.2	15.6	12.9	10.8	7.02	8.51	6.98	6.65
MAX	20.2	27.7	30.5	37.9	34.1	41.4	32.7	31.5	34.8	69.5	62.8	58.3
(WY)	1972	1973	1968	1979	1979	1993	1983	1947	1975	1989	1967	1971
MIN	.62	1.35	1.03	1.18	2.95	2.93	2.55	1.76	1.09	.65	.32	.90
(WY)	1964	1966	1956	1981	1980	1985	1985	1955	1966	1957	1966	1951

01477800 SHELLPOT CREEK AT WILMINGTON, DE--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1946 - 1995	
ANNUAL TOTAL	4830.07		2266.36			
ANNUAL MEAN	13.2		6.21		9.70	
HIGHEST ANNUAL MEAN					16.1	1973
LOWEST ANNUAL MEAN					5.52	1963
HIGHEST DAILY MEAN	379	Jan 28	186	Mar 8	1310	Jul 5 1989
LOWEST DAILY MEAN	.75	Jul 13	.43	(a)	.09	(b)
ANNUAL SEVEN-DAY MINIMUM	1.2	Jul 1	.44	Sep 1	.10	Aug 27 1966
INSTANTANEOUS PEAK FLOW			1330	Jan 20	(c)8040	Jul 5 1989
INSTANTANEOUS PEAK STAGE			4.93	Jan 20	13.76	Jul 5 1989
INSTANTANEOUS LOW FLOW			.24	Sep 13	.09	Oct 2 1968
ANNUAL RUNOFF (CFSM)	1.77		.83		1.30	
ANNUAL RUNOFF (INCHES)	24.09		11.30		17.68	
10 PERCENT EXCEEDS	29		9.8		18	
50 PERCENT EXCEEDS	3.4		2.7		2.8	
90 PERCENT EXCEEDS	1.5		.73		.78	

a Sept. 3-5, 7.
b Oct. 2, 4, 1968.
c From rating curve extended above 200 ft^3/s on basis of culvert and flow-over-road measurements at gage heights 9.10 and 11.91 ft.



01478000 CHRISTINA RIVER AT COOCHS BRIDGE, DE

LOCATION.--Lat 39°38'14", long 75°43'42", New Castle County, Hydrologic Unit 02040205, on right bank 60 ft downstream from highway bridge, 0.5 mi southeast of Coochs Bridge, 3.3 mi south of Newark, 3.6 mi upstream from Belltown Run, and 22.6 mi upstream from mouth.

DRAINAGE AREA.--20.5 mi^2.

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

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

GAGE.--Water-stage recorder. Datum of gage is 25.54 ft above sea level. 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.--Records good except those for estimated daily discharges (intake lag, ice effect), which are fair. Low and medium flow regulated by mill 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.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 20	1130	*1,790	*11.66	Mar. 8	2345	1,390	11.03

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.2	7.0	8.1	14	11	32	11	30	8.8	4.3	2.5	1.7
2	11	9.0	7.5	9.8	11	16	10	53	8.1	4.4	2.5	1.7
3	5.9	5.9	7.4	8.0	10	13	10	26	15	4.1	2.3	1.7
4	4.8	5.3	7.2	7.3	12	12	10	14	8.5	4.0	2.7	1.8
5	4.5	5.0	121	7.4	e12	11	9.9	12	7.5	5.1	15	1.7
6	4.2	5.3	17	22	e9.6	11	9.2	11	7.4	4.9	105	1.6
7	4.4	5.2	9.8	209	e10	10	9.1	10	10	16	12	1.6
8	4.2	4.7	8.3	22	e10	242	8.9	9.2	7.5	6.7	5.2	7.0
9	3.5	5.2	7.6	12	e9.6	325	16	8.6	6.7	4.5	3.7	4.1
10	4.1	19	58	10	e9.0	34	22	39	6.5	3.9	3.6	2.1
11	4.4	9.4	60	9.8	e11	23	13	34	7.5	9.4	3.2	1.9
12	4.1	6.1	13	10	e10	19	20	20	17	4.6	3.1	1.8
13	4.2	5.7	9.7	9.5	e9.0	16	66	14	9.1	3.9	2.8	1.8
14	4.8	5.4	8.8	9.0	e9.0	15	16	16	7.0	3.7	2.7	4.1
15	4.3	5.5	8.3	29	12	14	12	20	6.3	3.5	4.8	1.9
16	3.9	16	8.0	20	59	13	11	12	5.9	41	4.5	1.7
17	3.9	11	8.4	9.4	42	13	10	9.8	5.4	8.4	2.9	81
18	4.5	7.6	8.1	8.9	27	13	9.9	10	5.4	15	2.5	8.8
19	5.1	8.9	7.7	9.4	17	12	9.7	35	5.2	5.8	2.2	4.2
20	4.8	6.5	7.5	639	16	12	9.6	12	5.0	4.3	1.9	2.9
21	4.5	21	7.3	63	16	39	9.2	10	5.0	4.0	1.8	3.4
22	4.2	18	7.3	27	14	22	9.1	8.8	4.8	3.6	1.8	59
23	13	8.8	7.2	18	13	16	8.6	8.2	6.4	7.8	1.9	21
24	9.0	6.8	7.8	15	16	14	20	8.0	9.2	4.3	1.9	5.6
25	5.0	6.6	8.5	14	13	13	11	40	5.9	3.7	1.8	20
26	4.5	6.4	7.2	13	11	12	9.7	65	5.1	3.3	1.6	23
27	4.7	7.4	7.0	12	11	12	9.3	15	6.1	3.1	2.0	6.6
28	4.8	74	7.0	12	136	12	9.0	23	5.2	32	1.9	4.4
29	4.7	17	7.0	12	---	11	8.4	29	4.7	4.9	2.0	3.5
30	5.5	10	6.8	11	---	11	37	14	4.4	3.4	1.7	3.5
31	4.7	---	6.7	11	---	11	---	10	---	2.8	1.7	---
TOTAL	160.4	329.7	471.2	1283.5	546.2	1029	424.6	626.6	216.6	230.4	205.2	285.1
MEAN	5.17	11.0	15.2	41.4	19.5	33.2	14.2	20.2	7.22	7.43	6.62	9.50
MAX	13	74	121	639	136	325	66	65	17	41	105	81
MIN	3.5	4.7	6.7	7.3	9.0	10	8.4	8.0	4.4	2.8	1.6	1.6
CFSM	.25	.54	.74	2.02	.95	1.62	.69	.99	.35	.36	.32	.46
IN.	.29	.60	.86	2.33	.99	1.87	.77	1.14	.39	.42	.37	.52

e Estimated

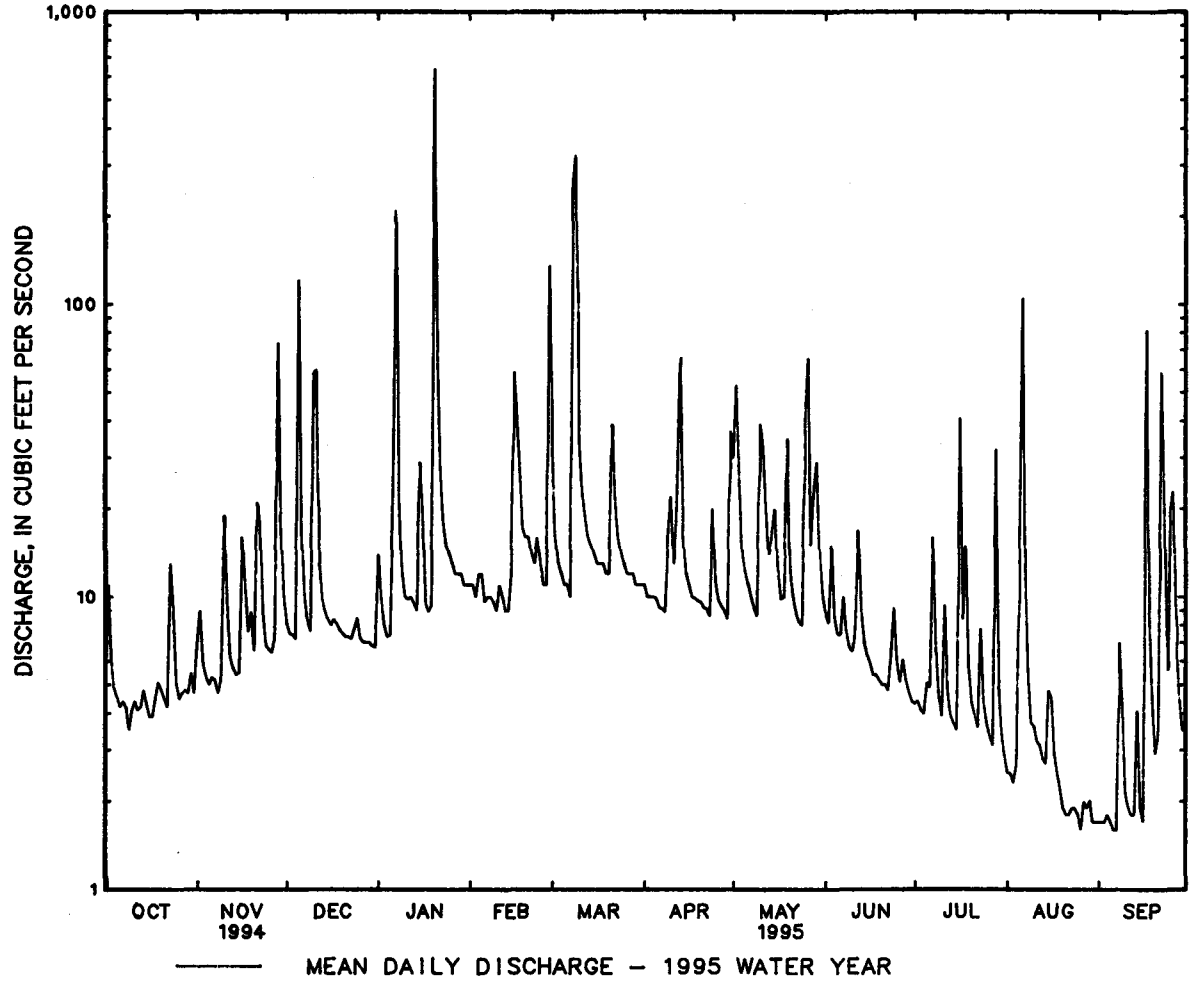
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1943 - 1995, BY WATER YEAR (WY)

MEAN	13.8	24.2	33.9	39.6	42.8	47.0	36.9	31.6	21.1	22.3	17.4	15.0
MAX	62.9	82.8	97.9	165	154	121	107	77.6	76.5	165	117	53.6
(WY)	1972	1973	1984	1979	1979	1978	1983	1990	1972	1989	1967	1960
MIN	2.25	2.76	3.98	5.35	10.1	8.35	10.5	8.10	4.57	2.48	1.29	2.85
(WY)	1964	1966	1966	1981	1947	1981	1963	1965	1966	1963	1966	1965

01478000 CHRISTINA RIVER AT COOCHS BRIDGE, DE--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1943 - 1995	
ANNUAL TOTAL	12237.5		5808.5			
ANNUAL MEAN	33.5		15.9		28.7	
HIGHEST ANNUAL MEAN					53.4	1978
LOWEST ANNUAL MEAN					14.2	1981
HIGHEST DAILY MEAN	965	Jan 28	639	Jan 20	2000	Jul 5 1989
LOWEST DAILY MEAN	3.5	Oct 9	1.6	(a)	.20	(b)
ANNUAL SEVEN-DAY MINIMUM	4.1	Oct 6	1.7	Sep 1	.50	Aug 25 1966
INSTANTANEOUS PEAK FLOW			1790	Jan 20	5530	Jul 5 1989
INSTANTANEOUS PEAK STAGE			11.66	Jan 20	13.12	Jul 5 1989
INSTANTANEOUS LOW FLOW			1.3	Sep 3	UNKNOWN	
ANNUAL RUNOFF (CFSM)	1.64		.78		1.40	
ANNUAL RUNOFF (INCHES)	22.21		10.54		19.03	
10 PERCENT EXCEEDS	71		23		48	
50 PERCENT EXCEEDS	14		8.8		13	
90 PERCENT EXCEEDS	5.0		3.0		4.4	

a Aug. 26, Sept. 6, 7.
b Aug. 7, 14, 18, 21, 27, 28, 1966.



01478650 WHITE CLAY CREEK AT NEWARK, DE

LOCATION.--Lat 39°41'20", long 75°44'58", New Castle County, Hydrologic Unit 02040205, on right bank 200 ft upstream from highway bridge on Paper Mill Road, at Newark, and 10.3 mi upstream from mouth.

DRAINAGE AREA.--69.0 mi^2.

PERIOD OF RECORD.--March 1994 to September 1995.

GAGE.--Water-stage recorder. Datum of gage is 56.45 ft above sea level.

REMARKS.--Records good except those for estimated daily discharges (backwater, no gage-height record, ice), 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. Several measurements of water temperature were made during the year.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar. 10, 1994	1300	*4,780	*10.67	Jan. 20, 1995	1130	2,280	8.98
Mar. 22, 1994	0300	1,700	8.49	Mar. 9, 1995	0015	*2,760	*9.35

DISCHARGE, IN CUBIC FEET PER SECOND, MARCH 1994 TO SEPTEMBER 1994
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	e120	145	102	54	35	74	e23
2	---	---	---	---	---	107	128	92	51	31	37	22
3	---	---	---	---	---	131	115	83	50	47	34	e21
4	---	---	---	---	---	116	116	88	49	34	29	e21
5	---	---	---	---	---	199	e105	99	49	30	33	e21
6	---	---	---	---	---	263	e110	80	49	30	38	e20
7	---	---	---	---	---	483	e140	90	50	28	28	e19
8	---	---	---	---	---	702	e120	281	46	25	25	e18
9	---	---	---	---	---	329	e100	111	45	24	24	e18
10	---	---	---	---	---	2320	e120	88	45	22	24	e18
11	---	---	---	---	---	498	e180	79	47	21	24	e18
12	---	---	---	---	---	336	e120	85	49	21	26	e16
13	---	---	---	---	---	359	e270	81	47	21	26	e16
14	---	---	---	---	---	398	e290	72	44	57	26	e15
15	---	---	---	---	---	323	e140	72	41	86	33	e14
16	---	---	---	---	---	237	e150	216	40	34	26	e15
17	---	---	---	---	---	155	e130	93	39	29	97	e15
18	---	---	---	---	---	134	e120	80	38	42	76	e21
19	---	---	---	---	---	122	e110	76	36	36	37	e19
20	---	---	---	---	---	135	e105	92	34	28	32	e16
21	---	---	---	---	---	259	101	82	35	26	32	e14
22	---	---	---	---	---	596	99	70	36	30	81	27
23	---	---	---	---	---	207	99	65	33	44	48	59
24	---	---	---	---	---	166	99	63	38	32	32	30
25	---	---	---	---	---	146	98	74	37	28	29	25
26	---	---	---	---	---	124	95	107	35	27	30	24
27	---	---	---	---	---	395	99	113	35	33	28	43
28	---	---	---	---	---	519	98	70	37	148	29	30
29	---	---	---	---	---	454	96	63	35	44	26	e26
30	---	---	---	---	---	204	101	59	40	36	26	e20
31	---	---	---	---	---	170	---	57	---	38	e24	---
TOTAL	---	---	---	---	---	10707	3799	2883	1264	1167	1134	664
MEAN	---	---	---	---	---	345	127	93.0	42.1	37.6	36.6	22.1
MAX	---	---	---	---	---	2320	290	281	54	148	97	59
MIN	---	---	---	---	---	107	95	57	33	21	24	14
CFSM	---	---	---	---	---	5.01	1.84	1.35	.61	.55	.53	.32
IN.	---	---	---	---	---	5.77	2.05	1.55	.68	.63	.61	.36

e Estimated

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

MEAN	---	---	---	---	---	345	127	93.0	42.1	37.6	36.6	22.1
MAX	---	---	---	---	---	345	127	93.0	42.1	37.6	36.6	22.1
(WY)	---	---	---	---	---	1994	1994	1994	1994	1994	1994	1994
MIN	---	---	---	---	---	345	127	93.0	42.1	37.6	36.6	22.1
(WY)	---	---	---	---	---	1994	1994	1994	1994	1994	1994	1994

DELAWARE RIVER BASIN

01478650 WHITE CLAY CREEK AT NEWARK, DE--Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e22	e28	35	46	38	103	44	72	33	23	12	6.0
2	e31	e38	33	46	39	65	44	88	32	24	12	6.7
3	e25	e29	33	38	35	57	42	76	34	23	11	5.9
4	e24	e25	33	33	34	53	42	50	33	17	13	5.7
5	e23	e24	115	25	37	50	39	46	31	22	18	5.9
6	e22	e26	68	e23	31	48	40	43	30	23	33	6.5
7	e21	e26	45	e250	e29	46	40	38	29	30	29	5.9
8	e22	e24	40	80	e26	418	40	36	27	29	16	8.3
9	e22	22	36	49	e24	827	44	37	24	20	17	5.7
10	e22	33	58	42	e24	124	50	51	25	19	18	7.4
11	e22	35	162	41	e28	89	44	60	26	20	16	5.9
12	e21	25	57	41	e26	76	46	49	30	18	16	4.5
13	20	24	46	40	e26	64	95	46	31	17	13	5.8
14	e21	24	44	42	e27	62	52	45	27	18	13	8.7
15	e21	22	41	49	e29	60	46	48	e23	18	22	9.2
16	e21	28	38	89	62	56	44	42	e20	203	19	7.4
17	22	37	40	48	74	53	44	41	e19	39	14	82
18	e22	28	41	43	69	51	43	44	e18	35	13	32
19	e21	26	37	41	58	51	42	58	e17	26	12	14
20	e22	26	35	773	60	51	42	47	e17	22	9.9	10
21	e22	32	35	154	59	63	42	40	e17	22	9.0	11
22	e22	59	35	79	54	60	43	37	e17	23	9.4	25
23	e28	35	34	60	49	52	42	35	e21	24	8.0	40
24	e36	30	37	55	57	50	48	34	27	18	7.0	18
25	e23	29	41	52	51	48	45	38	26	19	7.2	20
26	e21	28	38	47	47	46	42	93	25	20	7.3	46
27	e21	30	35	43	47	46	41	46	39	19	7.4	24
28	e22	108	33	43	223	45	40	42	28	21	7.2	17
29	e21	61	33	40	---	45	40	57	23	16	8.2	15
30	e21	40	31	39	---	45	53	42	21	17	7.8	14
31	34	---	29	39	---	46	---	36	---	13	6.4	---
TOTAL	718	1002	1418	2490	1363	2950	1359	1517	770	858	411.8	473.5
MEAN	23.2	33.4	45.7	80.3	48.7	95.2	45.3	48.9	25.7	27.7	13.3	15.8
MAX	36	108	162	773	223	827	95	93	39	203	33	82
MIN	20	22	29	23	24	45	39	34	17	13	6.4	4.5
CFSM	.34	.48	.66	1.16	.71	1.38	.66	.71	.37	.40	.19	.23
IN.	.39	.54	.76	1.34	.73	1.59	.73	.82	.42	.46	.22	.26

e Estimated

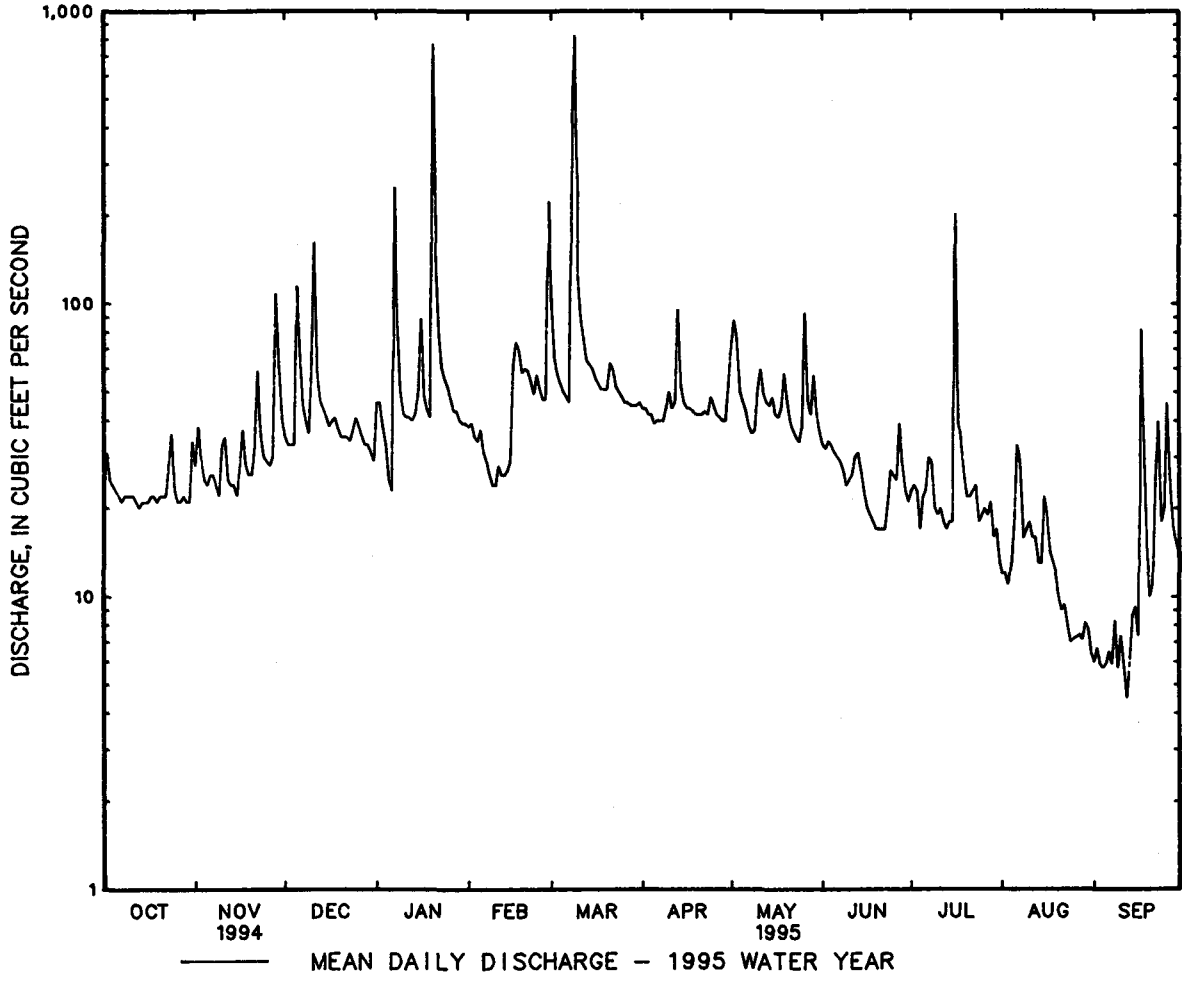
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1994 - 1995, BY WATER YEAR (WY)

MEAN	23.2	33.4	45.7	80.3	48.7	220	86.0	71.0	33.9	32.7	24.9	19.0
MAX	23.2	33.4	45.7	80.3	48.7	345	127	93.0	42.1	37.6	36.6	22.1
(WY)	1995	1995	1995	1995	1995	1994	1994	1994	1994	1994	1994	1994
MIN	23.2	33.4	45.7	80.3	48.7	95.2	45.3	48.9	25.7	27.7	13.3	15.8
(WY)	1995	1995	1995	1995	1995	1995	1995	1995	1995	1995	1995	1995

DELAWARE RIVER BASIN

01478650 WHITE CLAY CREEK AT NEWARK, DE--Continued

SUMMARY STATISTICS	FOR 1995 WATER YEAR		WATER YEARS 1994 - 1995	
ANNUAL TOTAL	15330.3			
ANNUAL MEAN	42.0		42.0	
HIGHEST ANNUAL MEAN			42.0	1995
LOWEST ANNUAL MEAN			42.0	1995
HIGHEST DAILY MEAN	827	Mar 9	2320	Mar 10 1994
LOWEST DAILY MEAN	4.5	Sep 12	4.5	Sep 12 1995
ANNUAL SEVEN-DAY MINIMUM	6.1	Sep 1	6.1	Sep 1 1995
INSTANTANEOUS PEAK FLOW	2760	Mar 9	3800	Mar 10 1994
INSTANTANEOUS PEAK STAGE	9.35	Mar 9	10.67	Mar 10 1994
INSTANTANEOUS LOW FLOW	2.6	Sep 13	2.6	Sep 13 1995
ANNUAL RUNOFF (CFSM)	.61		.61	
ANNUAL RUNOFF (INCHES)	8.27		8.27	
10 PERCENT EXCEEDS	60		115	
50 PERCENT EXCEEDS	33		37	
90 PERCENT EXCEEDS	13		17	



01479000 WHITE CLAY CREEK NEAR NEWARK, DE

LOCATION.--Lat 39°41'47", long 75°40'31, New Castle County, Hydrologic Unit 02040205, on left bank 35 ft downstream from bridge on private road at Delaware Park Race Track, 0.4 mi downstream from the Baltimore and Ohio Railroad bridge, 1.1 mi downstream from Pike Creek, 3.8 mi east of Newark, and 5.0 mi upstream from mouth.

DRAINAGE AREA.--89.1 mi^2.

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

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

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

REMARKS.--Records good except those for estimated daily discharges (ice effect), which are fair. Flow affected by City of Newark municipal water plant upstream from station. Slight diurnal fluctuation at low flow caused by mills upstream from station. Records do not include a negligible diversion upstream from station by MBNA America. National Weather Service gage-height telemeter at station. 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.--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.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 20	1245	2,230	11.96	Mar. 9	0130	*3,160	*13.28

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	38	40	44	66	57	143	59	100	41	34	17	9.4
2	31	51	41	56	e57	94	58	136	39	36	16	9.2
3	27	39	38	42	52	83	58	111	54	33	16	9.0
4	25	32	38	40	e51	77	59	69	38	30	19	8.5
5	25	31	229	e34	e61	73	54	64	34	33	38	9.0
6	25	33	102	109	e52	69	52	57	33	38	133	9.2
7	24	33	61	420	e42	66	53	50	38	52	42	9.3
8	25	30	51	118	e38	395	52	47	31	38	24	88
9	25	29	44	73	e38	1160	69	45	28	28	21	19
10	25	65	122	61	e38	185	80	102	27	27	22	16
11	24	49	208	56	e43	134	60	95	31	33	21	11
12	24	34	81	59	e40	118	73	68	50	28	20	10
13	25	31	61	56	e38	102	171	60	36	25	19	12
14	25	31	56	57	e38	98	81	64	30	25	18	18
15	25	29	53	75	e50	94	66	67	26	24	23	13
16	25	59	49	114	182	88	60	51	23	364	28	11
17	26	56	51	67	124	83	58	52	22	57	20	220
18	26	42	52	57	101	78	55	55	21	69	17	48
19	25	39	46	54	93	77	56	105	20	34	14	22
20	26	32	40	1050	86	76	54	64	19	29	14	16
21	26	68	41	215	84	114	53	49	19	28	13	15
22	26	91	42	115	74	96	54	43	19	55	12	124
23	48	47	40	92	68	77	50	38	23	33	12	63
24	43	37	46	84	79	71	75	37	34	27	11	27
25	31	34	48	77	69	67	56	96	27	25	11	52
26	28	32	42	72	63	63	50	167	78	24	11	74
27	28	38	39	65	61	63	48	67	60	23	11	34
28	29	197	35	63	306	61	47	70	42	52	11	26
29	28	91	36	60	---	61	45	88	35	22	11	22
30	28	55	33	58	---	61	95	60	32	21	11	20
31	29	---	39	e58	---	61	---	47	---	20	10	---
TOTAL	865	1475	1908	3623	2085	4088	1901	2224	1010	1367	666	1024.6
MEAN	27.9	49.2	61.5	117	74.5	132	63.4	71.7	33.7	44.1	21.5	34.2
MAX	48	197	229	1050	306	1160	171	167	78	364	133	220
MIN	24	29	33	34	38	61	45	37	19	20	10	8.5
CFSM	.31	.55	.69	1.31	.84	1.48	.71	.81	.38	.49	.24	.38
IN.	.36	.62	.80	1.51	.87	1.71	.79	.93	.42	.57	.28	.43

e Estimated

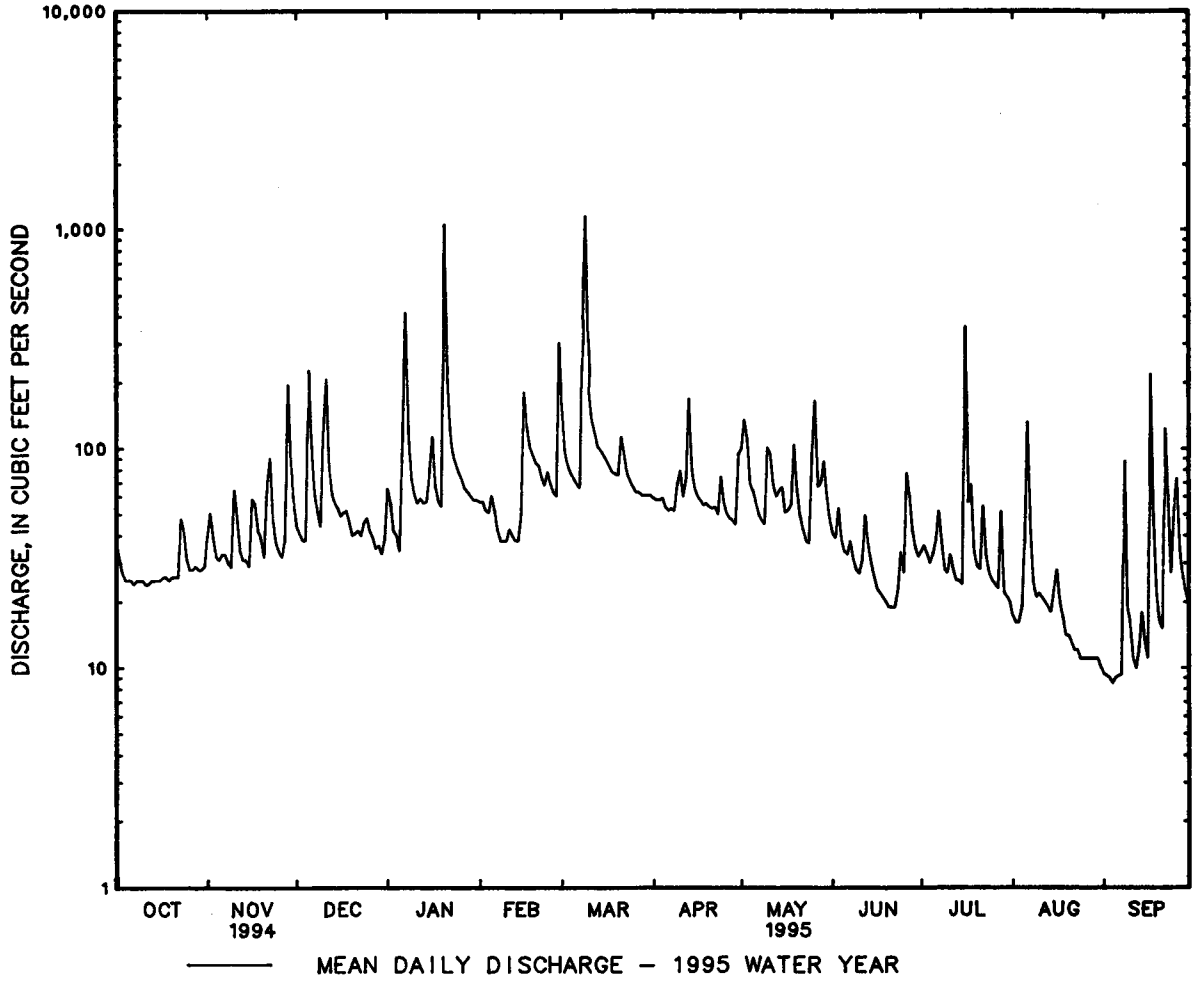
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1932 - 1995, BY WATER YEAR (WY)

MEAN	62.7	91.6	113	143	162	173	150	129	97.4	96.7	79.1	72.0
MAX	230	221	304	493	542	402	342	265	311	540	301	231
(WY)	1972	1973	1984	1979	1979	1994	1983	1989	1972	1975	1967	1979
MIN	17.6	28.4	28.1	32.8	52.4	57.5	59.7	42.3	33.7	16.6	13.6	15.0
(WY)	1964	1966	1966	1966	1934	1981	1963	1955	1995	1963	1966	1932

01479000 WHITE CLAY CREEK NEAR NEWARK, DE--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1932 - 1995	
ANNUAL TOTAL	48387		22236.6			
ANNUAL MEAN	133		60.9		114	
HIGHEST ANNUAL MEAN					193	1975
LOWEST ANNUAL MEAN					55.9	1966
HIGHEST DAILY MEAN	2490	Mar 10	1160	Mar 9	5220	Jan 26 1978
LOWEST DAILY MEAN	19	Sep 21	8.5	Sep 4	5.0	Sep 10 1966
ANNUAL SEVEN-DAY MINIMUM	21	Sep 11	9.1	Sep 1	5.7	Sep 7 1966
INSTANTANEOUS PEAK FLOW			3160	Mar 9	(a)11600	Jul 5 1989
INSTANTANEOUS PEAK STAGE			13.28	Mar 9	(b)17.74	Jun 22 1972
INSTANTANEOUS LOW FLOW			8.2	(c)	4.7	Sep 11 1966
ANNUAL RUNOFF (CFSM)	1.49		.68		1.28	
ANNUAL RUNOFF (INCHES)	20.20		9.28		17.39	
10 PERCENT EXCEEDS	242		97		189	
50 PERCENT EXCEEDS	68		45		76	
90 PERCENT EXCEEDS	26		19		32	

a From rating curve extended above 6,700 ft^3/s on basis of contracted-opening and flow-over-road measurement of peak flow.
b At previous site and datum.
c Sept. 3-5, 7, 8.



01479197 MILL CREEK AT MILL CREEK ROAD AT HOCKESSIN, DE

LOCATION.--Lat 39°46'48", long 75°41'49", New Castle County, Hydrologic Unit 02040205, on right bank at downstream side of highway bridge on Mill Creek Road, at Hockessin, and 6.8 mi upstream from mouth.

DRAINAGE AREA.--3.66 mi^2.

PERIOD OF RECORD.--October 1989 to January 1995 (Discontinued).

GAGE.--Water-stage recorder. Concrete control since February 12, 1990. Datum of gage is 224.56 ft above sea level.

REMARKS.--Records good except those for estimated daily discharges (no gage-height 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.--Flood of July 5, 1989 reached a stage of about 8 ft, from floodmarks; discharge, about 1,000 ft^3/s.

PEAK DISCHARGES FOR CURRENT PERIOD.--Peak discharges greater than base discharge of 150 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 20	0900	*426	*5.81	No other peak greater than base discharge.			

DISCHARGE, IN CUBIC FEET PER SECOND, OCTOBER 1994 TO JANUARY 1995
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e.11	1.2	.53	2.3	---	---	---	---	---	---	---	---
2	e.95	.53	.50	1.2	---	---	---	---	---	---	---	---
3	e.21	.35	.48	.75	---	---	---	---	---	---	---	---
4	e.14	.34	.55	.68	---	---	---	---	---	---	---	---
5	e.13	.30	15	.54	---	---	---	---	---	---	---	---
6	e.12	.33	1.7	5.4	---	---	---	---	---	---	---	---
7	e.14	.27	1.0	24	---	---	---	---	---	---	---	---
8	e.13	.31	.87	2.5	---	---	---	---	---	---	---	---
9	e.13	.31	.78	1.3	---	---	---	---	---	---	---	---
10	e.70	2.9	14	.99	---	---	---	---	---	---	---	---
11	e.50	.42	6.0	1.1	---	---	---	---	---	---	---	---
12	e1.1	.35	1.4	1.1	---	---	---	---	---	---	---	---
13	e.34	.35	1.0	1.1	---	---	---	---	---	---	---	---
14	e.25	.35	.99	1.0	---	---	---	---	---	---	---	---
15	e.19	.35	1.0	4.7	---	---	---	---	---	---	---	---
16	e.17	2.4	.88	2.4	---	---	---	---	---	---	---	---
17	e.16	.60	.92	1.3	---	---	---	---	---	---	---	---
18	e.16	.54	.89	1.0	---	---	---	---	---	---	---	---
19	e.15	.57	.80	1.2	---	---	---	---	---	---	---	---
20	e.14	.42	.77	63	---	---	---	---	---	---	---	---
21	e.25	6.3	.74	5.3	---	---	---	---	---	---	---	---
22	.18	1.3	.74	2.6	---	---	---	---	---	---	---	---
23	1.4	.49	.74	1.9	---	---	---	---	---	---	---	---
24	.37	.45	1.2	1.6	---	---	---	---	---	---	---	---
25	.27	.42	.99	1.5	---	---	---	---	---	---	---	---
26	.27	.42	.75	1.4	---	---	---	---	---	---	---	---
27	.28	1.4	.71	1.2	---	---	---	---	---	---	---	---
28	.28	12	.69	1.1	---	---	---	---	---	---	---	---
29	.33	1.2	.67	1.0	---	---	---	---	---	---	---	---
30	.28	.64	.59	.93	---	---	---	---	---	---	---	---
31	.28	---	.64	e1.2	---	---	---	---	---	---	---	---
TOTAL	10.11	37.81	58.52	137.29	---	---	---	---	---	---	---	---
MEAN	.33	1.26	1.89	4.43	---	---	---	---	---	---	---	---
MAX	1.4	12	15	63	---	---	---	---	---	---	---	---
MIN	.11	.27	.48	.54	---	---	---	---	---	---	---	---
CFSM	.09	.36	.53	1.25	---	---	---	---	---	---	---	---
IN.	.11	.40	.61	1.44	---	---	---	---	---	---	---	---

e Estimated

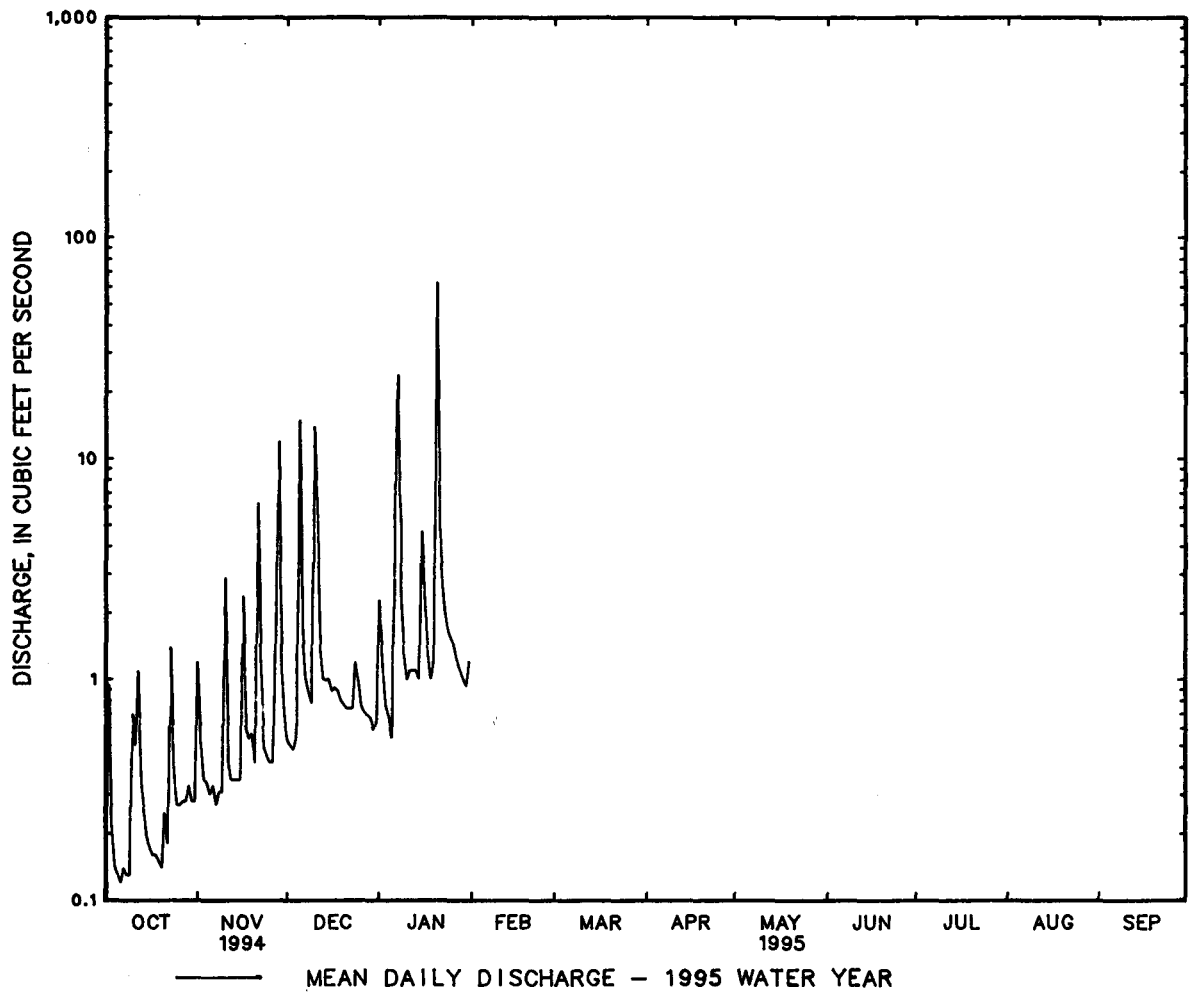
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 1995, BY WATER YEAR (WY)

MEAN	2.01	2.76	4.41	5.36	4.43	8.00	5.05	4.60	2.70	1.89	1.82	2.59
MAX	5.95	4.75	6.96	11.0	10.4	14.7	11.5	9.09	4.76	2.79	3.26	5.60
(WY)	1990	1994	1994	1994	1994	1994	1993	1990	1990	1994	1990	1993
MIN	.33	1.26	1.77	1.19	1.90	2.35	1.90	3.08	.97	1.16	1.06	1.11
(WY)	1995	1995	1990	1992	1992	1990	1992	1991	1994	1993	1993	1994

01479197 MILL CREEK AT MILL CREEK ROAD AT HOCKESSIN, DE--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		WATER YEARS 1990 - 1995	
ANNUAL TOTAL	1624.85			
ANNUAL MEAN	4.45		3.92	
HIGHEST ANNUAL MEAN			5.35	1994
LOWEST ANNUAL MEAN			2.22	1992
HIGHEST DAILY MEAN	170	Jan 28	170	Jan 28 1994
LOWEST DAILY MEAN	(e).11	Oct 1	.11	Jul 22 1992
ANNUAL SEVEN-DAY MINIMUM	.14	Oct 3	.14	Oct 3 1994
INSTANTANEOUS PEAK FLOW			595	Nov 28 1993
INSTANTANEOUS PEAK STAGE			6.26	Nov 28 1993
INSTANTANEOUS LOW FLOW			.07	(a)
ANNUAL RUNOFF (CFSM)	1.26		1.11	
ANNUAL RUNOFF (INCHES)	17.07		15.03	
10 PERCENT EXCEEDS	9.5		7.1	
50 PERCENT EXCEEDS	1.4		1.5	
90 PERCENT EXCEEDS	.29		.44	

e Estimated.
a July 21, 22, 1992.



01480000 RED CLAY CREEK AT WOODDALE, DE

LOCATION.--Lat 39°45'52", long 75°38'08", New Castle County, Hydrologic Unit 02040205, on right bank 12 ft upstream from bridge on State Highway 48, 0.3 mi south of Wooddale, 2.3 mi north of Marshallton, and 4.9 mi upstream from mouth.

DRAINAGE AREA.--47.0 mi^2.

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

REVISED RECORDS.--WSP 1141: 1948. WSP 1272: 1951(m). WSP 1432: 1944(M), 1945, 1946(M), 1948, 1949(M). WSP 2102: 1960(M), 1964(M), 1966-67(M).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 81.46 ft above sea level. Prior to Sept. 21, 1950, nonrecording gage at site 10 ft downstream at same datum.

REMARKS.--No estimated daily discharges. Records good. 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. 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.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,200 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar. 8	2400	*1,650	*5.49	No other peak greater than base discharge.			

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	19	24	36	30	67	33	47	24	21	21	16
2	20	27	22	32	31	47	33	57	23	16	21	14
3	18	18	22	25	28	43	32	47	24	18	19	8.1
4	19	18	21	23	36	41	32	34	24	20	23	13
5	20	17	95	19	32	40	31	33	22	22	52	12
6	22	17	48	23	27	39	31	31	21	18	65	5.7
7	20	17	34	184	28	38	31	29	24	22	58	5.6
8	20	17	29	54	27	273	31	27	21	20	34	8.4
9	19	17	26	39	27	465	34	26	20	16	23	7.2
10	17	31	56	33	28	77	39	35	20	18	20	7.4
11	19	24	101	32	30	59	32	39	21	18	19	6.0
12	20	18	42	32	28	52	34	32	23	22	20	6.0
13	19	17	34	32	26	48	86	29	24	17	23	8.0
14	17	17	31	32	26	45	41	29	20	19	20	12
15	16	17	29	40	29	43	35	33	19	15	33	8.1
16	16	24	27	52	55	42	33	28	19	93	21	6.6
17	15	29	27	36	56	41	31	28	23	23	23	94
18	19	21	26	32	53	39	31	30	24	38	23	23
19	20	20	24	30	47	37	31	42	23	18	19	13
20	20	18	23	332	48	37	31	32	26	24	19	11
21	18	36	23	82	46	50	30	28	20	23	20	11
22	17	56	22	52	41	45	31	25	22	20	17	31
23	19	25	23	44	39	39	28	23	25	20	23	38
24	25	21	25	41	44	37	33	23	22	20	22	15
25	17	21	29	38	38	35	31	26	22	20	34	18
26	16	20	24	35	35	34	29	99	26	18	33	48
27	17	19	22	34	34	34	28	36	57	20	20	21
28	16	95	22	32	144	34	29	31	22	18	13	16
29	16	45	21	32	---	34	27	39	18	21	9.7	13
30	16	29	21	31	---	35	36	29	20	23	17	12
31	17	---	21	31	---	34	---	26	---	17	14	---
TOTAL	573	770	994	1570	1113	1984	1014	1073	699	698	778.7	508.1
MEAN	18.5	25.7	32.1	50.6	39.7	64.0	33.8	34.6	23.3	22.5	25.1	16.9
MAX	25	95	101	332	144	465	86	99	57	93	65	94
MIN	15	17	21	19	26	34	27	23	18	15	9.7	5.6
CFSM	.39	.55	.68	1.08	.85	1.36	.72	.74	.50	.48	.53	.36
IN.	.45	.61	.79	1.24	.88	1.57	.80	.85	.55	.55	.62	.40
(†)	-1.8	--	--	--	--	--	--	--	-2.0	-2.9	-7.6	-1.0
MEAN≠	16.7	--	--	--	--	--	--	--	21.3	19.6	17.5	15.9
CFSM≠	0.36	--	--	--	--	--	--	--	0.45	0.42	0.37	0.34
IN≠	0.42	--	--	--	--	--	--	--	0.50	0.48	0.43	0.38

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1943 - 1995, BY WATER YEAR (WY)

MEAN	35.6	49.6	62.7	76.5	88.2	93.0	84.9	74.0	56.5	51.5	43.4	40.2
MAX	129	115	147	232	237	209	167	156	147	279	180	180
(WY)	1972	1973	1984	1979	1979	1994	1958	1958	1972	1975	1955	1971
MIN	11.1	18.8	18.9	16.8	33.3	27.3	33.8	24.2	21.7	12.7	9.79	13.7
(WY)	1964	1966	1966	1981	1969	1981	1995	1955	1966	1963	1966	1964

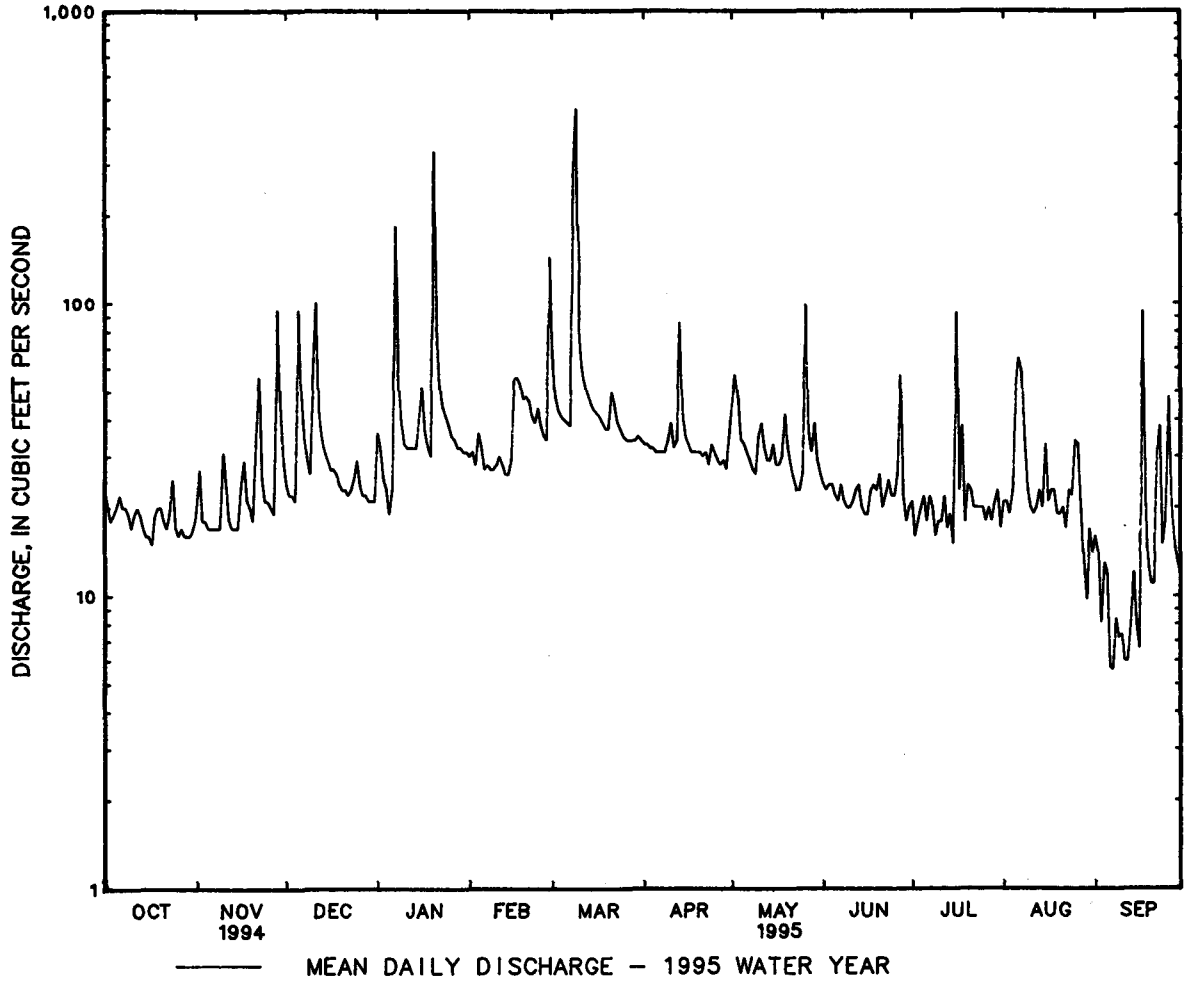
† Inflow in cubic feet per second, from Hoopes Reservoir for municipal supply.
≠ Adjusted for inflow.

01480000 RED CLAY CREEK AT WOODDALE, DE--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1943 - 1995	
ANNUAL TOTAL	25184		11774.8			
ANNUAL MEAN	69.0		32.3		62.9	
ANNUAL MEAN≠	68.3		31.0		62.8	
HIGHEST ANNUAL MEAN					104	1975
LOWEST ANNUAL MEAN					32.3	1995
HIGHEST DAILY MEAN	1540	Jan 28	465	Mar 9	2430	Sep 12 1960
LOWEST DAILY MEAN	15	Oct 17	5.6	Sep 7	4.5	Sep 4 1966
ANNUAL SEVEN-DAY MINIMUM	16	Oct 25	6.6	Sep 6	4.9	Sep 7 1966
INSTANTANEOUS PEAK FLOW			1650	Mar 8	(a)5010	Jul 21 1975
INSTANTANEOUS PEAK STAGE			5.49	Mar 8	10.32	Jul 21 1975
INSTANTANEOUS LOW FLOW			4.9	(b)	2.9	Sep 4 1966
ANNUAL RUNOFF (CFSM)	1.47		.69		1.34	
ANNUAL RUNOFF (CFSM)≠	1.45		.66		1.34	
ANNUAL RUNOFF (INCHES)	19.93		9.32		18.18	
ANNUAL RUNOFF (INCHES)≠	19.74		8.96		18.14	
10 PERCENT EXCEEDS	120		47		107	
50 PERCENT EXCEEDS	38		26		43	
90 PERCENT EXCEEDS	19		17		19	

≠ Adjusted for inflow since June 1994.

a From rating curve extended above 3,900 ft^3/s on basis of contracted-opening measurement at gage height 9.93 ft.
b Sept. 6, 7, 11, 12.



01480015 RED CLAY CREEK NEAR STANTON, DE

LOCATION.--Lat 39°42'55", long 75°38'28", New Castle County, Hydrologic Unit 02040205, on right bank at downstream side of westbound lane of bridge on State Highway 4, near Stanton, and 0.9 mi upstream from mouth.

DRAINAGE AREA.--52.4 mi^2.

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

GAGE.--Water-stage recorder. Datum of gage is 0.00 ft above sea level.

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

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar. 8	2330	*1,850	*15.21	No other peak greater than base discharge.			

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	26	26	40	30	67	38	52	28	27	27	22
2	25	32	24	37	31	48	38	58	28	21	26	e17
3	22	24	23	30	28	44	38	52	30	22	24	e9.3
4	23	22	23	27	36	41	37	39	28	23	24	e16
5	23	22	116	30	43	40	35	38	26	27	53	e17
6	25	22	55	38	e39	39	35	36	25	23	71	e9.5
7	23	22	38	213	e35	38	36	34	29	28	56	e9.0
8	24	21	33	57	e33	263	36	32	24	26	38	e15
9	22	22	29	40	e32	580	40	30	23	20	27	e11
10	21	41	57	34	31	80	45	44	23	20	25	e10
11	21	33	119	32	31	61	38	45	25	25	23	e9.0
12	24	24	46	32	39	56	41	38	28	27	24	e7.0
13	22	22	37	32	37	53	87	34	28	21	27	e10
14	22	22	33	31	32	50	46	34	24	22	23	15
15	21	22	31	37	33	49	41	37	22	18	35	e11
16	20	31	30	53	57	47	38	33	21	122	27	e9.0
17	19	38	30	36	55	46	37	32	25	31	26	117
18	22	27	29	32	52	44	36	35	26	56	24	37
19	24	26	28	31	45	43	36	50	25	24	21	20
20	24	24	27	409	47	43	35	39	28	27	20	17
21	23	41	27	87	46	54	35	33	23	27	21	13
22	22	72	26	53	40	51	35	30	23	34	23	50
23	28	32	27	43	38	45	33	27	29	23	20	48
24	30	27	28	40	44	43	39	27	25	26	25	20
25	23	25	33	38	38	41	36	34	24	24	30	25
26	21	24	29	35	35	40	33	103	43	23	38	51
27	22	26	26	33	34	39	31	42	58	26	25	30
28	22	110	25	32	148	39	32	36	28	27	15	23
29	21	51	25	31	---	39	30	43	23	26	e11	20
30	21	31	25	30	---	39	40	35	25	30	19	18
31	23	---	25	30	---	40	---	30	---	23	e11	---
TOTAL	713	962	1130	1723	1189	2202	1157	1232	817	899	859	685.8
MEAN	23.0	32.1	36.5	55.6	42.5	71.0	38.6	39.7	27.2	29.0	27.7	22.9
MAX	30	110	119	409	148	580	87	103	58	122	71	117
MIN	19	21	23	27	28	38	30	27	21	18	11	7.0
CFSM	.44	.61	.70	1.06	.81	1.36	.74	.76	.52	.55	.53	.44
IN.	.51	.68	.80	1.22	.84	1.56	.82	.87	.58	.64	.61	.49
(†)	-1.8	--	--	--	--	--	--	--	-2.0	-2.9	-7.6	-1.0
MEAN≠	21.2	--	--	--	--	--	--	--	25.2	26.1	20.1	21.9
CFSM≠	0.40	--	--	--	--	--	--	--	0.48	0.50	0.38	.42
IN≠	0.46	--	--	--	--	--	--	--	0.54	0.58	0.44	.47

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 1995, BY WATER YEAR (WY)

MEAN	41.6	55.3	63.3	88.2	73.1	113	88.9	82.0	59.8	66.9	43.5	49.5
MAX	103	75.9	102	183	151	223	191	138	101	246	90.0	115
(WY)	1990	1990	1994	1994	1994	1994	1993	1989	1989	1989	1989	1989
MIN	23.0	32.1	36.5	37.9	40.8	65.0	38.6	39.7	27.2	29.0	27.7	22.9
(WY)	1995	1995	1995	1992	1992	1990	1995	1995	1995	1995	1995	1995

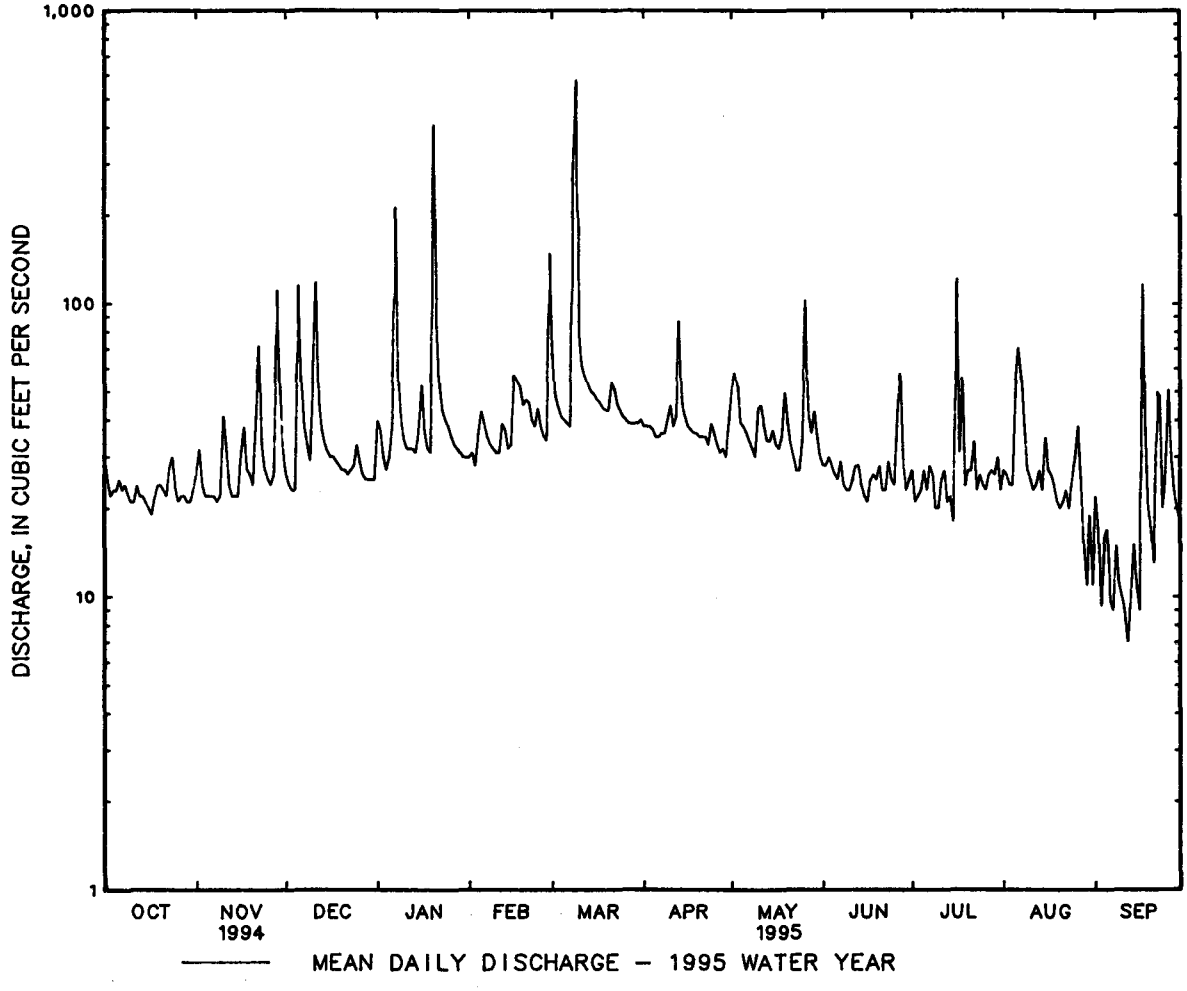
e Estimated
† Inflow in cubic feet per second, from Hoopes Reservoir for municipal supply.
≠ Adjusted for inflow.

01480015 RED CLAY CREEK NEAR STANTON, DE--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1989 - 1995	
ANNUAL TOTAL	28941		13568.8			
ANNUAL MEAN	79.3		37.2		68.8	
ANNUAL MEAN≠	78.9		35.9		68.3	
HIGHEST ANNUAL MEAN					94.7	1989
LOWEST ANNUAL MEAN					37.2	1995
HIGHEST DAILY MEAN	2370	Jan 28	580	Mar 9	2480	Jul 5 1989
LOWEST DAILY MEAN	18	Sep 21	(e)7.0	Sep 12	(e)7.0	Sep 12 1995
ANNUAL SEVEN-DAY MINIMUM	21	Sep 8	10	Sep 6	10	Sep 6 1995
INSTANTANEOUS PEAK FLOW			1850	Mar 8	5320	Jul 5 1989
INSTANTANEOUS PEAK STAGE			15.21	Mar 8	19.35	Jul 5 1989
INSTANTANEOUS LOW FLOW			UNKNOWN		(a)	(b)
ANNUAL RUNOFF (CFSM)	1.51		.71		1.31	
ANNUAL RUNOFF (CFSM)≠	1.51		.69		1.30	
ANNUAL RUNOFF (INCHES)	20.55		9.63		17.84	
ANNUAL RUNOFF (INCHES)≠	20.45		9.31		17.70	
10 PERCENT EXCEEDS	129		51		115	
50 PERCENT EXCEEDS	41		30		47	
90 PERCENT EXCEEDS	22		21		24	

≠ Adjusted for inflow since June 1994.
e Estimated.

a Minimum recordable flow was 10 ft^3/s, may have been less during periods of doubtful or no gage-height record.
b Late Aug. and early Sept. 1995.



01480095 LITTLE MILL CREEK NEAR NEWPORT, DE

LOCATION.--Lat 39°43'54", long 75°36'14", New Castle County, Hydrologic Unit 02040205, on left bank at downstream side of railroad bridge at the Wilsmere Yards, 0.5 mi downstream from Chestnut Run, 1.2 mi northeast Newport, and 3.1 mi upstream from mouth.

DRAINAGE AREA.--5.24 mi^2.

PERIOD OF RECORD.--October 1990 to September 1995 (Discontinued).

GAGE.--Water-stage recorder. Datum of gage is 58.74 ft above sea level.

REMARKS.--Records good below 400 ft^3/s, except those for estimated daily discharges (missing record) and those above 400 ft^3/s, which are poor. Several measurements of water temperature were made during the year.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 400 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 20	0720	*713	*4.64	July 16	0325	483	4.01
Mar. 8	2115	430	3.84				

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.4	6.1	2.3	8.5	2.6	8.2	3.0	5.0	2.0	2.5	1.1	e.81
2	2.7	2.9	2.1	3.8	2.6	5.1	3.0	19	4.1	1.9	1.2	e.74
3	1.7	1.9	2.1	2.3	2.3	4.2	3.0	4.2	8.4	1.3	1.3	e.72
4	1.6	2.1	2.0	2.3	6.5	4.1	3.0	2.6	2.3	1.3	1.5	e.71
5	1.6	1.8	50	2.1	3.4	3.8	2.8	2.5	1.9	1.5	3.9	e.70
6	1.6	2.1	6.0	23	2.2	3.8	2.9	2.1	1.9	1.5	31	e.76
7	1.7	2.2	3.4	53	2.3	3.6	3.0	1.9	8.2	5.8	2.4	e.72
8	1.7	2.0	2.8	6.1	2.3	83	3.0	1.7	2.2	1.5	1.4	e15
9	1.7	2.4	2.5	3.9	2.3	47	8.7	1.6	1.9	1.2	1.2	e4.8
10	2.1	12	31	3.2	2.9	8.5	6.4	15	1.8	1.2	1.2	e1.5
11	1.9	2.7	14	3.2	4.6	5.8	2.9	5.2	4.4	3.2	1.2	e1.0
12	2.9	1.9	4.4	3.2	3.1	4.7	13	2.1	7.9	14	1.2	e.98
13	2.3	1.9	3.4	2.9	2.2	4.2	19	1.9	2.3	1.5	1.5	e2.8
14	1.8	2.0	3.0	2.8	2.2	3.8	4.1	4.9	2.0	1.4	2.5	e3.6
15	1.6	2.0	2.7	4.4	6.0	3.7	3.5	3.0	1.7	1.3	1.2	e1.3
16	1.6	9.4	2.6	3.9	28	3.5	3.2	1.8	1.6	50	1.1	e1.2
17	1.7	2.9	3.0	2.8	8.8	3.3	3.0	2.9	1.4	3.6	1.2	e47
18	1.7	2.0	2.7	2.6	5.8	3.1	3.5	2.0	1.4	21	1.0	e6.7
19	1.7	2.3	2.5	2.6	5.1	3.0	4.6	19	1.3	1.8	.75	e1.7
20	1.8	1.8	2.4	110	4.9	3.0	4.6	2.4	1.3	1.4	.79	e1.5
21	1.9	20	2.3	9.1	5.5	18	4.3	1.8	1.3	1.6	.80	e3.2
22	2.2	6.3	2.4	4.7	3.8	6.8	3.1	1.6	1.3	8.6	.83	e42
23	13	2.3	2.3	3.6	5.2	4.1	2.8	1.5	1.6	2.1	.73	e8.7
24	3.0	2.0	3.2	3.2	7.0	3.6	9.1	1.5	4.8	3.4	.75	e2.7
25	2.0	1.9	2.7	2.9	3.6	3.4	2.9	18	1.5	1.8	e.72	e25
26	1.8	1.9	1.8	2.8	3.2	3.3	2.6	27	14	1.3	e.70	9.9
27	1.8	7.5	1.7	2.8	3.5	3.2	2.4	2.8	3.6	1.3	e.71	2.0
28	2.0	36	1.6	2.8	43	3.1	2.5	6.4	1.6	6.7	e.84	1.5
29	2.0	4.6	1.6	2.6	---	3.0	2.2	4.5	1.4	2.8	e.75	1.3
30	2.1	2.7	1.5	2.6	---	3.1	17	2.4	1.3	1.6	e.74	1.2
31	2.0	---	1.8	2.6	---	3.1	---	2.0	---	1.2	e.72	---
TOTAL	71.6	149.6	167.8	286.3	174.9	264.1	149.1	170.3	92.4	151.3	66.93	191.74
MEAN	2.31	4.99	5.41	9.24	6.25	8.52	4.97	5.49	3.08	4.88	2.16	6.39
MAX	13	36	50	110	43	83	19	27	14	50	31	47
MIN	1.6	1.8	1.5	2.1	2.2	3.0	2.2	1.5	1.3	1.2	.70	.70
CFSM	.44	.95	1.03	1.76	1.19	1.63	.95	1.05	.59	.93	.41	1.22
IN.	.51	1.06	1.19	2.03	1.24	1.87	1.06	1.21	.66	1.07	.48	1.36

e Estimated

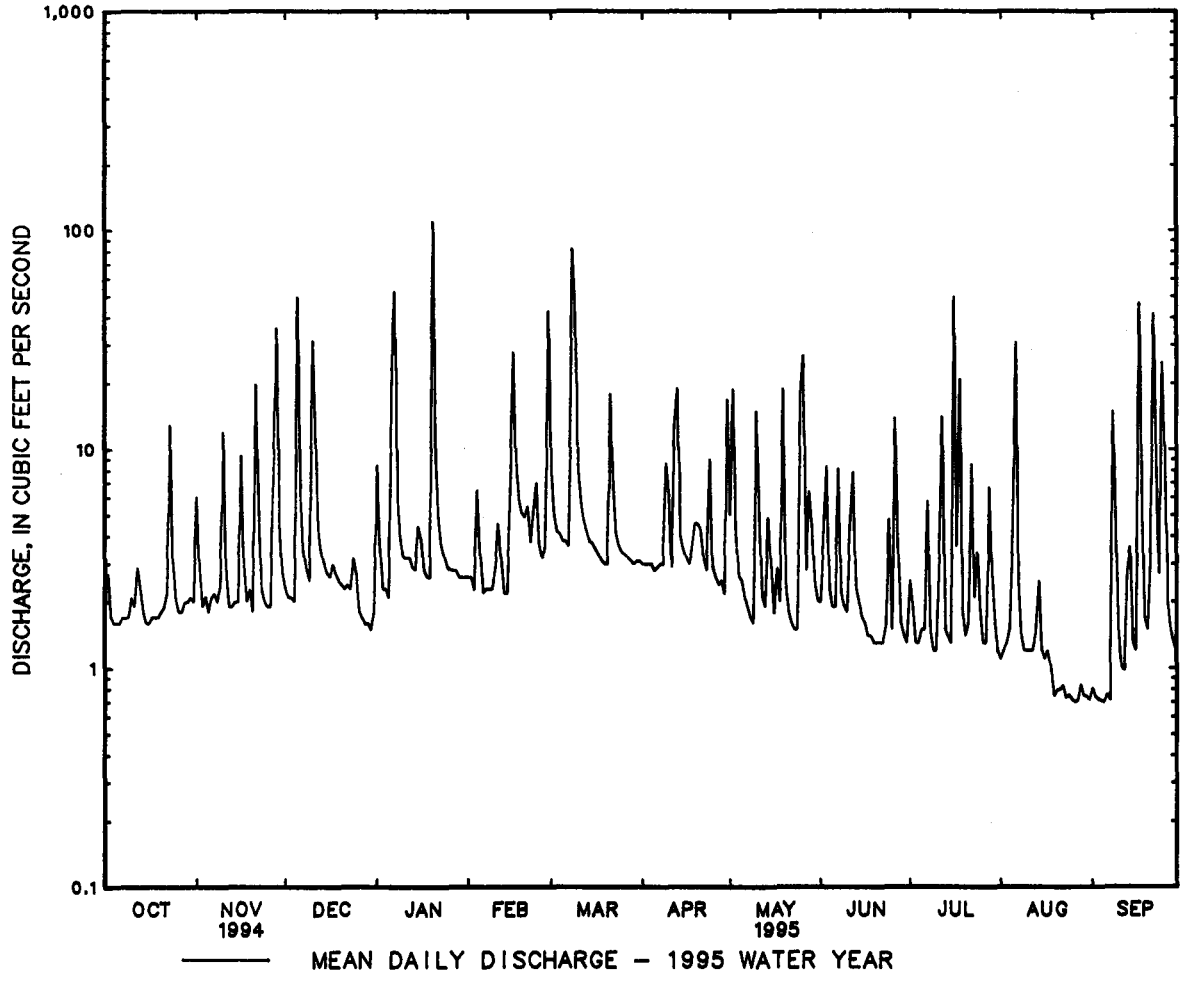
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 1995, BY WATER YEAR (WY)

MEAN	2.96	5.27	8.46	10.1	7.97	15.4	9.98	6.79	4.97	7.14	4.88	6.00
MAX	4.34	8.30	11.1	15.9	15.0	24.8	19.8	8.24	6.38	16.5	9.10	9.87
(WY)	1994	1994	1991	1994	1994	1994	1993	1993	1991	1994	1994	1993
MIN	1.99	3.06	5.41	3.66	4.59	8.52	4.97	4.74	3.08	2.97	2.16	3.29
(WY)	1993	1992	1995	1992	1991	1995	1995	1991	1995	1993	1995	1994

01480095 LITTLE MILL CREEK NEAR NEWPORT, DE--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1991 - 1995	
ANNUAL TOTAL	3637.3		1936.07			
ANNUAL MEAN	9.97		5.30		7.50	
HIGHEST ANNUAL MEAN					10.8	1994
LOWEST ANNUAL MEAN					5.28	1992
HIGHEST DAILY MEAN	(e)200	Jan 28	110	Jan 20	200	Jan 28 1994
LOWEST DAILY MEAN	1.2	(a)	(e).70	(b)	(e).70	(b)
ANNUAL SEVEN-DAY MINIMUM	1.3	Sep 11	.73	Aug 30	.73	Aug 30 1995
INSTANTANEOUS PEAK FLOW			713	Jan 20	(c)1320	Jul 31 1994
INSTANTANEOUS PEAK STAGE			4.64	Jan 20	6.51	Jan 11 1991
INSTANTANEOUS LOW FLOW			UNKNOWN		UNKNOWN	
ANNUAL RUNOFF (CFSM)	1.90		1.01		1.43	
ANNUAL RUNOFF (INCHES)	25.82		13.74		19.44	
10 PERCENT EXCEEDS	23		8.9		15	
50 PERCENT EXCEEDS	3.8		2.6		3.2	
90 PERCENT EXCEEDS	1.7		1.2		1.5	

e Estimated.
a Sept. 19, 21.
b Aug. 26 and Sept. 5, 1995.
c From rating curve extended above 400 ft^3/s.



01481500 BRANDYWINE CREEK AT WILMINGTON, DE

LOCATION.--Lat 39°46'09", long 75°34'25", New Castle County, Hydrologic Unit 02040205, on right bank in Rockford Park, 0.2 mi downstream from Rising Sun Bridge, in Wilmington, and 4.2 mi upstream from mouth.

DRAINAGE AREA.--314 mi^2.

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

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 68.23 ft above sea level.

REMARKS.--Records good exept those for estimated daily discharges (ice effect), 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. 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.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 20	2000	4,050	6.94	Mar. 9	1100	*7,730	*9.06

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	157	150	218	231	279	791	321	427	261	226	93	57
2	180	192	197	292	281	471	319	406	253	190	91	57
3	166	164	188	247	274	398	318	596	258	144	90	54
4	152	145	188	190	281	376	317	382	262	131	92	54
5	146	137	518	128	e290	363	320	322	250	143	117	54
6	145	142	571	166	e250	365	322	293	245	147	202	53
7	142	149	353	1210	e240	358	326	278	250	168	210	53
8	142	142	307	615	e250	832	322	268	242	203	138	68
9	141	139	281	341	e260	5130	334	264	232	138	109	76
10	145	171	329	304	e260	1120	401	317	229	121	103	65
11	140	164	768	281	e250	783	343	350	231	132	97	57
12	138	144	385	286	e240	669	331	336	245	139	94	53
13	137	140	295	283	e230	637	538	290	248	123	110	52
14	139	139	442	288	e240	807	377	276	240	118	115	63
15	141	138	431	321	241	760	326	360	223	112	176	70
16	138	150	419	583	363	448	311	313	197	254	185	56
17	137	165	246	356	422	423	299	281	177	305	108	659
18	136	156	239	276	386	384	296	293	152	342	94	316
19	135	151	224	259	347	371	295	334	143	208	89	120
20	137	143	207	1810	381	357	291	303	134	136	87	92
21	146	163	203	1520	393	398	286	276	135	434	85	86
22	137	356	186	608	365	414	292	266	130	406	80	150
23	145	244	180	459	330	357	283	255	140	210	77	230
24	306	193	185	450	387	337	301	251	205	171	73	130
25	185	174	236	427	415	323	291	268	180	146	73	130
26	153	170	203	380	338	323	278	516	199	131	66	274
27	147	167	179	349	324	338	271	296	553	118	65	211
28	140	485	168	316	931	337	269	263	248	116	68	132
29	137	476	162	283	---	332	263	320	201	161	73	110
30	138	275	156	279	---	329	286	365	173	128	72	99
31	140	---	141	277	---	328	---	294	---	103	65	---
TOTAL	4668	5724	8805	13815	9248	19659	9527	10059	6636	5604	3197	3681
MEAN	151	191	284	446	330	634	318	324	221	181	103	123
MAX	306	485	768	1810	931	5130	538	596	553	434	210	659
MIN	135	137	141	128	230	323	263	251	130	103	65	52
†	-0.5	+3.7	-26.8	-2.0	+12.1	+15.6	-1.0	-0.02	-1.2	+1.1	-9.1	-3.9
MEAN≠	150	195	257	444	342	650	317	324	220	182	93.9	119
CFSM≠	0.48	0.62	0.82	1.41	1.09	2.07	1.01	1.03	0.70	0.58	0.30	0.38
IN≠	0.55	0.69	0.94	1.63	1.14	2.39	1.13	1.19	0.79	0.67	0.35	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	223	356	434	498	681	734	696	559	435	330	315	284
MAX	860	794	979	1052	1454	1206	1406	1087	1343	749	1436	1403
(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 MEAN	461	
HIGHEST ANNUAL MEAN	732	1972
LOWEST ANNUAL MEAN	252	1954
HIGHEST DAILY MEAN	14300	Jun 23 1972
LOWEST DAILY MEAN	56	Aug 23 1957
ANNUAL SEVEN-DAY MINIMUM	59	Aug 18 1957
INSTANTANEOUS PEAK FLOW	(a)29000	Jun 23 1972
INSTANTANEOUS 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	

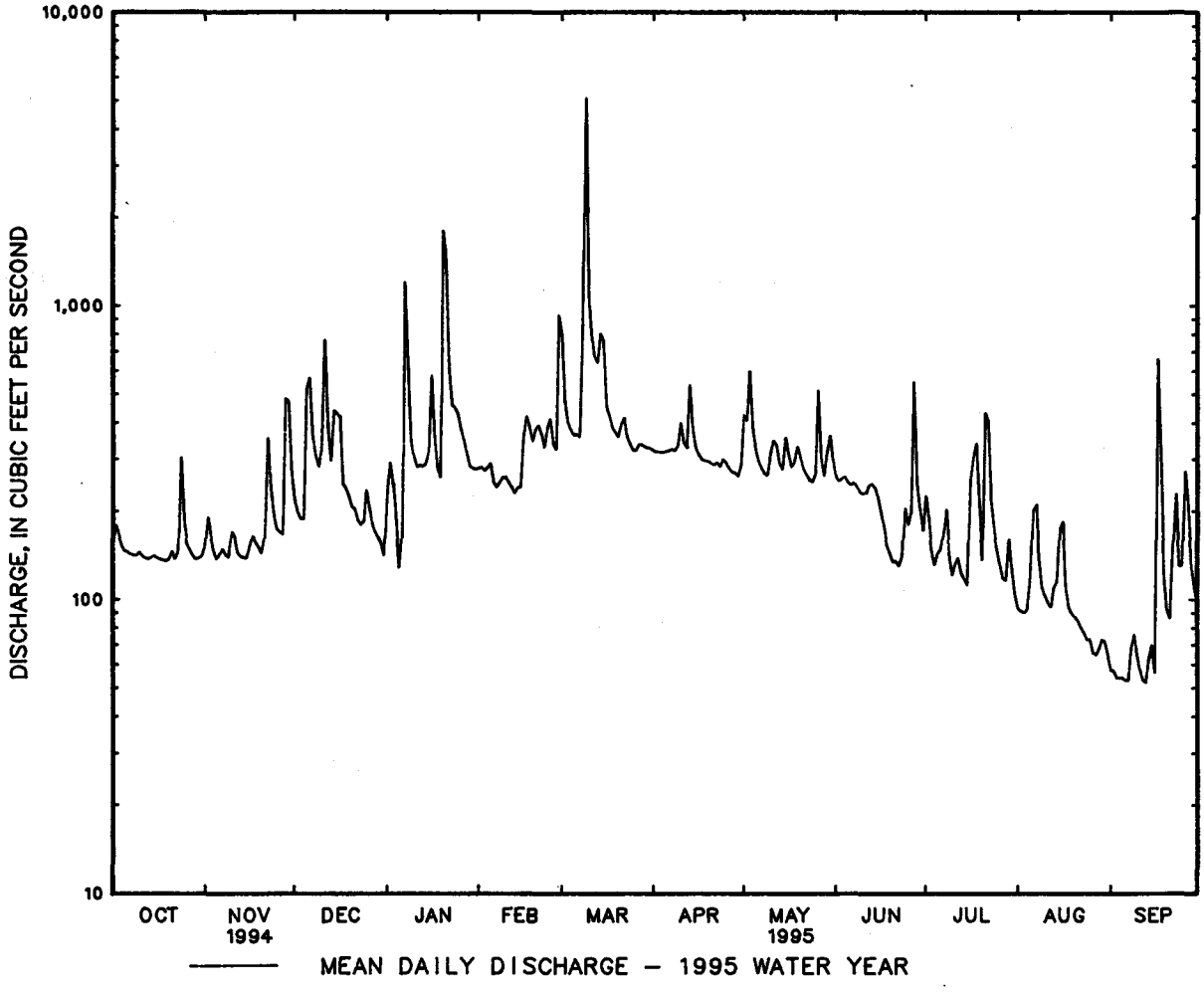
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1974 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	279	353	510	610	635	747	710	609	448	405	261	289
MAX	918	793	1306	1868	1610	1839	1773	1168	1079	1243	502	1095
(WY)	1980	1980	1984	1979	1979	1994	1983	1989	1975	1975	1989	1979
MIN	125	157	145	119	246	230	223	304	172	161	103	108
(WY)	1987	1982	1981	1981	1992	1981	1985	1977	1985	1986	1995	1980

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1974 - 1995	
ANNUAL TOTAL	200930		100623			
ANNUAL MEAN	550		276		487	
ANNUAL MEAN≠	550		274		488	
HIGHEST ANNUAL MEAN					835	1984
LOWEST ANNUAL MEAN					228	1981
HIGHEST DAILY MEAN	6550	Jan 29	5130	Mar 9	12100	Jan 25 1979
LOWEST DAILY MEAN	132	Sep 14	52	Sep 13	52	Sep 13 1995
ANNUAL SEVEN-DAY MINIMUM	136	Sep 11	55	Sep 1	55	Sep 1 1995
INSTANTANEOUS PEAK FLOW			7730	Mar 9	22400	Jan 25 1979
INSTANTANEOUS PEAK STAGE			9.06	Mar 9	13.22	Jan 25 1979
INSTANTANEOUS LOW FLOW			40	Aug 26	40	Aug 26 1995
ANNUAL RUNOFF (CFSM)	1.75		.88		1.55	
ANNUAL RUNOFF (CFSM)≠	1.75		.87		1.58	
ANNUAL RUNOFF (INCHES)	23.80		11.92		21.08	
ANNUAL RUNOFF (INCHES)≠	23.83		11.85		21.54	
10 PERCENT EXCEEDS	1190		422		903	
50 PERCENT EXCEEDS	307		240		343	
90 PERCENT EXCEEDS	143		94		141	

a From rating curve extended above 18,000 ft^3/s.
b During period of ice effect.
≠ Adjusted for change in reservoir contents since November 1973.

01481500 BRANDYWINE CREEK AT WILMINGTON, DE--Continued



01483200 BLACKBIRD CREEK AT BLACKBIRD, DE

LOCATION.--Lat 39°21'58", long 75°40'10", New Castle County, Hydrologic Unit 02040205, on left bank 15 ft downstream from highway culverts, 0.5 mi upstream from Barlow Branch, 0.6 mi southwest of Blackbird, 5.6 mi northwest of Smyrna, and 13.8 mi upstream from mouth.

DRAINAGE AREA.--3.85 mi^2.

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

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

GAGE.--Water-stage recorder. Concrete control since May 23, 1968. Datum of gage is 17.89 ft above sea level. 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. 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.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar. 9	0445	*85	*2.81	Aug. 6	1845	55	2.32

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.8	1.7	2.4	3.2	3.2	8.9	3.2	5.2	2.2	.82	.09	.20
2	2.5	1.8	2.3	2.9	3.2	4.7	3.2	6.5	2.0	.96	.12	.18
3	1.7	1.3	2.1	2.5	2.9	3.9	3.2	5.2	2.3	1.1	.10	.16
4	1.6	1.3	2.1	2.4	5.7	3.9	3.2	3.5	2.1	1.0	.08	.15
5	1.5	1.4	6.1	1.9	5.3	3.8	3.0	3.1	1.9	1.1	.09	.10
6	1.4	1.7	4.5	2.9	3.1	3.6	3.0	2.7	1.8	1.1	19	.11
7	1.4	1.3	2.8	23	2.5	3.5	3.0	2.4	2.5	1.1	12	.10
8	1.4	1.3	2.5	9.1	2.5	13	3.1	2.2	1.8	1.0	1.7	.08
9	1.5	1.3	2.2	4.2	2.5	44	3.8	2.1	1.4	1.0	.79	.07
10	1.5	2.6	4.2	3.6	2.9	11	4.2	11	1.4	.93	.81	.08
11	1.3	2.6	7.3	3.5	3.8	7.8	3.3	7.6	1.4	1.2	.61	.07
12	1.4	1.6	3.5	3.5	3.7	6.3	3.6	4.2	1.7	1.5	.58	.06
13	1.4	1.4	2.8	3.3	2.6	5.6	11	3.3	1.7	1.4	.56	.05
14	1.6	1.6	2.6	3.2	2.6	5.5	5.1	3.3	1.6	1.2	.58	.07
15	1.5	1.7	2.5	3.5	3.1	5.1	3.8	4.2	1.5	1.0	.67	.07
16	1.4	2.0	2.4	3.6	6.1	4.9	3.2	3.1	1.4	.88	.69	.08
17	1.3	1.8	2.6	3.0	5.7	4.6	3.1	5.8	1.6	.78	.69	.11
18	1.3	2.4	2.7	2.9	4.4	4.3	3.0	9.4	1.7	.79	.67	.36
19	1.3	4.5	2.4	3.0	3.9	4.2	2.9	11	1.7	.77	.61	.49
20	1.3	2.7	2.3	24	3.9	4.2	2.5	7.9	1.6	.69	.54	.45
21	1.3	3.8	2.3	13	4.0	8.4	2.6	4.3	1.5	.50	.46	.45
22	1.2	6.0	2.3	5.4	3.7	7.6	2.6	2.9	1.2	.28	.41	.45
23	2.0	2.9	2.4	4.0	3.4	4.6	2.3	2.4	1.2	.23	.38	.51
24	2.9	2.3	2.9	3.9	3.8	4.2	3.6	2.1	1.5	.24	.36	.62
25	1.6	2.3	3.6	3.6	3.3	3.9	2.9	3.4	1.5	.17	.30	.65
26	1.3	2.0	2.7	3.5	3.2	3.7	2.4	10	1.4	.13	.24	1.4
27	1.4	2.2	2.4	3.3	3.2	3.6	2.2	4.3	1.3	.14	.30	1.5
28	1.3	7.3	2.4	3.3	10	3.4	2.2	3.2	.71	.13	.26	.88
29	1.3	4.3	2.4	3.2	---	3.5	2.1	3.8	.59	.10	.22	.77
30	1.3	2.8	2.2	3.2	---	3.5	3.5	3.1	.68	.10	.24	.65
31	1.5	---	2.1	3.2	---	3.5	---	2.5	---	.09	.23	---
TOTAL	47.2	73.9	90.0	158.8	108.2	202.7	100.8	145.7	46.88	22.43	44.38	10.92
MEAN	1.52	2.46	2.90	5.12	3.86	6.54	3.36	4.70	1.56	.72	1.43	.36
MAX	2.9	7.3	7.3	24	10	44	11	11	2.5	1.5	19	1.5
MIN	1.2	1.3	2.1	1.9	2.5	3.4	2.1	2.1	.59	.09	.08	.05
CFSM	.40	.64	.75	1.33	1.00	1.70	.87	1.22	.41	.19	.37	.09
IN.	.46	.71	.87	1.53	1.05	1.96	.97	1.41	.45	.22	.43	.11

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1957 - 1995, BY WATER YEAR (WY)

MEAN	2.35	3.44	4.81	6.20	7.11	8.51	7.48	5.43	3.53	2.87	1.97	2.11
MAX	8.83	10.4	14.8	18.1	19.2	20.3	21.0	13.9	24.4	17.0	6.80	12.2
(WY)	1972	1957	1973	1978	1979	1958	1983	1989	1972	1989	1971	1960
MIN	.30	.73	.71	1.51	2.44	1.98	2.16	1.26	.54	.077	.013	.21
(WY)	1969	1966	1966	1981	1992	1966	1966	1977	1966	1966	1966	1968

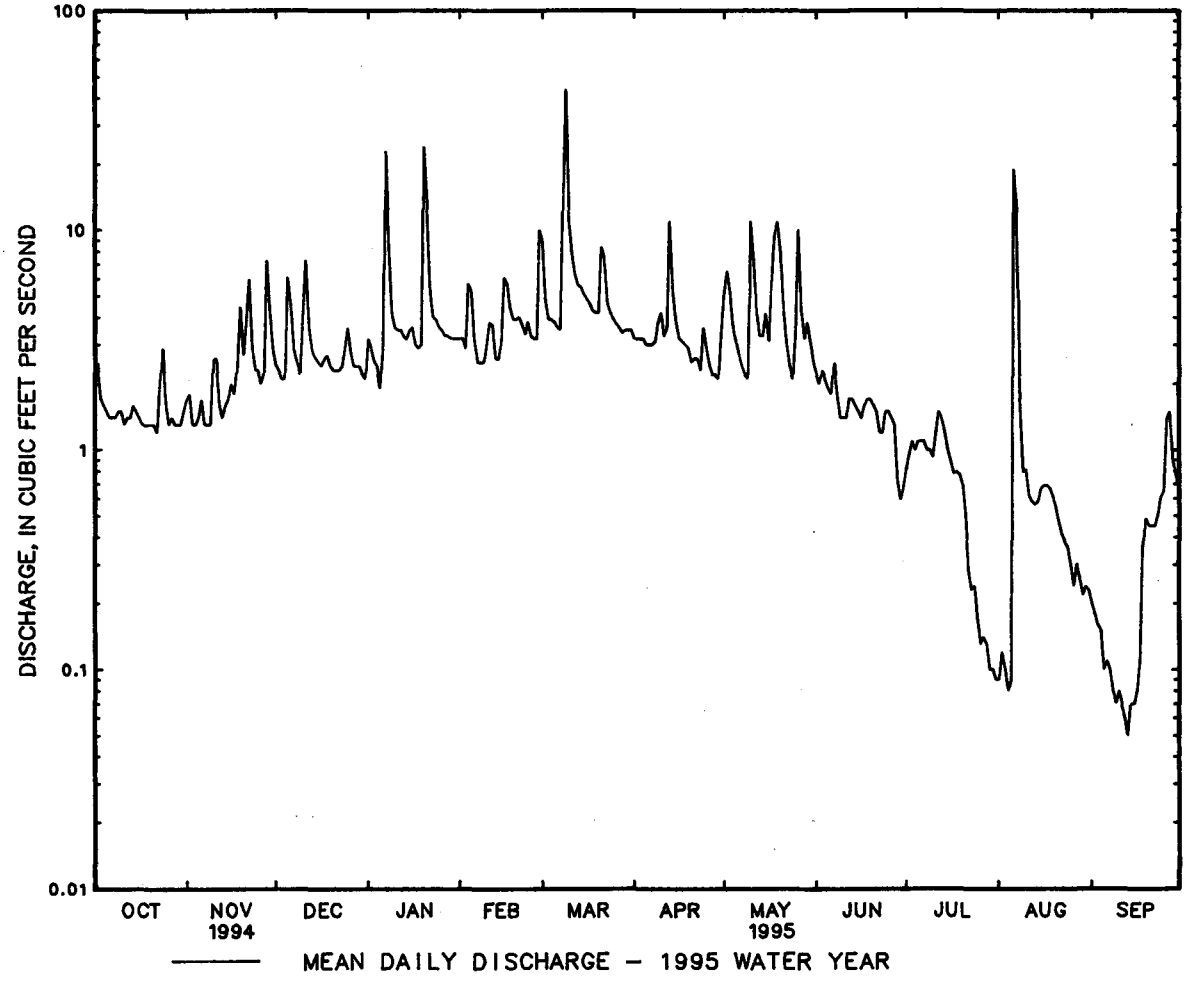
01483200 BLACKBIRD CREEK AT BLACKBIRD, DE--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1957 - 1995	
ANNUAL TOTAL	2101.00		1051.91			
ANNUAL MEAN	5.76		2.88		4.64	
HIGHEST ANNUAL MEAN					9.05	1972
LOWEST ANNUAL MEAN					1.40	1966
HIGHEST DAILY MEAN	120	Mar 3	44	Mar 9	338	Jun 22 1972
LOWEST DAILY MEAN	.70	Jun 28	.05	Sep 13	.00	(a)
ANNUAL SEVEN-DAY MINIMUM	1.2	Jul 8	.07	Sep 9	.00	Jul 17 1966
INSTANTANEOUS PEAK FLOW			85	Mar 9	(b)712	Jun 22 1972
INSTANTANEOUS PEAK STAGE			2.81	Mar 9	5.04	Jun 22 1972
INSTANTANEOUS LOW FLOW			.04	Sep 13	.00	(c)
ANNUAL RUNOFF (CFSM)	1.50		.75		1.20	
ANNUAL RUNOFF (INCHES)	20.30		10.16		16.37	
10 PERCENT EXCEEDS	12		5.2		9.5	
50 PERCENT EXCEEDS	2.8		2.3		2.7	
90 PERCENT EXCEEDS	1.3		.27		.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 200 ft^3/s on basis of Type III culvert measurement of peak flow.

c No flow at times during 1964-66, 1969.



01483700 ST. JONES RIVER AT DOVER, DE

LOCATION.--Lat 39°09'49", long 75°31'10", Kent County, Hydrologic Unit 02040207, on left bank 150 ft upstream from Division Street Bridge in Dover, 1,950 ft downstream from Silver Lake, and 12.5 mi upstream from mouth.

DRAINAGE AREA.--31.9 mi^2.

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

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

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

PEAK DISCHARGE FOR CURRENT YEAR.--Peak discharge, 299 ft^3/s, Mar. 10, gage height, 4.31 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	19	19	17	23	57	23	32	9.9	5.9	1.7	e1.1
2	16	4.4	16	20	23	51	22	39	9.0	6.4	1.7	e1.4
3	13	3.2	14	16	20	37	21	38	10	4.9	1.4	e1.7
4	12	2.2	14	15	36	32	22	27	10	3.9	1.4	e1.2
5	11	2.2	26	11	38	28	16	22	8.7	3.7	1.7	e1.2
6	9.8	2.1	30	16	e30	28	16	17	8.8	4.7	101	e1.1
7	9.7	2.1	29	83	25	27	18	14	13	8.5	e130	e1.2
8	9.5	2.2	21	98	19	55	17	13	13	6.9	e69	e1.5
9	9.4	1.6	17	74	17	228	20	12	9.3	4.0	e22	e1.8
10	9.2	1.8	24	41	17	250	23	83	7.3	e3.3	11	e3.3
11	7.8	3.0	32	28	21	141	22	100	7.3	e4.1	8.1	e1.7
12	7.5	3.0	29	25	26	83	22	62	9.4	e3.3	e7.1	e1.2
13	8.3	2.9	24	23	23	61	45	32	10	e3.3	e5.6	1.3
14	27	2.9	19	22	18	53	46	26	e12	e2.6	3.9	1.4
15	47	2.9	18	24	21	45	30	28	e10	2.7	3.6	1.3
16	45	2.9	16	25	51	40	23	23	8.7	e1.8	e3.9	e1.4
17	44	e3.9	17	23	70	39	19	19	7.4	e1.6	e4.1	45
18	43	e4.1	18	20	57	33	18	25	6.1	1.8	e3.1	28
19	41	3.3	17	20	42	31	18	39	5.3	1.8	e3.5	11
20	40	2.8	16	93	36	30	16	41	5.0	1.2	e3.5	5.7
21	39	4.6	15	144	43	51	16	29	4.7	1.2	e1.9	3.9
22	38	1.8	14	114	41	63	17	18	4.6	e1.2	1.8	15
23	36	17	15	69	34	50	14	13	12	2.1	1.5	19
24	32	21	e17	44	32	39	19	11	18	10	1.5	9.5
25	30	16	e18	33	26	32	20	15	14	21	1.3	e8.5
26	29	14	21	30	25	28	16	31	9.6	13	e1.2	e14
27	15	15	17	27	24	26	14	27	8.5	6.8	1.4	11
28	5.1	31	15	26	41	26	14	16	e7.4	4.7	e1.2	7.7
29	1.3	32	14	25	---	25	12	15	e6.2	4.1	e1.4	e5.4
30	1.7	27	12	24	---	25	20	14	5.4	3.4	e1.5	e4.1
31	23	---	12	23	---	25	---	12	---	2.0	e1.2	---
TOTAL	673.3	251.9	586	1253	879	1739	619	893	270.6	145.9	403.2	211.6
MEAN	21.7	8.40	18.9	40.4	31.4	56.1	20.6	28.8	9.02	4.71	13.0	7.05
MAX	47	32	32	144	70	250	46	100	18	21	130	45
MIN	1.3	1.6	12	11	17	25	12	11	4.6	1.2	1.2	1.1
CFSM	.68	.26	.59	1.27	.98	1.76	.65	.90	.28	.15	.41	.22
IN.	.79	.29	.68	1.46	1.03	2.03	.72	1.04	.32	.17	.47	.25

e Estimated

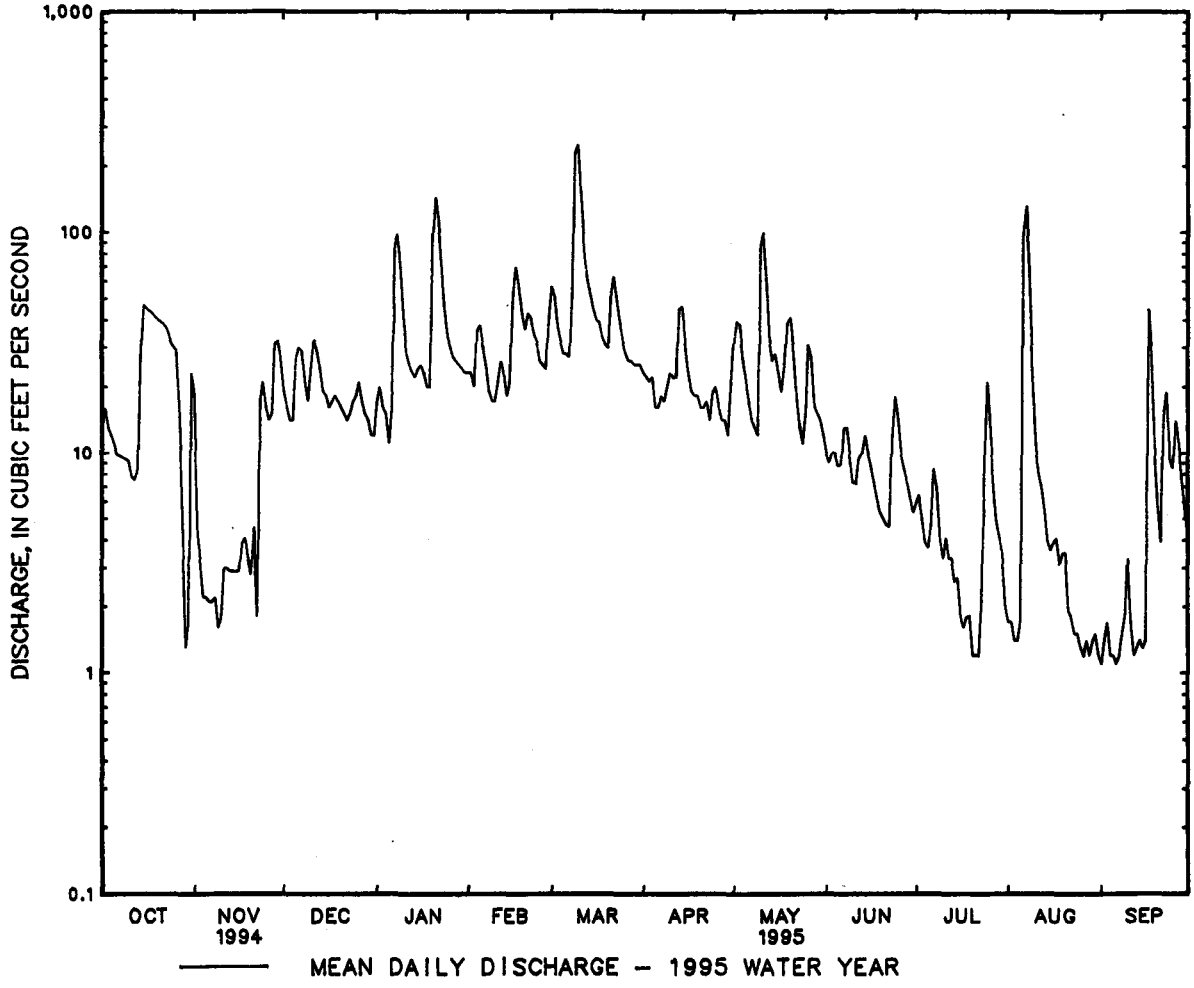
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1958 - 1995, BY WATER YEAR (WY)

MEAN	19.1	24.3	35.6	49.9	57.8	73.9	57.3	36.8	27.1	18.3	23.6	19.8
MAX	93.5	103	131	156	141	187	180	117	122	88.6	144	128
(WY)	1972	1973	1973	1978	1961	1994	1983	1989	1989	1975	1958	1960
MIN	.40	1.91	1.35	1.64	11.0	10.7	13.5	9.86	4.36	2.10	.69	1.92
(WY)	1964	1962	1966	1966	1966	1966	1966	1963	1986	1966	1966	1970

01483700 ST. JONES RIVER AT DOVER, DE--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1958 - 1995	
ANNUAL TOTAL	18206.8		7925.5			
ANNUAL MEAN	49.9		21.7		36.0	
HIGHEST ANNUAL MEAN					69.3	1972
LOWEST ANNUAL MEAN					6.14	1966
HIGHEST DAILY MEAN	751	Mar 29	250	Mar 10	1460	Sep 13 1960
LOWEST DAILY MEAN	1.3	Oct 29	1.1	Sep 1	.00	(a)
ANNUAL SEVEN-DAY MINIMUM	2.0	Nov 4	1.3	Aug 31	.40	Sep 30 1963
INSTANTANEOUS PEAK FLOW			299	Mar 10	1900	Sep 13 1960
INSTANTANEOUS PEAK STAGE			4.31	Mar 10	(b)9.45	Sep 13 1960
INSTANTANEOUS LOW FLOW			.67	(c)	.00	(d)
ANNUAL RUNOFF (CFSM)	1.56		.68		1.13	
ANNUAL RUNOFF (INCHES)	21.23		9.24		15.35	
10 PERCENT EXCEEDS	118		43		84	
50 PERCENT EXCEEDS	24		16		20	
90 PERCENT EXCEEDS	6.8		1.8		3.7	

a July 9, 1959, May 9, 10, 1961.
b From floodmarks.
c Nov. 9, 10.
d No flow at times in 1959, 1961, 1962.



01484100 BEAVERDAM BRANCH AT HOUSTON, DE

LOCATION.--Lat 38°54'20", long 75°30'49", Kent County, Hydrologic Unit 02040207, on left bank 15 ft upstream from culverts on State Highway 384, 0.8 mi south of Houston, and 1.2 mi upstream from Blairs Pond and mouth.

DRAINAGE AREA.--2.83 mi^2.

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

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

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

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.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
July 2	0430	*47	*3.51	No other peak greater than base discharge.			

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.8	2.2	2.5	2.4	3.3	3.4	2.9	2.6	2.1	8.3	2.0	1.0
2	2.9	2.0	2.5	2.3	3.1	3.2	2.9	3.2	2.1	25	2.0	.95
3	2.7	1.7	2.5	2.1	3.0	3.0	2.8	2.8	2.5	3.4	1.9	.90
4	2.6	1.7	2.5	2.2	5.5	2.9	2.9	2.5	4.1	2.7	1.9	.89
5	2.6	1.7	3.0	2.0	4.3	2.9	2.8	2.8	2.4	2.5	1.9	.90
6	2.6	1.7	2.8	2.2	3.4	2.9	2.8	2.6	2.3	2.5	2.4	.90
7	2.5	1.8	2.8	6.5	3.2	3.0	2.7	2.4	2.5	2.6	2.1	.90
8	2.4	1.8	2.5	3.4	3.1	3.7	2.6	2.3	2.2	2.4	1.9	.83
9	2.4	1.8	2.5	3.1	3.0	9.4	2.6	2.3	2.0	2.3	1.9	.80
10	2.3	2.0	2.8	2.9	3.1	4.6	2.7	5.8	2.0	2.2	1.9	.87
11	2.3	1.9	3.0	2.9	3.1	4.1	2.6	4.0	2.0	2.1	1.8	.81
12	2.2	1.8	2.7	2.9	3.0	3.9	2.7	3.3	2.1	2.0	1.8	.77
13	2.2	1.8	2.6	2.8	2.8	3.9	4.7	3.0	2.4	2.0	1.7	.75
14	2.3	1.8	2.6	2.8	2.8	3.7	3.2	2.9	2.3	1.9	1.6	.73
15	2.1	1.8	2.6	2.9	2.9	3.7	2.9	2.9	2.0	1.9	1.5	.67
16	2.0	1.8	2.6	2.9	3.6	3.6	2.8	2.7	1.8	1.9	1.5	.70
17	2.0	2.1	2.7	2.8	3.4	3.5	2.8	2.7	1.8	1.8	1.5	1.7
18	2.0	2.3	2.7	2.8	3.2	3.3	2.7	5.0	1.7	2.5	1.4	1.1
19	2.0	2.8	2.6	2.8	3.1	3.3	2.7	6.2	1.7	1.8	1.4	.94
20	2.0	2.2	2.4	9.5	3.1	3.3	2.6	3.6	1.7	1.7	1.4	.88
21	2.0	3.1	2.3	5.5	3.5	4.0	2.6	3.1	1.6	1.7	1.4	.86
22	1.9	3.7	2.3	4.1	3.2	3.7	2.6	2.9	1.6	4.2	1.3	1.2
23	2.2	2.7	2.3	3.7	3.1	3.4	2.5	2.7	2.2	6.1	1.2	1.4
24	2.1	2.5	2.4	3.6	3.1	3.3	3.3	2.5	2.1	6.0	1.2	1.1
25	2.0	2.5	2.4	3.5	2.9	3.1	2.8	2.5	1.9	9.0	1.2	1.3
26	1.9	2.5	2.3	3.5	2.9	3.1	2.6	3.4	1.8	2.8	1.2	1.5
27	1.9	2.6	2.2	3.3	2.9	3.1	2.3	2.7	1.8	2.5	1.2	1.1
28	1.9	3.2	2.3	3.3	3.4	3.1	2.3	2.5	1.8	2.4	1.2	.92
29	1.8	2.8	2.2	3.3	---	3.1	2.2	2.5	1.7	2.3	1.1	.85
30	1.7	2.6	2.1	3.3	---	2.9	2.6	2.4	1.6	2.2	1.1	.80
31	1.7	---	2.1	3.3	---	2.9	---	2.3	---	2.1	1.1	---
TOTAL	68.0	66.9	77.8	104.6	91.0	111.0	83.2	95.1	61.8	114.8	48.7	29.02
MEAN	2.19	2.23	2.51	3.37	3.25	3.58	2.77	3.07	2.06	3.70	1.57	.97
MAX	2.9	3.7	3.0	9.5	5.5	9.4	4.7	6.2	4.1	25	2.4	1.7
MIN	1.7	1.7	2.1	2.0	2.8	2.9	2.2	2.3	1.6	1.7	1.1	.67
CFSM	.78	.79	.89	1.19	1.15	1.27	.98	1.08	.73	1.31	.56	.34
IN.	.89	.88	1.02	1.37	1.20	1.46	1.09	1.25	.81	1.51	.64	.38

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1958 - 1995, BY WATER YEAR (WY)

MEAN	1.79	2.03	3.08	4.37	5.20	6.36	5.54	4.37	3.03	2.76	2.35	2.02
MAX	4.69	6.55	11.5	10.7	14.6	18.0	11.0	10.5	6.17	16.8	9.38	10.1
(WY)	1959	1973	1973	1978	1961	1994	1983	1984	1979	1975	1967	1960
MIN	.37	.44	.48	.57	1.06	1.70	1.90	1.88	1.22	.42	.51	.44
(WY)	1987	1988	1966	1966	1966	1966	1985	1977	1986	1977	1987	1986

01484100 BEAVERDAM BRANCH AT HOUSTON, DE--Continued

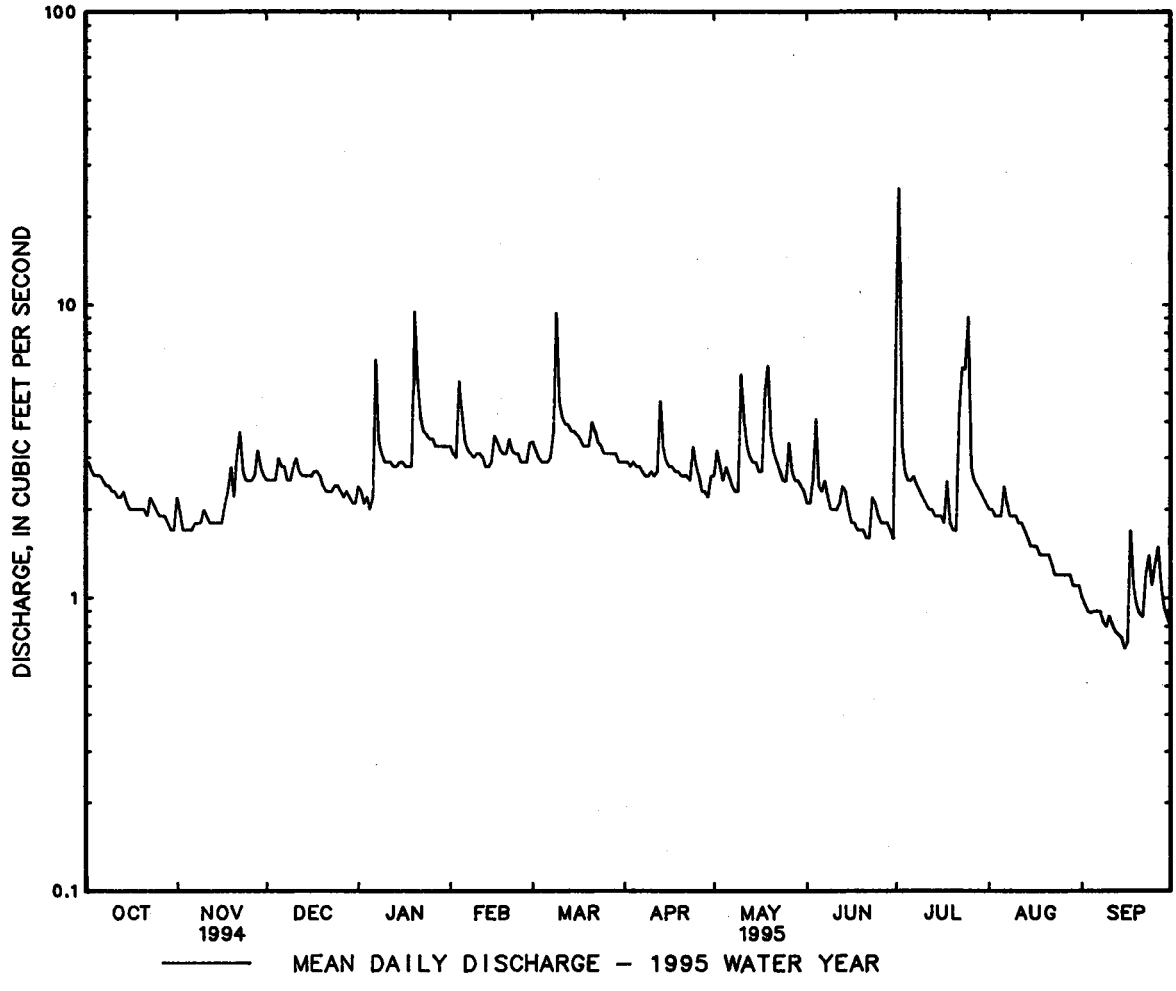
SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1958 - 1995	
ANNUAL TOTAL	1961.2		951.92			
ANNUAL MEAN	5.37		2.61		3.53	
HIGHEST ANNUAL MEAN					5.86	1961
LOWEST ANNUAL MEAN					1.20	1966
HIGHEST DAILY MEAN	93	Mar 3	25	Jul 2	98	May 30 1984
LOWEST DAILY MEAN	1.6	Jun 26	.67	Sep 15	(a).00	Jul 28 1977
ANNUAL SEVEN-DAY MINIMUM	1.7	Nov 3	.76	Sep 10	.06	Jul 19 1977
INSTANTANEOUS PEAK FLOW			47	Jul 2	(b)176	Sep 12 1960
INSTANTANEOUS PEAK STAGE			3.51	Jul 2	5.55	Sep 12 1960
INSTANTANEOUS LOW FLOW			.63	(c)	(a).00	(d)
ANNUAL RUNOFF (CFSM)	1.90		.92		1.25	
ANNUAL RUNOFF (INCHES)	25.78		12.51		16.95	
10 PERCENT EXCEEDS	9.7		3.5		6.5	
50 PERCENT EXCEEDS	3.0		2.5		2.7	
90 PERCENT EXCEEDS	2.0		1.3		.80	

a Result of pumpage for irrigation.

b From rating curve extended above 75 ft^3/s.

c Sept. 15, 16.

d July 18-30, 1977.



01484450 DELAWARE BAY NEAR LEWES, DE

LOCATION.--Lat 38°47'30", long 75°06'17", Sussex County, Hydrologic Unit 02040204, at east end of fishing pier at Cape Henlopen State Park, in Breakwater Harbor, 2.4 mi southeast of Lewes, and 1.1 mi southwest from mouth of the Delaware Bay.

PERIOD OF DAILY RECORD.--January 1993 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: January 1993 to current year.
WATER TEMPERATURE: January 1993 to current year.

INSTRUMENTATION.--Water-quality monitor.

REMARKS.--Records good. Interruption of the daily specific conductance and temperature record was caused by the probes being out of the water at times during low tide for the period November to March.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 53,900 microsiemens, Aug. 2, 3, 1995; minimum, 23,700 microsiemens, Aug. 18, 1994.
WATER TEMPERATURE: Maximum, 27.1°C, July 25, 1995; minimum, 0.0°C, on many days during winter periods.

EXTREMES FOR CURRENT PERIOD.--
SPECIFIC CONDUCTANCE: Maximum, 53,900 microsiemens, Aug. 2, 3; minimum, 32,000 microsiemens, Aug. 24.
WATER TEMPERATURE: Maximum, 27.1°C, July 25; minimum, 0.0°C, on many days during winter periods.

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	44000	42200	43100	47500	46600	47000	45000	43900	44400	44000	41900	e42700
2	43700	43000	43400	47100	45300	46200	45100	44000	44700	43500	41000	e42600
3	43800	42700	43300	47100	45900	46300	45000	44200	44700	43800	41600	e42400
4	43300	42200	42900	47400	46400	46900	44800	43900	44500	44400	42800	e43400
5	43600	42600	43100	47400	46300	46900	44900	44100	44500	43400	40200	e41000
6	43400	42800	43000	47400	46500	46900	46400	44300	e45400	44600	41100	e42900
7	44100	42900	43500	47100	45300	46100	47000	46300	e46600	44000	43000	43500
8	44100	43500	43800	47100	45600	46300	46500	43800	e45700	43800	41200	42100
9	44400	43700	44000	46900	46100	46600	46400	45300	e46000	43200	41800	42400
10	44400	42500	43500	46900	45100	46000	47000	46000	46400	43600	42600	43100
11	43500	42400	42700	45600	44900	45200	47000	44000	e45800	43300	42600	43100
12	44000	43000	43400	45600	44900	45200	44400	43100	44000	43300	42500	42900
13	44300	43000	43800	46400	44900	45600	45200	43500	44400	43500	42900	43100
14	44300	42600	43800	46700	44900	45900	46100	42900	44300	44100	42800	43400
15	44400	42600	43900	46700	44500	45700	44900	43200	44000	44800	43500	44200
16	44200	42500	43100	46500	45400	45700	43400	42100	42700	44700	43300	44300
17	43600	42700	43300	46700	45500	46100	43300	40000	41700	44200	43200	43600
18	44300	43000	43700	46200	44800	45600	42100	40200	41500	44000	43100	43600
19	44600	41200	43900	45200	44000	44600	42000	41100	41700	44500	43400	43800
20	44500	42300	43900	44600	43400	44100	42500	39900	e41300	45500	43700	44700
21	43900	40900	42700	46900	43900	45600	43400	41300	e42100	45600	44300	45000
22	44300	40700	43100	46400	42200	45400	43500	42000	e42800	44900	42700	44500
23	44700	41600	43700	44000	40900	42500	42800	41400	42100	44900	44000	44500
24	46700	41000	45100	45100	40300	42200	41600	38600	40000	44700	42700	43800
25	46700	46200	46400	45700	42700	44300	39300	37400	38000	44100	42800	43500
26	46500	45400	45800	45700	44300	44700	41800	37300	39300	45200	43200	44300
27	45700	44100	45400	45400	44200	44800	41300	38600	40100	44900	43300	44400
28	46200	45100	45700	45400	44500	45100	42700	39400	e41500	45600	43700	44800
29	47600	46200	46700	45200	43600	44800	---	---	e41900	45100	43800	44300
30	47600	46600	47000	45100	44300	44800	40200	38600	e39400	44600	43300	44000
31	47100	46700	46800	---	---	---	43200	39100	e41200	44900	43300	44200
MONTH	47600	40700	44100	47500	40300	45400	---	---	43000	45600	40200	43600

e Estimated

01484450 DELAWARE BAY NEAR LEWES, DE--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	45400	44700	e45100	46900	45600	e46500	43300	35400	39600	47200	44200	45300
2	45200	44800	45000	46600	44700	e45900	44700	37000	42800	46300	44600	45500
3	45600	44100	e44800	46700	43400	e45200	44600	35300	39100	48100	43100	45300
4	46600	44100	e45600	45100	43600	44200	45800	37600	43500	49300	46300	47600
5	44500	37900	e40400	44700	42600	43900	44300	41400	42700	48200	47200	47700
6	---	37600	e40100	44600	41800	43400	46000	42900	43800	47500	45400	46700
7	46100	40700	e43000	44300	42500	43400	46000	43900	44400	46800	45000	45900
8	47600	45300	e46500	43900	42900	43400	44900	44000	44400	45800	43400	44500
9	45900	44700	e45300	43000	36700	39400	44700	43500	44100	46800	43900	45500
10	47800	45700	e46400	38200	35700	36900	44300	42800	43600	48200	45400	46800
11	48000	46900	47500	39300	36500	37900	43900	42700	43500	47100	44600	46100
12	47800	44600	e46100	39900	37300	39100	44600	42800	43700	47300	45100	46300
13	45900	44900	e45500	39200	36700	38000	44700	43100	43800	47600	45200	46200
14	47800	---	e47200	38200	36400	37200	43700	42800	43300	48100	46600	47700
15	47700	---	e47200	47200	35800	41900	45300	42800	43400	48200	42400	46700
16	47400	46800	e47100	48200	44900	46200	45300	43400	44400	48200	46000	47100
17	---	46300	e46700	48100	45000	46300	45600	44600	45200	48000	47100	47600
18	47200	46600	e46800	46900	43400	45500	45900	44900	45400	47800	46500	47200
19	47100	45800	e46700	48100	44400	46600	46600	45500	46100	47800	44800	47000
20	47200	45600	46600	49100	44900	47500	46400	45300	45900	47900	46400	47300
21	47300	46000	46800	48900	42500	46000	46500	45500	46000	48000	46800	47100
22	46900	45000	46100	46700	41700	43400	46300	45200	45600	47100	46300	46800
23	47200	45900	46700	43400	40700	42300	45600	44200	44700	47400	46300	46700
24	47500	---	e46800	42900	39000	40900	46200	44400	45700	47800	46700	47300
25	45600	44300	e45100	41600	37000	39400	46300	44900	45400	47700	46500	47100
26	47700	46000	e46800	41600	37000	39800	45700	44700	45000	46800	46300	46600
27	47200	46100	e46700	44000	38800	40900	46200	44500	45300	46700	45800	46200
28	47100	45700	e46600	42500	39600	41200	46300	45200	45700	47000	45700	46300
29	---	---	---	43200	34100	41100	46100	44600	45400	47300	46600	47000
30	---	---	---	40900	33900	35800	46700	45400	45900	47400	45700	46900
31	---	---	---	39600	36500	38300	---	---	---	46900	46100	46600
MONTH	---	---	45800	49100	33900	42200	46700	35300	44200	49300	42400	46600

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	47500	46200	46600	48600	45200	48100	53800	46400	51600	48000	39900	45100
2	47400	45900	46600	48500	47300	48100	53900	40400	48700	48600	42200	47100
3	46900	42400	46200	48700	43800	47900	53900	42200	49900	48800	43600	47800
4	46800	46000	46500	48900	42200	48100	49600	45400	48400	49100	45200	48400
5	47100	44700	46200	48900	44900	48400	49800	44200	48900	48800	39000	47700
6	47200	46500	46900	49400	45100	48700	49800	46900	49500	48300	37700	45500
7	47000	46200	46600	49600	45000	48800	50300	46500	49800	48000	41900	46200
8	47200	46500	46800	49400	42500	47400	50300	44000	49000	48000	42700	45600
9	47600	46300	46800	50000	44600	48500	50200	44300	48800	48200	42500	46700
10	48000	43100	47100	50500	44400	49400	49900	44700	48900	47600	43400	46800
11	48400	46200	47900	50900	43800	49000	49800	49300	49500	48100	36100	47000
12	48300	42300	47500	51100	46000	50400	49800	48700	49500	49300	44800	46900
13	47500	44500	46500	51400	46400	50500	49900	49200	49600	49700	46800	48700
14	47900	45400	47100	51600	45000	50100	50200	49600	49900	48800	34500	47000
15	48300	44700	47400	51800	41900	48800	50200	49900	50100	49000	45900	48300
16	48500	45500	47700	52100	38700	50100	50100	48400	49600	49800	42400	47900
17	48600	43500	47600	52300	41600	50900	50100	43800	49000	49900	44100	48900
18	48800	48000	48300	52300	43800	50200	49600	41600	47000	49300	42700	46500
19	48800	47100	48300	51900	45600	50900	49900	41700	47000	49900	42800	47500
20	48800	47100	48300	51700	47200	51300	50000	40800	47700	50100	43400	47800
21	48800	48000	48400	52200	45100	49400	49700	41500	47400	50800	44300	48400
22	48700	48100	48500	52100	46600	51100	49900	42500	48300	51400	44000	49800
23	48600	46200	48100	52400	45800	50700	48700	43900	45600	51000	45500	49800
24	48600	45800	47800	51900	46000	50800	48700	32000	46000	50700	43900	48900
25	48600	44800	47600	52400	44000	47800	46700	39500	42700	50900	40700	46600
26	48500	47600	48000	52600	44500	49700	42600	36200	39500	51200	41200	46300
27	48900	47900	48400	52600	45400	51600	43300	36300	40300	51100	38400	47000
28	48700	47800	48300	53200	48500	52400	46200	41300	43900	50700	40900	45300
29	48400	45200	47800	53300	48600	52500	47500	42500	46400	50900	41400	47100
30	48600	44700	47700	53200	47900	51800	48800	44700	47100	50700	43100	48100
31	---	---	---	53400	42600	52300	48800	43200	46600	---	---	---
MONTH	48900	42300	47400	53400	38700	49900	53900	32000	47600	51400	34500	47400

e Estimated

01484450 DELAWARE BAY NEAR LEWES, DE--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	19.1	18.3	18.7	16.0	---	e15.7	---	---	e10.6	---	---	e6.2
2	19.0	18.6	18.8	---	---	e14.7	10.6	10.1	e10.3	---	---	e6.0
3	18.6	17.0	17.7	14.9	14.0	e14.5	10.7	---	e10.3	---	---	e4.5
4	17.0	16.3	16.7	15.0	14.4	e14.7	11.0	---	e10.7	---	4.0	e4.9
5	16.9	16.2	16.6	15.3	14.5	e15.0	11.5	10.8	e11.2	4.0	1.7	e2.4
6	16.8	15.9	16.4	15.6	---	e15.3	11.6	10.8	e11.3	4.8	---	e3.3
7	17.3	16.1	16.8	15.5	14.1	e14.6	---	10.9	e11.1	---	---	e5.0
8	17.6	16.8	17.2	14.6	---	e14.3	11.2	---	e10.0	5.3	---	e4.4
9	18.1	17.3	17.7	14.9	---	e14.5	9.6	---	e9.2	4.3	3.5	e3.8
10	18.0	16.3	17.2	14.9	12.9	e13.9	---	---	e9.5	4.4	---	e4.0
11	16.3	14.9	15.5	13.0	---	e12.9	9.8	---	e9.0	4.4	3.7	e3.9
12	16.6	15.2	15.9	12.9	10.7	e11.7	---	---	e7.1	---	4.0	e4.3
13	16.5	15.3	16.1	13.4	11.9	e12.6	---	---	e6.8	5.9	---	e5.2
14	16.5	16.0	16.2	14.0	12.7	13.4	8.1	---	e7.0	6.6	---	e5.9
15	16.4	15.7	16.0	---	---	---	---	---	e6.6	7.1	6.0	e6.7
16	15.8	14.9	15.2	14.0	13.3	e13.6	6.0	5.7	e5.8	7.0	6.0	e6.3
17	15.4	14.5	15.0	13.9	13.2	13.6	---	---	e6.4	7.5	---	e6.9
18	16.0	14.9	15.5	14.1	13.2	13.7	7.1	---	e6.6	7.6	6.5	e6.9
19	16.5	15.5	15.9	---	13.6	e13.4	---	---	e6.5	7.0	6.4	e6.7
20	16.3	15.8	16.0	13.8	13.0	e13.3	---	---	e5.5	7.2	6.7	e6.8
21	16.3	15.8	16.1	14.0	13.1	e13.5	---	---	e5.6	6.9	6.5	e6.7
22	16.9	15.8	16.3	13.9	12.5	e13.5	7.1	4.7	e6.1	6.6	---	e6.3
23	16.6	16.3	16.4	12.5	9.7	e11.7	7.1	6.3	e6.8	---	---	e5.5
24	16.4	16.0	16.2	10.9	8.5	e9.5	---	---	6.7	5.6	4.6	e5.1
25	16.2	15.7	16.0	10.6	9.6	e10.0	7.2	6.1	6.6	5.1	4.3	e4.7
26	15.9	14.8	15.3	10.6	---	e10.0	6.8	---	e6.5	5.1	4.3	e4.5
27	15.0	14.1	14.4	10.8	---	e9.9	6.8	---	e6.2	4.3	3.7	e4.0
28	14.7	14.0	e14.2	---	10.2	e11.2	7.4	6.3	e6.7	4.6	4.0	e4.3
29	15.0	---	e14.4	11.8	---	e11.4	6.8	---	e6.2	---	3.4	e3.6
30	15.7	14.6	e14.5	11.4	---	e11.2	---	---	e4.8	3.9	3.2	e3.5
31	15.6	14.8	e15.3	---	---	---	---	4.3	e5.0	---	3.3	e3.8
MONTH	19.1	---	16.1	---	---	---	---	---	7.7	---	---	5.0
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	e4.4	4.0	3.9	e3.9	9.4	7.7	8.3	14.2	12.1	13.2
2	---	4.2	e4.5	---	3.6	e4.0	8.7	8.0	8.3	13.0	12.3	12.5
3	4.3	3.6	e3.8	---	---	e3.8	8.7	7.8	8.2	14.9	12.1	12.9
4	4.4	3.1	e3.8	4.1	---	e3.9	9.2	7.9	8.5	13.7	12.3	12.9
5	2.9	.0	e.3	---	---	e4.2	8.8	8.0	8.4	13.7	12.3	13.1
6	.0	.0	.0	---	4.1	e4.5	8.3	7.4	8.0	14.9	13.2	14.0
7	.0	.0	.0	---	---	e4.9	9.7	7.8	8.7	15.6	13.0	14.5
8	.0	.0	e.0	6.0	5.0	e5.5	10.0	8.7	9.1	15.6	14.2	15.0
9	.0	.0	.0	6.9	5.8	e6.4	11.2	8.8	10.1	15.4	13.1	13.9
10	---	.0	e.1	---	---	e5.3	10.6	9.4	10.3	14.6	13.1	13.7
11	2.3	---	e1.0	5.0	---	e4.8	10.0	9.1	9.6	14.9	13.5	14.1
12	1.9	.0	e.3	6.1	4.3	e5.1	10.9	9.0	9.9	16.1	13.4	14.5
13	.0	.0	.0	7.4	5.1	e5.7	11.7	9.6	10.7	16.9	14.1	15.1
14	.0	.0	.0	7.3	5.6	e6.4	11.0	10.3	10.8	14.6	13.9	14.2
15	2.0	.0	1.0	7.6	5.9	e6.5	11.1	9.5	10.4	15.8	13.8	14.8
16	2.9	---	e2.4	7.5	5.2	6.3	11.0	9.6	10.2	16.5	14.5	15.1
17	---	1.5	e2.0	8.4	5.7	6.8	10.5	9.9	10.2	15.4	14.5	15.0
18	---	---	e2.5	9.1	6.7	7.4	10.9	10.0	10.4	16.4	14.9	15.6
19	---	---	e2.9	7.3	6.2	6.8	12.0	10.4	11.1	16.6	15.1	15.9
20	---	---	e3.2	7.1	6.2	6.7	12.3	11.4	11.8	17.2	15.1	15.9
21	---	3.1	e3.2	7.8	6.5	7.0	12.4	11.2	11.7	17.9	15.4	16.6
22	3.6	3.1	e3.3	8.1	2.3	7.3	13.9	11.6	12.9	18.1	16.1	17.1
23	---	3.3	e3.6	8.0	7.0	7.6	14.3	11.7	13.3	17.9	16.3	17.1
24	4.5	3.9	e4.2	8.4	7.2	7.8	12.9	11.3	11.6	17.9	15.7	16.7
25	---	---	e3.9	8.3	7.2	7.8	13.2	11.1	11.9	18.5	16.6	17.4
26	3.5	---	e3.3	8.3	7.0	7.6	13.6	11.8	12.5	18.5	16.7	17.6
27	3.9	3.2	e3.5	8.4	7.2	7.8	13.5	11.9	12.8	19.0	16.8	17.5
28	4.5	3.8	e4.1	8.1	7.3	7.7	14.4	12.4	13.2	17.6	16.3	16.9
29	---	---	---	8.6	7.3	7.9	15.2	12.9	13.6	17.6	16.0	16.8
30	---	---	---	8.4	7.6	7.9	13.6	12.3	13.0	18.9	17.0	18.0
31	---	---	---	8.8	7.6	8.1	---	---	---	20.5	16.5	18.5
MONTH	---	---	2.2	---	---	6.2	15.2	7.4	10.6	20.5	12.1	15.4

e Estimated

01484450 DELAWARE BAY NEAR LEWES, DE--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	19.0	16.3	18.0	22.7	22.1	22.4	25.2	21.2	23.8	25.3	24.3	24.7
2	18.7	16.3	17.6	23.3	22.2	22.7	24.0	21.7	23.2	24.9	24.3	24.7
3	19.7	16.8	18.7	23.2	22.2	22.7	24.2	21.9	23.2	25.0	24.2	24.6
4	20.5	17.1	19.5	23.2	22.2	22.6	25.3	21.5	23.7	24.8	24.2	24.5
5	20.8	17.8	19.6	23.5	22.4	22.8	25.0	22.7	24.3	24.8	23.9	24.4
6	20.3	18.6	19.7	23.7	22.5	23.0	24.5	22.7	23.9	25.0	23.6	24.4
7	22.9	19.6	21.5	23.6	22.9	23.2	25.5	21.6	23.7	24.9	24.2	24.6
8	22.6	18.6	21.8	24.8	23.0	23.8	24.3	22.2	23.1	25.2	24.4	24.8
9	22.5	19.7	21.3	24.7	22.9	23.8	23.8	22.3	23.0	25.3	24.5	24.8
10	21.7	19.9	20.6	24.0	23.0	23.6	23.8	22.2	22.9	25.0	23.8	24.5
11	21.9	19.7	20.7	24.8	23.1	23.8	24.5	22.6	23.3	23.8	22.6	23.3
12	21.5	20.5	21.1	25.0	23.7	24.2	25.2	23.2	23.8	23.8	23.0	23.4
13	22.1	20.1	21.3	25.1	23.8	24.4	26.2	23.5	24.3	24.1	23.2	23.7
14	21.6	19.9	20.6	25.8	24.0	24.8	24.7	23.0	24.1	24.0	23.6	23.8
15	21.8	20.1	20.8	27.0	24.6	25.4	24.3	23.4	23.8	23.8	22.7	23.3
16	21.7	20.4	20.8	26.2	24.6	25.3	24.7	23.9	24.3	23.2	22.1	22.7
17	21.7	20.4	20.9	25.8	23.4	24.9	25.9	24.5	25.3	22.7	22.1	22.3
18	22.4	20.6	21.4	25.7	23.4	24.7	26.7	24.8	25.8	22.5	21.6	22.1
19	22.6	20.6	21.7	26.6	24.8	25.6	24.9	23.4	24.3	22.6	22.0	22.3
20	23.0	20.9	22.1	26.0	24.0	25.4	24.7	23.3	24.0	22.6	21.5	22.1
21	23.2	20.8	22.1	26.1	23.6	25.3	25.1	23.7	24.5	22.5	21.9	22.2
22	22.7	21.4	22.0	26.3	22.9	25.2	25.8	24.3	25.0	22.6	21.9	22.3
23	22.7	21.3	22.0	27.0	23.7	25.7	25.6	24.1	25.0	21.9	19.2	20.3
24	22.8	21.6	22.1	26.6	23.8	25.5	25.4	24.2	24.9	20.2	18.6	19.4
25	23.3	21.5	22.5	27.1	22.8	25.6	25.2	23.9	24.6	20.3	18.9	19.8
26	23.4	22.2	22.9	26.3	23.3	25.2	24.8	23.8	24.4	20.6	19.6	20.1
27	22.8	21.7	22.3	26.3	23.9	25.2	24.8	24.2	24.5	20.9	19.5	20.1
28	22.3	21.5	21.9	26.1	23.6	25.1	24.6	24.1	24.4	20.7	19.8	20.2
29	22.6	21.5	22.1	25.8	23.4	24.7	24.8	23.8	24.2	20.4	19.8	20.1
30	22.9	22.0	22.3	26.7	24.0	25.4	24.9	24.1	24.5	20.1	19.5	19.8
31	---	---	---	26.1	23.0	24.7	24.9	24.1	24.6	---	---	---
MONTH	23.4	16.3	21.1	27.1	22.1	24.4	26.7	21.2	24.1	25.3	18.6	22.6

01484500 STOCKLEY BRANCH AT STOCKLEY, DE

LOCATION.--Lat 38°38'19", long 75°20'31", Sussex County, Hydrologic Unit 02060010, on left bank at highway bridge in Stockley, 1.6 mi upstream from mouth, and 4.4 mi southeast of Georgetown.

DRAINAGE AREA.--5.24 mi^2.

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

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

REMARKS.--No estimated daily discharges. Records good. Natural flow of stream affected by inflow from sand mine dewatering process. 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 45 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
July 23	0030	*62	*3.29	No other peak greater than base discharge.			

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.6	4.4	4.5	3.1	7.0	6.5	4.2	6.2	5.2	2.1	2.9	2.2
2	5.8	3.9	4.4	2.8	6.4	5.6	4.0	9.2	4.1	2.2	3.0	1.2
3	5.2	2.9	4.4	2.6	5.9	5.2	4.3	8.8	3.3	2.1	2.9	2.2
4	5.0	2.5	4.3	2.5	10	6.0	4.4	7.4	3.8	1.9	2.5	3.4
5	4.9	2.3	6.0	2.3	9.1	5.0	6.0	12	4.3	2.7	1.9	2.4
6	4.6	2.7	5.4	2.5	7.1	6.2	5.0	8.2	4.6	2.7	2.0	2.5
7	4.4	2.6	4.6	13	6.7	8.3	5.5	6.1	7.4	3.4	2.2	2.5
8	4.2	2.4	4.2	6.9	6.7	7.7	3.6	7.2	4.9	2.4	2.2	2.4
9	4.2	2.6	3.9	5.1	5.9	19	3.5	7.6	4.7	2.1	2.1	1.1
10	4.1	3.4	7.4	4.6	6.2	12	3.9	13	3.1	2.6	2.1	1.0
11	4.0	2.9	8.3	4.4	6.2	9.6	4.0	11	2.9	2.4	1.7	1.6
12	3.8	2.7	5.5	4.4	5.2	8.9	3.9	10	5.2	2.6	1.6	2.5
13	3.9	2.6	5.1	4.3	7.0	8.5	9.3	7.6	7.1	3.0	1.5	2.2
14	4.0	2.7	5.1	4.0	7.4	8.6	4.6	6.9	6.0	2.3	1.5	2.1
15	4.0	2.9	4.8	4.1	7.5	8.7	3.9	8.9	4.7	1.6	2.1	2.4
16	3.8	2.6	4.5	4.2	12	8.3	3.6	8.5	4.2	1.6	7.6	3.7
17	3.8	3.7	4.8	3.9	9.4	8.0	3.7	7.9	3.0	2.1	7.9	4.1
18	3.7	4.1	4.7	3.6	6.1	6.4	3.9	7.8	2.9	2.1	7.6	3.4
19	3.6	4.7	4.4	3.7	5.7	5.8	3.8	8.4	3.8	1.5	6.4	4.2
20	3.6	3.0	4.1	20	6.8	6.1	3.8	5.4	3.9	1.7	3.6	2.6
21	3.5	7.2	3.8	13	9.6	7.9	4.4	4.5	4.0	2.8	5.8	2.4
22	3.6	12	3.7	10	8.6	7.7	3.2	6.2	2.8	13	6.1	2.4
23	4.2	5.7	3.9	9.7	6.9	7.8	2.9	6.1	4.0	25	3.6	4.1
24	4.1	4.6	4.0	9.3	5.3	6.8	6.2	5.6	3.0	5.2	4.8	1.3
25	3.9	4.4	4.2	8.6	4.7	4.8	5.0	5.9	2.8	5.4	5.8	2.2
26	3.8	4.4	3.4	8.2	4.7	4.6	4.8	6.4	3.7	4.1	2.8	2.6
27	3.8	4.7	3.2	7.8	4.7	5.0	4.1	4.0	3.9	3.8	1.6	1.9
28	3.5	7.7	3.2	7.6	5.2	5.0	5.5	3.8	3.5	3.6	3.4	2.5
29	3.3	5.6	3.0	7.7	---	5.4	3.1	3.8	3.2	2.5	5.9	2.0
30	3.3	5.0	2.7	7.4	---	4.8	3.9	5.8	2.8	2.5	5.8	2.1
31	3.5	---	2.8	7.4	---	5.2	---	5.7	---	3.0	5.3	---
TOTAL	126.7	122.9	138.3	198.7	194.0	225.4	132.0	225.9	122.8	116.0	116.2	73.2
MEAN	4.09	4.10	4.46	6.41	6.93	7.27	4.40	7.29	4.09	3.74	3.75	2.44
MAX	5.8	12	8.3	20	12	19	9.3	13	7.4	25	7.9	4.2
MIN	3.3	2.3	2.7	2.3	4.7	4.6	2.9	3.8	2.8	1.5	1.5	1.0
CFSM	.78	.78	.85	1.22	1.32	1.39	.84	1.39	.78	.71	.72	.47
IN.	.90	.87	.98	1.41	1.38	1.60	.94	1.60	.87	.82	.82	.52

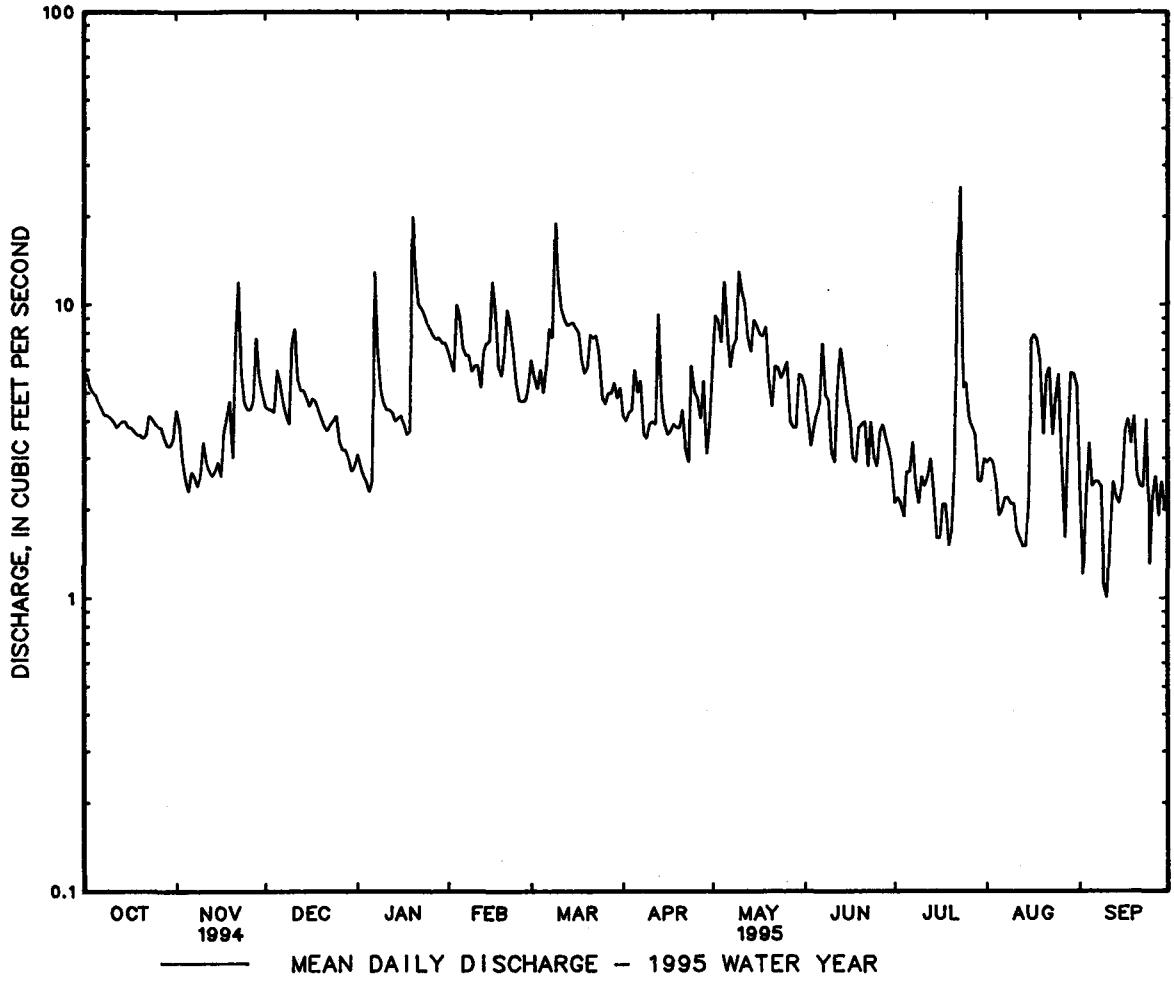
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1943 - 1995, BY WATER YEAR (WY)

MEAN	3.31	4.58	6.65	9.41	10.2	12.6	10.2	7.55	5.57	4.14	4.88	3.28
MAX	10.5	14.3	22.8	24.8	25.8	31.2	24.4	19.7	25.3	17.4	24.8	12.2
(WY)	1972	1957	1946	1978	1979	1994	1983	1948	1948	1945	1989	1992
MIN	.67	.77	.76	.92	1.19	4.05	3.78	2.36	1.80	1.21	.65	.67
(WY)	1989	1989	1989	1989	1989	1966	1985	1985	1977	1977	1944	1988

01484500 STOCKLEY BRANCH AT STOCKLEY, DE--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1943 - 1995	
ANNUAL TOTAL	3664.8		1792.1			
ANNUAL MEAN	10.0		4.91		6.88	
HIGHEST ANNUAL MEAN					12.0	1958
LOWEST ANNUAL MEAN					3.24	1966
HIGHEST DAILY MEAN	195	Mar 3	25	Jul 23	195	Mar 3 1994
LOWEST DAILY MEAN	2.1	(a)	1.0	Sep 10	.13	(b)
ANNUAL SEVEN-DAY MINIMUM	2.2	Sep 11	1.8	Aug 9	.13	Sep 2 1944
INSTANTANEOUS PEAK FLOW			62	Jul 23	(c)303	Mar 3 1994
INSTANTANEOUS PEAK STAGE			3.29	Jul 23	5.52	Mar 3 1994
INSTANTANEOUS LOW FLOW			.92	Sep 15	.13	(d)
ANNUAL RUNOFF (CFSM)	1.92		.94		1.31	
ANNUAL RUNOFF (INCHES)	26.02		12.72		17.83	
10 PERCENT EXCEEDS	20		8.2		14	
50 PERCENT EXCEEDS	6.0		4.2		4.9	
90 PERCENT EXCEEDS	2.8		2.3		1.5	

a Sept. 11, 16, 17.
b Sept. 2-11, 1944.
c From rating curve extended above 150 ft^3/s.
d Sept. 1-11, 1944.



01484525 MILLSBORO POND OUTLET AT MILLSBORO, DE

LOCATION.--Lat 38°35'40", long 75°17'29", Sussex County, Hydrologic Unit 02060010, on right bank just upstream from Millsboro Pond Dam, 10 ft upstream from bridge on State Highway 24, at Millsboro.

DRAINAGE AREA.--66.0 mi^2.

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1.98 ft above sea level.

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

PEAK DISCHARGE FOR CURRENT YEAR.--Peak discharge, 312 ft^3/s, July 23, gage height, 3.53 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	91	61	66	63	79	96	74	70	56	51	50	27
2	88	59	61	63	83	93	74	91	55	55	44	27
3	88	54	60	59	80	86	72	102	53	53	43	25
4	86	53	61	58	96	84	72	82	64	49	44	25
5	84	52	71	55	108	82	69	108	59	47	43	24
6	82	54	73	55	113	80	68	116	61	46	45	24
7	77	56	70	117	94	80	69	90	99	48	44	25
8	77	52	65	114	81	93	68	79	83	60	42	25
9	76	51	64	87	79	161	67	75	65	52	39	25
10	75	54	75	75	78	163	66	114	59	46	38	22
11	71	54	91	72	80	132	64	135	55	45	37	20
12	70	52	79	72	81	115	64	118	64	43	37	20
13	67	51	72	72	75	108	119	98	99	41	36	21
14	64	51	70	70	74	104	95	87	90	39	34	21
15	65	51	69	72	78	101	72	87	72	37	34	20
16	62	51	67	75	110	95	65	82	63	35	39	22
17	60	61	69	72	114	93	64	80	56	39	42	71
18	60	66	70	70	98	89	62	86	54	37	39	63
19	60	72	69	76	90	85	63	92	53	36	37	40
20	60	64	67	118	88	84	62	88	51	33	35	32
21	59	78	67	166	96	92	60	78	50	40	33	29
22	57	117	64	140	96	101	60	72	48	141	33	35
23	70	97	78	111	88	90	55	69	55	302	30	41
24	74	76	72	98	86	86	82	66	59	203	29	36
25	66	69	58	94	79	81	79	64	56	85	28	33
26	61	67	59	87	77	78	67	70	52	76	29	34
27	59	68	60	84	77	77	61	68	50	68	28	35
28	57	81	60	85	83	77	59	63	50	61	28	34
29	56	79	61	89	---	77	57	63	49	57	30	32
30	54	70	58	86	---	77	63	63	47	57	31	31
31	56	---	57	83	---	75	---	59	---	53	29	---
TOTAL	2132	1921	2083	2638	2461	2935	2072	2615	1827	2035	1130	919
MEAN	68.8	64.0	67.2	85.1	87.9	94.7	69.1	84.4	60.9	65.6	36.5	30.6
MAX	91	117	91	166	114	163	119	135	99	302	50	71
MIN	54	51	57	55	74	75	55	59	47	33	28	20
CFSM	1.04	.97	1.02	1.29	1.33	1.43	1.05	1.28	.92	.99	.55	.46
IN.	1.20	1.08	1.17	1.49	1.39	1.65	1.17	1.47	1.03	1.15	.64	.52

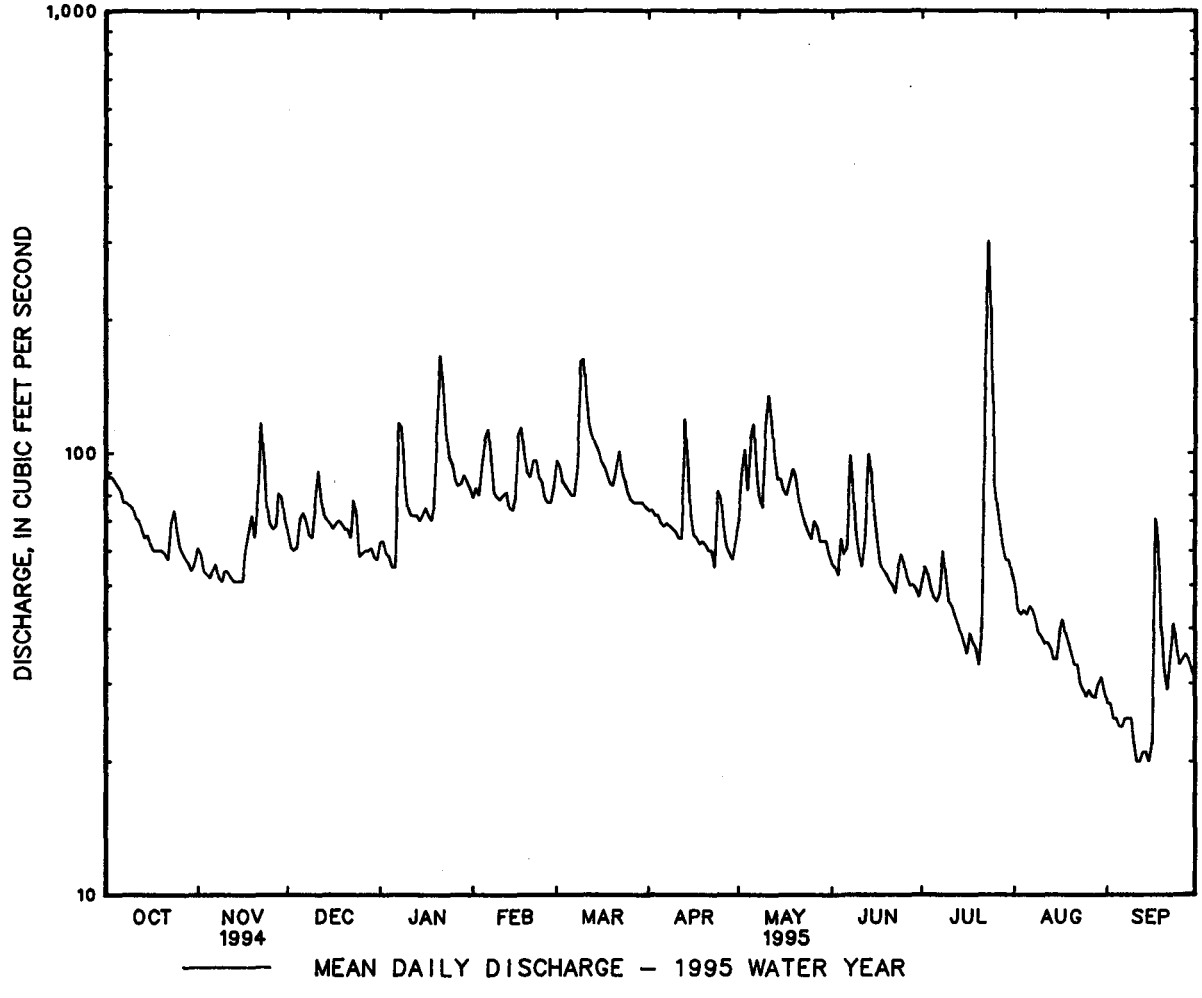
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1986 - 1995, BY WATER YEAR (WY)

MEAN	46.2	47.4	71.3	100	123	178	128	92.4	62.5	47.1	46.9	44.7
MAX	77.1	79.3	101	144	238	373	184	136	85.6	65.6	85.6	106
(WY)	1993	1993	1993	1993	1994	1994	1994	1993	1993	1995	1992	1992
MIN	20.8	24.3	33.2	53.7	77.4	94.1	69.1	47.3	34.0	23.2	25.5	20.1
(WY)	1987	1988	1988	1988	1992	1992	1995	1986	1986	1986	1988	1986

01484525 MILLSBORO POND OUTLET AT MILLSBORO, DE--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1986 - 1995	
ANNUAL TOTAL	46469		24768			
ANNUAL MEAN	127		67.9		84.0	
HIGHEST ANNUAL MEAN					124	1994
LOWEST ANNUAL MEAN					55.0	1988
HIGHEST DAILY MEAN	1260	Mar 4	302	Jul 23	1260	Mar 4 1994
LOWEST DAILY MEAN	31	Sep 13	20	(a)	13	Oct 7 1986
ANNUAL SEVEN-DAY MINIMUM	33	Sep 11	21	Sep 10	15	Oct 5 1986
INSTANTANEOUS PEAK FLOW			312	Jul 23	1770	Mar 3 1994
INSTANTANEOUS PEAK STAGE			3.53	Jul 23	4.94	Mar 3 1994
INSTANTANEOUS LOW FLOW			20	(b)	11	(c)
ANNUAL RUNOFF (CFSM)	1.93		1.03		1.27	
ANNUAL RUNOFF (INCHES)	26.19		13.96		17.29	
10 PERCENT EXCEEDS	238		96		145	
50 PERCENT EXCEEDS	82		66		67	
90 PERCENT EXCEEDS	49		34		24	

a Sept. 11, 12, 15.
b Sept. 10-16.
c Sept. 12, Oct. 6, 1986, Nov. 6, 1987.



01485000 POCOMOKE RIVER NEAR WILLARDS, MD

LOCATION.--Lat 38°23'20", long 75°19'30", Worcester County, Hydrologic Unit 02060009, on left bank 30 ft downstream from bridge on State Highway 346, 0.6 mi upstream from Burnt Mill Branch, 1.3 mi east of Willards, 1.3 mi west of Whaleysville, and 50.3 mi upstream from mouth.

DRAINAGE AREA.--60.5 mi^2.

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

GAGE.--Water-stage recorder. Datum of gage is 13.95 ft above sea level.

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.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 22	0300	*431	*8.65	No peak greater than base discharge.			

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	126	38	95	52	74	94	34	39	24	18	5.6	3.0
2	104	45	86	53	69	117	33	66	23	18	5.4	5.5
3	89	42	81	49	63	95	32	101	22	17	5.1	3.8
4	78	38	77	45	76	85	31	76	22	17	4.9	3.2
5	70	37	93	45	91	78	30	97	21	16	4.7	2.8
6	63	37	121	44	72	72	29	117	20	16	5.1	2.4
7	58	39	107	167	64	68	29	86	29	15	5.3	2.6
8	53	36	92	160	61	68	28	72	32	15	4.8	2.2
9	50	35	81	110	56	325	27	63	27	14	4.6	2.1
10	45	35	96	94	54	214	26	71	24	13	4.5	2.1
11	41	34	171	84	53	151	26	90	23	13	4.3	1.9
12	37	32	134	79	52	123	26	81	23	13	3.9	2.2
13	35	30	107	74	46	103	35	67	67	12	3.7	1.8
14	34	29	96	70	40	91	36	58	93	11	3.4	1.7
15	33	28	87	e66	43	81	32	55	83	11	3.5	1.3
16	31	28	80	69	78	75	30	48	66	10	3.0	1.3
17	29	39	76	67	102	68	29	41	55	10	3.7	6.8
18	28	45	75	65	94	63	28	55	46	10	3.8	5.9
19	27	149	72	62	88	58	27	59	38	10	2.9	4.2
20	27	196	67	231	84	55	26	57	31	9.5	2.9	3.4
21	29	194	61	315	83	55	25	47	26	8.8	2.8	3.0
22	25	361	59	208	77	64	24	39	24	9.6	2.7	3.1
23	27	254	60	154	71	60	23	34	23	10	2.4	4.5
24	41	171	59	133	71	55	33	32	23	8.9	2.2	5.0
25	41	128	59	114	63	51	38	30	22	8.2	2.1	3.8
26	41	108	56	99	60	45	33	35	21	7.6	2.0	2.8
27	39	96	55	89	56	42	30	34	20	7.2	2.0	3.3
28	37	116	54	84	57	40	29	30	20	6.9	2.1	2.9
29	34	123	51	e75	---	38	26	29	19	6.4	2.8	2.7
30	34	106	49	74	---	36	29	28	18	6.1	2.0	2.5
31	34	---	48	77	---	36	---	26	---	5.7	1.8	---
TOTAL	1440	2649	2505	3108	1898	2606	884	1763	985	353.9	110.0	93.8
MEAN	46.5	88.3	80.8	100	67.8	84.1	29.5	56.9	32.8	11.4	3.55	3.13
MAX	126	361	171	315	102	325	38	117	93	18	5.6	6.8
MIN	25	28	48	44	40	36	23	26	18	5.7	1.8	1.3
CFSM	.77	1.46	1.34	1.66	1.12	1.39	.49	.94	.54	.19	.06	.05
IN.	.89	1.63	1.54	1.91	1.17	1.60	.54	1.08	.61	.22	.07	.06

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1950 - 1995, BY WATER YEAR (WY)

MEAN	35.3	48.9	79.1	111	122	145	100	59.6	44.5	34.1	51.3	25.9
MAX	164	221	231	322	339	393	277	236	216	217	507	128
(WY)	1977	1980	1978	1978	1979	1994	1983	1978	1972	1975	1989	1979
MIN	4.18	7.27	9.41	15.5	50.0	49.7	29.5	16.1	9.31	6.29	3.51	3.13
(WY)	1969	1969	1966	1981	1981	1981	1995	1985	1986	1986	1957	1995

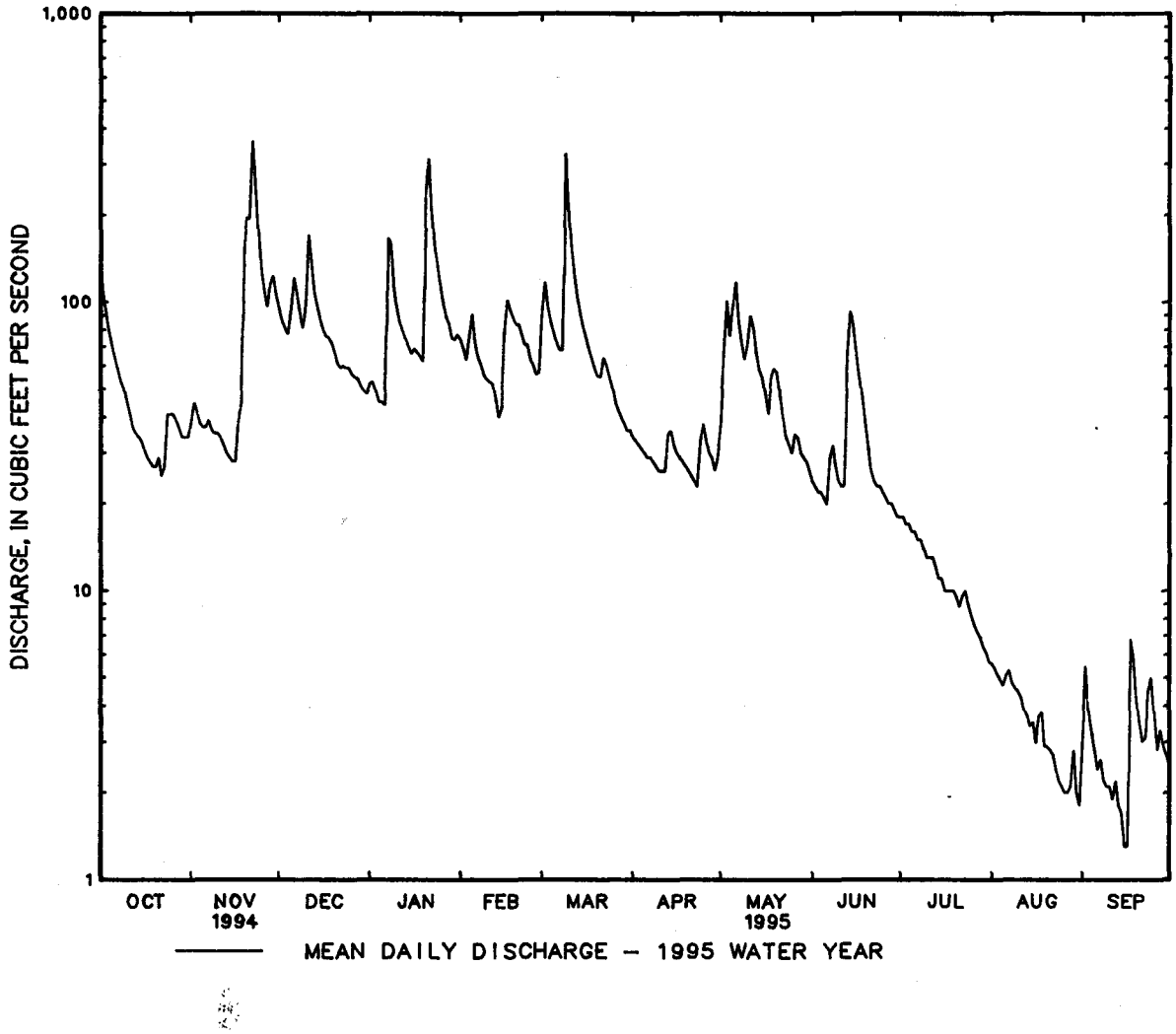
01485000 POCOMOKE RIVER NEAR WILLARDS, MD--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1950 - 1995	
ANNUAL TOTAL	41293.5		18395.7			
ANNUAL MEAN	113		50.4		71.9	
HIGHEST ANNUAL MEAN					130	1979
LOWEST ANNUAL MEAN					24.8	1981
HIGHEST DAILY MEAN	1340	Mar 4	361	Nov 22	2580	Aug 20 1989
LOWEST DAILY MEAN	9.1	Jul 17	1.3	(a)	1.3	(a)
ANNUAL SEVEN-DAY MINIMUM	9.8	Jul 11	1.8	Sep 10	1.8	Sep 10 1995
INSTANTANEOUS PEAK FLOW			431	Nov 22	(b)2820	Aug 20 1989
INSTANTANEOUS PEAK STAGE			8.69	Nov 22	15.41	Aug 20 1989
INSTANTANEOUS LOW FLOW			1.2	(c)	1.2	(c)
ANNUAL RUNOFF (CFSM)	1.87		.83		1.19	
ANNUAL RUNOFF (INCHES)	25.39		11.31		16.15	
10 PERCENT EXCEEDS	268		100		157	
50 PERCENT EXCEEDS	53		38		40	
90 PERCENT EXCEEDS	15		3.4		8.9	

a Sept. 15, 16, 1995.

b From rating curve extended above 1,600 ft^3/s.

c Sept. 12, 15, 16, 1995.



01485500 NASSAWANGO CREEK NEAR SNOW HILL, MD

LOCATION.--Lat 38°13'44", long 75°28'19", Worcester County, Hydrologic Unit 02060009, on right bank 15 ft downstream from bridge on State Highway 12, 0.5 mi upstream from Furnace Branch, 0.6 mi downstream from Millville Creek, 5.5 mi northwest of Snow Hill, and 7.3 mi upstream from mouth.

DRAINAGE AREA.--44.9 mi^2.

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

REVISED RECORDS.--WSP 1332: 1953.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 12.29 ft above sea level.

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

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar. 10	2400	*171	*4.49	No peak greater than base discharge.			

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26	11	35	21	51	47	17	78	16	6.9	2.1	1.8
2	19	10	32	21	52	57	16	100	14	7.6	2.1	2.1
3	15	8.3	29	20	48	66	16	143	13	7.6	2.1	2.1
4	13	7.4	27	19	51	63	16	131	26	6.3	2.2	1.8
5	12	7.4	35	18	61	54	15	96	20	5.5	2.2	1.7
6	11	7.4	41	16	50	48	14	74	17	4.7	2.1	1.7
7	9.5	7.7	47	62	48	43	14	58	24	4.4	2.4	1.6
8	8.5	7.4	46	92	37	41	14	48	22	4.3	2.4	1.7
9	7.8	7.4	39	110	30	77	14	36	17	4.0	2.4	6.6
10	7.2	7.4	41	82	29	136	14	45	14	3.6	2.4	3.4
11	6.8	7.4	50	61	30	148	14	54	13	4.3	2.3	2.0
12	6.5	7.4	60	49	33	94	14	55	27	4.4	2.3	1.7
13	6.4	7.4	61	43	25	71	20	49	48	3.9	2.2	1.6
14	6.4	7.4	50	39	25	58	21	41	61	3.4	1.9	1.6
15	7.2	7.4	42	37	26	50	19	36	69	3.0	2.0	1.7
16	6.7	7.5	36	38	63	45	17	29	59	2.7	2.1	1.8
17	6.1	13	34	38	88	39	15	26	38	2.7	2.3	6.0
18	5.9	20	34	37	94	34	15	33	24	2.5	2.8	5.0
19	5.6	41	33	35	84	30	15	43	18	3.1	2.3	3.4
20	5.6	42	31	61	74	28	14	44	14	3.0	2.0	2.3
21	5.7	51	29	116	65	28	13	37	13	2.8	2.0	2.1
22	5.6	71	27	160	58	28	13	29	11	7.6	1.9	2.3
23	7.2	69	26	118	53	27	12	23	13	11	1.6	4.8
24	11	68	26	82	50	26	32	18	14	5.9	1.6	3.6
25	9.7	52	27	67	45	24	37	15	12	4.8	1.6	2.7
26	8.5	38	26	55	41	22	32	21	11	3.8	1.4	2.5
27	8.3	32	25	47	36	20	26	42	10	3.5	1.4	2.9
28	7.8	36	24	42	36	19	21	52	9.7	3.1	1.3	2.4
29	7.3	35	23	40	---	18	17	38	8.5	3.1	1.1	2.3
30	7.1	36	21	41	---	18	38	26	7.6	3.0	1.3	2.4
31	8.2	---	20	47	---	18	---	20	---	2.3	1.6	---
TOTAL	278.6	729.9	1077	1714	1383	1477	555	1540	663.8	138.8	61.4	79.6
MEAN	8.99	24.3	34.7	55.3	49.4	47.6	18.5	49.7	22.1	4.48	1.98	2.65
MAX	26	71	61	160	94	148	38	143	69	11	2.8	6.6
MIN	5.6	7.4	20	16	25	18	12	15	7.6	2.3	1.1	1.6
CFSM	.20	.54	.77	1.23	1.10	1.06	.41	1.11	.49	.10	.04	.06
IN.	.23	.60	.89	1.42	1.15	1.22	.46	1.28	.55	.11	.05	.07

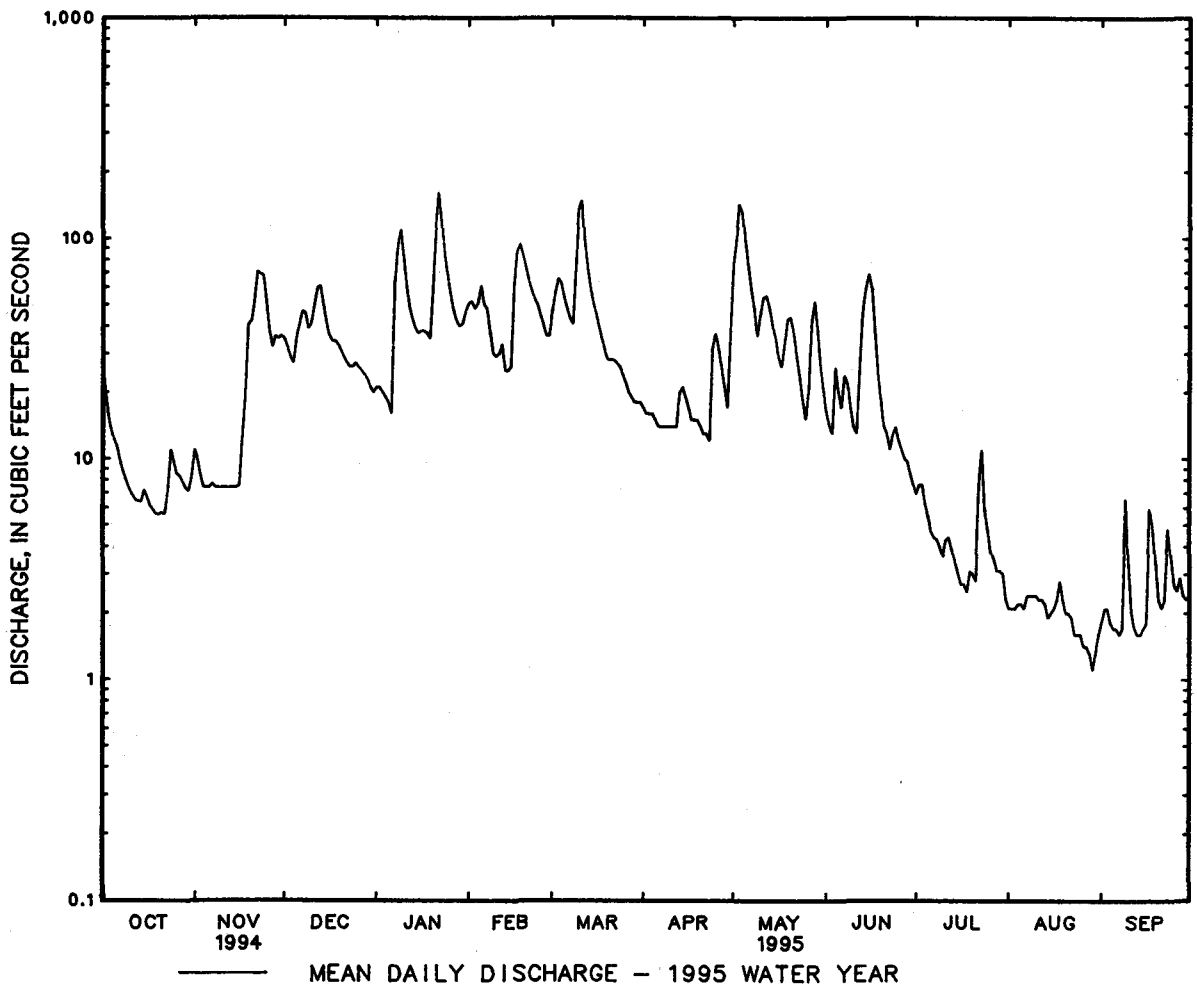
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1950 - 1995, BY WATER YEAR (WY)

MEAN	24.7	35.4	55.9	84.9	94.4	116	76.7	44.6	28.5	20.4	39.6	18.3
MAX	150	175	155	261	269	302	202	183	160	120	346	177
(WY)	1977	1980	1978	1978	1979	1994	1983	1978	1972	1975	1989	1979
MIN	2.81	3.80	6.33	10.8	32.1	29.5	17.6	7.10	2.52	2.02	1.59	1.64
(WY)	1991	1967	1966	1966	1991	1986	1985	1986	1986	1986	1966	1980

01485500 NASSAWANGO CREEK NEAR SNOW HILL, MD--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1950 - 1995	
ANNUAL TOTAL	25285.4		9698.1			
ANNUAL MEAN	69.3		26.6		53.7	
HIGHEST ANNUAL MEAN					116	1979
LOWEST ANNUAL MEAN					20.8	1981
HIGHEST DAILY MEAN	1420	Mar 3	160	Jan 22	2590	Aug 19 1989
LOWEST DAILY MEAN	1.6	(a)	1.1	Aug 29	.80	(b)
ANNUAL SEVEN-DAY MINIMUM	1.8	Jul 9	1.4	Aug 24	.86	Sep 7 1966
INSTANTANEOUS PEAK FLOW			171	Mar 10	(c)3930	Aug 19 1989
INSTANTANEOUS PEAK STAGE			4.49	Mar 10	9.07	Aug 19 1989
INSTANTANEOUS LOW FLOW			.99	(d)	.80	Sep 8 1966
ANNUAL RUNOFF (CFSM)	1.54		.59		1.20	
ANNUAL RUNOFF (INCHES)	20.95		8.03		16.25	
10 PERCENT EXCEEDS	159		61		125	
50 PERCENT EXCEEDS	23		18		26	
90 PERCENT EXCEEDS	3.4		2.2		3.4	

a July 14, 15.
b Sept. 8-10, 1966.
c From rating curve extended above 1,300 ft^3/s on basis of contracted-opening measurement at gage height 9.07 ft.
d Aug. 28, 29.



01486000 MANOKIN BRANCH NEAR PRINCESS ANNE, MD

LOCATION.--Lat 38°12'50", long 75°40'18", Somerset County, Hydrologic Unit 02060009, on right bank 45 ft downstream from farm bridge, 1.4 mi northeast of Princess Anne, and 1.6 mi upstream from confluence with Loretto Branch.

DRAINAGE AREA.--4.80 mi^2.

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

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

GAGE.--Water-stage recorder. Datum of gage is 7.03 ft above sea level. 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. Several measurements of water temperature were made during the year. Water-quality data for some prior years have been collected at this location.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
June 12	0045	*60	*3.10	No other peak greater than base discharge.			

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.57	.45	.85	1.2	4.3	5.9	2.4	11	1.6	1.6	.76	.31
2	.59	e.43	.86	1.2	4.0	6.4	2.3	21	1.6	1.6	.75	.35
3	.61	e.40	.83	1.1	3.5	5.2	2.2	16	1.7	1.5	.71	.30
4	.59	e.39	.83	1.1	6.1	4.8	2.2	9.4	2.0	1.4	.69	.29
5	.59	.35	1.1	1.0	5.9	4.5	2.0	7.5	1.6	1.3	.72	.28
6	.57	.37	1.4	1.0	4.1	4.3	1.9	5.8	1.6	1.3	.76	.27
7	.57	.36	1.3	4.9	3.6	4.2	1.9	4.7	2.1	1.2	.75	.26
8	.56	.35	1.2	4.2	3.5	4.9	1.9	3.9	1.7	1.2	.73	.26
9	.58	.35	1.1	3.3	3.2	22	1.8	3.5	1.5	1.1	.74	.26
10	.56	.36	1.4	2.9	3.2	11	1.7	5.3	1.4	1.1	e.69	.24
11	.51	.34	2.2	2.6	3.2	8.2	1.7	9.9	1.7	1.7	e.62	.22
12	.46	.33	1.9	2.5	3.0	6.6	1.8	7.1	18	1.3	e.54	.22
13	.44	.33	1.7	2.4	2.7	5.7	2.3	5.1	25	1.1	.45	.22
14	.46	e.33	1.6	2.3	2.7	5.2	2.0	4.6	16	1.1	.46	.21
15	.47	e.33	1.5	2.3	2.9	4.8	1.7	4.7	8.3	1.0	.43	.20
16	.44	.35	1.4	2.3	12	4.2	1.6	3.9	5.5	.96	.40	.20
17	.42	.42	1.4	2.2	9.7	3.9	1.6	3.6	4.2	.96	.40	.44
18	.42	.48	1.5	2.1	7.4	3.5	1.5	3.5	3.5	.92	.38	.40
19	.42	.56	1.4	2.0	6.4	3.4	1.6	3.6	3.1	.89	.35	.27
20	.42	.53	1.3	6.4	6.0	3.4	1.5	3.4	2.8	.87	.35	.22
21	.42	.74	1.3	7.6	5.5	3.7	1.5	2.9	2.5	.89	.33	.21
22	.40	1.2	1.3	4.9	4.7	3.8	1.4	2.6	2.3	.92	.32	.24
23	.48	1.1	1.3	4.0	4.3	3.6	1.4	2.3	2.3	.85	.30	.27
24	.47	.96	1.4	3.6	4.1	3.3	3.3	2.2	2.2	1.5	.30	.24
25	.42	.86	1.4	3.3	3.7	3.0	2.9	2.2	2.2	1.4	.30	.23
26	.40	.82	1.3	3.1	3.5	2.9	2.3	2.3	2.0	.99	.29	.25
27	.39	.79	1.2	2.9	3.4	2.8	2.0	2.1	1.8	.90	.29	.25
28	.38	.91	1.2	2.8	3.9	2.8	1.8	2.0	1.7	.83	.28	.23
29	.37	.90	1.2	2.8	---	2.6	1.6	2.0	1.7	.79	.26	.21
30	.38	.89	1.1	3.0	---	2.6	8.4	1.9	1.6	.79	.29	.20
31	.40	---	1.1	3.7	---	2.5	---	1.7	---	.76	.30	---
TOTAL	14.76	16.98	40.57	90.7	130.5	155.7	64.2	161.7	125.2	34.72	14.94	7.75
MEAN	.48	.57	1.31	2.93	4.66	5.02	2.14	5.22	4.17	1.12	.48	.26
MAX	.61	1.2	2.2	7.6	12	22	8.4	21	25	1.7	.76	.44
MIN	.37	.33	.83	1.0	2.7	2.5	1.4	1.7	1.4	.76	.26	.20
CFSM	.10	.12	.27	.61	.97	1.05	.45	1.09	.87	.23	.10	.05
IN.	.11	.13	.31	.70	1.01	1.21	.50	1.25	.97	.27	.12	.06

e Estimated

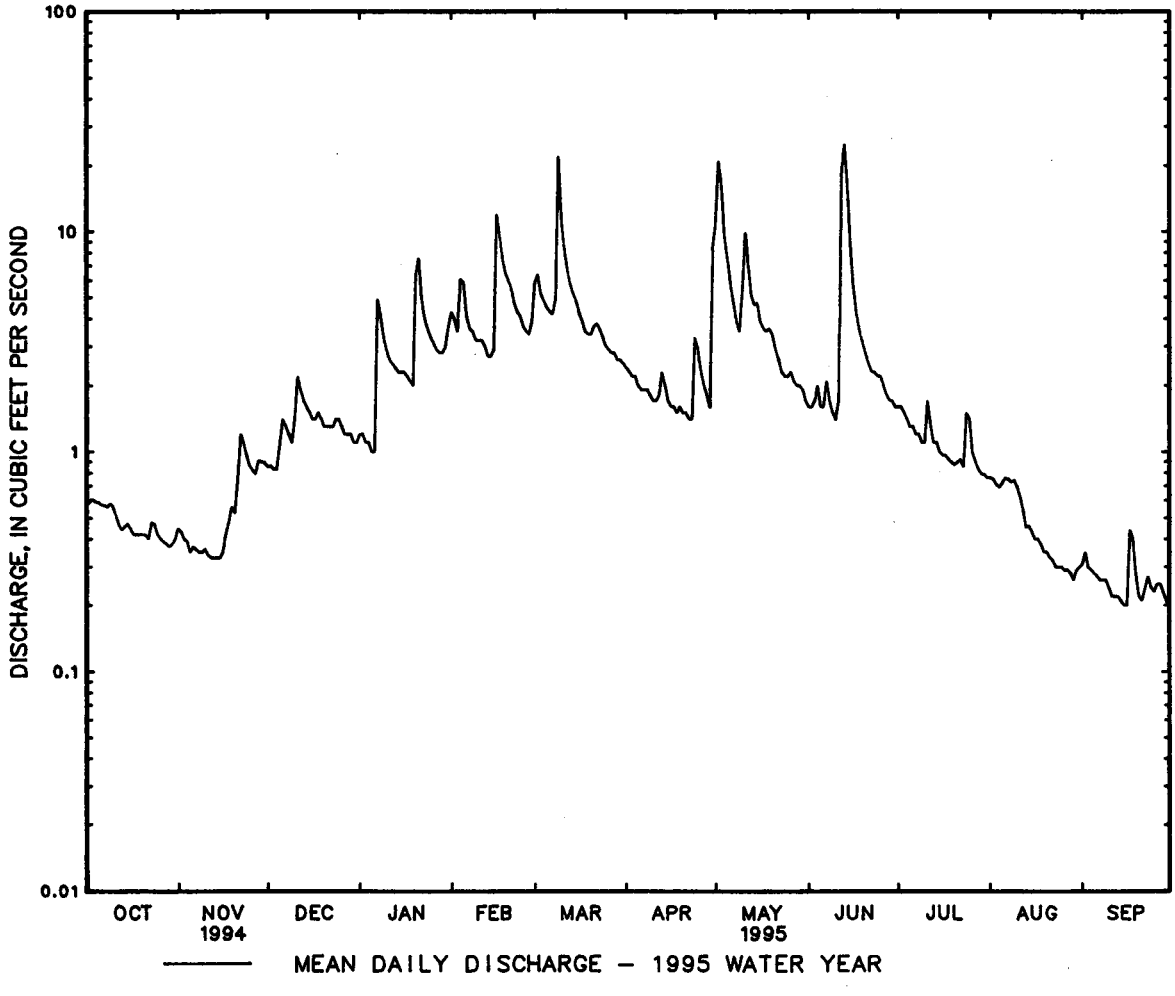
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 1995, BY WATER YEAR (WY)

MEAN	1.71	2.43	4.77	8.15	8.83	10.9	7.16	3.94	2.44	1.57	3.77	1.78
MAX	10.5	17.5	13.5	23.8	22.8	30.3	17.3	12.2	12.7	9.20	27.8	18.7
(WY)	1980	1980	1978	1978	1979	1994	1983	1978	1979	1975	1969	1979
MIN	.030	.050	.13	.51	2.40	2.64	1.64	.62	.39	.16	.003	.017
(WY)	1967	1967	1967	1966	1981	1981	1967	1957	1964	1953	1966	1966

01486000 MANOKIN BRANCH NEAR PRINCESS ANNE, MD--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1951 - 1995	
ANNUAL TOTAL	2530.23		857.72			
ANNUAL MEAN	6.93		2.35		4.78	
HIGHEST ANNUAL MEAN					10.3	1979
LOWEST ANNUAL MEAN					1.41	1981
HIGHEST DAILY MEAN	144	Mar 3	25	Jun 13	251	Aug 20 1969
LOWEST DAILY MEAN	.33	(a)	.20	(b)	.00	(c)
ANNUAL SEVEN-DAY MINIMUM	.34	Nov 9	.22	Sep 10	.00	Aug 23 1963
INSTANTANEOUS PEAK FLOW			60	Jun 12	(d)547	Aug 20 1969
INSTANTANEOUS PEAK STAGE			3.10	Jun 12	(f)7.08	Aug 19 1985
INSTANTANEOUS LOW FLOW			.18	(g)	.00	(c)
ANNUAL RUNOFF (CFSM)	1.44		.49		.99	
ANNUAL RUNOFF (INCHES)	19.61		6.65		13.52	
10 PERCENT EXCEEDS	18		4.9		11	
50 PERCENT EXCEEDS	1.2		1.5		2.0	
90 PERCENT EXCEEDS	.42		.32		.32	

a Nov. 12, 13.
b Sept. 15, 16, 30.
c No flow during 1954, 1963, 1964, 1966.
d From rating curve extended above 27 ft^3/s on basis of channel-conveyance study.
f Gage height of 5.44 ft occurred on Aug. 20, 1969 following ditching of stream channel.
g Sept. 15, 16, 29, 30.



01487000 NANTICOKE RIVER NEAR BRIDGEVILLE, DE

LOCATION.--Lat 38°43'42", long 75°33'44", Sussex County, Hydrologic Unit 02060008, on left bank at downstream side of highway bridge, 800 ft downstream from Gum Branch, 2.5 mi southeast of Bridgeville, and 50.5 mi upstream from mouth.

DRAINAGE AREA.--75.4 mi^2.

WATER-DISCHARGE RECORDS

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 sea level (levels by Soil Conservation Service). Prior to Apr. 19, 1947, nonrecording gage, and Apr. 19, 1947 to Dec. 18, 1969, recording gage at present site and datum. Timber control Sept. 3, 1947 to Dec. 18, 1969. Feb. 18, 1970 to Oct. 1, 1973, recording gage at site 300 ft downstream at same datum.

REMARKS.--No estimated daily discharges. Water-discharge records good.

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

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar. 9	1100	*296	*6.20	No peak greater than base discharge.			

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	65	46	61	55	88	93	86	64	57	47	20	17
2	67	50	59	54	87	90	84	77	55	57	19	16
3	62	45	58	53	83	86	83	86	57	55	21	17
4	59	43	58	52	113	85	83	77	66	50	21	16
5	55	42	64	51	139	83	81	80	59	47	19	16
6	52	44	65	51	115	83	78	77	56	41	22	15
7	50	44	62	119	107	82	77	72	58	40	23	15
8	48	41	61	115	104	85	75	68	55	41	21	15
9	47	42	58	92	99	240	74	66	51	38	21	16
10	45	44	60	84	97	182	74	89	48	36	22	14
11	43	43	64	80	97	148	71	103	47	35	21	15
12	42	41	62	79	93	136	70	97	52	33	19	15
13	41	40	60	78	87	128	99	88	57	31	18	15
14	42	40	60	75	85	123	91	83	59	30	20	15
15	42	40	59	75	84	119	81	82	54	29	20	14
16	39	40	59	76	98	116	77	79	50	28	20	15
17	40	44	59	73	99	113	73	76	47	28	20	25
18	39	45	60	71	93	109	71	86	44	30	17	20
19	46	49	59	69	90	105	69	95	45	33	17	18
20	41	46	57	132	90	102	68	94	46	27	19	17
21	40	53	56	173	94	110	65	84	44	25	18	17
22	40	86	56	130	96	113	63	78	44	30	16	20
23	43	75	57	114	92	107	62	72	48	38	16	24
24	45	67	57	108	92	103	78	69	50	34	18	20
25	42	64	58	104	89	98	75	67	49	34	17	20
26	41	62	56	99	86	95	67	80	51	31	16	23
27	41	61	54	96	85	92	63	76	52	29	19	20
28	40	68	54	94	87	92	62	70	51	26	23	19
29	40	67	55	93	---	91	60	68	47	24	19	18
30	40	63	53	91	---	89	63	67	46	23	17	18
31	40	---	52	90	---	88	---	61	---	23	16	---
TOTAL	1417	1535	1813	2726	2669	3386	2223	2431	1545	1073	595	525
MEAN	45.7	51.2	58.5	87.9	95.3	109	74.1	78.4	51.5	34.6	19.2	17.5
MAX	67	86	65	173	139	240	99	103	66	57	23	25
MIN	39	40	52	51	83	82	60	61	44	23	16	14
CFSM	.61	.68	.78	1.17	1.26	1.45	.98	1.04	.68	.46	.25	.23
IN.	.70	.76	.89	1.34	1.32	1.67	1.10	1.20	.76	.53	.29	.26

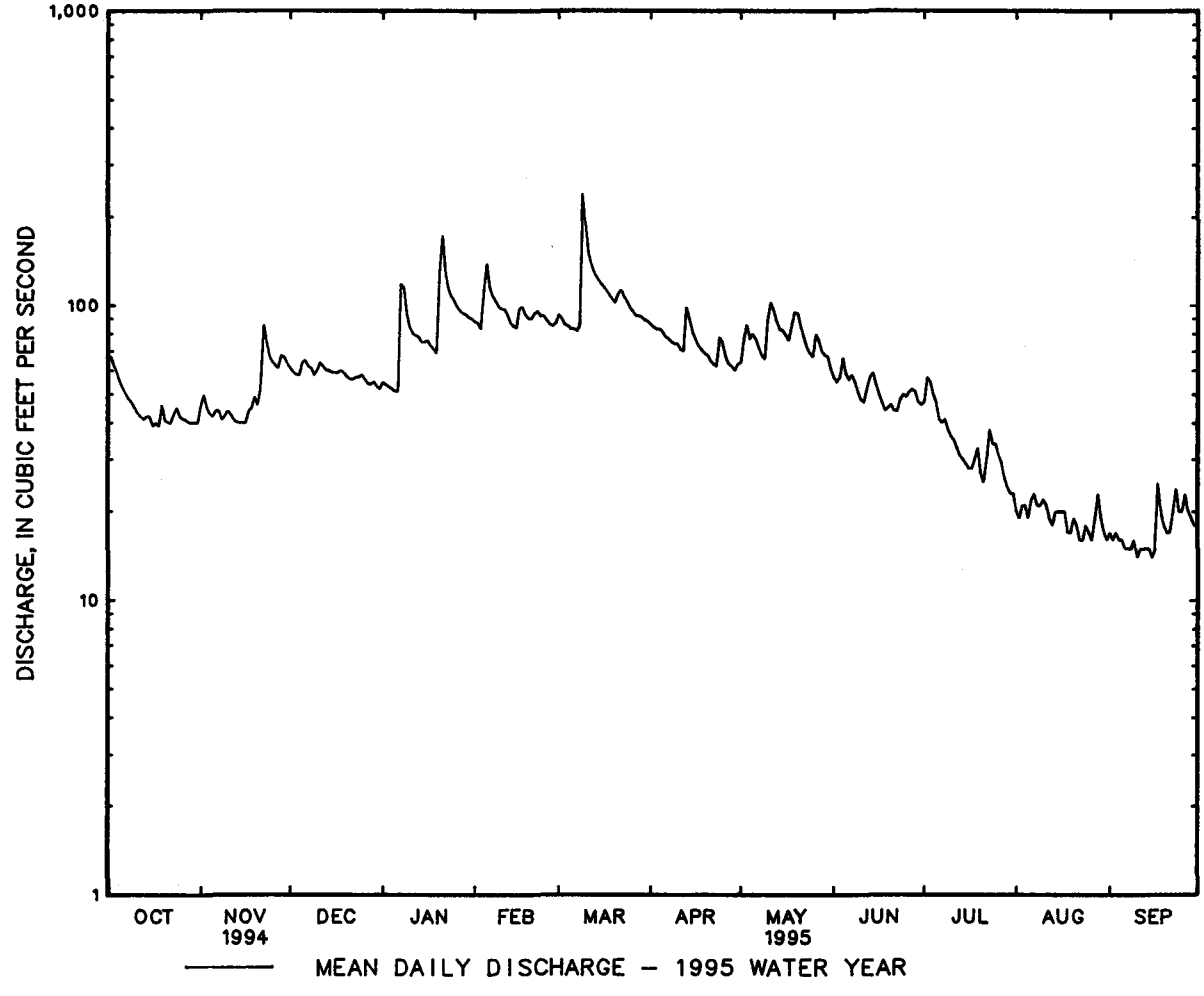
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1943 - 1995, BY WATER YEAR (WY)

MEAN	45.1	58.6	86.5	118	132	160	137	101	74.2	57.9	62.8	46.1
MAX	137	192	294	311	376	421	300	219	298	210	412	234
(WY)	1980	1957	1949	1978	1961	1994	1958	1990	1948	1959	1967	1960
MIN	17.9	21.2	23.9	23.8	50.9	61.5	47.8	45.8	29.3	17.5	13.6	10.1
(WY)	1944	1988	1944	1966	1950	1977	1985	1951	1986	1944	1943	1943

01487000 NANTICOKE RIVER NEAR BRIDGEVILLE, DE--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1943 - 1995	
ANNUAL TOTAL	48725		21938			
ANNUAL MEAN	133		60.1		90.0	
HIGHEST ANNUAL MEAN					170	1958
LOWEST ANNUAL MEAN					43.8	1985
HIGHEST DAILY MEAN	1550	Mar 3	240	Mar 9	2880	Feb 26 1979
LOWEST DAILY MEAN	29	Sep 14	14	(a)	6.6	Sep 29 1943
ANNUAL SEVEN-DAY MINIMUM	31	Sep 10	15	Sep 10	7.8	Sep 23 1943
INSTANTANEOUS PEAK FLOW			296	Mar 9	3020	Feb 26 1979
INSTANTANEOUS PEAK STAGE			6.20	Mar 9	10.31	Feb 26 1979
INSTANTANEOUS LOW FLOW			13	Sep 15	(b)6.3	Sep 29 1943
ANNUAL RUNOFF (CFSM)	1.77		.80		1.19	
ANNUAL RUNOFF (INCHES)	24.04		10.82		16.21	
10 PERCENT EXCEEDS	279		97		172	
50 PERCENT EXCEEDS	71		57		65	
90 PERCENT EXCEEDS	41		19		26	

a Sept. 10, 15.
b Minimum discharge observed.



01487000 NANTICOKE RIVER NEAR BRIDGEVILLE, DE--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1961-72, 1974-80, 1991, 1994 to current year.

REMARKS.--On May 5 and Nov. 15, 1994 samples were collected and analyzed using ultraclean methodologies. Data on trace metals for these dates are available from the University of Delaware. Data on organics for these dates are available from George Mason University.

WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TEMPER-ATURE AIR (DEG C)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)
NOV 1994											
15...	1000	34	115	6.2	11.5	17.0	767	8.4	77	1.6	0.30

SUSPENDED SEDIMENT DISCHARGE

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV 1994					
15...	1000	34	3	0.28	57

NANTICOKE RIVER BASIN

01488500 MARSHYHOPE CREEK NEAR ADAMSVILLE, DE

LOCATION.--Lat 38°50'59", long 75°40'24", 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 mi^2.

PERIOD OF RECORD.--April 1943 to March 1969, October 1971 to current year.

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

GAGE.--Water-stage recorder. Datum of gage is 26.21 ft above sea level. 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 dialy discharges (backwater), which are fair. 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.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 450 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar. 9	0415	*857	*6.36	No other peak greater than base discharge.			

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33	e17	33	30	51	63	42	34	40	22	15	10
2	33	e17	32	29	49	57	42	38	37	34	15	9.8
3	31	e16	32	28	46	53	39	42	37	26	15	9.1
4	29	e16	31	28	68	51	40	38	75	22	14	9.7
5	28	e16	34	26	78	49	38	40	45	21	14	10
6	27	e17	37	27	59	49	36	41	40	21	17	10
7	25	e17	38	157	57	47	37	37	40	21	22	9.7
8	24	e16	36	82	53	63	36	35	38	21	17	9.6
9	24	e16	33	64	49	446	36	33	35	20	15	9.5
10	24	e17	34	56	48	150	37	79	33	19	15	9.0
11	22	e18	39	52	48	115	34	88	32	19	15	9.1
12	21	e17	37	50	46	99	34	70	33	18	14	9.5
13	21	e16	35	49	43	88	64	57	33	17	13	9.6
14	21	e16	34	46	42	82	52	51	33	18	13	9.5
15	20	e16	34	46	43	77	46	49	31	18	13	9.4
16	20	e17	33	47	60	73	43	45	28	17	14	9.4
17	19	e18	34	44	59	69	42	43	27	16	14	12
18	19	e19	35	42	54	65	39	90	26	17	13	11
19	19	e23	34	41	52	61	39	147	25	18	11	10
20	e18	e34	32	187	53	55	38	89	25	17	11	9.7
21	e18	e32	32	138	63	64	36	67	24	16	12	9.6
22	e18	90	31	95	59	79	35	56	24	26	11	11
23	e21	48	32	80	54	67	34	49	25	55	11	11
24	e20	39	33	73	53	60	39	44	26	36	11	11
25	e19	36	33	68	49	54	37	44	25	26	11	12
26	e20	34	31	63	49	51	34	108	24	22	11	14
27	e19	33	30	59	47	49	33	62	23	20	11	14
28	e18	38	30	57	52	48	33	52	22	19	10	11
29	e18	40	31	54	---	45	31	49	22	18	10	9.6
30	e18	36	28	55	---	46	33	47	22	16	11	9.2
31	e17	---	28	52	---	43	---	43	---	15	10	---
TOTAL	684	785	1026	1925	1484	2418	1159	1767	950	671	409	308.0
MEAN	22.1	26.2	33.1	62.1	53.0	78.0	38.6	57.0	31.7	21.6	13.2	10.3
MAX	33	90	39	187	78	446	64	147	75	55	22	14
MIN	17	16	28	26	42	43	31	33	22	15	10	9.0
CFSM	.50	.60	.75	1.41	1.21	1.78	.88	1.30	.72	.49	.30	.23
IN.	.58	.67	.87	1.63	1.26	2.05	.98	1.50	.81	.57	.35	.26

e Estimated

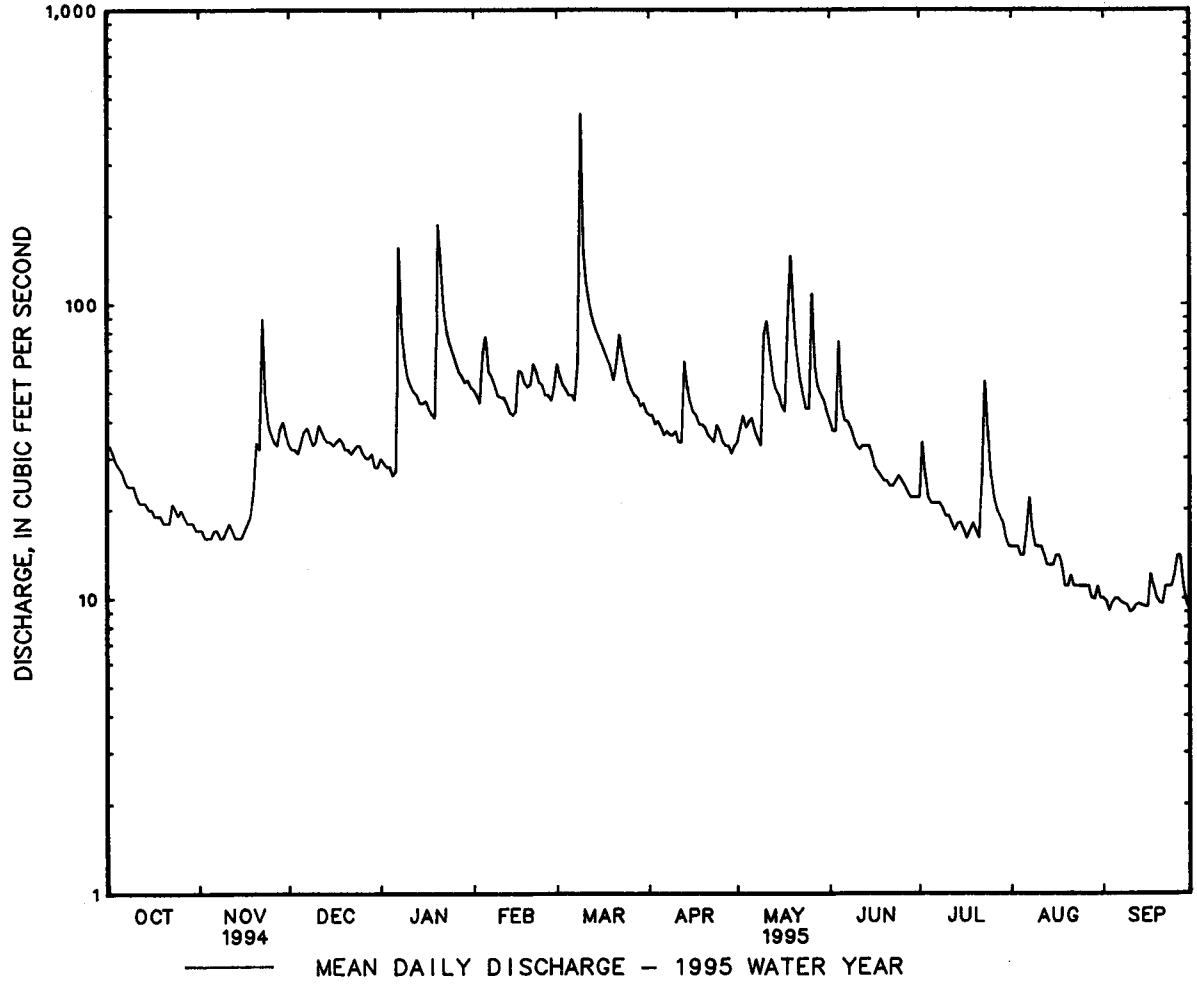
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1943 - 1995, BY WATER YEAR (WY)

MEAN	19.0	34.0	58.2	82.4	86.5	110	75.8	52.1	35.3	35.2	35.4	19.4
MAX	101	190	196	258	267	284	226	178	156	297	340	126
(WY)	1972	1957	1949	1978	1979	1994	1983	1989	1948	1975	1967	1960
MIN	3.46	4.95	3.22	4.30	27.8	27.8	21.7	15.5	7.32	4.58	2.83	2.78
(WY)	1966	1966	1966	1966	1966	1966	1985	1957	1965	1944	1964	1964

01488500 MARSHYHOPE CREEK NEAR ADAMSVILLE, DE--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1943 - 1995	
ANNUAL TOTAL	29232		13586.0			
ANNUAL MEAN	80.1		37.2		54.1	
HIGHEST ANNUAL MEAN					111	1958
LOWEST ANNUAL MEAN					16.2	1966
HIGHEST DAILY MEAN	2100	Mar 3	446	Mar 9	2710	Aug 5 1967
LOWEST DAILY MEAN	16	(a)	9.0	Sep 10	1.2	(b)
ANNUAL SEVEN-DAY MINIMUM	16	Nov 3	9.4	Sep 10	1.3	Sep 5 1964
INSTANTANEOUS PEAK FLOW			857	Mar 9	(c)3700	Jul 13 1975
INSTANTANEOUS PEAK STAGE			6.36	Mar 9	13.98	Aug 5 1967
INSTANTANEOUS LOW FLOW			8.3	Sep 30	1.0	(d)
ANNUAL RUNOFF (CFSM)	1.82		.85		1.23	
ANNUAL RUNOFF (INCHES)	24.77		11.51		16.74	
10 PERCENT EXCEEDS	152		63		113	
50 PERCENT EXCEEDS	36		33		28	
90 PERCENT EXCEEDS	19		11		7.2	

a Sept. 15-17.
b Sept. 9, 10, 1964.
c From rating curve extended above 3,300 ft^3/s.
d Sept. 9, 10, 1964; Aug. 20, 1965.



01491000 CHOPTANK RIVER NEAR GREENSBORO, MD

LOCATION.--Lat 38°59'50", long 75°47'10", Caroline County, Hydrologic Unit 02060005, on left bank at highway bridge, 0.1 mi upstream from Gravelly Branch, 2.0 mi northeast of Greensboro, and 60 mi upstream from mouth.

DRAINAGE AREA.--113 mi^2.

WATER-DISCHARGE RECORDS

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

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 3.51 ft above sea level.

REMARKS.--Water-discharge records good except those for estimated daily discharges (backwater, doubtful gage-height record), which are fair. Diversions for irrigation of about 500 acres upstream from 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.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar. 9	2230	*1,490	*7.68	No other peak greater than base discharge.			

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	93	41	94	67	120	159	98	77	65	32	10	5.8
2	89	42	83	72	116	172	94	89	58	30	8.9	e5.8
3	87	42	77	70	109	149	92	102	58	28	8.6	e5.6
4	83	40	75	67	118	134	88	99	74	30	7.9	5.6
5	76	40	82	65	137	127	84	89	65	34	7.2	e5.0
6	71	41	99	65	124	123	80	83	57	29	18	e4.9
7	69	41	111	150	144	119	77	75	58	27	62	e4.9
8	64	40	103	439	121	129	76	67	58	26	89	4.4
9	60	39	91	325	121	905	73	63	52	24	54	5.7
10	58	42	86	188	112	1050	79	103	47	21	36	10
11	60	44	98	153	102	532	77	180	45	21	26	12
12	54	41	113	139	103	371	73	219	46	18	21	11
13	52	40	107	133	96	268	111	178	49	16	20	12
14	51	39	96	128	91	219	130	143	48	16	15	e8.9
15	50	40	91	125	88	195	123	130	48	17	14	e4.9
16	46	39	87	125	118	179	106	123	44	13	16	5.1
17	46	41	82	121	176	166	95	108	40	11	15	27
18	46	44	82	114	169	151	90	108	36	16	12	37
19	44	58	81	106	151	139	85	127	33	13	9.4	25
20	45	73	78	246	142	128	81	139	33	11	9.2	18
21	44	69	73	660	142	144	79	142	32	11	9.3	15
22	43	108	70	548	143	179	75	121	36	19	10	20
23	44	119	70	332	134	181	72	98	39	83	9.0	41
24	48	95	71	222	124	158	74	85	48	46	7.9	26
25	48	80	79	187	110	138	78	74	47	32	6.8	23
26	44	74	82	165	101	126	73	99	42	29	8.7	36
27	42	69	76	150	102	117	69	96	39	24	9.1	30
28	41	86	72	141	119	111	65	82	39	21	10	23
29	40	104	72	135	---	106	62	75	36	18	7.1	18
30	42	106	69	128	---	101	62	74	34	13	8.2	15
31	41	---	64	124	---	100	---	74	---	11	5.8	---
TOTAL	1721	1777	2614	5690	3433	6876	2521	3322	1406	740	551.1	465.6
MEAN	55.5	59.2	84.3	184	123	222	84.0	107	46.9	23.9	17.8	15.5
MAX	93	119	113	660	176	1050	130	219	74	83	89	41
MIN	40	39	64	65	88	100	62	63	32	11	5.8	4.4
CFSM	.49	.52	.75	1.62	1.09	1.96	.74	.95	.41	.21	.16	.14
IN.	.57	.58	.86	1.87	1.13	2.26	.83	1.09	.46	.24	.18	.15

e Estimated.

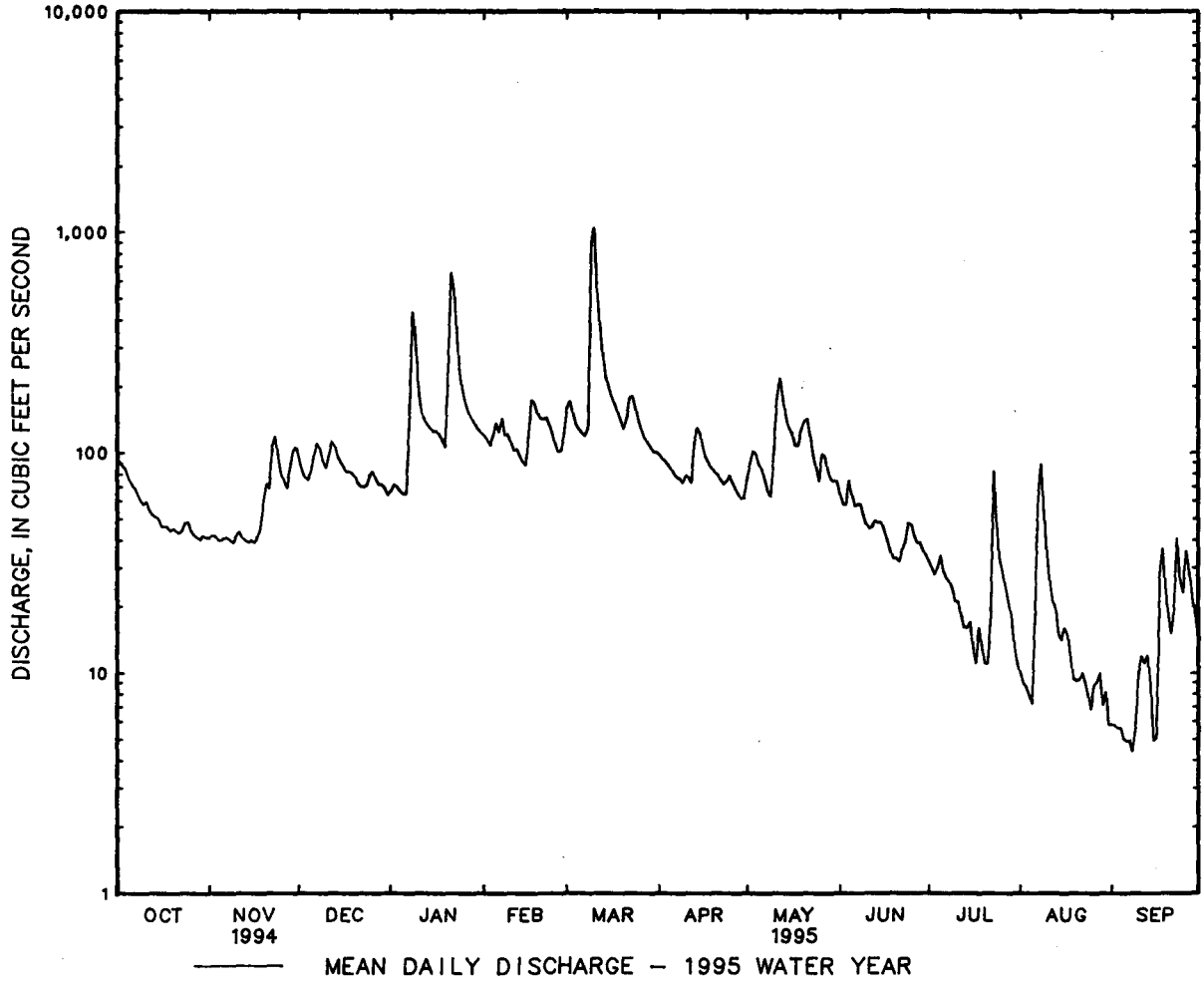
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1948 - 1995, BY WATER YEAR (WY)

MEAN	51.9	87.5	143	197	216	264	197	131	89.8	57.9	82.8	46.1
MAX	402	476	475	559	646	826	649	457	329	421	829	323
(WY)	1972	1957	1973	1978	1979	1994	1983	1989	1972	1975	1967	1960
MIN	9.85	10.9	13.3	17.9	42.7	43.7	47.2	30.3	19.5	9.49	5.31	9.38
(WY)	1966	1966	1966	1966	1966	1966	1966	1977	1986	1977	1966	1987

01491000 CHOPTANK RIVER NEAR GREENSBORO, MD--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1948 - 1995	
ANNUAL TOTAL	74136		31116.7			
ANNUAL MEAN	203		85.3		129	
HIGHEST ANNUAL MEAN					237	1972
LOWEST ANNUAL MEAN					26.6	1966
HIGHEST DAILY MEAN	4120	Mar 29	1050	Mar 10	6160	Aug 4 1967
LOWEST DAILY MEAN	19	Jul 12	4.4	Sep 8	1.5	Aug 29 1966
ANNUAL SEVEN-DAY MINIMUM	24	Jul 8	5.2	Sep 3	2.2	Aug 26 1966
INSTANTANEOUS PEAK FLOW			1490	Mar 9	(a)6970	Aug 4 1967
INSTANTANEOUS PEAK STAGE			7.68	Mar 9	14.47	Aug 4 1967
INSTANTANEOUS LOW FLOW			UNKNOWN		1.2	(b)
ANNUAL RUNOFF (CFSM)	1.80		.75		1.14	
ANNUAL RUNOFF (INCHES)	24.41		10.24		15.52	
10 PERCENT EXCEEDS	449		144		280	
50 PERCENT EXCEEDS	98		72		70	
90 PERCENT EXCEEDS	41		12		15	

a From rating curve extended above 3,600 ft^3/s.
b Aug. 29, 1966, Sept. 3, 1987.



01491000 CHOPTANK RIVER NEAR GREENSBORO, MD--Continued

WATER-QUALITY RECORDS

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

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

REMARKS.--On May 5 and Nov. 15, 1994 samples were collected and analyzed using ultraclean methodologies. Data on trace metals for these dates are available from the University of Delaware. Data on organics for these dates are available from George Mason University.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE (water years 1975-81, 1988, 1990-91): Maximum daily, 313 microsiemens, Dec. 20, 1987; minimum daily, 40 microsiemens, 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: Maximun 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 1994 TO SEPTEMBER 1995

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TEMPER-ATURE AIR (DEG C)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3
OCT 1994										
13...	1015	53	145	6.8	11.5	17.5	774	8.7	79	22
NOV										
15...	1400	38	152	7.0	11.5	19.5	767	10.6	97	24
DEC										
07...	1045	112	158	7.0	12.0	18.0	759	8.7	81	17
JAN 1995										
16...	1445	129	137	6.2	13.0	11.0	758	8.6	82	13
20...	1715	396	122	6.3	9.0	5.0	745	9.0	79	12
21...	1530	746	97	6.1	8.5	7.0	751	8.7	75	10
22...	1315	529	91	5.8	6.0	2.5	757	9.7	79	10
23...	1700	289	110	5.8	4.0	0.0	759	10.9	84	9
MAR										
08...	1230	122	181	7.3	12.0	19.0	760	9.3	86	15
APR										
11...	1215	87	138	7.1	13.0	14.5	764	9.8	92	18
MAY										
16...	1000	125	120	7.0	17.0	22.0	762	6.8	70	17
JUN										
19...	1015	33	144	7.1	22.0	28.5	764	6.4	73	23
JUL										
18...	0915	17	155	7.0	26.0	28.0	756	5.5	68	25
AUG										
16...	0800	15	150	7.1	23.5	23.0	761	--	--	21
SEP										
05...	1000	5.0	169	7.2	20.0	25.5	769	6.5	71	26

01491000 CHOPTANK RIVER NEAR GREENSBORO, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	BICARBONATE WATER DIS IT FIELD MG/L AS HCO3	SILICA, DISSOLVED (MG/L AS SIO2)	NITROGEN, NITRATE DISSOLVED (MG/L AS NO3)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NITRATE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)
OCT 1994									
13...	26	9.1	7.5	2.0	0.013	1.69	1.70	1.70	0.040
NOV									
15...	29	17	4.8	1.3	0.007	1.09	1.10	1.10	<0.015
DEC									
07...	21	19	4.4	1.2	0.006	0.994	1.00	1.00	<0.015
JAN 1995									
16...	16	19	--	1.3	<0.001	--	1.10	1.10	0.020
20...	15	13	5.7	1.9	0.009	1.29	1.30	1.30	0.050
21...	12	11	2.6	1.4	0.004	0.596	0.600	0.600	0.050
22...	13	13	3.1	1.5	0.009	0.691	0.700	0.700	0.050
23...	10	16	4.2	1.5	0.005	0.945	0.950	0.950	0.040
MAR									
08...	18	17	5.3	1.5	0.007	1.19	1.20	1.20	0.020
APR									
11...	23	8.2	--	--	<0.001	--	0.740	0.740	<0.015
MAY									
16...	21	17	2.9	1.3	0.024	0.666	0.690	0.690	0.130
JUN									
19...	28	18	5.3	1.8	0.007	1.19	1.20	1.20	0.030
JUL									
18...	31	17	4.9	1.4	0.004	1.10	1.10	1.10	0.040
AUG									
16...	25	16	5.3	1.5	0.004	1.20	1.20	1.20	0.030
SEP									
05...	32	13	5.7	1.6	0.003	1.30	1.30	1.30	<0.015

DATE	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	ALUMINUM, DISSOLVED (UG/L AS AL)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C)
OCT 1994									
13...	0.30	0.30	0.060	0.045	0.029	<10	4.0	--	--
NOV									
15...	0.20	<0.20	0.030	0.025	0.007	10	4.3	3.8	0.40
DEC									
07...	0.20	0.20	0.030	0.017	0.015	30	4.4	--	--
JAN 1995									
16...	0.20	0.20	0.020	0.023	0.017	30	5.4	--	--
20...	0.60	0.30	0.120	0.034	0.021	220	6.6	--	--
21...	0.80	0.40	0.150	0.063	0.035	450	12	--	--
22...	0.80	0.50	0.100	0.061	0.029	490	12	--	--
23...	0.50	0.40	0.060	0.051	0.037	410	11	--	--
MAR									
08...	0.30	0.20	<0.010	0.015	0.015	30	4.6	--	--
APR									
11...	<0.20	<0.20	<0.010	0.017	0.012	20	--	--	--
MAY									
16...	0.60	0.60	0.070	0.063	0.057	80	8.9	--	--
JUN									
19...	0.60	0.30	0.110	0.053	0.047	20	5.0	--	--
JUL									
18...	0.30	0.30	0.050	0.041	0.036	20	4.8	--	--
AUG									
16...	0.30	0.30	0.040	0.042	0.039	10	4.1	--	--
SEP									
05...	0.30	0.30	0.020	0.026	0.018	<10	3.5	--	--

01491000 CHOPTANK RIVER NEAR GREENSBORO, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

SUSPENDED SEDIMENT DISCHARGE

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 1994					
13...	1015	53	3	0.43	--
NOV					
15...	1400	38	3	0.31	68
DEC					
07...	1045	112	2	0.60	--
JAN 1995					
16...	1445	129	4	1.4	--
20...	1715	396	49	52	--
21...	1530	746	52	105	--
22...	1315	529	31	44	--
23...	1700	289	13	10	--
MAR					
08...	1230	122	3	0.99	--
APR					
11...	1215	87	3	0.70	--
MAY					
16...	1000	125	5	1.7	--
JUN					
19...	1015	33	3	0.27	--
JUL					
18...	0915	17	2	0.09	--
AUG					
16...	0800	15	1	0.04	--
SEP					
05...	1000	5.0	1	0.01	--

01493000 UNICORN BRANCH NEAR MILLINGTON, MD

LOCATION.--Lat 39°14'59", long 75°51'40", Queen Annes County, Hydrologic Unit 02060002, on right bank 20 ft upstream from bridge on State Highway 313, 0.9 mi upstream from mouth, and 1.4 mi southwest of Millington.

DRAINAGE AREA.--19.7 mi^2(Revised).

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

REVISED RECORDS.--WSP 1382: 1952(P).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 3.57 ft above sea level.

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.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 180 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar. 9	1230	*204	*3.78	No other peak greater than base discharge.			

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	14	37	17	35	34	20	23	12	10	5.6	5.4
2	20	13	33	17	31	28	19	24	12	9.8	4.6	5.7
3	18	12	15	22	16	26	19	26	13	9.0	5.0	6.0
4	17	12	15	20	8.7	24	18	20	14	9.3	5.6	6.2
5	16	11	15	13	9.7	23	19	18	14	9.3	4.8	5.9
6	16	12	24	12	22	22	18	18	13	9.5	66	5.2
7	15	12	24	22	29	22	17	17	14	11	80	4.5
8	15	12	17	62	28	31	17	15	12	9.5	14	4.4
9	15	11	20	34	27	150	18	15	11	8.6	11	5.5
10	15	14	23	33	21	106	19	34	11	8.7	9.6	6.5
11	14	13	23	32	18	58	18	47	10	9.3	10	5.2
12	15	12	24	31	19	42	18	33	11	8.5	9.5	5.2
13	14	13	28	30	19	35	32	24	12	8.2	8.8	5.5
14	15	13	27	29	19	31	27	21	12	6.8	9.4	5.2
15	15	12	19	28	19	30	22	22	11	6.5	8.9	5.7
16	14	12	16	25	20	27	20	19	10	6.5	8.6	6.2
17	13	12	16	23	21	26	19	19	9.7	5.4	8.8	18
18	14	13	17	23	33	24	17	20	9.7	5.3	7.8	10
19	13	17	17	21	29	23	17	31	9.7	5.2	6.0	7.4
20	13	15	17	24	29	23	17	32	8.2	5.3	5.2	6.9
21	13	18	17	112	28	30	17	22	7.8	6.4	6.2	6.8
22	12	23	17	61	26	35	16	18	8.5	6.5	6.2	9.2
23	15	17	17	40	23	29	16	16	14	6.2	6.0	9.7
24	16	16	17	31	23	26	17	14	17	6.1	5.7	8.2
25	14	15	17	29	22	24	17	16	13	5.6	5.3	10
26	13	14	17	27	21	23	16	25	12	6.4	4.2	13
27	13	14	17	25	21	22	15	20	12	5.8	4.0	9.8
28	13	22	17	24	31	23	14	17	12	5.8	5.1	7.6
29	12	22	17	23	---	22	14	17	11	6.4	5.6	7.1
30	13	17	17	32	---	21	17	16	11	6.2	5.9	7.2
31	13	---	17	37	---	20	---	14	---	6.2	5.9	---
TOTAL	451	433	614	959	648.4	1060	550	673	347.6	229.3	349.3	219.2
MEAN	14.5	14.4	19.8	30.9	23.2	34.2	18.3	21.7	11.6	7.40	11.3	7.31
MAX	20	23	37	112	35	150	32	47	17	11	80	18
MIN	12	11	15	12	8.7	20	14	14	7.8	5.2	4.0	4.4
CFSM	.65	.65	.89	1.39	1.04	1.53	.82	.97	.52	.33	.51	.33
IN.	.75	.72	1.02	1.60	1.08	1.77	.92	1.12	.58	.38	.58	.37

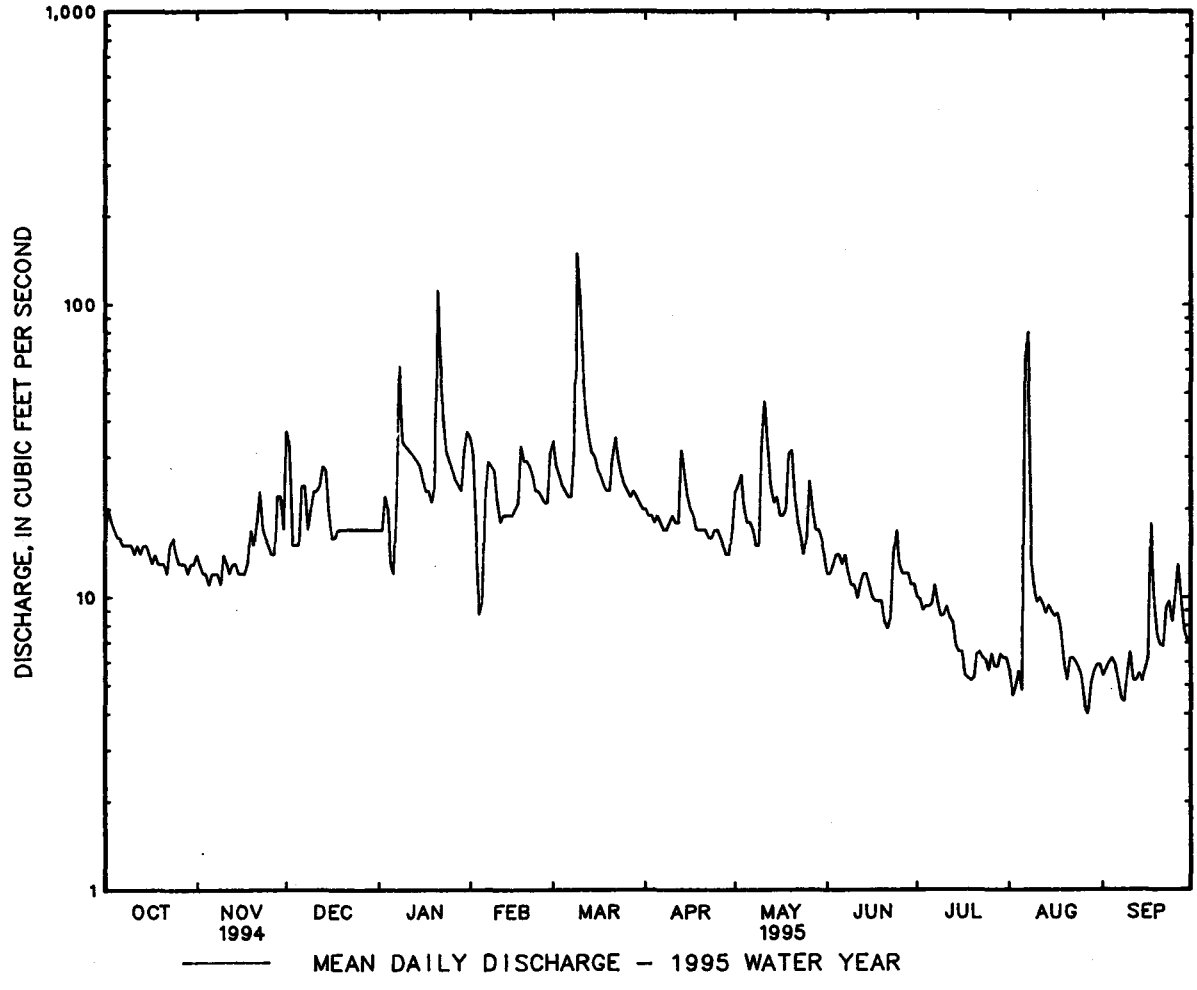
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1948 - 1995, BY WATER YEAR (WY)

MEAN	14.2	16.8	23.9	32.1	36.2	42.6	36.0	26.2	20.0	16.2	17.1	14.3
MAX	91.5	65.4	67.2	83.7	83.7	105	109	66.8	80.7	52.5	62.5	92.1
(WY)	1972	1972	1973	1978	1961	1994	1983	1989	1972	1972	1967	1960
MIN	5.27	4.99	5.32	5.80	12.1	9.29	10.7	8.64	4.51	5.22	3.15	4.79
(WY)	1966	1966	1966	1966	1966	1966	1966	1977	1966	1977	1966	1977

01493000 UNICORN BRANCH NEAR MILLINGTON, MD--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1948 - 1995	
ANNUAL TOTAL	13078.3		6533.8			
ANNUAL MEAN	35.8		17.9		24.5	
HIGHEST ANNUAL MEAN					51.8	1972
LOWEST ANNUAL MEAN					7.08	1966
HIGHEST DAILY MEAN	460	Mar 29	150	Mar 9	685	Sep 13 1960
LOWEST DAILY MEAN	8.2	Jul 13	4.0	Aug 27	.10	Jun 9 1965
ANNUAL SEVEN-DAY MINIMUM	9.9	Jul 7	5.1	Aug 24	.14	Jun 8 1965
INSTANTANEOUS PEAK FLOW			204	Mar 9	(a)1060	Sep 12 1960
INSTANTANEOUS PEAK STAGE			3.78	Mar 9	7.17	Sep 12 1960
INSTANTANEOUS LOW FLOW			2.3	Feb 17	.00	(b)
ANNUAL RUNOFF (CFSM)	1.61		.80		1.10	
ANNUAL RUNOFF (INCHES)	21.82		10.90		14.91	
10 PERCENT EXCEEDS	66		30		46	
50 PERCENT EXCEEDS	20		16		16	
90 PERCENT EXCEEDS	13		6.1		7.2	

a From rating curve extended above 600 ft^3/s.
b No flow for part of each day June 13, 14, 1965, caused by regulation at Unicorn Lake Dam.



01493500 MORGAN CREEK NEAR KENNEDYVILLE, MD

LOCATION.--Lat 39°16'48", long 76°00'54", Kent County, Hydrologic Unit 02060002, on right bank 200 ft upstream from highway bridge, 2.0 mi southwest of Kennedyville, and 4.5 mi upstream from mouth.

DRAINAGE AREA.--12.7 mi^2.

PERIOD OF RECORD.--May 1951 to current year.

REVISED RECORDS.--WSP 1552: 1952, 1953(P), 1954(M), 1955, 1956-57(M). WDR MD-DE-76-1: Drainage area. WDR MD-DE-79-1: 1961(M). WDR MD-DE-80-1: 1976(P).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1.76 ft above sea level.

REMARKS.--Records good except those for estimated daily discharges (backwater from storm tides), which are fair. Several measurements of water temperature were made during the year. Water-quality data for some prior years have been collected at this location.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 200 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Aug. 6	2130	*277	*4.78	No other peak greater than base discharge.			

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.5	e15	6.1	7.5	6.0	11	5.5	8.4	3.3	3.5	2.7	e1.7
2	5.8	8.1	5.3	6.8	6.1	11	5.4	e9.1	3.4	3.4	2.7	1.3
3	4.3	5.0	5.1	5.6	5.4	8.1	5.1	7.2	4.7	3.1	2.5	1.3
4	3.7	5.2	5.2	5.4	7.3	5.9	5.7	5.1	4.4	3.3	2.4	1.5
5	3.9	5.2	13	4.5	6.7	5.9	5.1	5.2	3.7	3.9	2.4	1.4
6	3.7	5.2	9.9	6.2	5.0	5.9	4.8	4.6	3.7	3.4	112	1.6
7	3.8	5.1	6.5	53	5.2	5.9	5.0	6.7	3.7	3.7	77	1.8
8	3.9	5.1	5.6	18	5.2	12	7.1	5.3	3.5	3.4	e9.7	1.7
9	4.1	5.2	5.4	9.0	5.1	76	6.7	4.0	3.2	3.0	e3.7	1.7
10	4.6	5.8	8.8	7.2	5.8	16	6.3	11	3.2	3.1	2.7	1.9
11	4.0	5.6	15	6.6	6.9	8.6	5.8	9.5	3.4	5.3	2.8	1.6
12	3.7	5.1	8.6	6.4	6.4	6.5	5.4	6.1	5.1	5.1	2.8	2.0
13	4.1	4.9	6.5	6.0	4.9	6.1	12	4.9	5.3	3.1	2.6	1.8
14	11	5.2	6.1	6.0	4.8	5.9	6.9	5.0	4.2	2.5	3.4	1.7
15	4.1	5.1	5.6	7.8	5.6	5.8	5.5	5.5	3.6	2.4	3.0	1.7
16	4.5	5.3	5.0	10	12	5.6	4.7	4.4	3.3	2.4	2.6	1.6
17	4.6	5.5	5.6	7.4	12	5.5	4.5	e6.6	3.1	3.0	2.4	12
18	4.6	5.7	5.8	6.4	8.4	5.5	4.7	9.5	2.9	3.8	2.6	6.6
19	4.8	5.4	5.6	6.2	9.4	6.3	5.1	19	2.8	3.3	2.2	2.9
20	5.1	5.1	5.5	e70	8.1	6.3	4.6	11	2.7	2.8	e2.4	2.4
21	5.3	e9.2	10	35	6.8	8.7	4.6	6.2	2.8	2.8	e2.2	2.4
22	4.9	11	6.2	11	6.0	8.0	4.6	4.6	3.0	3.3	1.8	8.0
23	7.1	6.1	5.4	7.2	5.9	6.7	4.2	3.7	5.4	2.8	1.8	12
24	7.3	5.4	5.9	6.5	6.1	5.9	5.1	3.6	9.7	2.9	1.8	5.0
25	5.6	5.3	6.6	6.1	5.6	5.4	4.8	5.8	15	2.7	1.6	5.1
26	5.5	5.2	5.6	6.0	5.5	5.1	4.4	24	20	2.8	1.6	6.9
27	5.6	5.6	5.3	5.8	5.6	5.2	4.3	9.4	5.9	2.7	1.5	5.4
28	4.6	13	5.2	5.9	14	5.4	4.0	5.9	4.2	2.9	1.7	3.7
29	5.1	10	5.2	5.7	---	5.5	3.6	6.4	3.8	3.1	1.5	2.8
30	5.9	7.7	5.1	5.9	---	5.5	6.1	5.2	3.8	2.7	1.5	8.2
31	5.3	---	5.0	6.0	---	5.6	---	4.0	---	2.5	1.5	---
TOTAL	160.0	196.3	205.7	357.1	191.8	286.8	161.6	226.9	146.8	98.7	263.1	109.7
MEAN	5.16	6.54	6.64	11.5	6.85	9.25	5.39	7.32	4.89	3.18	8.49	3.66
MAX	11	15	15	70	14	76	12	24	20	5.3	112	12
MIN	3.7	4.9	5.0	4.5	4.8	5.1	3.6	3.6	2.7	2.4	1.5	1.3
CFSM	.41	.52	.52	.91	.54	.73	.42	.58	.39	.25	.67	.29
IN.	.47	.57	.60	1.05	.56	.84	.47	.66	.43	.29	.77	.32

e Estimated

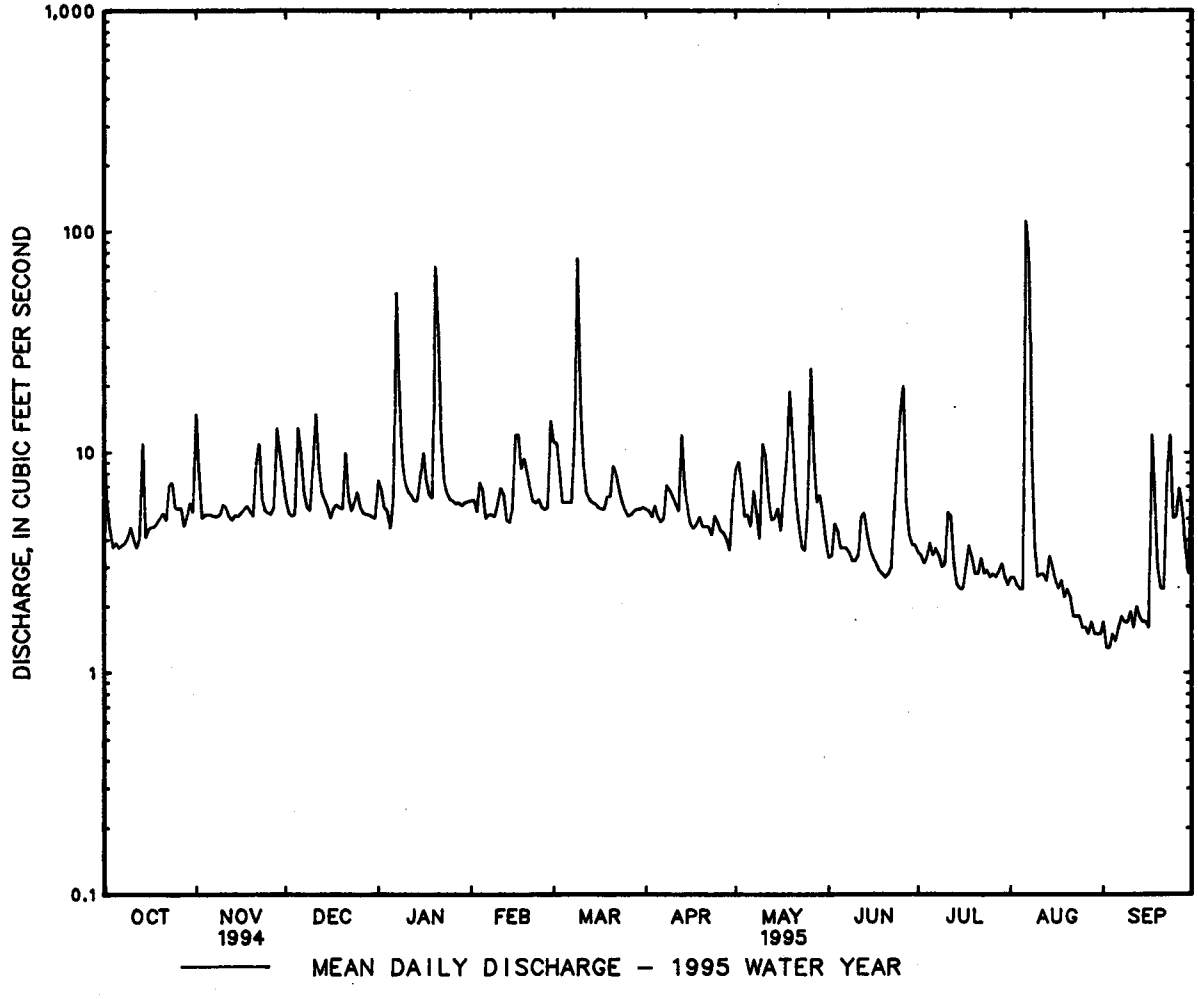
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 1995, BY WATER YEAR (WY)

MEAN	7.12	8.90	11.5	13.5	14.1	13.9	10.8	9.32	12.8	8.57	8.59	7.66
MAX	32.3	30.7	37.8	45.6	47.1	36.7	29.5	20.6	113	26.9	27.8	32.4
(WY)	1972	1973	1984	1978	1979	1994	1983	1990	1972	1989	1971	1960
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 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1951 - 1995	
ANNUAL TOTAL	5353.8		2404.5			
ANNUAL MEAN	14.7		6.59		10.6	
HIGHEST ANNUAL MEAN					24.2	1972
LOWEST ANNUAL MEAN					3.67	1966
HIGHEST DAILY MEAN	377	Mar 3	112	Aug 6	2810	Jun 22 1972
LOWEST DAILY MEAN	2.9	Sep 11	1.3	(a)	.70	(b)
ANNUAL SEVEN-DAY MINIMUM	3.3	Sep 8	1.5	Aug 30	.71	Sep 7 1966
INSTANTANEOUS PEAK FLOW			277	Aug 6	(c)7500	Jun 22 1972
INSTANTANEOUS PEAK STAGE			4.78	Aug 6	13.07	Jun 22 1972
INSTANTANEOUS LOW FLOW			.98	Sep 2	.60	(d)
ANNUAL RUNOFF (CFSM)	1.15		.52		.83	
ANNUAL RUNOFF (INCHES)	15.68		7.04		11.30	
10 PERCENT EXCEEDS	18		9.6		16	
50 PERCENT EXCEEDS	6.7		5.2		6.2	
90 PERCENT EXCEEDS	4.1		2.5		3.2	

a Sept. 2, 3.
b July 21, Aug. 28-31, Sept. 4, 8-13, 1966.
c From rating curve extended above 640 ft^3/s on basis of culvert and flow-over-road measurement of peak flow.
d Aug. 28, 29, 1966.



01495000 BIG ELK CREEK AT ELK MILLS, MD

LOCATION.--Lat 39°39'26", long 75°49'20", Cecil County, Hydrologic Unit 02060002, on right bank 100 ft downstream from highway bridge at Elk Mills, 3.5 mi north of Elkton, and 7 mi upstream from confluence with Little Elk Creek.

DRAINAGE AREA.--52.6 mi^2.

PERIOD OF RECORD.--April 1932 to current year. Monthly discharge only for some periods, published in WSP 1302.

REVISED RECORDS.--WSP 1432: 1932-33, 1934(M), 1935, 1936(M), 1938, 1919-40(M), 1942(M), 1943-51, 1952-53(P).

GAGE.--Water-stage recorder. Datum of gage is 68.69 ft above sea level. 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. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 1884 reached a stage of about 19 ft, from information by local residents; discharge, about 18,000 ft^3/s.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,700 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 20	0915	1,750	5.77	Jan. 20	1330	*3,090	*6.99
Mar. 8	2230	2,700	6.66				

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	26	29	37	36	87	38	54	28	18	12	7.6
2	28	33	27	36	36	58	38	66	27	19	12	7.1
3	25	28	26	31	34	49	38	64	28	17	12	6.7
4	23	26	25	27	33	46	37	41	27	15	11	6.4
5	23	25	100	e24	e30	44	35	39	25	19	16	6.6
6	23	25	62	33	e30	43	35	36	24	18	33	6.7
7	23	25	38	224	e29	42	36	33	26	23	35	7.0
8	23	24	33	68	e29	471	36	32	24	21	20	7.1
9	23	24	30	40	e28	623	40	31	22	16	17	8.0
10	23	32	51	34	e28	100	45	41	22	14	16	8.2
11	22	35	138	31	e28	75	38	55	23	18	15	7.9
12	21	25	49	32	e32	66	40	41	26	17	15	7.1
13	22	24	38	33	e32	61	84	35	26	14	14	7.3
14	22	24	35	32	33	56	47	35	23	12	13	10
15	23	23	33	54	34	53	40	39	21	12	43	9.9
16	21	28	31	101	74	51	37	33	19	147	26	8.0
17	21	39	31	44	76	49	36	33	19	42	18	63
18	22	29	31	37	71	45	36	37	18	33	15	39
19	22	26	29	35	e60	44	36	47	18	27	13	19
20	22	24	28	828	e55	44	35	38	17	22	11	15
21	23	27	27	129	55	56	36	32	17	21	11	14
22	21	52	26	72	46	55	36	29	17	30	11	25
23	25	30	26	57	42	46	34	28	20	27	9.9	42
24	37	25	27	50	48	43	39	27	23	21	9.5	23
25	25	24	28	46	42	41	38	31	22	20	9.1	22
26	23	23	26	43	38	40	33	64	21	19	8.3	51
27	23	23	25	41	38	40	32	37	22	17	8.6	31
28	23	84	25	39	180	40	32	33	22	17	9.3	23
29	23	53	25	38	---	39	31	50	19	16	9.5	19
30	23	33	23	37	---	39	41	36	18	15	9.0	18
31	23	---	e22	e30	---	39	---	31	---	13	8.1	---
TOTAL	725	919	1144	2363	1297	2585	1159	1228	664	740	470.3	525.6
MEAN	23.4	30.6	36.9	76.2	46.3	83.4	38.6	39.6	22.1	23.9	15.2	17.5
MAX	37	84	138	828	180	623	84	66	28	147	43	63
MIN	21	23	22	24	28	39	31	27	17	12	8.1	6.4
CFSM	.44	.58	.70	1.45	.88	1.59	.73	.75	.42	.45	.29	.33
IN.	.51	.65	.81	1.67	.92	1.83	.82	.87	.47	.52	.33	.37

e Estimated

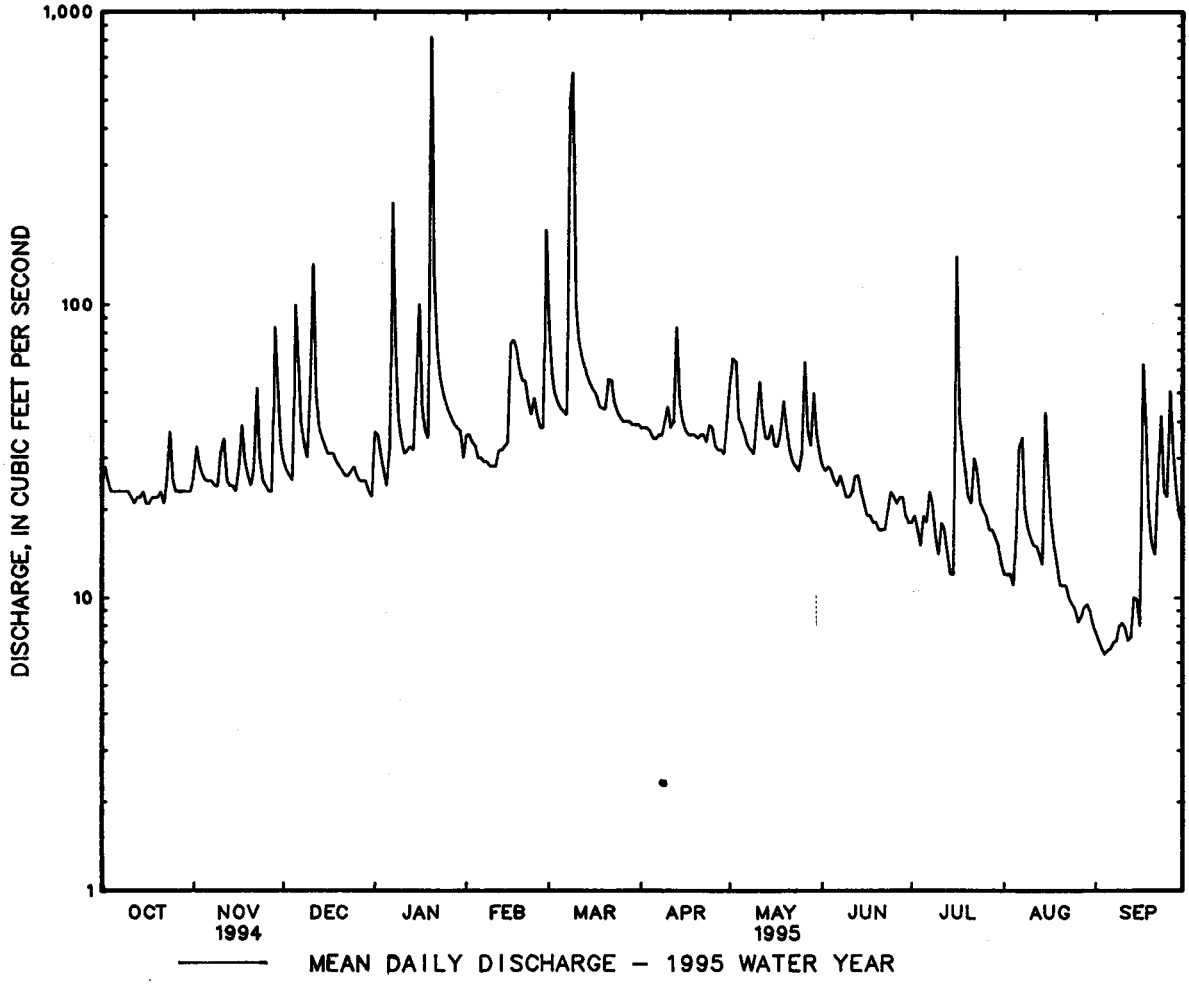
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1932 - 1995, BY WATER YEAR (WY)

MEAN	40.5	54.2	67.4	84.6	98.6	101	89.8	77.0	59.2	57.4	52.1	43.4
MAX	133	115	152	283	236	247	191	160	216	248	241	134
(WY)	1972	1973	1984	1979	1936	1994	1993	1958	1972	1975	1933	1960
MIN	11.1	17.1	18.7	19.2	41.4	35.6	34.5	26.8	21.4	10.5	8.32	9.95
(WY)	1964	1966	1966	1966	1947	1981	1963	1955	1963	1963	1966	1932

01495000 BIG ELK CREEK AT ELK MILLS, MD--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1932 - 1995	
ANNUAL TOTAL	29427		13819.9			
ANNUAL MEAN	80.6		37.9		68.8	
HIGHEST ANNUAL MEAN					109	1972
LOWEST ANNUAL MEAN					35.4	1966
HIGHEST DAILY MEAN	2150	Jan 28	828	Jan 20	3070	Jun 22 1972
LOWEST DAILY MEAN	18	(a)	6.4	Sep 4	4.8	(b)
ANNUAL SEVEN-DAY MINIMUM	19	Sep 10	6.8	Sep 2	4.9	Sep 7 1966
INSTANTANEOUS PEAK FLOW			3090	Jan 20	(c)10600	Jul 5 1937
INSTANTANEOUS PEAK STAGE			6.99	Jan 20	(d)14.50	Jul 5 1937
INSTANTANEOUS LOW FLOW			5.2	Sep 10	(f)4.5	Jan 21 1955
ANNUAL RUNOFF (CFSM)	1.53		.72		1.31	
ANNUAL RUNOFF (INCHES)	20.81		9.77		17.77	
10 PERCENT EXCEEDS	140		54		114	
50 PERCENT EXCEEDS	40		29		46	
90 PERCENT EXCEEDS	23		13		20	

a Sept. 12-15, and 20-21.
b Sept. 8-10, 1966.
c From rating curve extended above 1,700 ft^3/s on basis of velocity-area and conveyance studies.
d From floodmarks.
f Result of freezeup.



01495900 ELK RIVER NEAR TOWN POINT, MD

LOCATION.--Lat 39°30'09", long 75°54'58", Cecil County, Hydrologic Unit 02060001, at site of Old Town Point Wharf, at the Corps of Engineers substation, on left bank of Elk River, 0.7 mi west of Port Herman, 1.1 mi northwest of Town Point, and 1.8 mi downstream from mouth of Back Creek.

PERIOD OF RECORD.--Water years 1982 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1981 to November 1985, October 1986 to current year.
WATER TEMPERATURE: October 1981 to November 1985, October 1986 to current year.

INSTRUMENTATION.--Water-quality monitor since October 1981.

REMARKS.--Records good except those below 500 microsiemens, which are fair. Interruption of the daily specific conductance was caused by ice on probe. Probes are attached to southeast side of bulkhead of wharf; prior to Oct. 1986, probes were attached to bulkhead on the north side of the wharf.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE (water years 1982-85, 1987-89, 1991-95): Maximum, 19,900 microsiemens, Oct. 26, 1982; minimum, 117 microsiemens, July 21-23, 28, 1984.
WATER TEMPERATURE (water years 1982-85, 1987-95): Maximum, 33.0°C, Aug. 6, 1988; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 14,500 microsiemens, Sept. 30; minimum, 492 microsiemens, Jan. 28.
WATER TEMPERATURE: Maximum, 32.0°C, Aug. 5; minimum, 0.2°C, Jan. 5, 6, 10, 29, Feb. 3-22.

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	3660	2900	3100	4520	4340	4400	3440	3140	3290	5030	4220	4500
2	3140	2760	2990	4460	4260	4380	3280	2580	3030	4300	3600	3910
3	3600	3140	3380	4300	3040	3610	2680	1800	2150	3700	2480	3130
4	3820	3460	3570	3680	3220	3370	2220	1700	1960	2520	1960	2340
5	4260	3560	3780	3500	3380	3440	2640	2060	2250	3120	1520	2160
6	6130	3840	4540	3440	2980	3310	2320	2160	2260	1520	661	1050
7	5690	4380	4830	3020	2340	2590	2220	1900	2120	781	661	732
8	5470	4080	4490	2660	1680	2310	1980	1460	1850	781	681	709
9	4340	3680	4050	2320	1560	1850	1880	1720	1810	901	701	814
10	3680	3120	3420	7030	1640	2450	1780	1500	1600	841	781	811
11	7030	3460	4110	7030	2980	3680	1680	1560	1640	881	801	830
12	7030	4140	4730	3260	2660	2860	1720	1640	1680	1740	861	1150
13	4760	3800	4150	3040	2700	2830	1860	1700	1810	3180	1660	2240
14	4160	3580	3870	3380	2520	2780	3300	1860	2310	3570	2630	3200
15	8450	3820	4740	3020	2700	2830	4200	2940	3500	3970	3400	3670
16	9050	5450	6680	2840	2680	2760	5170	3600	4190	4140	3740	3960
17	6610	5250	5830	9550	2840	6000	4880	4280	4620	4080	3660	3900
18	7710	6190	6750	10200	9110	9490	4560	3880	4290	3810	3660	3730
19	6970	6170	6530	9530	7830	8760	4320	3860	4110	4110	3620	3770
20	6530	5970	6250	8870	7570	8350	4020	3660	3880	4660	3830	4250
21	6290	5830	6120	9890	8270	8760	3680	2920	3290	4040	1940	2870
22	6190	5870	6030	9030	7630	8210	3040	2720	2890	2320	1450	1890
23	5870	5450	5660	7850	4940	5630	3580	2700	3020	1710	793	1250
24	5530	5310	5410	4980	3200	3940	5250	3580	4220	963	730	836
25	5390	5090	5250	4500	3540	4040	9770	5110	6310	1580	814	1050
26	5110	5070	5080	4060	3460	3650	8070	7110	7450	943	691	781
27	5150	5050	5070	6710	3240	3730	8030	7070	7420	1220	511	819
28	5150	5090	5100	6510	4680	5340	7390	6170	6860	632	492	553
29	5110	4340	4800	5070	4080	4380	6170	5170	5470	553	512	526
30	4760	4320	4530	4200	3140	3510	5350	4480	4900	1310	532	765
31	4580	4380	4470	---	---	---	4940	3680	4430	1290	967	1090
MONTH	9050	2760	4820	10200	1560	4440	9770	1460	3570	5030	492	2040

01495900 ELK RIVER NEAR TOWN POINT, MD--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	1270	862	1090	4790	3820	4380	1640	1360	1480	4310	1130	2110
2	970	862	925	7180	4790	5820	1640	1410	1460	5360	3130	4360
3	1230	927	996	8380	6360	7250	1450	1380	1410	4370	3230	4030
4	1630	1100	1370	7820	6590	7270	1400	681	1140	4370	3320	3750
5	1480	718	1100	8460	6680	7820	852	659	736	3760	2900	3400
6	---	---	---	8070	5420	6880	851	552	771	3130	2810	2930
7	---	---	---	5700	4820	5380	722	552	634	3130	2770	2920
8	---	---	---	5310	3160	4600	906	514	617	2940	2660	2760
9	---	---	---	3380	2670	2910	965	596	746	3390	2590	2700
10	---	---	---	3080	2780	2970	5170	799	1440	3390	2660	2920
11	---	---	---	3160	1980	2450	5530	2640	3450	3910	2700	3500
12	762	661	715	2260	1900	2130	3340	2530	2920	4340	3650	3920
13	892	722	795	2300	2110	2230	3010	2260	2660	4510	3860	4150
14	957	849	918	2670	1940	2230	2390	1910	2140	6840	4250	5570
15	980	914	950	2170	1940	2040	2060	1800	1930	7410	5040	6030
16	1780	958	1160	2090	1610	1880	2110	1860	1990	6490	5150	5860
17	1330	1070	1190	1870	1660	1760	2410	1890	2040	6350	4590	5430
18	2040	1070	1300	1910	1660	1790	2950	1890	2390	4870	4160	4710
19	2420	1220	1640	3900	1740	2190	3090	2090	2450	4720	4140	4420
20	3290	1530	2150	2830	1930	2440	2370	2130	2230	4460	4030	4250
21	4900	1980	2990	2490	1250	2170	2370	2030	2190	4330	3900	4110
22	8470	2070	4250	2080	987	1720	2420	2040	2180	3900	3160	3540
23	7110	3640	4850	1800	1010	1540	2180	2000	2040	3530	3210	3370
24	4430	3160	3530	1630	1220	1510	2120	1900	1980	3340	1910	2540
25	3180	2110	2600	1670	1500	1570	2160	1830	1960	2350	1270	1690
26	2110	1760	1850	1900	1630	1770	1970	1650	1820	1740	1460	1560
27	6650	1800	3160	1800	1560	1650	1770	1370	1600	4700	1530	2610
28	6540	4230	4990	1670	1560	1600	1490	888	1200	3010	2040	2420
29	---	---	---	1600	1450	1520	1170	947	1050	2320	1590	1940
30	---	---	---	1560	1450	1500	1130	986	1050	1910	1420	1610
31	---	---	---	1560	1450	1480	---	---	---	1740	1350	1470
MONTH	---	---	---	8460	987	3050	5530	514	1720	7410	1130	3440

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	1740	1480	1560	6360	2810	5620	1380	1270	1340	8710	7220	8360
2	1590	1390	1510	5540	2450	5020	1340	1100	1250	8620	6810	8010
3	1430	1120	1340	5830	3360	5030	1270	1010	1110	11000	7400	8970
4	1240	1120	1160	5440	4160	5080	1100	862	966	10100	9010	9580
5	1140	1080	1110	4820	3670	4340	1100	841	911	10000	8930	9490
6	1120	1080	1100	4110	3220	3740	992	798	851	9250	8570	9020
7	3000	1060	1270	3460	2570	3050	8910	798	4360	9000	8790	8890
8	3040	1400	1690	3090	2530	2810	10200	5570	7150	8920	8730	8830
9	1990	1380	1570	3120	2530	2840	7150	5210	6290	9400	8710	8920
10	3690	1780	2260	3040	2100	2810	6110	4990	5770	9280	8590	9080
11	2140	1740	2000	2860	2100	2500	5900	4990	5560	13200	8590	9970
12	1890	1780	1830	2640	1390	2490	5790	5140	5520	11200	9760	10600
13	4610	1780	2200	2700	1390	2530	5620	5120	5350	10500	9740	10100
14	8060	2620	5110	2570	1400	2250	5970	4820	5400	9740	8930	9450
15	5880	4090	5080	2340	1760	2090	5450	5080	5260	10100	8890	9460
16	6480	4090	5140	2730	1820	2070	6180	5100	5310	10000	9220	9760
17	4780	3760	4330	3350	2170	2700	8760	5660	6340	9780	9030	9520
18	4120	3420	3830	3310	2560	2790	10300	6600	7540	9920	9420	9690
19	3610	2460	3290	3360	2620	2790	12100	8150	9110	13800	9750	10500
20	2970	2440	2720	3250	2580	2780	11300	8250	9140	13800	11000	12100
21	2510	1930	2200	2650	2170	2330	9310	6680	8040	12000	10900	11500
22	2790	2230	2610	2240	2000	2100	7810	6560	7080	11700	10200	11300
23	3800	2660	2960	2200	2090	2150	7350	6710	7030	11400	9470	10500
24	7470	2430	4480	2200	1610	2040	7520	7030	7320	11700	11200	11400
25	6640	3870	4980	2130	1920	2040	7790	7040	7250	14300	11500	12500
26	5080	4430	4740	2130	1810	1960	7660	7150	7430	13600	12100	12800
27	5500	4630	5000	1980	1660	1860	7540	7280	7420	13400	11700	12600
28	10100	5500	8270	1830	1530	1690	7840	7410	7590	13100	11200	12200
29	8000	5740	7000	1640	1270	1470	9530	7760	8360	13400	11400	12200
30	6650	5810	6360	1490	1210	1340	9430	8210	8640	14500	11800	13000
31	---	---	---	1470	1250	1330	8930	8430	8770	---	---	---
MONTH	10100	1060	3290	6360	1210	2760	12100	798	5790	14500	6810	10300

01495900 ELK RIVER NEAR TOWN POINT, MD--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	20.0	18.5	19.2	15.9	14.3	15.4	8.0	6.6	7.2	5.3	4.3	4.7
2	20.7	18.7	19.6	14.3	12.9	13.5	7.9	6.3	7.1	4.7	2.3	3.9
3	18.7	17.3	18.0	14.6	11.9	13.3	7.6	6.3	7.1	3.0	1.5	2.3
4	17.9	16.2	17.2	14.9	12.9	13.9	8.1	6.8	7.3	2.7	.3	2.1
5	17.3	16.6	17.0	14.9	13.5	14.2	8.8	7.5	8.2	.9	.2	.4
6	18.0	15.9	16.9	15.2	14.2	14.6	9.2	8.2	8.6	1.1	.2	.5
7	18.2	16.5	17.4	14.6	12.2	13.0	9.3	8.2	8.7	1.9	.6	1.2
8	18.7	16.6	17.6	14.0	12.1	13.0	8.3	5.8	6.8	2.1	.5	1.4
9	18.7	17.5	18.0	14.3	13.0	13.7	6.8	5.6	6.2	2.1	.9	1.4
10	18.2	15.7	17.2	14.2	12.1	13.0	6.8	6.5	6.6	2.0	.2	.9
11	17.7	14.8	16.3	13.8	11.1	12.0	6.8	5.1	6.4	1.3	.7	1.0
12	17.7	15.8	16.9	12.3	10.4	11.3	5.1	2.9	4.0	2.6	1.2	1.8
13	17.4	15.5	16.5	13.0	11.4	12.1	4.2	3.2	3.9	3.4	1.8	2.4
14	16.6	15.6	16.1	13.2	12.0	12.6	6.1	4.1	5.2	5.3	2.4	3.7
15	16.8	14.8	15.8	13.4	12.3	12.8	6.3	5.1	5.6	5.7	4.0	4.8
16	16.8	15.5	16.3	12.9	10.5	11.5	6.2	5.0	5.6	5.9	4.5	5.3
17	16.6	14.8	15.7	12.2	9.8	11.0	6.4	5.8	6.0	6.2	5.1	5.6
18	16.7	15.3	16.0	13.1	12.2	12.6	6.7	5.7	6.1	5.8	5.4	5.5
19	16.7	15.4	16.2	13.1	11.9	12.5	6.0	5.2	5.5	5.4	5.1	5.2
20	16.8	16.2	16.5	12.5	11.3	11.8	5.7	4.6	5.1	5.8	5.3	5.6
21	17.0	15.5	16.3	12.3	10.8	11.6	5.6	4.6	5.1	5.5	4.5	5.0
22	17.0	15.4	16.3	12.3	9.7	11.3	5.6	4.4	5.0	4.7	3.4	4.0
23	16.6	16.1	16.4	10.0	7.6	9.1	5.7	4.3	5.2	4.4	2.7	3.5
24	16.9	15.3	16.2	8.7	5.1	7.3	6.2	5.2	5.7	3.9	2.7	3.3
25	16.6	15.1	16.0	8.4	7.6	8.0	7.1	6.0	6.4	4.3	2.2	3.2
26	15.1	13.8	14.6	8.2	6.4	7.5	6.7	5.6	6.1	3.2	1.6	2.4
27	14.3	12.5	13.5	8.3	5.2	5.8	6.5	5.4	5.9	3.3	1.2	2.1
28	14.9	12.9	13.8	8.7	7.9	8.3	6.5	5.3	5.8	2.7	1.7	2.2
29	15.4	13.5	14.2	8.5	7.3	7.8	5.8	4.1	5.3	2.2	.2	1.2
30	16.2	13.8	14.7	8.5	7.3	7.7	4.7	2.2	3.2	2.9	1.6	2.0
31	16.1	14.3	15.1	---	---	---	4.6	3.3	4.0	3.0	1.5	2.3
MONTH	20.7	12.5	16.4	15.9	5.1	11.4	9.3	2.2	6.0	6.2	.2	2.9

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	3.2	1.8	2.6	4.0	2.4	2.9	11.4	8.6	10.1	15.3	12.8	14.3
2	3.7	2.1	2.8	3.8	1.7	2.7	10.8	9.6	10.2	14.8	13.3	14.0
3	2.2	.2	1.4	3.5	1.9	2.6	11.8	8.9	10.4	15.7	12.6	14.3
4	1.9	.2	1.0	3.0	2.6	2.8	11.5	8.4	10.7	15.7	14.5	15.1
5	.3	.2	.2	4.2	2.6	3.3	10.3	5.9	8.4	16.8	15.0	15.8
6	1.0	.2	.4	4.4	3.3	3.7	10.7	7.9	9.3	17.4	14.7	16.0
7	1.1	.2	.7	4.8	3.8	4.2	13.1	9.5	11.1	18.3	15.2	16.6
8	.9	.2	.4	6.2	4.3	5.2	11.9	9.8	10.9	18.4	15.3	16.7
9	.7	.2	.3	5.4	3.5	4.4	13.2	10.7	11.6	18.5	15.8	16.9
10	.7	.2	.3	3.9	2.3	3.2	13.1	10.2	11.3	16.8	15.3	16.4
11	1.1	.2	.4	5.3	3.8	4.4	11.5	10.2	10.8	18.4	15.3	16.4
12	.7	.2	.3	7.5	4.2	5.6	12.8	10.7	11.5	18.4	16.4	17.4
13	.7	.2	.3	8.0	5.3	6.4	13.1	11.5	12.2	19.4	16.3	17.8
14	.6	.2	.3	9.9	6.1	7.5	12.0	10.1	11.1	17.9	16.6	16.9
15	.7	.2	.3	9.1	7.1	8.0	12.5	8.7	10.7	18.8	16.4	17.5
16	.7	.2	.3	9.9	7.6	8.7	13.1	10.1	11.6	19.4	16.9	18.2
17	1.2	.2	.6	10.9	8.6	9.6	13.4	11.1	12.2	18.7	18.0	18.4
18	.8	.2	.5	11.1	8.0	9.6	13.5	11.6	12.7	19.7	18.4	19.0
19	1.1	.2	.5	10.7	8.5	9.6	14.8	12.4	13.5	19.9	18.4	19.3
20	1.4	.2	.8	10.2	8.4	9.4	15.8	13.7	14.8	21.3	18.2	19.7
21	1.2	.2	.5	11.2	9.7	10.2	15.5	14.6	15.0	21.8	19.5	20.4
22	2.5	.2	1.2	10.6	8.7	9.9	17.0	14.5	15.5	23.0	20.0	21.4
23	2.1	1.2	1.7	9.6	8.4	8.9	16.1	13.3	14.7	23.4	20.3	21.6
24	4.3	1.4	2.7	10.7	7.6	9.0	14.7	13.5	13.8	23.7	20.7	22.1
25	4.1	.5	2.1	10.4	7.0	8.6	16.3	12.8	14.3	24.5	21.9	23.2
26	3.0	1.3	2.2	11.0	7.9	9.4	17.2	13.4	15.2	22.8	21.4	22.1
27	2.4	.7	1.6	12.2	9.1	10.5	17.8	14.4	16.0	23.5	21.2	22.3
28	2.6	2.2	2.4	11.0	10.1	10.4	18.0	15.5	16.6	22.3	21.0	21.6
29	---	---	---	12.0	9.1	10.6	18.3	14.9	16.7	23.0	20.8	21.7
30	---	---	---	11.3	10.5	10.8	17.4	13.7	15.4	22.0	20.1	21.2
31	---	---	---	11.6	9.3	10.4	---	---	---	24.1	19.3	21.8
MONTH	4.3	.2	1.0	12.2	1.7	7.2	18.3	5.9	12.6	24.5	12.6	18.6

01495900 ELK RIVER NEAR TOWN POINT, MD--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	24.4	21.8	23.1	26.4	24.2	25.2	31.2	29.1	30.1	28.2	25.4	26.8
2	24.2	22.8	23.5	26.2	24.6	25.3	31.6	29.6	30.6	26.6	24.2	25.3
3	25.0	23.2	24.0	26.4	23.6	25.1	31.5	29.8	30.7	26.6	24.4	25.5
4	25.2	23.0	24.1	26.8	24.7	25.5	31.6	29.7	30.5	27.3	24.9	25.9
5	25.7	23.2	24.3	27.4	25.2	26.2	32.0	29.6	30.5	27.3	25.0	26.0
6	24.4	23.3	23.9	27.3	25.8	26.4	30.1	26.0	28.6	27.3	25.1	26.2
7	26.1	23.1	24.4	27.3	25.7	26.4	28.2	26.0	27.1	27.1	25.2	26.2
8	27.1	24.1	25.5	28.4	25.0	26.8	27.7	26.2	27.0	27.8	25.2	26.2
9	25.7	23.7	24.7	27.3	24.1	25.6	27.6	25.9	26.7	27.1	25.0	26.0
10	24.8	23.9	24.4	27.5	24.9	26.1	28.6	26.2	27.2	26.1	23.4	24.7
11	26.6	23.5	24.9	27.8	25.0	26.4	29.2	26.4	27.6	24.7	20.8	23.0
12	25.3	22.5	24.0	28.5	25.6	27.1	29.1	27.1	28.1	24.6	23.1	23.8
13	23.3	20.6	22.4	28.6	26.6	27.7	29.8	27.5	28.6	25.1	23.4	24.2
14	24.5	22.4	23.2	29.3	27.0	28.1	29.8	27.8	28.6	25.8	24.1	24.8
15	25.1	21.7	23.3	30.8	28.2	29.3	29.7	27.8	28.7	25.6	22.6	24.2
16	25.4	22.5	23.9	29.9	26.6	28.6	29.9	27.4	28.8	24.0	22.6	23.5
17	25.7	23.0	24.3	30.4	27.8	29.0	29.9	27.8	28.8	22.7	21.4	22.2
18	26.5	23.4	24.9	30.7	28.4	29.5	29.6	27.5	28.6	23.8	21.3	22.4
19	26.9	24.3	25.5	31.0	28.4	29.5	28.9	27.0	27.9	23.2	20.7	21.9
20	27.1	24.7	25.9	30.9	28.5	29.6	28.6	26.7	27.6	23.6	22.0	22.8
21	28.3	25.2	26.5	31.2	29.0	29.8	28.6	26.8	27.7	24.1	22.4	23.0
22	26.1	24.3	25.2	31.1	28.6	29.5	29.3	26.2	27.8	23.2	21.3	22.7
23	24.3	22.6	23.2	31.1	28.7	29.7	28.0	24.7	26.5	21.3	19.1	19.9
24	25.4	22.6	24.2	31.0	29.0	29.9	28.3	25.9	27.0	19.9	18.4	19.1
25	27.1	24.0	25.3	31.6	29.2	30.4	27.8	24.6	26.2	20.6	19.0	19.9
26	26.3	24.9	25.6	31.2	29.8	30.5	27.4	25.2	26.4	20.2	19.6	19.8
27	25.5	22.7	24.1	31.9	29.5	30.6	27.7	25.7	26.7	21.0	19.2	20.0
28	24.0	22.0	23.2	30.8	29.4	30.1	26.9	25.4	26.0	21.2	19.2	20.1
29	25.6	22.8	24.0	31.2	29.1	30.1	27.1	24.8	25.9	20.3	18.4	19.6
30	26.0	23.7	24.6	31.5	29.0	30.1	27.4	25.2	26.2	20.6	18.0	19.5
31	---	---	---	31.7	28.3	30.1	27.2	25.5	26.4	---	---	---
MONTH	28.3	20.6	24.3	31.9	23.6	28.2	32.0	24.6	27.9	28.2	18.0	23.2

01578310 SUSQUEHANNA RIVER AT CONOWINGO, MD

LOCATION.--Lat 39°39'28", long 76°10'29", Harford County, Hydrologic Unit 02050306, at downstream side of Conowingo Dam, 1.0 mi southwest of Conowingo, and 9.9 mi upstream from mouth.

DRAINAGE AREA.--27,100 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1967 to current year.

GAGE.--Water-stage recorder. Datum of gage is 5.00 ft above sea level.

REMARKS.--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 Department of Public Works.

PEAK DISCHARGE FOR CURRENT YEAR.--Peak discharge, 214,000 ft^3/s, Jan. 22, gage height, 21.74 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29300	e13400	89400	22100	41000	32100	23400	24500	24400	26800	8330	3260
2	16000	e16900	83000	27200	40700	29800	10800	25900	25700	24500	14300	3110
3	27700	e15500	57500	35800	39600	42000	27200	30500	16700	26400	11000	2810
4	33400	e26700	40000	34900	33400	38000	20600	23800	12200	20700	7340	3270
5	27900	e29900	59300	33600	17900	35400	32200	24700	26400	27000	5580	2990
6	26000	e25200	69100	25100	29500	38300	23900	11000	25100	21600	6280	2940
7	24000	e26700	88100	22500	13900	34600	21000	13500	25800	23900	5420	2880
8	16100	e26900	114000	22500	17300	41400	19300	18700	18500	19800	5390	2820
9	11100	e22100	101000	26800	19500	58800	20600	26700	18800	18000	5480	2930
10	21100	e26700	79700	26300	15000	66800	43800	16100	11300	18000	7880	3220
11	26500	e17200	74200	25100	16500	73800	27000	15100	13200	14000	9280	3040
12	11100	e14800	82600	21500	19300	79100	50000	15200	23400	15600	5460	2940
13	15100	e12600	82200	24000	20100	69700	55700	14500	23400	15100	5420	2930
14	16000	e23000	73400	21700	22500	69200	61900	12100	32400	20700	14300	2770
15	6480	e24400	61700	27000	18900	69500	51300	25100	28000	12600	5380	2880
16	4980	e17900	64700	49200	20100	68500	56000	22900	27400	6620	8070	2960
17	12200	e22700	45400	60600	25600	65900	52800	29500	17900	12600	5360	3410
18	13200	e22600	26500	89800	17200	60500	51500	28000	12800	17100	5380	3490
19	e10800	14200	44000	93700	21100	42400	42600	21900	20100	8590	5500	3510
20	e13800	11500	40800	94900	22700	52500	43600	26400	20900	12500	5440	3500
21	e15700	19500	41100	155000	29100	51700	38000	21800	14300	16100	5180	3450
22	e4940	28200	34400	174000	32200	48500	30300	33400	11900	9590	5450	2980
23	e4930	35800	34700	174000	27600	42900	22300	35600	11600	5190	4600	3480
24	e13100	23900	32500	145000	33200	35200	35300	30000	11800	10800	4180	3540
25	e12200	27200	20100	121000	23700	36200	31600	26500	8640	13500	4200	3470
26	e11000	23000	25800	88200	19500	22700	35400	29600	18600	10400	3500	3450
27	e10900	18400	35900	86800	39900	39700	28000	18400	17200	11900	3520	3450
28	e11900	25900	31200	64100	22800	34200	28700	17000	20300	7600	3690	11900
29	e7230	58700	29900	41700	---	32700	18000	22000	33900	11300	3520	3450
30	e6270	96800	39800	50100	---	26800	12800	31900	32400	7530	3710	3440
31	e6010	---	22900	43000	---	31200	---	27500	---	10800	3270	---
TOTAL	466940	768300	1724900	1927200	699800	1470100	1015600	719800	605040	476820	191410	104270
MEAN	15060	25610	55640	62170	24990	47420	33850	23220	20170	15380	6175	3476
MAX	33400	96800	114000	174000	41000	79100	61900	35600	33900	27000	14300	11900
MIN	4930	11500	20100	21500	13900	22700	10800	11000	8640	5190	3270	2770
CFSM	.56	.95	2.05	2.29	.92	1.75	1.25	.86	.74	.57	.23	.13
IN.	.64	1.05	2.37	2.65	.96	2.02	1.39	.99	.83	.65	.26	.14

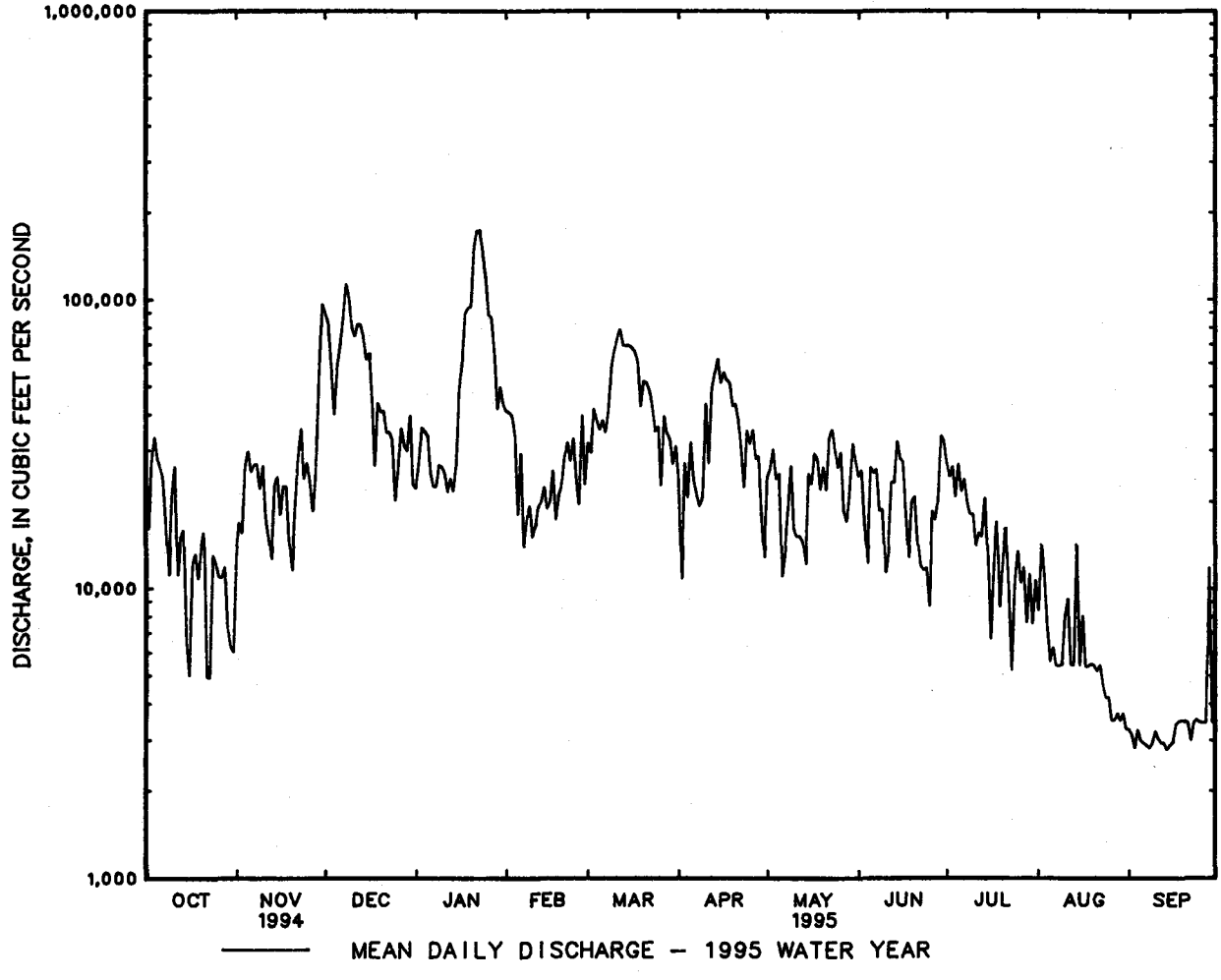
e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1968 - 1995, BY WATER YEAR (WY)

MEAN	23330	35550	49690	39410	52220	74070	81910	48010	36410	20300	14270	16020
MAX	81800	73170	104700	101200	115800	147800	250100	108200	208000	59050	48580	88450
(WY)	1977	1978	1973	1979	1984	1994	1993	1989	1972	1972	1994	1975
MIN	5557	9803	14630	7164	13050	28320	33850	23220	8656	6107	5927	3476
(WY)	1970	1981	1990	1981	1980	1969	1995	1995	1991	1991	1991	1995

01578310 SUSQUEHANNA RIVER AT CONOWINGO, MD--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1968 - 1995	
ANNUAL TOTAL	18870530		10170180			
ANNUAL MEAN	51700		27860		40830	
HIGHEST ANNUAL MEAN					61090	1978
LOWEST ANNUAL MEAN					26570	1981
HIGHEST DAILY MEAN	358000	Mar 26	174000	Jan 22	1120000	Jun 24 1972
LOWEST DAILY MEAN	2560	Jan 23	2770	Sep 14	269	Jul 13 1969
ANNUAL SEVEN-DAY MINIMUM	9360	Oct 25	2950	Sep 3	1810	Sep 24 1980
INSTANTANEOUS PEAK FLOW			214000	Jan 22	1130000	Jun 24 1972
INSTANTANEOUS PEAK STAGE			21.74	Jan 22	36.83	Jun 24 1972
INSTANTANEOUS LOW FLOW			871	Dec 25	144	Mar 2 1969
ANNUAL RUNOFF (CFSM)	1.91		1.03		1.51	
ANNUAL RUNOFF (INCHES)	25.90		13.96		20.47	
10 PERCENT EXCEEDS	128000		59800		85200	
50 PERCENT EXCEEDS	27900		22600		27400	
90 PERCENT EXCEEDS	12100		4190		5930	



01578310 SUSQUEHANNA RIVER AT CONOWINGO, MD--Continued
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1978 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: June 1979 to April 1981, July 1984 to September 1992.
WATER TEMPERATURE: June 1979 to April 1981, July 1984 to September 1992.
SUSPENDED-SEDIMENT DISCHARGE: October 1979 to April 1981, July 1984 to September 1992.

REMARKS.--During the period Oct. 1994 to Jan. 1995, monthly samples were collected and analyzed using ultraclean methodologies. Data on trace metals for this period are available from the University of Delaware. Data on organics for this period are available from George Mason University.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE (water years 1980, 1985-89, 1991-92): Maximum daily, 475 microsiemens, Nov. 13-15, 1980 and Aug. 31, 1991; minimum daily, 100 microsiemens, 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: Maximun 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 1994 TO SEPTEMBER 1995

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TEMPER-ATURE AIR (DEG C)	BARO-METRIC PRES-SURE (MM OF HG)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
OCT 1994												
19...	1330	5100	252	7.5	16.0	19.0	761	--	8.5	86	--	--
NOV												
18...	1300	5100	261	7.6	12.0	17.0	764	--	10.5	98	--	--
30...	1230	84000	252	7.6	6.0	10.0	--	--	11.2	--	--	--
DEC												
01...	1300	82900	221	7.6	5.5	9.0	771	--	13.2	103	--	--
12...	1430	82500	168	7.7	6.0	0.0	775	--	12.7	100	--	--
JAN 1995												
18...	1200	82700	266	7.3	6.5	7.0	768	--	12.5	101	--	--
22...	1000	172000	--	--	6.0	1.0	755	--	--	--	--	--
23...	1230	181000	140	7.1	6.0	6.5	760	--	13.3	107	--	--
25...	1400	113000	148	6.7	4.5	5.0	764	--	13.3	102	--	--
MAR												
07...	1345	30400	274	7.8	5.0	8.0	768	3.0	13.9	108	E30	E16
APR												
12...	1030	63400	250	8.5	11.5	13.0	768	4.2	11.8	108	E6	E11
MAY												
18...	1230	68000	259	7.6	19.0	23.5	754	3.1	7.8	85	140	2000
JUN												
21...	1130	22200	237	7.4	25.5	31.0	762	4.2	5.4	66	--	--
JUL												
19...	0915	5390	236	7.5	29.0	29.0	760	4.6	6.8	89	--	--
AUG												
14...	0915	5390	294	7.6	29.5	28.5	760	2.2	5.4	72	E15	96
SEP												
06...	1230	2920	357	7.0	28.0	32.0	764	3.1	5.3	68	--	38

E: Estimated.

01578310 SUSQUEHANNA RIVER AT CONOWINGO, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WAT DIS TOT IT FIELD MG/L AS CACO3	BICARBONATE WATER DIS IT FIELD MG/L AS HCO3	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)
OCT 1994												
19...	--	--	--	--	--	49	51	--	--	--	3.7	--
NOV												
18...	--	--	--	--	--	54	66	--	--	--	2.9	--
30...	--	--	--	--	--	--	--	--	--	--	3.3	--
DEC												
01...	--	--	--	--	--	--	--	--	--	--	3.5	--
12...	--	--	--	--	--	--	--	--	--	--	5.0	--
JAN 1995												
18...	--	--	--	--	--	--	--	--	--	--	4.1	--
22...	--	--	--	--	--	--	--	--	--	--	4.8	--
23...	--	--	--	--	--	27	32	--	--	--	4.9	--
25...	--	--	--	--	--	27	33	--	--	--	4.9	--
MAR												
07...	94	26	7.1	12	1.6	49	59	35	20	<0.10	4.2	153
APR												
12...	97	27	7.2	9.4	1.4	51	63	36	15	<0.10	0.60	138
MAY												
18...	92	26	6.6	10	1.6	54	65	35	16	<0.10	0.39	141
JUN												
21...	82	22	6.5	9.5	1.7	--	--	35	15	<0.10	2.8	137
JUL												
19...	89	24	6.9	9.1	2.3	48	58	37	13	<0.10	4.7	139
AUG												
14...	110	30	9.1	12	2.8	56	69	47	17	0.10	3.0	164
SEP												
06...	130	34	12	17	2.9	57	70	64	23	<0.10	1.5	206

DATE	NITROGEN, NITRATE DISSOLVED (MG/L AS NO3)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NITRATE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)
OCT 1994												
19...	5.2	1.5	0.028	1.17	1.20	1.20	0.060	0.30	0.20	0.070	0.008	0.001
NOV												
18...	4.3	1.4	0.012	0.968	0.980	0.980	0.040	0.40	0.20	0.050	0.008	0.003
30...	6.2	1.7	0.006	1.39	1.40	1.40	0.030	0.30	<0.20	0.030	0.015	0.005
DEC												
01...	5.7	1.6	0.007	1.29	1.30	1.30	0.040	0.30	<0.20	0.040	0.019	0.007
12...	--	1.5	<0.001	--	1.20	1.20	0.040	0.30	<0.20	0.050	0.013	0.003
JAN 1995												
18...	7.5	--	0.008	1.69	1.70	1.70	0.070	<0.20	0.20	<0.010	0.018	0.015
22...	5.7	1.8	0.009	1.29	1.30	1.30	0.070	0.50	0.30	0.110	0.040	0.031
23...	6.2	1.7	0.005	1.40	1.40	1.40	0.040	0.30	<0.20	0.040	0.025	0.022
25...	4.4	1.3	0.003	0.997	1.00	1.00	0.040	0.30	<0.20	0.040	0.017	0.016
MAR												
07...	7.0	--	0.016	1.58	1.60	1.60	0.060	<0.20	<0.20	0.020	0.011	0.010
APR												
12...	4.8	1.3	0.005	1.09	1.10	1.10	0.030	0.20	<0.20	<0.010	0.002	<0.001
MAY												
18...	3.3	1.2	0.008	0.752	0.760	0.760	0.100	0.40	0.30	0.030	0.006	0.001
JUN												
21...	4.0	1.3	0.022	0.908	0.930	0.930	0.100	0.40	0.70	0.020	0.005	<0.001
JUL												
19...	5.4	1.7	0.083	1.22	1.30	1.30	0.130	0.40	0.30	0.010	0.011	0.004
AUG												
14...	4.2	1.6	0.160	0.940	1.10	1.10	0.050	0.50	0.20	0.050	0.005	0.002
SEP												
06...	3.7	1.4	0.150	0.840	0.990	0.990	0.030	0.40	0.30	0.030	0.005	0.003

01578310 SUSQUEHANNA RIVER AT CONOWINGO, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	ALUMINUM, DISSOLVED (UG/L AS AL)	ANTIMONY, DISSOLVED (UG/L AS SB)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	LITHIUM DISSOLVED (UG/L AS LI)
OCT 1994											
19...	10	--	--	--	--	--	--	--	--	--	--
NOV											
18...	30	--	--	--	--	--	--	--	--	--	--
30...	20	--	--	--	--	--	--	--	--	--	--
DEC											
01...	40	--	--	--	--	--	--	--	--	--	--
12...	30	--	--	--	--	--	--	--	--	--	--
JAN 1995											
18...	10	--	--	--	--	--	--	--	--	--	--
22...	190	--	--	--	--	--	--	--	--	--	--
23...	120	--	--	--	--	--	--	--	--	--	--
25...	120	--	--	--	--	--	--	--	--	--	--
MAR											
07...	20	<1	28	<1	<1.0	<1	<1	2	96	<1	<4
APR											
12...	40	--	--	--	--	--	--	--	--	--	--
MAY											
18...	20	<1	33	<1	<1.0	<1	<1	1	10	<1	4
JUN											
21...	10	--	--	--	--	--	--	--	--	--	--
JUL											
19...	10	--	34	--	--	--	<3	--	16	--	<4
AUG											
14...	10	--	39	--	--	--	4	--	<3	--	5
SEP											
06...	9	<1	42	<1	<1.0	<1	<1	4	<3	<1	<4

DATE	MANGANESE, DISSOLVED (UG/L AS MN)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)	ZINC, DISSOLVED (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C)
OCT 1994											
19...	--	--	--	--	--	--	--	--	3.1	3.3	0.70
NOV											
18...	--	--	--	--	--	--	--	--	4.4	3.9	0.60
30...	--	--	--	--	--	--	--	--	--	2.3	0.50
DEC											
01...	--	--	--	--	--	--	--	--	4.0	3.4	0.60
12...	--	--	--	--	--	--	--	--	--	3.6	--
JAN 1995											
18...	--	--	--	--	--	--	--	--	3.1	--	--
22...	--	--	--	--	--	--	--	--	6.1	--	--
23...	--	--	--	--	--	--	--	--	6.5	--	--
25...	--	--	--	--	--	--	--	--	4.7	--	--
MAR											
07...	130	<1	4	<1	<1.0	130	<6	4	2.6	--	--
APR											
12...	--	--	--	--	--	--	--	--	5.1	--	--
MAY											
18...	48	1	3	<1	<1.0	130	<6	<1	3.7	--	--
JUN											
21...	--	--	--	--	--	--	--	--	3.0	--	--
JUL											
19...	73	<10	1	<1	<1.0	130	<6	--	3.6	--	--
AUG											
14...	24	<10	<1	<1	<1.0	170	<6	--	2.9	--	--
SEP											
06...	9	3	3	<1	<1.0	210	<6	5	4.1	--	--

01578310 SUSQUEHANNA RIVER AT CONOWINGO, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

SUSPENDED SEDIMENT DISCHARGE

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 1994					
19...	1330	5100	9	124	97
NOV					
18...	1300	5100	12	165	96
30...	1230	84000	11	2490	97
DEC					
01...	1300	82900	21	4700	98
12...	1430	82500	16	3560	98
JAN 1995					
18...	1200	82700	16	3570	99
22...	1000	172000	99	46000	99
23...	1230	181000	78	38100	--
25...	1400	113000	83	25300	--
MAR					
07...	1345	30400	8	657	99
APR					
12...	1030	63400	14	2400	99
JUN					
21...	1130	22200	9	539	99
JUL					
19...	0915	5390	7	102	93
AUG					
14...	0915	5390	5	73	83
SEP					
06...	1230	2920	7	55	89

01580000 DEER CREEK AT ROCKS, MD

LOCATION.--Lat 39°37'49", long 76°24'13", Harford County, Hydrologic Unit 02050306, on right bank 0.3 mi upstream from bridge on Cherry Hill Road, 0.8 mi southeast of Rocks, 1.2 mi upstream from Stirrup Run, and 23.5 mi upstream from mouth.

DRAINAGE AREA.--94.4 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1926 to current year. Monthly discharge only for November and December 1926, published in WSP 1302.

REVISED RECORDS.--WSP 726: Drainage area. WSP 1502: 1927-36 (maximum and minimum only 1927-29, maximum only 1930-32, 1936).

GAGE.--Water-stage recorder. Concrete control since Sept. 7, 1938. Datum of gage is 250.40 ft above sea level (Baltimore City bench mark).

REMARKS.--Water-discharge records good except those for estimated daily discharges (ice effect), which are fair. Prior to 1965, some regulation at low flow by mills upstream from station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1888, that of Aug. 23, 1933.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,900 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 20	0930	*3,350	*8.03	No other peak greater than base discharge.			

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	68	74	83	128	115	153	100	111	85	77	51	32
2	75	104	78	108	113	126	102	136	83	150	50	30
3	67	69	75	90	107	116	102	119	84	82	50	30
4	64	65	74	82	118	111	98	97	82	78	52	30
5	68	65	214	e100	e100	108	94	95	78	108	57	30
6	65	67	151	e130	e85	108	93	90	76	84	119	29
7	64	65	126	e320	e100	105	95	85	76	180	79	29
8	62	59	105	147	e100	328	93	82	74	117	60	28
9	62	58	90	111	e92	444	97	81	72	87	57	39
10	64	73	123	105	e96	212	105	95	72	81	56	39
11	59	65	233	101	e100	177	95	130	73	113	53	33
12	58	57	130	96	e98	169	99	97	76	84	51	32
13	58	56	113	97	e92	148	164	89	77	76	49	33
14	58	56	107	99	e88	136	110	95	71	72	48	34
15	59	54	99	283	e92	131	100	101	68	69	61	32
16	58	86	93	315	125	129	95	87	64	77	50	31
17	57	104	95	166	121	126	93	89	62	72	47	152
18	58	76	94	145	114	120	92	93	61	99	45	66
19	58	70	89	136	109	119	92	104	60	71	42	46
20	61	64	83	1350	112	117	89	90	58	66	47	42
21	62	79	81	377	115	123	90	83	57	64	49	40
22	61	120	80	244	104	119	90	80	58	63	39	46
23	90	78	79	197	100	116	86	77	134	78	37	51
24	97	70	79	176	122	110	97	75	227	66	36	43
25	67	67	86	158	105	108	91	202	183	65	35	50
26	63	65	80	148	100	107	86	276	97	60	33	74
27	60	68	77	136	99	104	84	119	106	58	34	58
28	58	199	76	129	225	105	84	103	88	60	35	47
29	58	122	75	123	---	105	81	126	82	62	36	43
30	58	93	72	119	---	106	96	102	79	55	34	41
31	58	---	e70	117	---	104	---	92	---	52	31	---
TOTAL	1975	2348	3110	6033	3047	4390	2893	3301	2563	2526	1523	1310
MEAN	63.7	78.3	100	195	109	142	96.4	106	85.4	81.5	49.1	43.7
MAX	97	199	233	1350	225	444	164	276	227	180	119	152
MIN	57	54	70	82	85	104	81	75	57	52	31	28
CFSM	.67	.83	1.06	2.06	1.15	1.50	1.02	1.13	.91	.86	.52	.46
IN.	.78	.93	1.23	2.38	1.20	1.73	1.14	1.30	1.01	1.00	.60	.52

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1927 - 1995, BY WATER YEAR (WY)

MEAN	82.2	101	115	139	162	169	168	150	124	105	95.1	87.2
MAX	317	266	286	398	415	486	379	421	576	279	362	345
(WY)	1980	1927	1984	1979	1979	1994	1984	1989	1972	1972	1933	1975
MIN	26.0	32.5	37.8	41.7	60.2	62.2	63.2	50.9	42.8	21.0	17.4	29.0
(WY)	1964	1932	1966	1966	1932	1981	1963	1963	1966	1966	1966	1986

01580000 DEER CREEK AT ROCKS, MD--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1927 - 1995	
ANNUAL TOTAL	63625		35019			
ANNUAL MEAN	174		95.9		125	
HIGHEST ANNUAL MEAN					224	1972
LOWEST ANNUAL MEAN					58.2	1966
HIGHEST DAILY MEAN	1440	Mar 10	1350	Jan 20	6610	Jun 22 1972
LOWEST DAILY MEAN	54	Sep 21	28	Sep 8	8.6	(a)
ANNUAL SEVEN-DAY MINIMUM	58	Oct 12	29	Sep 2	9.0	Sep 7 1966
INSTANTANEOUS PEAK FLOW			3350	Jan 20	(b)13600	Aug 23 1933
INSTANTANEOUS PEAK STAGE			8.03	Jan 20	(c)17.70	Aug 23 1933
INSTANTANEOUS LOW FLOW			27	(d)	8.0	(f)
ANNUAL RUNOFF (CFSM)	1.85		1.02		1.32	
ANNUAL RUNOFF (INCHES)	25.07		13.80		17.92	
10 PERCENT EXCEEDS	350		136		210	
50 PERCENT EXCEEDS	119		84		93	
90 PERCENT EXCEEDS	62		47		45	

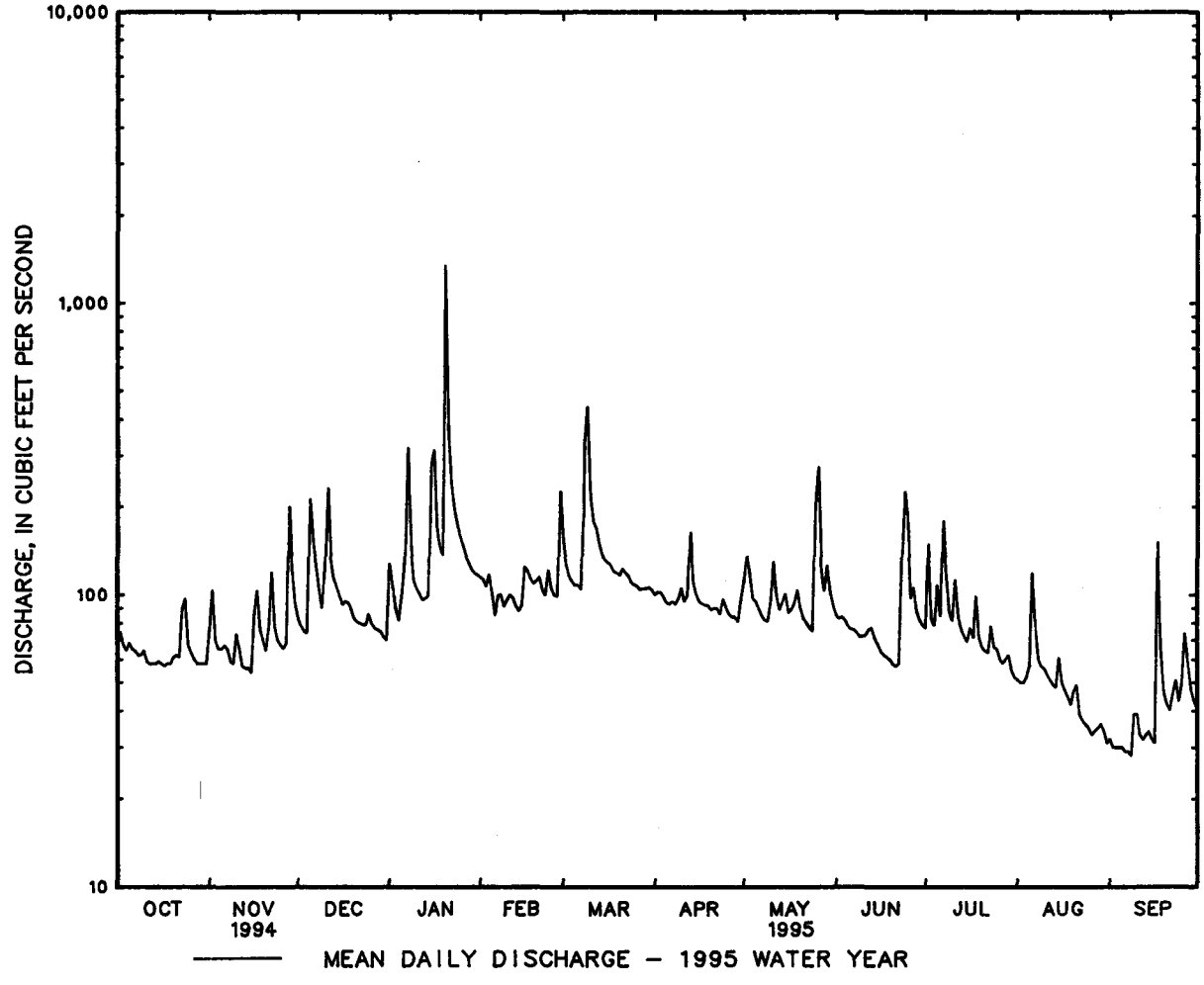
a Sept. 11, 12 1966.

b From rating curve extended above 3,000 ft^3/s, on basis of slope-area measurements at gage heights 13.3 ft and 17.7 ft.

c From floodmarks.

d Sept. 7, 8.

f Dec. 16, 1930, Jan. 26, 1939, result of regulation.



01580000 DEER CREEK AT ROCKS, MD--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1972-73, 1976-80, October 1993 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TEMPER-ATURE AIR (DEG C)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3
AUG 1995												
18...	0945	45	180	6.8	24.0	25.0	52	13	4.8	10	3.2	26

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS NO3)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
AUG 1995											
18...	4.3	25	<0.10	5.3	95	13	0.020	3.00	3.00	61	19

01581700 WINTERS RUN NEAR BENSON, MD

LOCATION.--Lat 39°31'12", long 76°22'24", Harford County, Hydrologic Unit 02060003, on left bank 30 ft downstream from bridge on U.S. Highway 1, 0.1 mi upstream from Heavenly Waters, 1.2 mi northeast of Benson, 1.8 mi southwest of Bel Air, and 10.5 mi upstream from mouth.

DRAINAGE AREA.--34.8 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1967 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 195 ft above sea level, from topographic map.

REMARKS.--Water-discharge records good except those for estimated daily discharges, (ice effect), which are fair. Discharges good below 200 ft^3/s and fair above.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 20	0745	*2,200	*6.29	No other peak greater than base discharge.			

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	47	33	47	43	63	39	42	31	91	14	8.6
2	28	40	29	38	41	53	39	72	31	53	14	7.9
3	24	30	28	32	40	49	38	48	30	33	14	7.9
4	22	27	29	29	e60	46	37	37	30	29	13	8.0
5	22	26	126	27	e45	44	36	35	28	29	14	7.5
6	22	27	57	41	e40	44	35	33	27	39	76	7.3
7	21	25	42	200	e38	44	36	30	27	39	29	6.3
8	21	24	37	58	e36	276	34	29	25	27	21	7.8
9	22	24	33	43	e38	203	42	28	24	23	17	8.1
10	25	34	74	38	e40	78	42	41	23	23	18	19
11	21	28	89	36	e40	66	38	65	25	52	16	8.8
12	23	26	48	37	e36	59	41	39	30	29	17	8.0
13	21	23	40	36	e36	55	64	34	28	23	15	8.1
14	22	24	38	37	e36	53	42	37	25	23	13	14
15	21	23	36	150	e36	51	38	37	21	20	40	8.5
16	21	43	34	93	64	50	37	31	22	25	20	9.8
17	22	35	34	53	60	48	35	36	21	21	16	102
18	21	30	33	44	54	45	33	36	20	32	15	25
19	22	27	33	42	52	45	33	54	20	22	13	16
20	23	25	32	652	52	45	32	35	18	19	12	14
21	22	68	31	115	52	51	32	30	19	19	12	14
22	22	49	30	72	45	46	32	29	18	20	10	32
23	42	33	30	62	43	44	32	27	129	22	10	25
24	32	30	30	57	47	42	39	26	80	20	9.6	15
25	26	28	29	53	43	41	33	122	115	24	9.2	27
26	24	26	27	50	42	41	31	207	46	18	8.8	32
27	24	30	28	47	41	41	30	55	32	20	9.1	22
28	24	105	28	47	127	39	30	45	30	18	9.9	16
29	24	48	27	45	---	39	28	52	28	20	9.7	16
30	24	37	27	44	---	39	43	40	27	16	8.2	15
31	24	---	31	44	---	40	---	35	---	14	8.0	---
TOTAL	736	1042	1223	2369	1327	1880	1101	1467	1030	863	511.5	516.6
MEAN	23.7	34.7	39.5	76.4	47.4	60.6	36.7	47.3	34.3	27.8	16.5	17.2
MAX	42	105	126	652	127	276	64	207	129	91	76	102
MIN	21	23	27	27	36	39	28	26	18	14	8.0	6.3
CFSM	.68	1.00	1.13	2.20	1.36	1.74	1.05	1.36	.99	.80	.47	.49
IN.	.79	1.11	1.31	2.53	1.42	2.01	1.18	1.57	1.10	.92	.55	.55

e Estimated

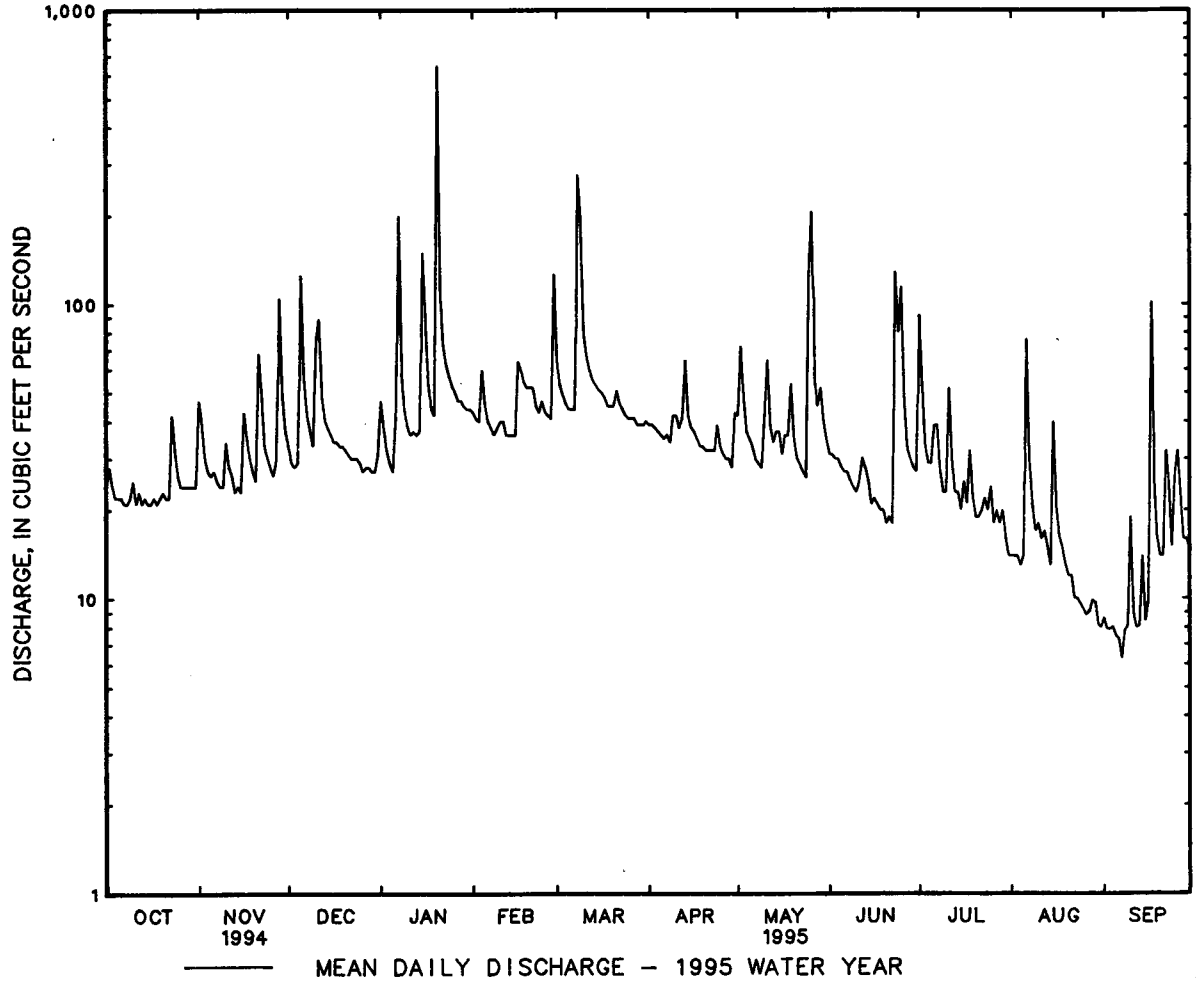
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1967 - 1995, BY WATER YEAR (WY)

MEAN	34.4	44.2	54.0	61.8	68.9	68.4	63.5	60.2	52.4	45.2	38.7	40.8
MAX	94.0	86.2	118	150	151	163	134	162	204	133	137	140
(WY)	1980	1972	1984	1979	1979	1994	1983	1989	1972	1975	1971	1975
MIN	13.4	12.5	18.2	16.9	28.1	22.5	28.8	17.9	12.9	11.3	11.6	10.4
(WY)	1970	1982	1981	1981	1992	1981	1969	1969	1969	1986	1981	1986

01581700 WINTERS RUN NEAR BENSON, MD--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1967 - 1995	
ANNUAL TOTAL	24809		14066.1			
ANNUAL MEAN	68.0		38.5		52.4	
HIGHEST ANNUAL MEAN					86.0	1972
LOWEST ANNUAL MEAN					22.9	1981
HIGHEST DAILY MEAN	711	Jan 28	652	Jan 20	3000	Jun 22 1972
LOWEST DAILY MEAN	17	Sep 21	6.3	Sep 7	6.3	(a)
ANNUAL SEVEN-DAY MINIMUM	19	Sep 9	7.5	Sep 2	7.5	Sep 2 1995
INSTANTANEOUS PEAK FLOW			2200	Jan 20	7600	Jun 22 1972
INSTANTANEOUS PEAK STAGE			6.29	Jan 20	11.60	Jun 22 1972
INSTANTANEOUS LOW FLOW			6.2	Sep 7	(b)3.0	Jan 10 1982
ANNUAL RUNOFF (CFSM)	1.95		1.11		1.50	
ANNUAL RUNOFF (INCHES)	26.52		15.04		20.44	
10 PERCENT EXCEEDS	130		56		87	
50 PERCENT EXCEEDS	40		32		37	
90 PERCENT EXCEEDS	22		14		16	

a Aug. 28, 29, 1981.
b Result of freezeup.



01581700 WINTERS RUN NEAR BENSON, MD

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1993 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TEMPER-ATURE AIR (DEG C)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3
AUG 1995												
18...	0845	16	146	6.8	23.0	24.0	47	10	5.3	7.4	2.6	27

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS NO3)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
AUG 1995											
18...	5.9	15	<0.10	11	83	11	0.010	2.40	2.40	56	36

01582000 LITTLE FALLS AT BLUE MOUNT, MD

LOCATION.--Lat 39°36'16", long 76°37'16", Baltimore County, Hydrologic Unit 02060003, on left bank at downstream side of Pennsylvania Railroad bridge, 0.2 mi north of Blue Mount, 0.6 mi upstream from mouth, 0.9 mi downstream from First Mine Branch, and 1.2 mi south of White Hall.

DRAINAGE AREA.--52.9 mi^2.

WATER-DISCHARGE RECORDS

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 sea level, from topographic map.

REMARKS.--Water-discharge 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.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 20	1000	*1,760	*5.64	May 25	1930	1,010	4.06

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	39	53	49	77	70	90	61	61	51	55	31	20
2	44	55	46	58	69	78	62	82	50	54	30	18
3	38	39	44	50	65	73	61	65	52	42	30	19
4	37	38	43	46	e65	70	60	57	49	50	29	18
5	37	38	138	e42	78	68	58	56	46	57	37	18
6	36	40	78	e45	e70	68	58	53	45	87	80	18
7	36	37	62	186	e67	66	58	50	45	141	42	17
8	36	36	55	74	e65	175	59	49	43	66	37	17
9	36	36	52	61	e64	188	61	48	42	52	35	26
10	37	44	87	56	e64	114	65	54	42	48	34	28
11	35	39	122	55	e62	101	60	84	42	98	33	20
12	35	37	70	56	e64	95	67	e66	47	51	32	20
13	35	37	61	56	e63	86	102	e57	44	46	31	21
14	35	36	58	58	e62	82	69	e67	41	43	30	22
15	35	36	55	181	e62	79	64	e64	39	41	30	19
16	34	64	53	145	e75	76	61	53	38	42	29	19
17	34	60	54	88	75	73	60	56	37	43	28	99
18	34	45	52	77	71	70	60	59	36	81	27	34
19	34	41	49	71	69	70	60	63	35	42	25	28
20	36	39	47	545	71	68	58	55	35	40	25	26
21	35	68	46	178	71	72	60	51	35	38	24	26
22	35	63	45	129	64	69	59	48	35	38	24	28
23	63	47	45	109	63	67	57	46	107	44	22	31
24	47	43	45	98	76	66	64	45	88	40	22	27
25	38	41	49	91	65	64	59	179	93	39	21	35
26	37	40	44	84	63	61	56	112	54	38	22	49
27	36	42	43	80	63	60	54	67	54	37	22	35
28	36	132	43	78	142	62	52	64	49	35	23	30
29	36	66	42	73	---	62	49	74	46	34	23	27
30	35	54	40	72	---	63	61	60	44	32	21	26
31	36	---	e41	71	---	61	---	56	---	31	20	---
TOTAL	1157	1446	1758	3090	1958	2497	1835	2001	1464	1585	919	821
MEAN	37.3	48.2	56.7	99.7	69.9	80.5	61.2	64.5	48.8	51.1	29.6	27.4
MAX	63	132	138	545	142	188	102	179	107	141	80	99
MIN	34	36	40	42	62	60	49	45	35	31	20	17
CFSM	.71	.91	1.07	1.88	1.32	1.52	1.16	1.22	.92	.97	.56	.52
IN.	.81	1.02	1.24	2.17	1.38	1.76	1.29	1.41	1.03	1.11	.65	.58

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1944 - 1995, BY WATER YEAR (WY)

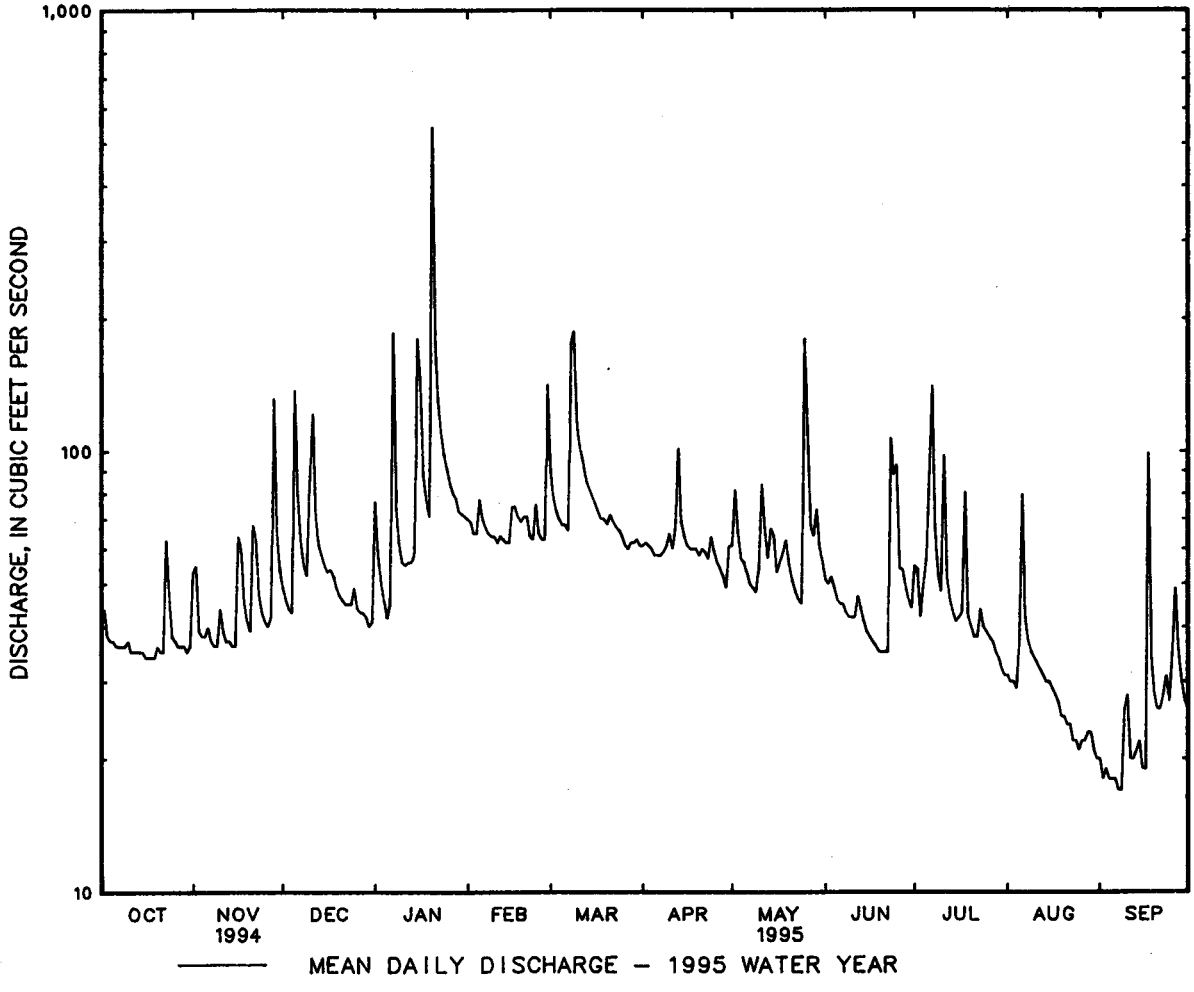
MEAN	44.9	54.9	64.4	74.5	88.0	92.9	91.6	84.0	70.3	57.5	47.1	47.7
MAX	203	129	145	180	187	261	194	202	353	158	159	227
(WY)	1980	1972	1973	1979	1979	1994	1952	1952	1972	1972	1971	1975
MIN	16.7	22.8	20.9	22.1	37.9	40.3	38.4	29.4	24.3	12.2	9.44	17.2
(WY)	1964	1982	1966	1981	1967	1981	1963	1969	1966	1966	1966	1986

01582000 LITTLE FALLS AT BLUE MOUNT, MD--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1944 - 1995	
ANNUAL TOTAL	35034		20531			
ANNUAL MEAN	96.0		56.2		68.1	
HIGHEST ANNUAL MEAN					132	1972
LOWEST ANNUAL MEAN					31.8	1966
HIGHEST DAILY MEAN	661	Mar 10	545	Jan 20	4730	Jun 22 1972
LOWEST DAILY MEAN	32	Sep 21	17	(a)	4.5	Sep 11 1966
ANNUAL SEVEN-DAY MINIMUM	34	Sep 9	18	Sep 2	4.8	Sep 6 1966
INSTANTANEOUS PEAK FLOW			1760	Jan 20	(b)8280	Jun 22 1972
INSTANTANEOUS PEAK STAGE			5.64	Jan 20	18.54	Jun 22 1972
INSTANTANEOUS LOW FLOW			16	Sep 8	1.9	Aug 26 1966
ANNUAL RUNOFF (CFSM)	1.81		1.06		1.29	
ANNUAL RUNOFF (INCHES)	24.64		14.44		17.50	
10 PERCENT EXCEEDS	196		81		116	
50 PERCENT EXCEEDS	66		51		51	
90 PERCENT EXCEEDS	36		28		25	

a Sept. 7, 8.

b From rating curve extended above 1,300 ft^3/s on basis of contracted-opening measurement of peak flow.



01582000 LITTLE FALLS AT BLUE MOUNT, MD--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1993 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TEMPER-ATURE AIR (DEG C)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)
AUG 1995											
18...	1030	27	165	6.8	23.0	25.0	52	12	5.3	9.3	1.9

DATE	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
AUG 1995											
18...	25	4.9	21	<0.10	8.2	98	<0.010	2.80	2.80	61	29

01582500 GUNPOWDER FALLS AT GLENCOE, MD

LOCATION.--Lat 39°32'59", long 76°38'11", Baltimore County, Hydrologic Unit 02060003, on right downstream wingwall of bridge on Glencoe Road at intersection of Upper Glencoe Road and Lower Glencoe Road in Glencoe, and 0.7 mi upstream from Piney Creek.

DRAINAGE AREA.--160 mi^2.

PERIOD OF RECORD.--October 1977 to June 1980, December 1982 to current year.

REVISED RECORDS.--WDR MD-DE-89-1: 1985(M).

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 250 ft above sea level, from topographic map.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Flow regulated by Prettyboy Reservoir, 12 mi upstream, beginning Apr. 10, 1933, for water supply of Baltimore City (usable capacity, 20,000,000,000 gal; dead storage, 1,080,000,000 gal). Several measurements of water temperature were made during the year.

PEAK DISCHARGE FOR CURRENT YEAR.--Peak discharge, 2,480 ft^3/s, Jan. 20, gage height, 8.50 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	219	231	200	116	e390	209	e410	219	225	141	172	234
2	224	231	106	103	e360	208	e390	210	212	140	177	154
3	219	235	87	94	e340	216	e370	206	217	505	142	123
4	219	262	78	160	e320	226	e380	223	234	412	130	109
5	221	239	78	150	e310	204	e390	282	211	268	163	95
6	222	236	97	114	e300	206	e370	258	199	204	194	87
7	223	267	72	93	e290	196	e350	241	190	170	177	84
8	223	142	73	113	e280	191	e340	232	203	150	143	82
9	274	81	69	423	e270	193	e330	323	214	149	125	80
10	238	81	96	364	e270	199	e320	289	198	143	125	78
11	227	203	71	384	e260	243	e320	245	180	138	146	75
12	225	81	62	495	e260	351	e310	226	166	126	164	85
13	223	67	73	355	e250	514	e310	229	191	119	127	115
14	254	59	78	373	e250	716	e290	553	175	119	116	93
15	369	56	117	283	e240	819	e280	776	151	126	109	85
16	242	53	75	259	e230	794	e270	657	145	127	105	85
17	237	54	68	263	e240	565	e260	533	152	128	101	82
18	65	59	597	624	242	438	e260	448	163	122	94	79
19	50	52	351	370	240	513	e330	398	159	118	87	79
20	48	49	231	337	238	582	e360	352	148	114	86	77
21	44	48	384	300	235	514	e300	323	167	108	77	75
22	42	53	231	256	229	503	e270	290	242	109	70	75
23	42	115	180	242	226	e450	e260	273	194	108	69	75
24	39	83	158	237	220	e400	e260	281	163	103	70	68
25	38	69	162	673	214	e350	e250	284	147	145	71	68
26	44	126	135	e1450	220	e720	e240	259	140	145	70	65
27	69	79	121	e760	218	e600	235	244	145	131	73	60
28	55	70	188	e610	210	e540	233	240	231	226	213	60
29	46	68	270	e520	---	e500	225	241	172	153	186	60
30	43	77	228	e450	---	e460	222	242	161	128	128	56
31	78	---	166	e410	---	e430	---	229	---	121	140	---
TOTAL	4762	3526	4902	11381	7352	13050	9135	9806	5495	4996	3850	2643
MEAN	154	118	158	367	263	421	304	316	183	161	124	88.1
MAX	369	267	597	1450	390	819	410	776	242	505	213	234
MIN	38	48	62	93	210	191	222	206	140	103	69	56
(†)	14967	15778	19195	20025	219953	20040	19979	19953	19964	19907	19938	19892

e Estimated

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

MEAN	154	118	158	367	263	421	304	316	183	161	124	88.1
MAX	154	118	158	367	263	421	304	316	183	161	124	88.1
(WY)	1978	1978	1978	1978	1978	1978	1978	1978	1978	1978	1978	1978
MIN	154	118	158	367	263	421	304	316	183	161	124	88.1
(WY)	1978	1978	1978	1978	1978	1978	1978	1978	1978	1978	1978	1978

† Month-end contents, in millions of gallons, in Prettyboy Reservoir (contents on Sept. 30, 1977, 16,010,000,000 gal). Records furnished by Baltimore Department of Public Works.

01582500 GUNPOWDER FALLS AT GLENCOE, MD--Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	57	74	146	178	279	e820	261	227	403	281	204	121
2	61	74	124	e700	252	e680	275	214	367	235	814	118
3	61	74	112	525	220	e580	295	210	372	201	404	119
4	63	74	199	294	202	e480	329	221	571	188	258	117
5	70	74	283	234	205	e860	367	227	449	203	201	314
6	187	74	202	207	e200	e800	326	210	382	174	173	e4500
7	123	74	154	217	e200	638	272	204	323	161	152	e2000
8	98	74	141	541	e200	522	245	200	286	153	142	e700
9	84	74	475	375	e195	450	296	197	267	148	139	e330
10	77	74	504	276	e195	411	399	195	261	145	131	e290
11	76	74	280	221	e195	528	317	191	257	148	137	e270
12	74	74	203	202	e200	439	307	191	242	146	337	e240
13	74	74	161	206	e200	378	306	234	220	232	286	e250
14	74	74	145	336	e200	369	340	303	208	278	202	e270
15	78	74	123	268	e195	350	329	233	201	202	173	e210
16	70	88	118	198	e190	306	307	220	198	174	146	e180
17	81	100	126	172	e190	294	284	193	221	207	133	e180
18	81	224	110	175	e190	291	270	181	271	185	131	e170
19	79	188	101	161	e190	279	253	211	220	172	140	e170
20	80	139	98	251	e200	273	242	200	199	152	136	e300
21	77	121	128	e3000	e230	264	237	191	188	148	140	e600
22	72	110	117	e1500	e270	257	233	190	185	144	145	e1700
23	72	103	107	551	e450	250	233	342	190	191	134	e500
24	76	107	125	e3700	e1500	422	228	1130	183	270	140	e310
25	66	111	e600	e1800	e3600	489	227	608	173	196	230	e270
26	67	101	298	e1100	e4000	387	229	555	164	171	182	e250
27	88	101	222	532	e1500	325	341	377	160	155	172	e230
28	87	123	160	438	e1100	290	302	318	163	144	176	e220
29	80	131	133	396	---	277	264	285	214	255	150	e220
30	76	192	123	341	---	272	236	256	188	443	140	e210
31	75	---	128	290	---	266	---	238	---	221	131	---
TOTAL	2484	3049	5946	19385	16748	13247	8550	8752	7726	6123	6179	15359
MEAN	80.1	102	192	625	598	427	285	282	258	198	199	512
MAX	187	224	600	3700	4000	860	399	1130	571	443	814	4500
MIN	57	74	98	161	190	250	227	181	160	144	131	117
(†)	19876	19948	19882	19994	20209	20092	19974	19958	19933	19943	19928	19912

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1978 - 1979, BY WATER YEAR (WY)

MEAN	117	110	175	496	430	424	295	299	220	179	162	300
MAX	154	118	192	625	598	427	304	316	258	198	199	512
(WY)	1978	1978	1979	1979	1979	1979	1978	1978	1979	1979	1979	1979
MIN	80.1	102	158	367	263	421	285	282	183	161	124	88.1
(WY)	1979	1979	1978	1978	1978	1978	1979	1979	1978	1978	1978	1978

† Month-end contents, in millions of gallons, in Prettyboy Reservoir (contents on Sept. 30, 1978, 19,892,000,000 gal). Records furnished by Baltimore Department of Public Works.

01582500 GUNPOWDER FALLS AT GLENCOE, MD--Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e2200	329	258	196	168	158	535	491	247	---	---	---
2	e720	333	258	198	181	183	429	404	254	---	---	---
3	e900	394	243	193	250	211	375	382	241	---	---	---
4	e620	354	241	187	271	164	387	337	---	---	---	---
5	e710	324	238	200	279	164	361	305	---	---	---	---
6	688	309	240	193	288	174	309	290	---	---	---	---
7	552	310	250	189	288	159	293	291	---	---	---	---
8	485	293	245	192	288	168	284	286	---	---	---	---
9	500	291	224	187	288	194	420	270	---	---	---	---
10	1300	326	220	184	288	172	429	250	---	---	---	---
11	968	347	220	202	288	191	359	243	---	---	---	---
12	765	383	221	298	288	160	324	271	---	---	---	---
13	675	343	257	224	288	187	319	377	---	---	---	---
14	577	355	267	212	194	439	317	306	---	---	---	---
15	515	312	235	219	98	330	355	261	---	---	---	---
16	486	301	228	205	164	312	329	238	---	---	---	---
17	468	282	237	196	170	346	286	226	---	---	---	---
18	452	274	204	222	168	445	273	302	---	---	---	---
19	432	268	202	380	160	333	266	302	---	---	---	---
20	421	263	204	284	150	282	260	310	---	---	---	---
21	413	257	204	242	156	719	260	435	---	---	---	---
22	403	253	207	224	184	677	252	420	---	---	---	---
23	403	252	212	231	191	445	243	336	---	---	---	---
24	473	251	217	213	184	365	241	307	---	---	---	---
25	405	251	321	199	177	352	241	311	---	---	---	---
26	378	508	279	198	174	310	238	273	---	---	---	---
27	358	454	236	187	157	280	316	248	---	---	---	---
28	369	364	220	189	156	264	404	231	---	---	---	---
29	369	314	206	185	156	404	402	222	---	---	---	---
30	349	278	204	172	---	364	352	214	---	---	---	---
31	337	---	200	168	---	465	---	265	---	---	---	---
TOTAL	18691	9573	7198	6569	6092	9417	9859	9404	---	---	---	---
MEAN	603	319	232	212	210	304	329	303	---	---	---	---
MAX	2200	508	321	380	288	719	535	491	---	---	---	---
MIN	337	251	200	168	98	158	238	214	---	---	---	---
(†)	19907	19953	19948	19933	19969	20163	19994	19969	20276			

e Estimated

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

MEAN	279	179	194	401	355	384	306	301	220	179	162	300
MAX	603	319	232	625	598	427	329	316	258	198	199	512
(WY)	1980	1980	1980	1979	1979	1979	1980	1978	1979	1979	1979	1979
MIN	80.1	102	158	212	210	304	285	282	183	161	124	88.1
(WY)	1979	1979	1978	1980	1980	1980	1979	1979	1978	1978	1978	1978

† Month-end contents, in millions of gallons, in Prettyboy Reservoir (contents on Sept. 30, 1979, 19,912,000,000 gal). Records furnished by Baltimore Department of Public Works.

01582500 GUNPOWDER FALLS AT GLENCOE, MD--Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e115	126	131	170	177	249	161	159	139	133	112	440
2	e125	148	128	145	176	229	158	194	132	135	111	438
3	e115	121	126	132	167	203	156	191	136	115	111	436
4	e115	119	124	129	195	188	159	166	134	119	109	435
5	e115	118	248	132	203	179	153	161	125	143	118	384
6	e114	121	180	165	217	175	138	154	121	158	193	207
7	114	119	152	338	243	173	140	140	120	400	129	204
8	114	117	140	177	243	e240	139	133	117	321	118	204
9	114	117	134	153	243	e300	147	127	113	209	115	210
10	116	125	170	143	243	e300	162	137	113	162	114	218
11	113	119	258	140	214	e270	152	177	114	403	112	206
12	114	117	167	141	165	e250	153	153	118	312	111	205
13	114	117	153	141	177	e240	271	141	117	239	110	209
14	114	117	146	142	222	e225	218	149	112	195	108	211
15	114	116	140	279	250	e215	189	166	108	124	108	206
16	114	146	136	377	180	e210	165	145	105	123	107	205
17	113	149	137	286	178	209	155	143	103	139	106	330
18	112	127	136	238	177	199	152	151	103	226	104	228
19	112	123	134	218	172	189	151	172	102	228	103	216
20	114	119	131	1110	176	184	147	155	101	192	101	214
21	115	146	130	688	179	194	144	140	100	122	101	213
22	114	163	128	459	172	194	149	132	100	121	100	217
23	151	129	127	349	160	183	144	125	168	127	98	221
24	139	123	127	286	192	182	149	121	199	138	98	214
25	120	121	132	253	172	172	145	263	185	128	98	225
26	118	119	127	230	162	165	139	352	128	122	97	246
27	116	121	126	211	162	160	133	224	127	120	189	222
28	115	249	125	199	236	162	135	186	122	119	415	207
29	115	162	124	190	---	163	130	207	118	118	441	172
30	115	139	122	184	---	165	143	181	115	115	440	103
31	115	---	121	181	---	165	---	156	---	113	440	---
TOTAL	3624	3953	4460	7986	5453	6332	4677	5201	3695	5419	4817	7446
MEAN	117	132	144	258	195	204	156	168	123	175	155	248
MAX	151	249	258	1110	250	300	271	352	199	403	441	440
MIN	112	116	121	129	160	160	130	121	100	113	97	103
(†)	19049	19157	19523	19887	19974	19872	19877	19823	19837	19607	17966	14634

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1978 - 1980, 1983 - 1995, BY WATER YEAR (WY)

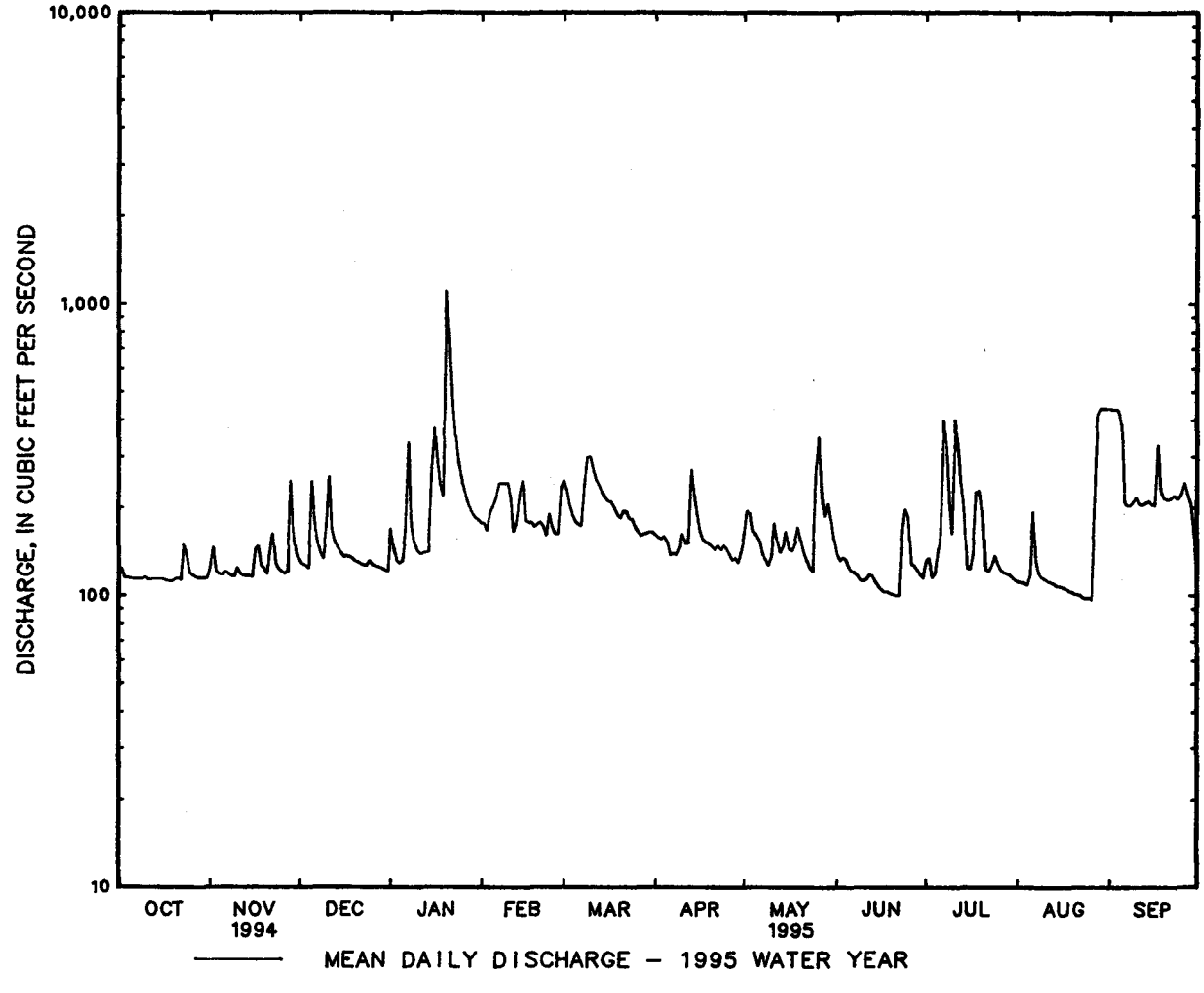
MEAN	160	165	185	230	240	277	270	265	183	172	144	166
MAX	603	319	389	625	598	755	586	476	284	280	199	512
(WY)	1980	1980	1994	1979	1979	1994	1993	1989	1989	1986	1979	1979
MIN	52.4	81.6	101	63.3	85.8	127	114	85.5	82.4	94.8	70.8	69.6
(WY)	1987	1993	1993	1983	1983	1992	1992	1992	1992	1985	1985	1983

† Month-end contents, in millions of gallons, in Prettyboy Reservoir (contents on Sept. 30, 1994, 19,518,000,000 gal). Records furnished by Baltimore Department of Public Works.

01582500 GUNPOWDER FALLS AT GLENCOE, MD--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1978 - 1980, 1983 - 1995	
ANNUAL TOTAL	99887		63063			
ANNUAL MEAN	274		173		206	
HIGHEST ANNUAL MEAN					314	1980
LOWEST ANNUAL MEAN					118	1987
HIGHEST DAILY MEAN	1460	Mar 10	1110	Jan 20	4500	Sep 6 1979
LOWEST DAILY MEAN	(e)100	Sep 21	97	Aug 26	38	Oct 25 1977
ANNUAL SEVEN-DAY MINIMUM	106	Sep 9	99	Aug 20	42	Oct 20 1977
INSTANTANEOUS PEAK FLOW			2480	Jan 20	6110	Sep 6 1979
INSTANTANEOUS PEAK STAGE			8.50	Jan 20	15.30	Sep 6 1979
INSTANTANEOUS LOW FLOW			97	(a)	(b)35	Jan 4 1983
ANNUAL RUNOFF (CFSM)	1.71		1.08		1.29	
ANNUAL RUNOFF (INCHES)	23.22		14.66		17.48	
10 PERCENT EXCEEDS	596		247		360	
50 PERCENT EXCEEDS	179		147		160	
90 PERCENT EXCEEDS	115		113		80	

e Estimated.
a Aug. 25, 26.
b Result of freezeup.



01583500 WESTERN RUN AT WESTERN RUN, MD

LOCATION.--Lat 39°30'38", long 76°40'37", Baltimore County, Hydrologic Unit 02060003, on right bank 100 ft downstream from bridge on Western Run Road, 0.3 mi southeast of Western Run, 2.5 mi northwest of Cockeysville, 3.2 mi upstream from Beaverdam Run, and 5.0 mi upstream from mouth.

DRAINAGE AREA.--59.8 mi^2.

WATER-DISCHARGE RECORDS

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 sea level (Baltimore County bench mark).

REMARKS.--Water-discharge records good except those for estimated daily discharges (ice effect), which are fair.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 20	1030	*1,280	*4.81	No other peak greater than base discharge.			

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	39	45	50	73	60	84	53	60	42	40	26	18
2	46	54	48	59	59	72	53	77	42	41	25	17
3	40	41	46	52	57	66	52	63	48	34	25	17
4	37	39	45	50	e55	64	52	53	43	39	24	17
5	37	38	111	e48	e55	62	50	53	39	45	32	17
6	36	40	75	e52	e82	61	50	49	38	57	103	17
7	37	39	60	182	e65	60	50	47	38	107	45	16
8	36	38	55	79	e62	121	49	46	36	52	34	16
9	36	38	51	66	e60	169	55	45	35	38	31	17
10	37	42	80	60	61	105	55	53	36	35	30	17
11	35	40	128	58	59	92	51	73	37	245	29	16
12	35	38	73	59	e57	86	54	52	40	53	28	16
13	35	38	64	59	e60	80	87	47	39	40	27	17
14	36	38	61	61	e58	76	59	54	35	35	26	21
15	35	37	57	110	e53	73	55	56	34	33	26	18
16	35	52	54	115	69	70	54	48	32	31	25	18
17	35	53	55	79	68	67	52	50	31	77	24	76
18	35	43	54	71	66	65	52	54	31	73	23	30
19	35	41	52	68	64	63	52	61	30	37	23	24
20	37	40	50	397	66	63	50	51	29	33	22	22
21	37	56	49	134	66	64	50	46	29	31	21	22
22	37	63	49	101	60	62	51	44	29	31	21	22
23	59	46	49	87	58	60	47	42	34	31	20	25
24	50	42	48	80	63	58	53	41	60	90	20	22
25	40	42	50	75	58	56	50	78	40	64	19	27
26	38	41	47	71	57	55	47	99	41	36	19	39
27	38	43	47	68	58	55	47	55	48	35	19	28
28	37	122	47	67	125	56	46	51	40	31	20	24
29	37	67	46	63	---	56	45	62	38	30	20	22
30	37	55	44	62	---	56	55	49	37	28	19	22
31	37	---	45	61	---	55	---	46	---	26	18	---
TOTAL	1181	1411	1790	2667	1781	2232	1576	1705	1131	1578	844	680
MEAN	38.1	47.0	57.7	86.0	63.6	72.0	52.5	55.0	37.7	50.9	27.2	22.7
MAX	59	122	128	397	125	169	87	99	60	245	103	76
MIN	35	37	44	48	53	55	45	41	29	26	18	16
CFSM	.64	.79	.97	1.44	1.06	1.20	.88	.92	.63	.85	.46	.38
IN.	.73	.88	1.11	1.66	1.11	1.39	.98	1.06	.70	.98	.53	.42

e Estimated

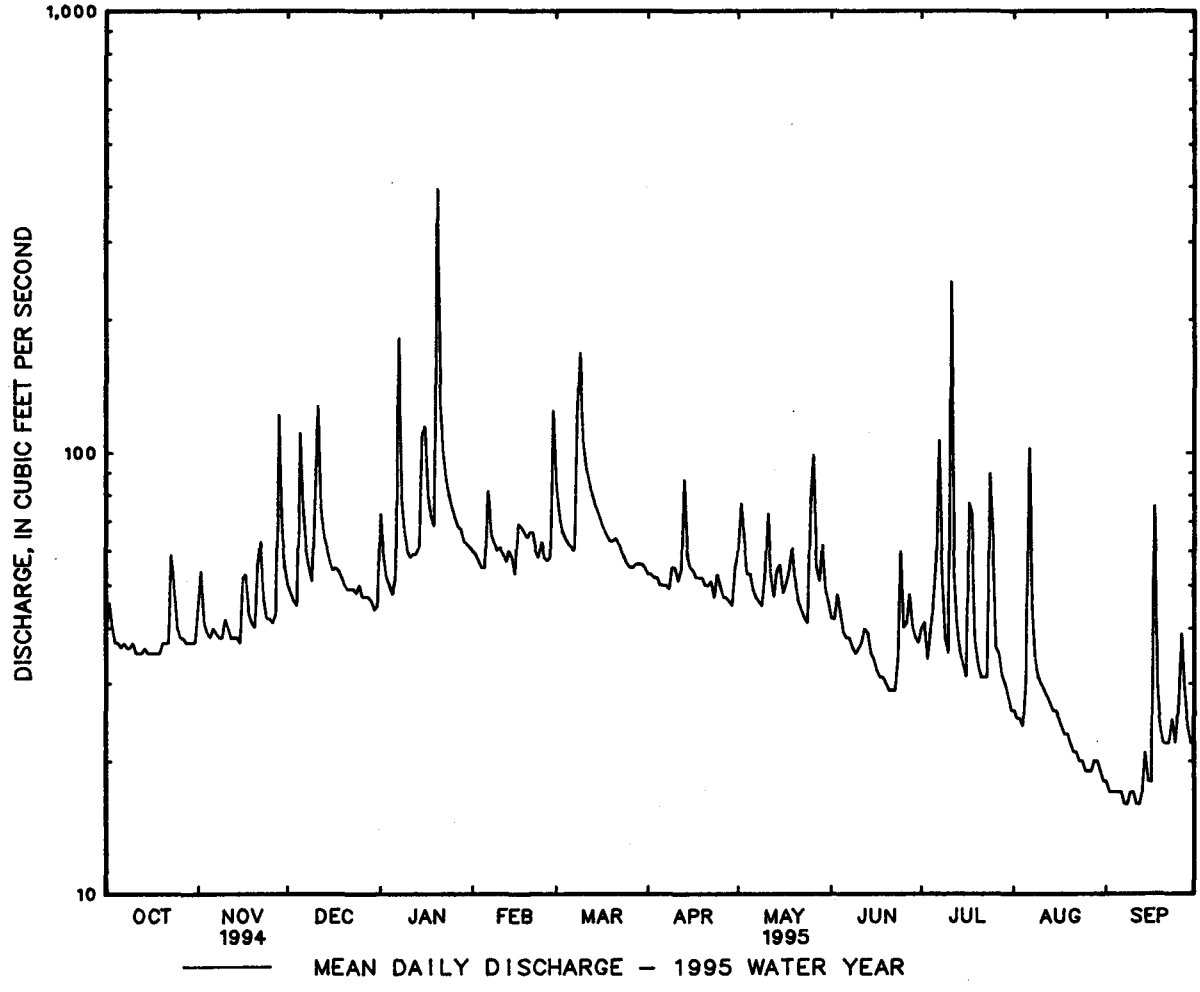
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1944 - 1995, BY WATER YEAR (WY)

MEAN	45.2	55.5	66.8	79.0	92.0	95.3	89.8	82.3	70.9	55.3	48.3	47.3
MAX	209	131	185	222	240	237	209	227	395	164	183	261
(WY)	1980	1953	1973	1979	1979	1994	1952	1952	1972	1972	1971	1975
MIN	16.4	20.4	19.0	20.5	34.4	45.9	39.8	31.5	21.1	11.3	7.78	14.8
(WY)	1964	1966	1966	1966	1967	1981	1963	1963	1966	1966	1966	1963

01583500 WESTERN RUN AT WESTERN RUN, MD--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1944 - 1995	
ANNUAL TOTAL	34320		18576			
ANNUAL MEAN	94.0		50.9		68.9	
HIGHEST ANNUAL MEAN					138	1972
LOWEST ANNUAL MEAN					28.9	1966
HIGHEST DAILY MEAN	783	Mar 10	397	Jan 20	7000	Jun 22 1972
LOWEST DAILY MEAN	32	(a)	16	(b)	2.5	Sep 12 1966
ANNUAL SEVEN-DAY MINIMUM	34	Sep 9	16	Sep 6	3.8	Sep 6 1966
INSTANTANEOUS PEAK FLOW			1280	Jan 20	(c)38000	Jun 22 1972
INSTANTANEOUS PEAK STAGE			4.81	Jan 20	(d)26.00	Jun 22 1972
INSTANTANEOUS LOW FLOW			16	(f)	2.4	Sep 12 1966
ANNUAL RUNOFF (CFSM)	1.57		.85		1.15	
ANNUAL RUNOFF (INCHES)	21.35		11.56		15.65	
10 PERCENT EXCEEDS	170		74		116	
50 PERCENT EXCEEDS	66		48		51	
90 PERCENT EXCEEDS	37		24		23	

a Sept. 14, 20, 21.
b Sept. 7, 8, 11, 12.
c From rating curve extended above 3,200 ft^3/s, on basis of slope-area measurement and contracted-opening measurement of peak flow.
d From floodmarks.
f Sept. 8, 11, 12.



01583500 WESTERN RUN AT WESTERN RUN, MD--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1993 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TEMPER-ATURE AIR (DEG C)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3
AUG 1995												
18...	0600	24	262	7.1	22.5	21.0	100	26	9.2	9.2	2.5	71

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS NO3)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
AUG 1995											
18...	7.5	19	<0.10	9.8	143	12	0.020	2.80	2.80	34	39

01583600 BEAVERDAM RUN AT COCKEYSVILLE, MD

LOCATION.--Lat 39°29'08", long 76°38'45", Baltimore County, Hydrologic Unit 02060003, on left bank of bridge on Maryland Route 45 at Cockeysville, and 0.45 mi upstream from mouth.

DRAINAGE AREA.--20.9 mi^2.

WATER-DISCHARGE RECORDS

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 sea level. 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.--Water-discharge records good except those for estimated daily discharges (ice effect), which are fair.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 650 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 20	0745	864	6.12	July 17	1930	*1,570	*9.22

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	48	17	40	25	30	19	23	16	42	13	9.8
2	23	20	17	23	24	25	20	59	20	20	13	8.8
3	17	18	16	18	23	24	20	24	21	14	12	8.7
4	15	17	20	18	29	23	19	22	18	50	16	9.7
5	16	16	89	16	e22	22	19	22	15	21	18	7.8
6	17	19	28	55	e19	23	20	19	15	75	144	7.2
7	15	16	22	97	e23	21	20	16	16	32	21	7.8
8	15	15	20	31	e23	172	24	15	14	20	15	9.0
9	19	16	19	24	25	91	28	17	14	17	14	9.6
10	17	28	74	22	24	45	22	38	15	15	13	9.4
11	15	16	49	22	26	38	20	41	17	21	13	7.6
12	16	16	26	21	24	35	46	22	24	14	13	9.6
13	16	15	24	21	e22	31	38	21	16	14	14	13
14	16	15	22	22	e21	28	23	35	15	13	14	10
15	16	15	20	88	e24	27	22	22	14	12	23	8.6
16	15	43	19	42	39	27	20	18	14	11	12	12
17	14	20	23	28	29	25	19	48	13	258	11	116
18	15	18	20	24	26	25	19	35	13	50	12	14
19	16	18	18	24	25	25	20	45	12	20	12	11
20	21	17	17	296	26	24	18	23	11	16	12	12
21	16	55	17	54	25	27	19	21	13	16	11	11
22	16	25	18	42	23	25	18	18	12	37	11	38
23	51	17	18	37	22	23	17	16	35	21	9.8	15
24	22	16	17	35	25	22	28	15	35	53	9.3	14
25	19	16	19	32	21	22	18	48	24	23	9.2	35
26	18	15	16	28	22	21	19	37	26	17	9.2	27
27	16	36	16	27	31	20	17	19	22	16	9.0	14
28	16	63	17	27	74	21	17	28	16	17	9.9	13
29	16	24	17	26	---	20	19	24	15	15	10	11
30	16	18	17	27	---	21	45	18	15	15	9.6	11
31	15	---	23	25	---	20	---	17	---	13	9.4	---
TOTAL	560	691	755	1292	742	1003	673	826	526	978	522.4	490.6
MEAN	18.1	23.0	24.4	41.7	26.5	32.4	22.4	26.6	17.5	31.5	16.9	16.4
MAX	51	63	89	296	74	172	46	59	35	258	144	116
MIN	14	15	16	16	19	20	17	15	11	11	9.0	7.2
CFSM	.86	1.10	1.17	1.99	1.27	1.55	1.07	1.27	.84	1.51	.81	.78
IN.	1.00	1.23	1.34	2.30	1.32	1.79	1.20	1.47	.94	1.74	.93	.87

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 1995, BY WATER YEAR (WY)

MEAN	18.8	27.9	29.3	29.1	32.5	41.9	38.3	38.7	24.8	25.5	19.5	19.6
MAX	33.0	53.7	59.0	41.9	57.5	90.2	81.6	80.5	43.7	49.8	39.7	36.7
(WY)	1990	1994	1984	1991	1994	1994	1983	1989	1983	1984	1990	1987
MIN	10.4	14.8	15.0	16.9	18.5	21.4	18.5	14.5	9.23	8.94	10.0	7.29
(WY)	1983	1983	1983	1992	1992	1985	1985	1986	1986	1986	1985	1986

01583600 BEAVERDAM RUN AT COCKEYSVILLE, MD--Continued

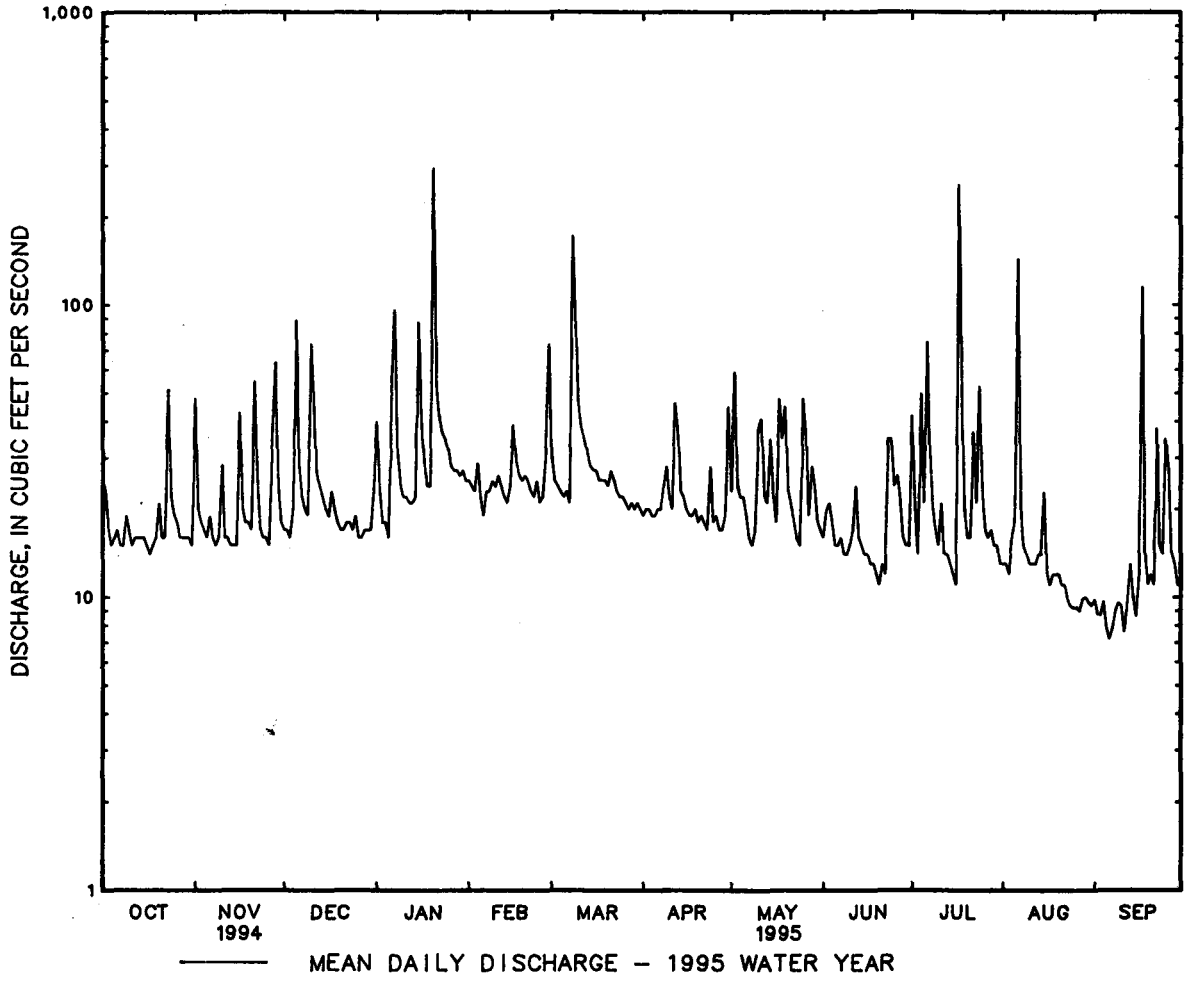
SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1983 - 1995	
ANNUAL TOTAL	14243		9059.0			
ANNUAL MEAN	39.0		24.8		28.8	
HIGHEST ANNUAL MEAN					43.9	1994
LOWEST ANNUAL MEAN					17.2	1986
HIGHEST DAILY MEAN	336	Mar 10	296	Jan 20	886	Nov 28 1993
LOWEST DAILY MEAN	14	Oct 17	7.2	Sep 6	5.5	(a)
ANNUAL SEVEN-DAY MINIMUM	15	Sep 8	8.3	Sep 5	5.8	Aug 10 1986
INSTANTANEOUS PEAK FLOW			1570	Jul 17	(b)3360	Jul 1 1984
INSTANTANEOUS PEAK STAGE			9.22	Jul 17	(c)12.10	Jul 1 1984
INSTANTANEOUS LOW FLOW			6.8	(d)	4.1	Oct 1 1986
ANNUAL RUNOFF (CFSM)	1.87		1.19		1.38	
ANNUAL RUNOFF (INCHES)	25.35		16.12		18.72	
10 PERCENT EXCEEDS	70		38		50	
50 PERCENT EXCEEDS	25		19		21	
90 PERCENT EXCEEDS	16		12		11	

a Aug. 16, 1986, Sept. 1, 1992.

b From rating curve extended above 1,000 ft^3/s.

c From floodmarks.

d Sept. 6, 7, 11.



01583600 BEAVERDAM RUN AT COCKEYSVILLE, MD--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1993 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TEMPER-ATURE AIR (DEG C)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3
AUG 1995												
18...	0630	12	510	7.3	22.0	23.0	200	47	20	20	5.2	128

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS NO3)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
AUG 1995											
18...	29	48	<0.10	11	295	10	0.020	2.30	2.30	16	26

01584050 LONG GREEN CREEK AT GLEN ARM, MD

LOCATION.--Lat 39°27'17", long 76°28'45", Baltimore County, Hydrologic Unit 02060003, on right bank 0.5 mi downstream from bridge on Glen Arm Road, 0.6 mi upstream from State Highway 147 (Harford Road), 0.8 mi east of Glen Arm, and 1.6 mi upstream from mouth.

DRAINAGE AREA.--9.40 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1975 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 230 ft above sea level, from topographic map.

REMARKS.--Water-discharge records good except those for estimated daily discharges (ice effect), which are fair.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 20	0700	*451	*3.93	No other peak greater than base discharge.			

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.0	12	5.5	8.0	8.3	12	8.0	7.9	5.6	5.3	2.8	1.7
2	5.4	5.5	5.3	6.2	8.3	10	8.0	13	6.2	5.3	2.7	1.7
3	4.7	4.4	5.0	5.6	7.5	9.5	7.7	8.9	6.4	4.4	2.7	1.7
4	4.3	4.1	5.0	5.5	8.9	9.1	7.7	7.9	6.0	4.5	2.5	1.6
5	4.0	4.0	24	4.9	7.4	9.0	7.6	7.6	5.6	5.0	2.8	1.7
6	3.9	4.0	9.6	10	e6.4	8.7	7.3	7.2	5.6	9.8	11	1.6
7	3.7	3.9	8.0	35	7.7	8.7	7.3	6.9	5.6	7.0	4.4	1.7
8	3.5	3.8	6.7	10	7.7	64	7.6	6.7	5.5	5.2	3.6	1.6
9	3.6	3.8	6.1	8.7	e7.0	33	8.9	6.7	5.3	4.4	3.3	1.8
10	3.8	5.1	17	7.8	7.3	15	8.3	8.1	5.3	4.2	3.3	1.8
11	3.4	4.2	14	7.7	7.8	13	7.8	11	5.5	5.4	3.1	1.6
12	3.2	4.0	9.0	7.7	7.4	12	9.1	6.9	6.6	4.1	2.9	1.6
13	3.1	4.0	8.1	7.7	7.0	11	11	6.3	6.0	3.5	2.8	1.8
14	3.1	3.8	7.6	7.7	6.7	11	8.4	7.3	5.5	3.5	2.8	2.0
15	3.1	3.8	6.9	26	7.0	10	7.8	6.8	5.0	3.3	3.1	1.6
16	3.1	7.2	6.7	14	10	10	7.3	6.0	5.0	3.5	2.7	1.7
17	3.2	5.1	6.9	11	10	9.8	7.3	10	4.7	4.1	2.5	12
18	3.3	4.5	6.7	9.6	9.5	9.5	7.3	9.1	4.0	5.0	2.5	3.0
19	3.3	4.2	6.3	9.3	9.2	9.3	7.3	14	4.0	3.5	2.4	2.5
20	3.7	4.0	6.1	111	9.3	9.3	7.2	8.4	4.0	3.3	2.3	2.3
21	3.9	13	5.9	17	9.2	10	7.0	7.3	3.9	3.1	2.4	2.3
22	3.8	7.9	5.9	13	8.2	9.2	7.0	6.5	4.0	4.4	2.3	5.1
23	6.8	5.5	5.9	12	8.0	9.0	7.0	6.1	9.6	4.5	2.3	3.8
24	4.6	4.9	5.7	11	8.5	8.9	8.5	5.9	7.4	5.2	2.3	2.8
25	4.1	4.7	5.6	10	7.5	8.6	7.4	11	6.1	4.5	2.0	4.8
26	4.0	4.5	5.6	9.6	7.3	8.3	7.0	11	5.5	3.5	1.8	5.0
27	4.0	5.6	5.3	9.3	7.7	8.3	6.7	7.1	5.6	3.7	2.0	3.4
28	4.0	16	5.3	9.3	25	8.3	6.7	7.0	5.2	3.4	1.9	2.8
29	3.8	7.4	5.3	8.6	---	8.3	6.4	8.3	5.0	3.2	2.0	2.5
30	3.8	6.1	5.0	8.3	---	8.3	9.2	6.8	4.7	2.9	1.9	2.3
31	3.8	---	5.2	8.3	---	8.3	---	6.2	---	2.8	1.8	---
TOTAL	121.0	171.0	231.2	429.8	241.8	379.4	231.8	249.9	164.4	135.5	88.9	81.8
MEAN	3.90	5.70	7.46	13.9	8.64	12.2	7.73	8.06	5.48	4.37	2.87	2.73
MAX	6.8	16	24	111	25	64	11	14	9.6	9.8	11	12
MIN	3.1	3.8	5.0	4.9	6.4	8.3	6.4	5.9	3.9	2.8	1.8	1.6
CFSM	.42	.61	.79	1.47	.92	1.30	.82	.86	.58	.46	.31	.29
IN.	.48	.68	.91	1.70	.96	1.50	.92	.99	.65	.54	.35	.32

e Estimated

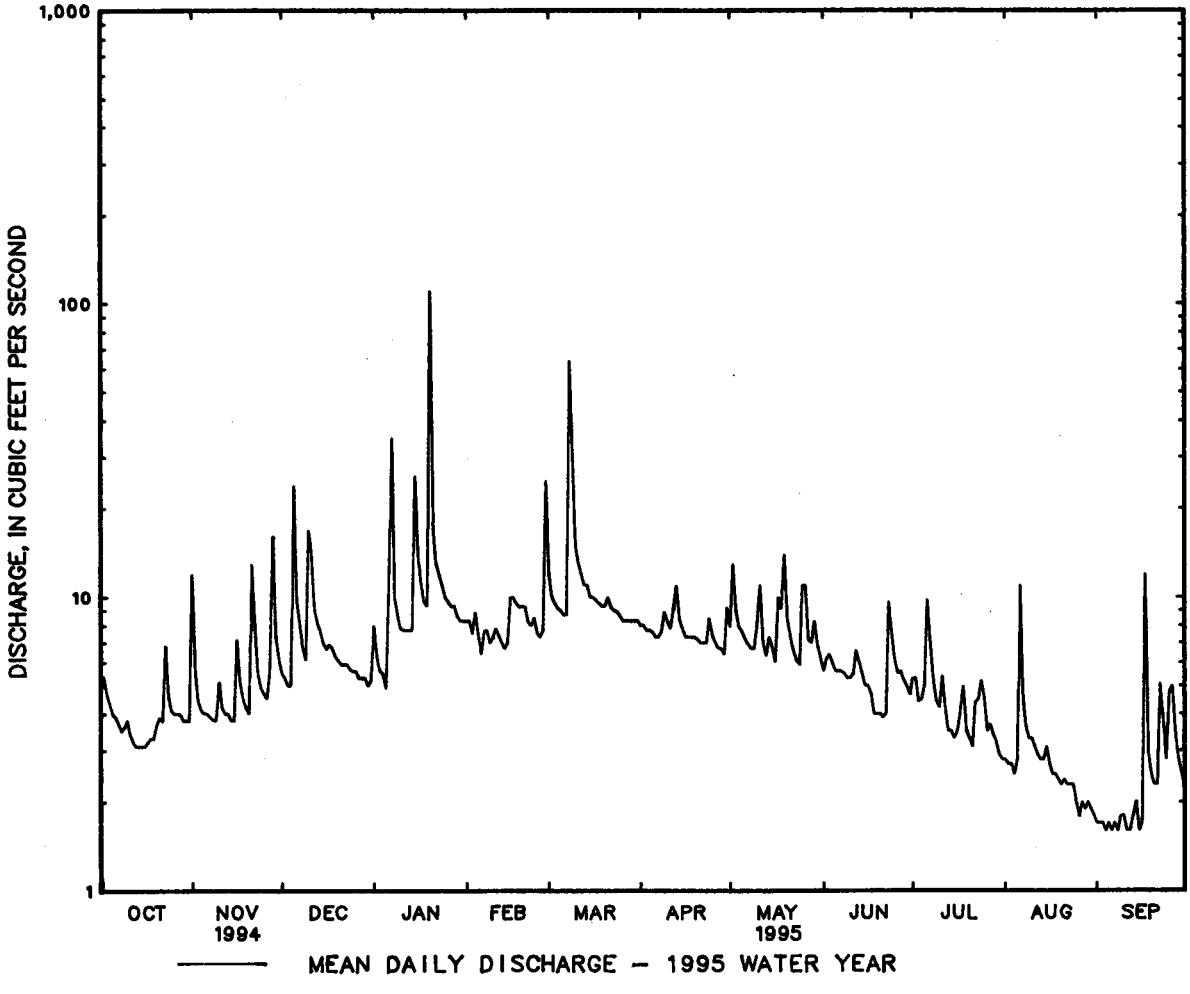
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1976 - 1995, BY WATER YEAR (WY)

MEAN	7.54	8.78	11.4	14.2	14.4	16.8	14.3	13.1	10.0	9.32	7.85	7.73
MAX	25.1	18.0	26.9	38.4	39.3	39.2	35.3	28.1	17.0	28.0	26.9	32.2
(WY)	1980	1980	1984	1979	1979	1994	1983	1989	1990	1989	1978	1979
MIN	2.97	3.05	4.04	3.67	6.16	6.02	7.37	5.94	3.85	2.49	2.87	2.41
(WY)	1987	1982	1981	1981	1992	1981	1981	1986	1986	1986	1995	1986

01584050 LONG GREEN CREEK AT GLEN ARM, MD--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1976 - 1995	
ANNUAL TOTAL	5174.9		2526.5			
ANNUAL MEAN	14.2		6.92		11.3	
HIGHEST ANNUAL MEAN					18.1	1979
LOWEST ANNUAL MEAN					5.33	1981
HIGHEST DAILY MEAN	165	Jan 28	111	Jan 20	408	Jan 26 1978
LOWEST DAILY MEAN	3.1	(a)	1.6	(b)	1.5	Aug 15 1986
ANNUAL SEVEN-DAY MINIMUM	3.2	Oct 12	1.7	Sep 2	1.6	Aug 10 1986
INSTANTANEOUS PEAK FLOW			451	Jan 20	(c)3250	Jul 1 1984
INSTANTANEOUS PEAK STAGE			3.93	Jan 20	6.70	Jul 1 1984
INSTANTANEOUS LOW FLOW			1.6	(d)	(f)1.0	Jan 29 1977
ANNUAL RUNOFF (CFSM)	1.51		.74		1.20	
ANNUAL RUNOFF (INCHES)	20.48		10.00		16.31	
10 PERCENT EXCEEDS	25		10		18	
50 PERCENT EXCEEDS	8.6		6.0		8.1	
90 PERCENT EXCEEDS	4.0		2.5		3.6	

a Oct. 13-16.
b Sept. 4, 6, 8, 11, 12, 15.
c From rating curve extended above 1,300 ft^3/s.
d Sept. 2-13, 15, 16.
f Result of freezeup.



01584050 LONG GREEN CREEK AT GLEN ARM, MD--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1993 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TEMPER-ATURE AIR (DEG C)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3
AUG 1995												
18...	0800	2.3	334	7.3	22.0	22.0	150	39	13	5.9	3.1	114

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS NO3)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
AUG 1995											
18...	8.0	17	<0.10	13	176	15	0.030	3.40	3.40	22	30

01585095 NORTH FORK WHITEMARSH RUN NEAR WHITE MARSH, MD

LOCATION.--Lat 39°23'07", long 76°28'09", Baltimore County, Hydrologic Unit 02060003, on left bank 100 ft upstream from culverts under Baconsfield Drive, 0.6 mi upstream from confluence with Whitemarsh Run, 0.9 mi southeast of Perry Hall, and 2.1 mi east of White Marsh.

DRAINAGE AREA.--1.34 mi^2.

PERIOD OF RECORD.--April 1992 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 75 ft above sea level, from topographic maps.

REMARKS.--Records good except those for estimated daily discharges (backwater from leaves), which are fair and those of 0.5 ft^3/s or less, which are fair to poor. Several measurements of water temperature were made during the year.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 250 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 20	0400	257	3.28	May 25	1830	349	3.93
Jan. 20	0530	335	3.82	July 27	1445	*372	*4.10

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.9	5.3	.72	2.6	.50	2.3	.40	1.0	.58	.73	.11	.11
2	1.8	.72	.72	.93	.50	1.6	.54	8.0	.70	.33	.13	.10
3	.28	.50	.66	.54	.43	1.1	.39	1.1	1.8	.21	.12	.10
4	.24	.50	1.1	.50	1.1	1.0	.43	.66	.67	.64	.31	.10
5	.28	.50	17	.35	.62	.98	.50	.73	.46	.31	.58	.10
6	.31	e1.5	2.0	12	.37	.85	.50	.45	.40	.86	12	.10
7	.36	e.80	1.1	11	.32	.85	.50	.37	.40	.37	.57	.10
8	.40	e.45	.90	2.0	.34	45	1.2	.33	.39	.20	.30	.11
9	.93	e.40	.73	1.2	.32	6.7	2.0	.59	.31	.18	.23	.16
10	.53	3.9	12	.96	.41	2.1	.83	6.6	.37	.39	.42	.29
11	.40	.37	4.1	1.0	1.6	1.6	.42	3.7	1.2	1.8	.20	.10
12	.40	.31	1.5	.69	.51	1.1	3.1	.75	3.3	.18	.18	.10
13	.40	.24	.75	.60	.31	.75	2.1	.56	.55	.17	.13	.35
14	.40	.26	.54	.82	.31	.78	.56	3.0	.40	.16	.11	.26
15	.40	.21	.50	11	2.1	.85	.50	1.4	.34	.18	.26	.11
16	.39	5.7	.50	2.9	4.8	.85	.46	.52	.24	.18	.12	.76
17	.31	e.60	1.2	1.6	1.8	.77	.40	7.1	.27	.44	.09	16
18	.31	e.80	.72	1.0	1.0	.72	.37	2.4	.23	.46	.09	.40
19	.39	e.45	.60	1.3	.81	.72	.36	8.3	.22	.18	.07	.26
20	.62	e.40	.77	55	.85	.68	.40	1.3	.23	.14	.08	.19
21	.38	10	.41	2.8	1.3	2.2	.75	.54	.24	.31	.13	.19
22	.31	2.1	.40	1.8	.66	.63	.46	.37	.36	.34	.13	5.9
23	5.7	1.0	.40	1.2	.65	.40	.40	.32	6.1	.53	.11	.52
24	.51	e.90	.40	.95	1.2	.40	2.7	.40	.86	5.3	.11	.75
25	.46	e.85	.47	.79	.72	.40	.48	23	.42	.43	.14	5.2
26	2.2	e.80	.40	.72	.75	.40	.37	3.8	.35	.19	.12	1.7
27	1.5	8.7	.40	.61	3.5	.36	.31	1.4	.31	17	.10	.37
28	.40	7.6	.40	.60	15	.31	.31	2.8	.30	.50	.16	.25
29	.50	1.5	.40	.55	---	.31	.31	2.4	.24	.14	.13	.20
30	.50	.78	.37	.50	---	.43	5.4	.94	.24	.13	.12	.20
31	.50	---	.71	.50	---	.44	---	.77	---	.13	.12	---
TOTAL	24.01	58.14	52.87	119.01	42.78	77.58	27.45	85.60	22.48	33.11	17.47	35.08
MEAN	.77	1.94	1.71	3.84	1.53	2.50	.91	2.76	.75	1.07	.56	1.17
MAX	5.7	10	17	55	15	45	5.4	23	6.1	17	12	16
MIN	.24	.21	.37	.35	.31	.31	.31	.32	.22	.13	.07	.10
CFSM	.58	1.45	1.27	2.86	1.14	1.87	.68	2.06	.56	.80	.42	.87
IN.	.67	1.61	1.47	3.30	1.19	2.15	.76	2.38	.62	.92	.48	.97

e Estimated

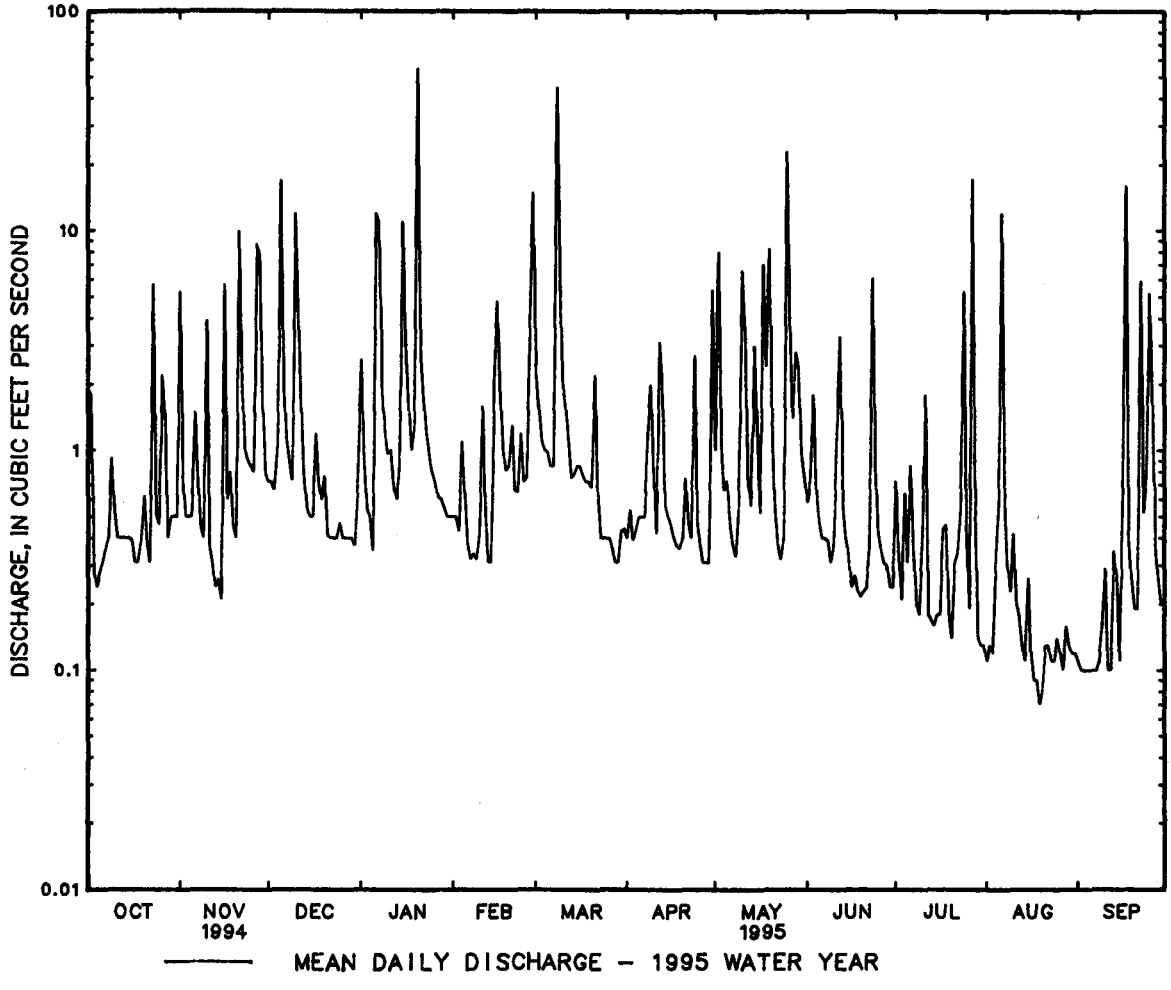
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 1995, BY WATER YEAR (WY)

MEAN	.92	2.44	3.03	3.40	2.76	5.33	1.95	1.74	.83	1.72	1.43	1.46
MAX	1.05	2.99	3.85	4.11	4.54	6.79	3.43	2.76	1.14	2.77	3.67	1.89
(WY)	1994	1993	1994	1994	1994	1993	1993	1995	1992	1994	1994	1992
MIN	.77	1.94	1.71	2.25	1.53	2.50	.91	1.32	.59	1.07	.43	1.17
(WY)	1995	1995	1995	1993	1995	1995	1995	1992	1994	1995	1992	1995

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

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1992 - 1995	
ANNUAL TOTAL	950.51		595.58			
ANNUAL MEAN	2.60		1.63		2.28	
HIGHEST ANNUAL MEAN					2.85	1994
LOWEST ANNUAL MEAN					1.63	1995
HIGHEST DAILY MEAN	48	Aug 17	55	Jan 20	65	Dec 5 1993
LOWEST DAILY MEAN	.16	Sep 11	.07	Aug 19	.05	Sep 1 1992
ANNUAL SEVEN-DAY MINIMUM	.18	Sep 9	.10	Aug 17	.08	Aug 4 1992
INSTANTANEOUS PEAK FLOW			372	Jul 27	404	Aug 17 1994
INSTANTANEOUS PEAK STAGE			4.10	Jul 27	4.36	Aug 17 1994
INSTANTANEOUS LOW FLOW			.05	(a)	.04	Jul 29 1992
ANNUAL RUNOFF (CFSM)	1.94		1.22		1.70	
ANNUAL RUNOFF (INCHES)	26.39		16.53		23.11	
10 PERCENT EXCEEDS	7.5		3.0		4.7	
50 PERCENT EXCEEDS	.75		.50		.59	
90 PERCENT EXCEEDS	.31		.16		.19	

a July 21, Aug. 13, 14, 18-21.



01585100 WHITEMARSH RUN AT WHITE MARSH, MD

LOCATION.--Lat 39°22'15", long 76°26'46", Baltimore County, Hydrologic Unit 02060003, on left bank at upstream side of bridge on State Highway 7, 1.0 mi southwest of White Marsh, and 3.0 mi upstream from mouth.

DRAINAGE AREA.--7.61 mi^2.

PERIOD OF RECORD.--February 1959 to September 1989, March 1992 to current year.

REVISED RECORDS.--WDR MD-DE-73-1: 1960(M), 1967-68, 1969(M). WDR MD-DE-79-1: 1965-66(M).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 38.96 ft above sea level.

REMARKS.--Records good except those for estimated daily discharges (backwater from leaves and ice effect), which are fair. Low flow affected by operations of sand and gravel plant in vicinity of gage. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

PEAK DISCHARGES FOR CURRENT PERIOD.--Peak discharges greater than base discharge of 750 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 20	0715	*1,270	*6.68	No other peak greater than base discharge.			

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.7	27	2.9	12	2.9	9.7	2.5	5.2	2.4	5.2	.76	.68
2	14	4.7	2.8	3.6	2.7	5.5	2.9	45	3.1	2.5	.77	.55
3	3.6	2.9	2.4	2.6	2.5	4.4	2.7	5.6	7.5	1.2	.79	.51
4	2.2	2.7	3.3	2.5	4.7	3.8	2.7	3.4	3.1	2.3	.82	.50
5	2.2	2.9	84	2.1	e3.6	3.4	2.3	3.9	2.0	2.2	6.0	.63
6	2.0	e2.9	8.5	43	e2.6	3.4	2.5	2.6	2.3	1.8	65	.64
7	2.0	e2.5	5.0	68	e2.0	3.5	2.6	2.3	2.4	2.4	4.4	.65
8	2.1	e2.0	3.5	8.0	e1.9	206	4.4	2.3	1.8	1.3	1.9	.72
9	3.0	e2.0	3.1	5.1	e1.9	50	10	2.7	1.7	1.2	1.4	.75
10	3.3	14	51	3.8	e2.2	11	5.4	25	1.9	2.4	1.4	2.6
11	2.2	2.5	22	4.1	e5.0	7.6	2.8	26	5.5	5.5	.90	.60
12	2.2	1.7	5.9	3.7	3.9	6.1	14	3.9	15	1.2	.84	.54
13	2.2	1.7	4.2	4.1	2.9	5.6	13	2.8	2.8	.99	.71	1.9
14	e2.2	1.7	3.7	4.2	2.7	5.4	3.1	15	1.9	.92	.90	1.6
15	e2.2	2.0	3.2	46	6.5	4.7	2.5	6.3	1.4	.90	1.7	.58
16	e2.2	18	3.0	12	20	4.5	2.5	2.8	1.1	1.3	1.0	2.0
17	e2.2	3.8	5.2	5.2	8.0	4.2	2.6	44	1.1	1.5	.77	95
18	e2.2	3.6	3.1	3.9	5.0	3.6	2.4	21	1.1	2.5	.64	3.5
19	e2.2	2.7	2.9	5.0	4.2	3.4	2.6	44	1.1	.87	.57	1.6
20	e2.4	2.3	3.2	223	4.1	3.3	2.5	6.1	1.1	.85	.53	1.3
21	e2.3	43	2.6	15	4.7	10	3.6	3.8	1.3	1.0	.64	1.2
22	e2.2	8.2	3.0	7.6	3.6	3.6	2.4	3.5	1.4	1.5	.55	28
23	31	3.4	2.9	6.5	4.0	3.3	2.3	3.5	23	2.5	.74	4.3
24	4.3	3.0	2.6	4.8	5.3	2.8	13	2.5	5.8	34	.78	3.5
25	4.2	2.9	3.1	3.9	3.3	2.6	2.6	63	2.5	5.4	.79	27
26	5.0	2.7	2.7	4.0	3.6	2.6	2.2	14	1.8	1.7	.65	12
27	5.1	20	3.0	3.4	11	2.9	2.2	4.1	2.0	16	.65	3.0
28	3.5	46	2.8	3.1	80	2.9	2.5	10	1.7	3.5	.74	1.6
29	3.8	5.9	2.9	2.9	---	2.8	2.1	9.4	1.6	1.3	.81	1.4
30	e3.7	3.5	2.8	3.0	---	3.3	27	3.8	1.6	1.0	.71	1.2
31	e3.6	---	3.7	2.9	---	2.8	---	2.9	---	.84	.74	---
TOTAL	132.0	242.2	255.0	519.0	204.8	388.7	145.9	390.4	103.0	107.77	99.60	200.05
MEAN	4.26	8.07	8.23	16.7	7.31	12.5	4.86	12.6	3.43	3.48	3.21	6.67
MAX	31	46	84	223	80	206	27	63	23	34	65	95
MIN	2.0	1.7	2.4	2.1	1.9	2.6	2.1	2.3	1.1	.84	.53	.50
CFSM	.56	1.06	1.08	2.20	.96	1.65	.64	1.65	.45	.46	.42	.88
IN.	.65	1.18	1.25	2.54	1.00	1.90	.71	1.91	.50	.53	.49	.98

e Estimated

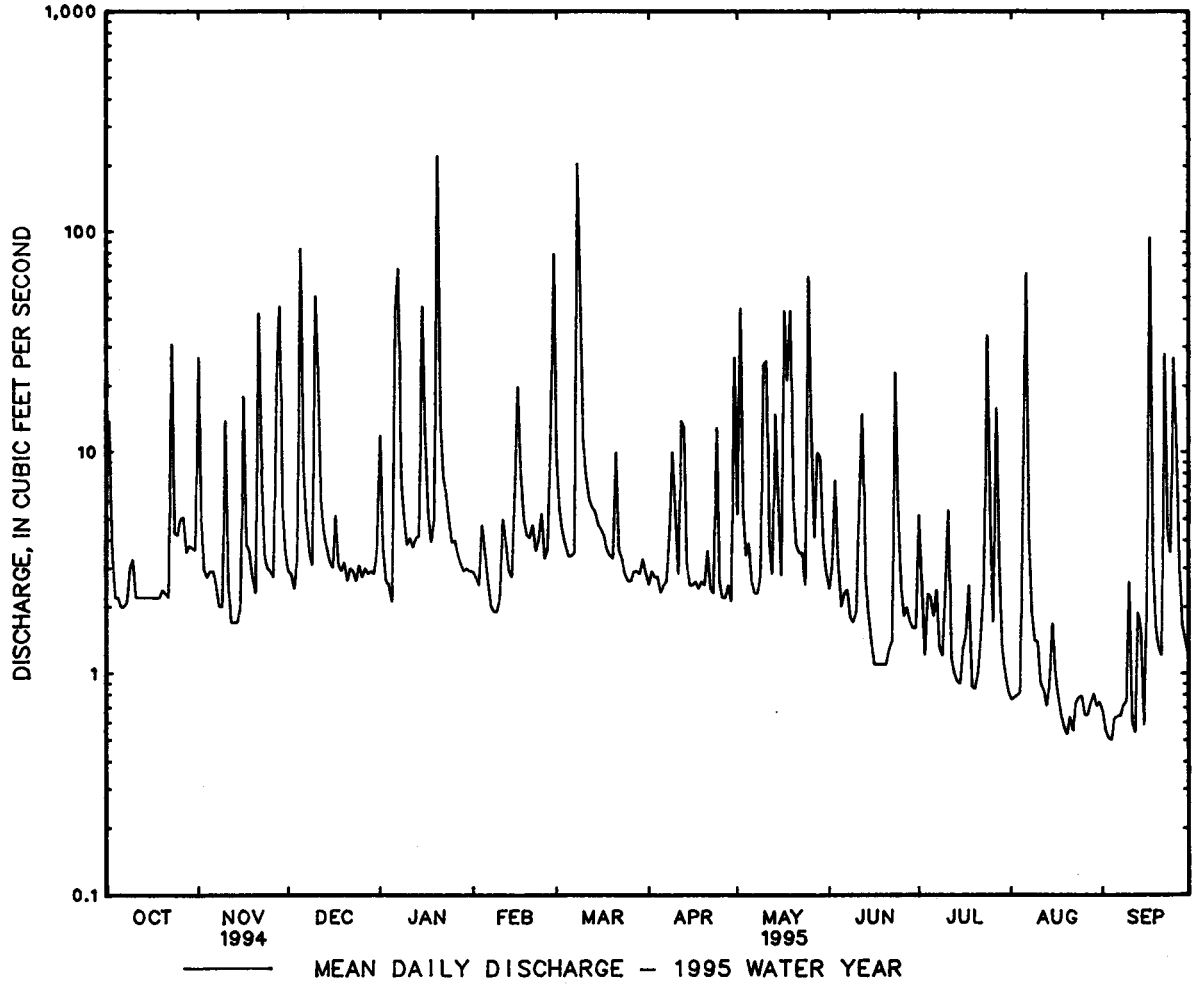
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1959 - 1995, BY WATER YEAR (WY)

MEAN	6.66	10.3	13.3	13.6	15.7	16.5	13.0	11.4	8.58	8.90	10.3	9.81
MAX	27.2	31.8	41.5	45.2	42.7	43.2	43.5	43.7	44.5	45.4	90.1	36.3
(WY)	1972	1973	1984	1978	1979	1993	1983	1989	1972	1989	1971	1971
MIN	1.92	1.82	1.69	1.82	4.11	4.66	4.35	2.24	2.01	1.34	1.18	1.41
(WY)	1970	1966	1966	1981	1968	1969	1985	1969	1986	1966	1962	1980

01585100 WHITEMARSH RUN AT WHITE MARSH, MD--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1959 - 1995	
ANNUAL TOTAL	5419.7		2788.42			
ANNUAL MEAN	14.8		7.64		11.8	
HIGHEST ANNUAL MEAN					21.0	1971
LOWEST ANNUAL MEAN					4.27	1969
HIGHEST DAILY MEAN	244	Jan 28	223	Jan 20	820	Jun 22 1972
LOWEST DAILY MEAN	1.5	Jun 26	.50	Sep 4	.10	Sep 11 1966
ANNUAL SEVEN-DAY MINIMUM	1.8	Jul 7	.59	Sep 1	.39	Sep 1 1966
INSTANTANEOUS PEAK FLOW			1270	Jan 20	(a)8000	Aug 1 1971
INSTANTANEOUS PEAK STAGE			6.68	Jan 20	14.05	Aug 1 1971
INSTANTANEOUS LOW FLOW			.39	(b)	(c).00	Mar 20 1965
ANNUAL RUNOFF (CFSM)	1.95		1.00		1.55	
ANNUAL RUNOFF (INCHES)	26.49		13.63		21.01	
10 PERCENT EXCEEDS	34		14		21	
50 PERCENT EXCEEDS	4.2		2.9		4.0	
90 PERCENT EXCEEDS	2.0		.89		1.4	

a From rating curve extended above 1,300 ft^3/s on the basis of a culvert measurement at a gage height of 10.04 ft and on the basis of a culvert and flow-over-road measurement of peak flow.
b Aug. 22, 27, 28, Sept. 1-5, 7, 11, 12, 15.
c Result of construction work upstream from station.



01585500 CRANBERRY BRANCH NEAR WESTMINSTER, MD

LOCATION.--Lat 39°35'35", long 76°58'05", Carroll County, Hydrologic Unit 02060003, on left bank 80 ft upstream from culvert, 0.7 mi upstream from mouth, and 1.8 mi northeast of Westminster.

DRAINAGE AREA.--3.29 mi^2.

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

REVISED RECORDS.--WSP 1432: Drainage area, 1954-55. WDR MD-DE-75-1: 1972(M). WDR MD-DE-79-1: 1973-78(P).

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 670 ft above sea level, from topographic map.

REMARKS.--Records good except those for estimated daily discharges (missing record), which are poor. Occasional small diversions to and releases from Cranberry Reservoir located offstream 1 mi upstream from station since August 1957, capacity, 113,700,000 gal. Beginning October 1972 occasional large diversions past the gaging station from the reservoir through a 30-inch pipe. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 80 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 20	0745	145	3.12	July 10	2400	*947	*5.28
July 6	1830	89	2.82	July 17	2100	280	3.65

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.0	5.4	1.3	4.8	e2.3	e3.7	1.3	1.5	1.9	2.0	1.4	1.2
2	1.8	1.9	1.1	2.1	e2.3	e3.2	1.2	4.4	1.9	1.3	.95	1.3
3	1.8	1.8	1.2	.96	e2.1	e2.6	2.2	2.5	1.8	.68	1.2	1.3
4	1.2	1.6	1.1	1.3	e2.4	e2.4	2.7	1.7	1.8	1.5	1.1	1.3
5	1.6	1.5	12	1.1	e2.5	e2.5	2.6	2.5	1.8	1.0	1.2	.58
6	1.7	1.9	2.3	2.8	e5.1	e2.6	2.6	1.9	1.8	11	4.5	.01
7	1.4	1.6	1.4	11	e3.0	e2.3	2.6	1.7	1.7	9.2	1.2	.01
8	1.4	1.5	1.7	3.0	e2.2	e9.5	2.5	1.9	1.7	2.5	1.1	.01
9	1.2	1.3	2.1	1.6	e1.9	e7.2	2.9	2.0	1.7	1.2	1.0	.01
10	1.6	1.2	7.0	1.5	e1.8	e5.8	2.5	2.4	1.7	22	1.0	.01
11	1.6	1.1	4.4	2.1	e2.0	e4.2	2.6	2.3	1.7	75	.97	.01
12	1.7	1.5	2.1	1.5	e2.1	e3.8	6.2	2.4	1.8	1.8	.96	.01
13	1.7	1.0	2.0	2.8	e1.9	e3.4	5.6	2.2	1.6	2.7	.86	.01
14	1.7	.98	1.3	1.8	e1.8	3.1	2.6	3.2	1.5	1.8	.85	.01
15	1.7	1.0	1.9	7.7	e1.7	3.5	1.4	2.2	1.6	1.4	.81	.01
16	1.6	3.9	1.9	4.8	e3.3	3.5	2.4	2.2	1.4	1.2	.95	.01
17	1.7	1.4	1.8	1.7	e3.0	3.4	2.1	2.4	1.4	18	.96	1.9
18	1.6	.77	1.5	1.8	e2.6	3.3	2.3	1.8	1.4	4.5	1.1	.05
19	1.6	1.5	2.1	2.1	e2.2	3.2	1.5	3.0	1.4	2.6	1.2	.03
20	1.7	1.4	1.8	31	e2.4	3.0	1.0	2.0	.62	1.5	1.4	.04
21	1.7	4.0	1.8	5.3	e2.4	3.2	2.6	2.1	.81	1.4	1.5	.26
22	1.7	1.6	1.8	e2.2	e2.2	2.9	2.6	1.8	1.2	1.3	1.6	.75
23	3.2	1.1	2.3	e2.3	e2.1	2.6	2.2	1.4	1.2	1.3	1.6	.65
24	1.7	1.5	2.0	e2.4	e3.3	2.3	2.8	1.6	5.1	2.2	1.6	.22
25	1.4	.74	1.3	e2.4	e2.6	2.7	2.0	6.2	2.4	1.0	1.5	.48
26	1.6	1.0	1.8	e2.5	e2.0	2.9	2.1	3.7	1.6	1.1	1.5	.40
27	1.1	2.0	1.9	e2.6	e2.1	2.9	1.7	2.6	1.7	1.0	1.6	.35
28	1.5	5.9	1.3	e2.6	e7.4	3.0	2.1	2.5	1.8	1.0	1.6	.03
29	1.6	2.4	1.2	e2.3	---	2.9	2.0	2.3	1.4	1.1	1.5	.03
30	1.7	2.1	.99	e2.3	---	2.9	2.9	1.3	1.6	1.2	1.4	.02
31	1.6	---	2.1	e2.3	---	2.7	---	2.0	---	1.2	1.4	---
TOTAL	51.1	56.59	70.49	116.66	72.7	107.2	73.8	73.7	51.03	176.68	41.51	11.00
MEAN	1.65	1.89	2.27	3.76	2.60	3.46	2.46	2.38	1.70	5.70	1.34	.37
MAX	3.2	5.9	12	31	7.4	9.5	6.2	6.2	5.1	75	4.5	1.9
MIN	1.1	.74	.99	.96	1.7	2.3	1.0	1.3	.62	.68	.81	.01
CFSM	.50	.57	.69	1.14	.79	1.05	.75	.72	.52	1.73	.41	.11
IN.	.58	.64	.80	1.32	.82	1.21	.83	.83	.58	2.00	.47	.12

e Estimated

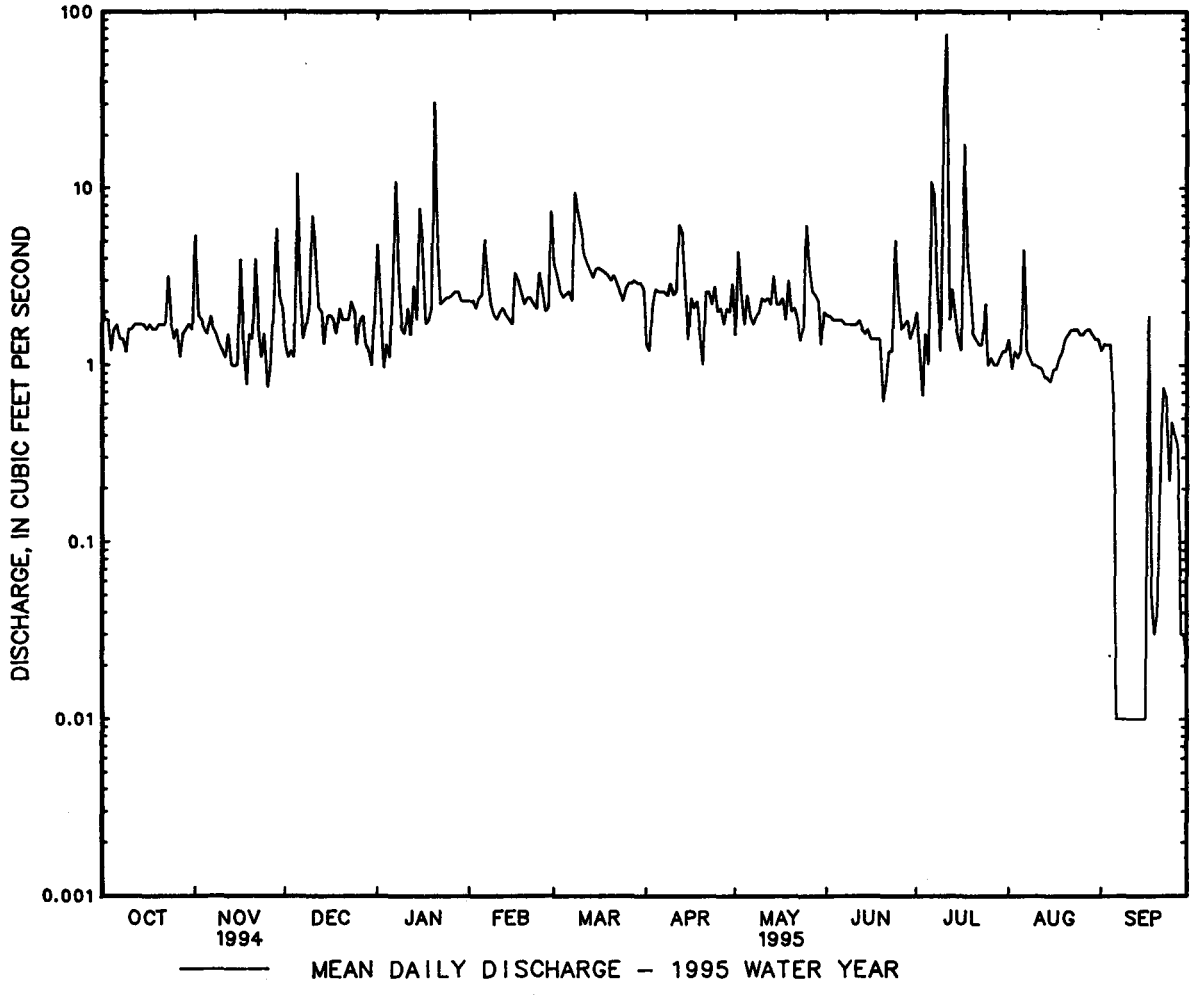
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1950 - 1995, BY WATER YEAR (WY)

MEAN	2.15	2.49	3.11	3.40	4.48	4.70	4.70	4.14	3.63	2.78	2.15	2.36
MAX	9.96	6.66	7.16	10.8	10.7	12.9	12.3	11.3	29.5	11.1	6.91	21.7
(WY)	1980	1953	1973	1978	1974	1994	1993	1952	1972	1972	1955	1975
MIN	.40	.53	1.02	.56	.70	.77	.89	.88	.64	.67	.36	.30
(WY)	1987	1974	1989	1992	1992	1981	1992	1986	1986	1991	1986	1977

01585500 CRANBERRY BRANCH NEAR WESTMINSTER, MD--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1950 - 1995	
ANNUAL TOTAL	1519.79		902.46			
ANNUAL MEAN	(a)4.16		(a)2.47		(a) 3.33	
HIGHEST ANNUAL MEAN					7.82	1972
LOWEST ANNUAL MEAN					.86	1992
HIGHEST DAILY MEAN	49	Mar 10	75	Jul 11	440	Jun 22 1972
LOWEST DAILY MEAN	.48	Feb 4	.01	(b)	.01	(b)
ANNUAL SEVEN-DAY MINIMUM	1.1	Jan 31	.01	Sep 6	.01	Sep 6 1995
INSTANTANEOUS PEAK FLOW			947	Jul 10	(c)2220	Sep 26 1975
INSTANTANEOUS PEAK STAGE			5.28	Jul 10	7.47	Sep 26 1975
INSTANTANEOUS LOW FLOW			(d).00	(f)	(d).00	(f)
ANNUAL RUNOFF (CFSM)	1.27		.75		1.01	
ANNUAL RUNOFF (INCHES)	17.18		10.20		13.76	
10 PERCENT EXCEEDS	8.6		3.4		5.9	
50 PERCENT EXCEEDS	2.0		1.8		2.2	
90 PERCENT EXCEEDS	1.2		.96		.80	

a Unadjusted for storage and diversions.
b Sept. 6-16, 1995
c From rating curve extended above 200 ft^3/s on the basis of culvert measurements at gage heights 5.54 ft and 7.47 ft.
d Result of regulation.
f Sept. 5-11, 13-16, 1995



01586000 NORTH BRANCH PATAPSCO RIVER AT CEDARHURST, MD

LOCATION.--Lat 39°30'00", long 76°53'00", Carroll County, Hydrologic Unit 02060003, on left bank at downstream side of private footbridge at Cedarhurst, 0.8 mi downstream from Roaring Run, 8 mi southeast of Westminster, and 16.5 mi upstream from confluence with South Branch.

DRAINAGE AREA.--56.6 mi^2.

WATER-DISCHARGE RECORDS

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 sea level.

REMARKS.--Water-discharge records good except those for estimated daily discharges (missing record), which are fair. 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 3.07 ft^3/s diverted upstream from station for municipal supply of Westminster; sewage effluent discharged into Little Pipe Creek in Monocacy River basin.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 20	0900	1,820	5.76	July 11	0330	*5,110	*9.77

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27	67	38	87	52	78	43	46	32	34	24	14
2	41	55	35	57	52	65	41	76	31	39	23	13
3	26	31	34	40	48	58	40	55	32	25	22	13
4	25	27	33	36	54	54	40	42	32	34	22	14
5	25	25	191	36	e52	53	37	42	29	46	28	13
6	25	29	79	38	e108	54	38	37	29	125	125	13
7	25	26	56	212	e70	52	38	35	30	223	44	13
8	24	24	47	77	50	164	38	32	27	66	33	13
9	24	24	42	59	44	148	43	29	26	43	31	13
10	25	31	110	52	42	95	48	36	25	36	28	17
11	22	27	146	49	46	82	38	54	27	978	28	13
12	21	25	66	51	48	77	55	36	31	81	27	13
13	22	25	55	54	43	e72	128	32	30	59	25	14
14	22	24	51	54	e41	64	57	52	24	47	23	15
15	22	24	47	152	39	62	47	49	24	41	30	14
16	22	61	44	120	66	60	43	36	22	36	21	14
17	21	63	48	73	63	57	41	39	21	54	20	103
18	21	37	44	63	56	55	40	46	20	132	21	27
19	20	32	40	59	52	53	40	59	19	45	19	20
20	22	28	38	553	54	52	37	41	19	37	19	19
21	23	68	36	140	54	54	39	35	19	34	18	18
22	21	61	36	100	47	52	40	32	20	33	17	23
23	60	37	37	85	47	50	36	29	25	33	16	30
24	39	33	37	76	69	50	43	29	94	70	16	20
25	27	32	43	70	51	47	37	94	50	55	15	30
26	25	30	36	64	46	46	34	93	40	35	15	41
27	25	34	35	61	47	44	33	47	36	33	15	25
28	24	164	34	60	149	47	33	44	32	31	16	21
29	25	60	33	55	---	46	32	58	29	30	16	19
30	24	44	31	54	---	46	42	40	28	27	14	19
31	24	---	31	52	---	45	---	35	---	25	14	---
TOTAL	799	1248	1633	2739	1590	1982	1301	1410	903	2587	785	634
MEAN	25.8	41.6	52.7	88.4	56.8	63.9	43.4	45.5	30.1	83.5	25.3	21.1
MAX	60	164	191	553	149	164	128	94	94	978	125	103
MIN	20	24	31	36	39	44	32	29	19	25	14	13
CFSM	.46	.73	.93	1.56	1.00	1.13	.77	.80	.53	1.47	.45	.37
IN.	.53	.82	1.07	1.80	1.05	1.30	.86	.93	.59	1.70	.52	.42

e Estimated

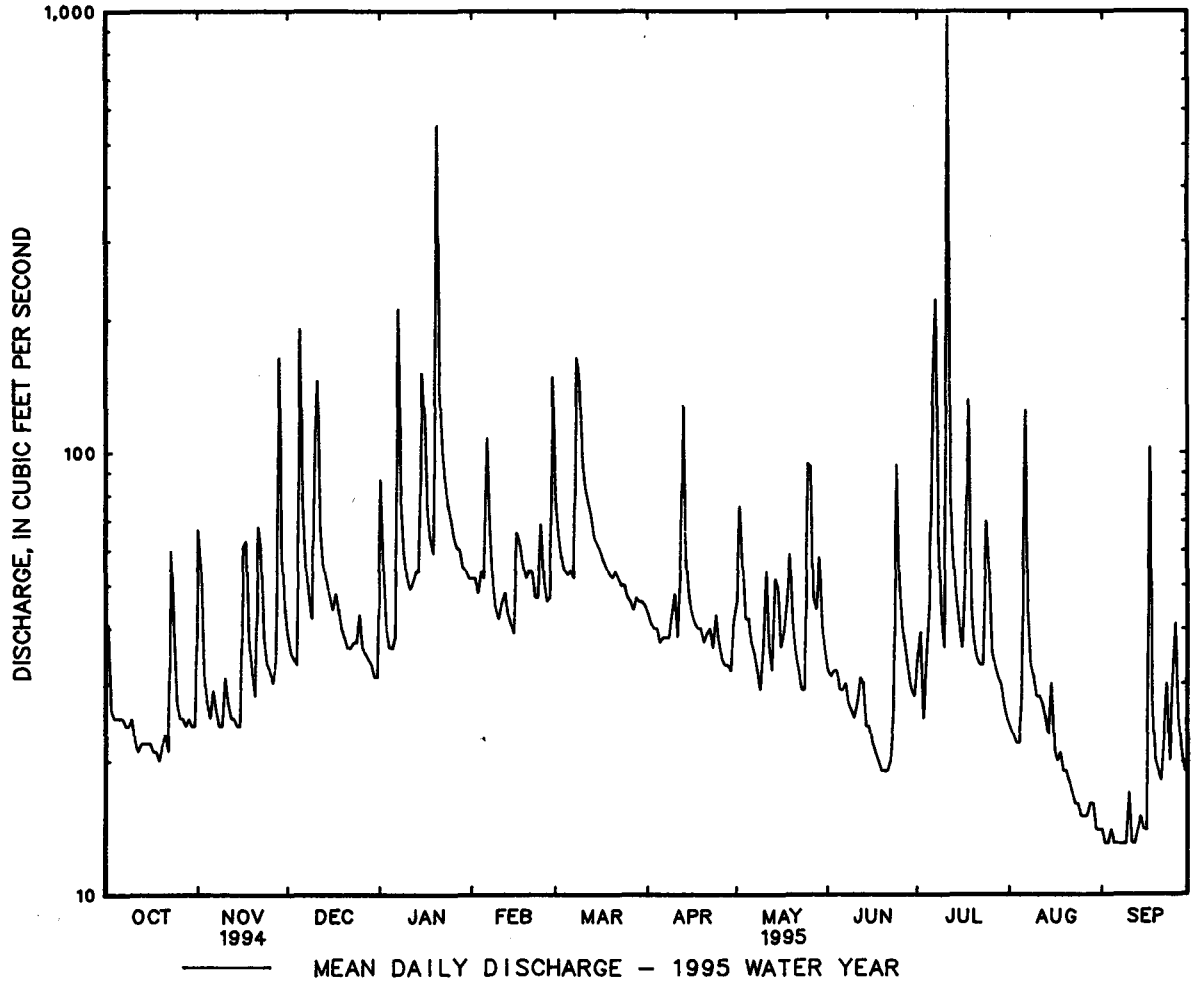
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1945 - 1995, BY WATER YEAR (WY)

MEAN	40.9	50.1	62.4	72.0	86.3	94.8	87.0	76.3	64.1	49.2	41.8	41.8
MAX	214	114	164	212	212	243	213	201	389	149	165	356
(WY)	1980	1953	1973	1979	1979	1994	1993	1952	1972	1972	1955	1975
MIN	11.8	15.8	15.5	17.6	36.4	37.1	36.3	26.3	19.5	9.72	6.91	12.4
(WY)	1964	1966	1966	1966	1992	1959	1969	1969	1969	1966	1966	1964

01586000 NORTH BRANCH PATAPSCO RIVER AT CEDARHURST, MD--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1945 - 1995	
ANNUAL TOTAL	30029		17611			
ANNUAL MEAN	82.3		48.2		63.8	
HIGHEST ANNUAL MEAN					121	1972
LOWEST ANNUAL MEAN					30.1	1966
HIGHEST DAILY MEAN	888	Mar 10	978	Jul 11	6000	Jun 22 1972
LOWEST DAILY MEAN	20	Oct 19	13	(a)	3.1	(b)
ANNUAL SEVEN-DAY MINIMUM	21	Oct 13	13	Sep 2	3.5	Sep 7 1966
INSTANTANEOUS PEAK FLOW			5110	Jul 11	(c)27800	Jun 22 1972
INSTANTANEOUS PEAK STAGE			9.77	Jul 11	(d)20.75	Jun 22 1972
INSTANTANEOUS LOW FLOW			(f)2.1	Aug 5	(f)1.3	(g)
ANNUAL RUNOFF (CFSM)	1.45		.85		1.13	
ANNUAL RUNOFF (INCHES)	19.74		11.57		15.30	
10 PERCENT EXCEEDS	169		72		112	
50 PERCENT EXCEEDS	49		37		44	
90 PERCENT EXCEEDS	25		20		19	

a Sept. 2, 3, 5-9, 11, 12.
b Sept. 10, 12, 1966
c From rating curve extended above 4,100 ft^3/s on basis of contracted-opening measurement of peak flow.
d From high-water mark in well.
f Result of regulation.
g Sept. 17, 1983 and Aug. 10, 1985.



01586000 NORTH BRANCH PATAPSCO RIVER AT CEDARHURST, MD--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1993 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TEMPER-ATURE AIR (DEG C)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3
AUG 1995												
17...	0930	21	211	6.9	24.0	25.0	72	20	5.4	9.8	2.2	41

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS NO3)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
AUG 1995											
17...	6.3	22	<0.10	4.2	128	16	0.010	3.60	3.60	32	72

01586210 BEAVER RUN NEAR FINKSBURG, MD

LOCATION.--Lat 39°29'22", long 76°54'12", Carroll County, Hydrologic Unit 02060003, on downstream center line of bridge pier on Hughes Road, 0.25 mi northwest of intersection of Hughes Road and Maryland Route 91, and 0.75 mi southwest of Finksburg.

DRAINAGE AREA.--14.0 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1982 to current year.

GAGE.--Water-stage recorder. Datum of gage is 428.70 ft above sea level.

REMARKS.--Water-discharge records good except those for estimated daily discharges (missing record), which are fair and those for estimated daily discharges (ice effect), which are poor.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 20	0800	*356	*2.89	No peak greater than base discharge.			

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.3	12	9.7	19	15	20	e13	e12	8.5	8.4	5.1	2.6
2	11	9.2	9.1	13	15	17	e13	e20	8.0	7.6	5.1	2.5
3	8.6	7.6	8.7	11	14	16	e13	e17	8.1	6.4	4.9	2.4
4	8.0	7.3	8.6	10	e16	15	e13	e13	8.2	6.7	5.1	2.4
5	7.6	7.2	37	11	e15	15	e12	e13	7.9	7.1	6.7	2.4
6	7.5	7.7	16	19	e43	15	e12	e12	7.7	11	23	2.4
7	7.2	7.3	13	56	e30	14	e12	e12	7.3	32	8.8	2.4
8	6.9	7.0	11	20	e17	36	e12	e11	7.5	9.6	7.4	2.3
9	6.9	6.9	9.9	16	e13	32	e14	e11	7.0	7.1	6.7	2.3
10	7.3	8.0	26	15	e12	23	e15	e11	7.0	7.0	6.5	3.1
11	6.7	7.8	26	14	e14	22	e13	e15	6.7	28	6.2	2.5
12	6.0	7.6	15	14	e15	20	e16	10	9.7	9.1	6.2	2.4
13	5.9	7.3	13	14	e14	19	e30	9.7	8.7	8.0	5.8	2.7
14	6.0	7.2	12	14	e13	18	e16	14	7.6	7.2	e5.4	3.3
15	5.9	7.2	12	32	e12	17	e14	12	6.7	6.9	e4.9	2.6
16	6.1	15	11	25	20	16	e13	10	6.4	6.6	e4.5	2.6
17	5.8	12	11	19	18	15	e12	11	6.4	6.5	e4.2	16
18	e5.6	9.7	11	17	15	e15	e12	11	6.4	8.4	3.9	4.5
19	5.6	8.8	10	16	15	e15	e11	13	5.9	6.6	3.7	3.9
20	5.8	8.2	9.5	92	15	e15	e11	11	5.9	6.2	3.4	3.8
21	5.9	19	9.2	31	15	e16	e11	9.3	6.0	5.9	3.3	3.7
22	5.9	13	9.1	25	14	e15	11	8.9	6.8	6.0	3.1	3.8
23	13	9.5	9.1	22	13	e15	11	8.6	6.6	6.2	2.8	4.3
24	8.4	8.9	9.1	21	15	e15	12	8.4	11	11	2.8	3.9
25	7.5	8.6	10	20	13	e14	11	14	7.8	9.4	2.7	4.9
26	6.9	8.3	9.6	18	13	e14	9.9	13	7.8	6.6	2.6	5.8
27	6.9	12	9.1	17	13	e14	e10	9.7	7.6	6.5	2.7	4.6
28	6.9	35	9.1	17	32	e14	e10	10	7.5	6.0	2.8	4.1
29	6.9	13	8.8	16	---	e14	e11	13	6.2	5.8	2.8	3.9
30	6.9	11	8.5	16	---	e14	e13	9.8	6.7	5.5	2.6	3.9
31	6.9	---	8.9	16	---	e14	---	9.2	---	5.3	2.7	---
TOTAL	220.8	309.3	380.0	666	469	534	386.9	362.6	221.6	270.6	158.4	112.0
MEAN	7.12	10.3	12.3	21.5	16.7	17.2	12.9	11.7	7.39	8.73	5.11	3.73
MAX	13	35	37	92	43	36	30	20	11	32	23	16
MIN	5.6	6.9	8.5	10	12	14	9.9	8.4	5.9	5.3	2.6	2.3
CFSM	.51	.74	.88	1.53	1.20	1.23	.92	.84	.53	.62	.36	.27
IN.	.59	.82	1.01	1.77	1.25	1.42	1.03	.96	.59	.72	.42	.30

e Estimated

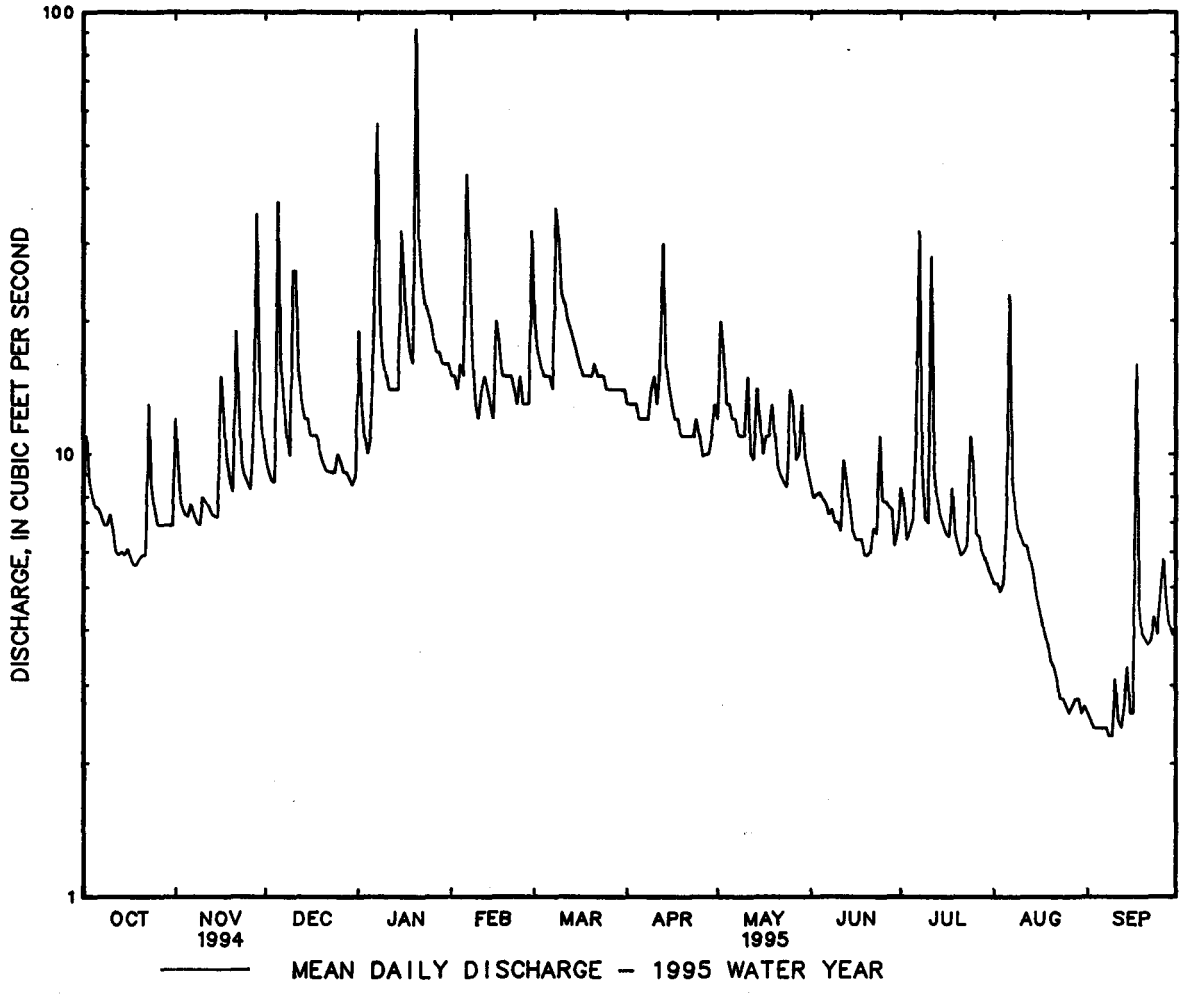
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 1995, BY WATER YEAR (WY)

MEAN	9.17	13.8	17.6	17.7	21.8	26.3	25.6	22.8	12.7	9.94	9.37	7.47
MAX	17.2	25.0	35.5	32.5	41.4	62.0	54.7	51.9	25.3	17.1	29.9	13.9
(WY)	1991	1994	1984	1991	1994	1993	1993	1989	1989	1984	1984	1987
MIN	3.73	7.75	8.20	8.41	10.7	13.8	11.9	10.1	5.50	4.30	4.01	2.78
(WY)	1987	1983	1983	1983	1992	1990	1985	1986	1986	1991	1986	1986

01586210 BEAVER RUN NEAR FINKSBURG, MD--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1983 - 1995	
ANNUAL TOTAL	7613.9		4091.2			
ANNUAL MEAN	20.9		11.2		16.1	
HIGHEST ANNUAL MEAN					24.7	1984
LOWEST ANNUAL MEAN					9.92	1986
HIGHEST DAILY MEAN	179	Mar 10	92	Jan 20	504	Feb 12 1985
LOWEST DAILY MEAN	5.6	(a)	2.3	(b)	2.1	(c)
ANNUAL SEVEN-DAY MINIMUM	5.8	Oct 15	2.4	Sep 3	2.2	Sep 15 1986
INSTANTANEOUS PEAK FLOW			356	Jan 20	(d)2150	May 6 1989
INSTANTANEOUS PEAK STAGE			2.89	Jan 20	(f)5.70	May 6 1989
INSTANTANEOUS LOW FLOW			2.3	(g)	2.0	(h)
ANNUAL RUNOFF (CFSM)	1.49		.80		1.15	
ANNUAL RUNOFF (INCHES)	20.23		10.87		15.67	
10 PERCENT EXCEEDS	44		18		29	
50 PERCENT EXCEEDS	12		9.7		12	
90 PERCENT EXCEEDS	6.9		3.9		5.2	

a Oct. 18, 19.
b Sept. 8, 9.
c Sept. 17, 18, 1986.
d From rating curve extended above 600 ft^3/s.
f From floodmarks.
g Sept. 7-9.
h Sept. 12, 1983, Sept. 17, 18, 1986.



01586210 BEAVER RUN NEAR FINKSBURG, MD--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1993 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TEMPER-ATURE AIR (DEG C)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3
AUG 1995												
17...	0830	5.4	194	6.9	22.0	24.0	61	16	5.0	10	2.4	33

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS NO3)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
AUG 1995											
17...	4.0	23	<0.10	6.0	118	14	0.010	3.10	3.10	26	17

01586610 MORGAN RUN NEAR LOUISVILLE, MD

LOCATION.--Lat 39°27'07", long 76°57'20", Carroll County, Hydrologic Unit 02060003, on right downstream wingwall of bridge on London Bridge Road, 1.4 mi southwest of Gamber, and 1.65 mi south of the intersection of Maryland Route 32, and 1.7 mi west of Louisville.

DRAINAGE AREA.--28.0 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1982 to current year.

REVISED RECORDS.--WRD MD-DE-84: 1983(P).

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 430 ft above sea level, from topographic map.

REMARKS.--Water-discharge records good except those for estimated daily discharges (missing record, ice effect and partialy plugged well), which are poor.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 750 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 20	0645	*986	*4.74	No other peak greater than base discharge.			

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	23	23	40	38	48	28	25	21	16	8.3	e5.8
2	24	21	21	28	38	40	28	40	20	17	7.9	e5.5
3	18	16	20	e22	35	38	27	30	20	15	7.6	e5.3
4	17	16	19	e20	e38	36	27	25	20	16	8.9	e5.2
5	16	16	90	e25	38	35	26	26	19	16	11	e5.2
6	16	16	39	e80	73	35	25	24	18	23	41	e5.1
7	15	15	31	117	55	34	25	22	18	65	15	e4.9
8	15	15	27	49	33	74	25	21	18	22	12	e4.8
9	15	15	24	36	e33	82	28	21	17	17	11	e5.5
10	15	16	71	31	32	58	29	23	17	16	11	e6.6
11	14	15	72	29	e31	53	27	31	18	21	9.9	e6.0
12	14	15	37	29	30	50	39	25	20	15	9.5	e5.4
13	14	15	32	29	e33	45	63	23	19	13	8.8	4.8
14	15	15	29	29	34	41	34	34	17	13	8.2	6.5
15	15	14	26	84	29	40	31	30	16	12	7.8	e5.7
16	15	28	26	68	39	40	29	25	15	12	7.6	e5.4
17	15	25	27	49	36	39	28	27	14	12	7.4	e33
18	15	19	26	42	35	37	27	28	14	16	7.1	e15
19	15	18	24	40	34	36	27	33	14	12	6.7	e7.0
20	14	17	23	331	35	36	25	27	13	12	6.3	e6.9
21	15	34	22	115	34	36	25	23	13	12	6.1	e6.8
22	14	27	21	82	31	36	25	22	13	10	5.9	e7.4
23	29	20	21	67	31	34	24	20	15	10	5.4	e9.0
24	19	18	22	62	34	34	27	20	25	19	5.4	e7.0
25	16	17	23	55	30	32	25	56	25	16	5.4	e9.0
26	16	17	21	49	29	31	24	39	21	11	5.4	e12
27	15	19	e19	46	31	30	22	26	18	13	e6.0	e8.5
28	15	80	e18	45	80	30	22	26	18	11	e6.1	e7.5
29	15	30	e18	41	---	30	21	31	17	10	e6.1	e7.0
30	15	25	e17	40	---	29	26	25	17	9.1	e5.7	e6.8
31	15	---	21	39	---	29	---	23	---	8.6	e5.9	---
TOTAL	497	637	910	1819	1049	1248	839	851	530	490.7	276.4	230.4
MEAN	16.0	21.2	29.4	58.7	37.5	40.3	28.0	27.5	17.7	15.8	8.92	7.68
MAX	29	80	90	331	80	82	63	56	25	65	41	33
MIN	14	14	17	20	29	29	21	20	13	8.6	5.4	4.8
CFSM	.57	.76	1.05	2.10	1.34	1.44	1.00	.98	.63	.57	.32	.27
IN.	.66	.85	1.21	2.42	1.39	1.66	1.11	1.13	.70	.65	.37	.31

e Estimated

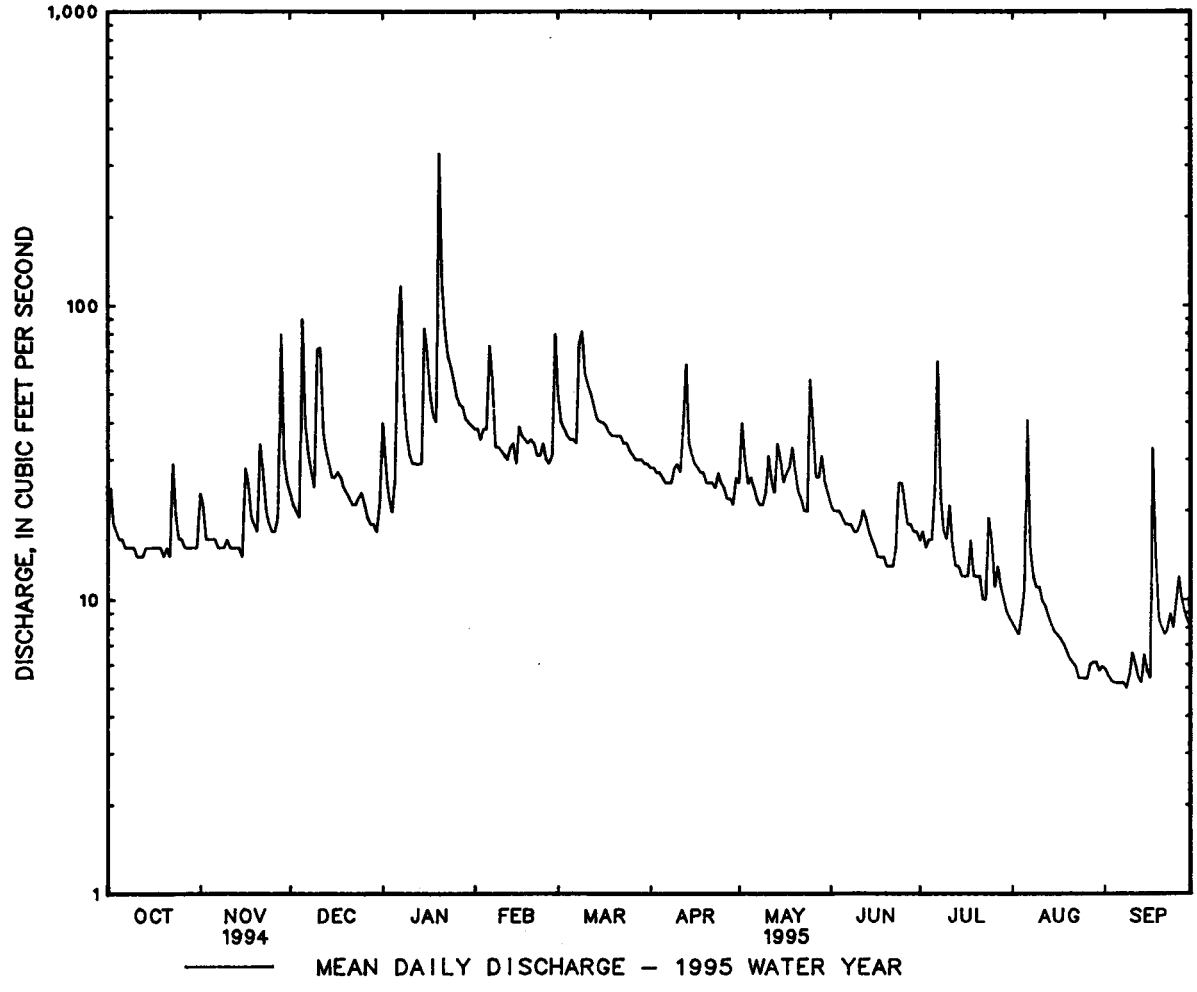
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 1995, BY WATER YEAR (WY)

MEAN	17.8	25.7	36.3	37.1	44.2	59.6	57.7	47.6	26.7	19.4	17.3	14.0
MAX	44.3	51.6	85.9	65.8	91.2	154	141	111	52.0	30.8	46.2	23.7
(WY)	1991	1994	1984	1991	1984	1993	1993	1989	1989	1984	1984	1987
MIN	5.69	13.7	15.5	17.0	20.6	29.1	27.0	20.5	11.5	7.47	6.48	5.15
(WY)	1987	1992	1983	1992	1992	1985	1985	1986	1986	1986	1986	1986

01586610 MORGAN RUN NEAR LOUISVILLE, MD--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1983 - 1995	
ANNUAL TOTAL	16210		9377.5			
ANNUAL MEAN	44.4		25.7		33.6	
HIGHEST ANNUAL MEAN					53.6	1984
LOWEST ANNUAL MEAN					19.5	1986
HIGHEST DAILY MEAN	397	Mar 10	331	Jan 20	1000	May 6 1989
LOWEST DAILY MEAN	13	Jul 12	(e)4.8	(a)	4.0	(b)
ANNUAL SEVEN-DAY MINIMUM	14	Jul 10	5.2	Sep 2	4.2	Sep 17 1986
INSTANTANEOUS PEAK FLOW			986	Jan 20	(c)3400	May 6 1989
INSTANTANEOUS PEAK STAGE			4.74	Jan 20	(d)8.31	May 6 1989
INSTANTANEOUS LOW FLOW			UNKNOWN		UNKNOWN	
ANNUAL RUNOFF (CFSM)	1.59		.92		1.20	
ANNUAL RUNOFF (INCHES)	21.54		12.48		16.29	
10 PERCENT EXCEEDS	96		40		63	
50 PERCENT EXCEEDS	26		21		24	
90 PERCENT EXCEEDS	15		7.3		9.8	

e Estimated.
a Sept. 8, 13.
b Sept. 18-20, 1986.
c From rating curve extended above 1,900 ft^3/s.
d from floodmarks.



01586610 MORGAN RUN NEAR LOUISVILLE, MD--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1993 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TEMPER-ATURE AIR (DEG C)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3
AUG 1995 17...	0800	7.6	156	6.8	22.5	24.0	53	14	4.3	7.1	1.7	31

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS NO3)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
AUG 1995 17...	3.5	15	<0.10	6.1	96	12	0.010	2.80	2.80	100	39

01589000 PATAPSCO RIVER AT HOLLOFIELD, MD

LOCATION.--Lat 39°18'36", long 76°47'34", Baltimore County, Hydrologic Unit 02060003, on left bank at downstream side of highway bridge at Hollofield, 0.3 mi downstream from Dogwood Run, 3.0 mi north of Ellicott City, and 28 mi upstream from mouth.

DRAINAGE AREA.--285 mi^2.

PERIOD OF RECORD.--May 1944 to January 1992, March 1994 to September 1995 (Discontinued).

GAGE.--Water-stage recorder. Datum of gage is 187.7 ft above National Geodetic Vertical Datum of 1929. June 26 to Dec. 8, 1972, nonrecording gage at same site and datum. Prior to June 22, 1972, water-stage recorder at site on opposite bank at same datum.

REMARKS.--Records good except those for estimated daily discharges (missing record), which are poor. Flow regulated by Liberty Reservoir, 11 mi upstream, beginning July 22, 1954, usable capacity, 42,070,000,000 gal; dead storage, 1,260,000,000 gal. Diversions upstream from station for municipal supply of Westminster (sewage effluent discharged into Little Pipe Creek), and from Liberty Reservoir beginning Feb. 26, 1953, for municipal supply of Baltimore, and beginning February 1970 for a small municipal supply for part of Carroll County. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

PEAK DISCHARGE FOR CURRENT PERIOD.--Peak discharge on Jan. 20 unknown, gage height, unknown.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	70	92	92	e170	e105	e270	93	110	76	310	29	24
2	139	105	85	e145	e102	e190	92	156	72	120	28	21
3	90	78	81	e110	e100	e135	91	130	84	68	27	20
4	71	76	79	e90	e112	112	91	99	77	73	25	20
5	66	74	327	e83	e105	109	88	98	67	79	49	21
6	63	77	e175	e84	e290	107	88	89	65	249	237	21
7	61	83	e110	e390	e200	102	87	81	65	e120	88	20
8	59	74	e93	e250	e103	350	87	77	60	e95	51	20
9	60	75	e85	e145	e92	434	113	74	56	e85	43	22
10	67	83	e175	e120	e90	215	109	97	56	e75	41	24
11	59	81	e270	e110	e93	177	100	181	59	e68	38	22
12	58	74	e200	e105	e97	165	108	103	81	61	36	20
13	58	74	e135	e118	e90	150	219	89	73	56	34	20
14	59	75	e120	e120	e84	141	125	113	59	52	32	25
15	60	74	e110	e290	e78	134	107	131	53	48	168	26
16	61	95	e108	e240	e133	130	98	96	49	47	45	23
17	61	99	e112	e190	e120	124	95	129	46	46	38	159
18	62	83	e110	e145	e110	118	92	187	45	64	35	65
19	62	77	e98	e135	e107	115	91	232	43	48	32	37
20	66	73	e93	e1000	e110	112	88	147	42	42	30	33
21	68	107	e86	e350	e105	118	87	113	41	40	30	32
22	67	132	e85	e220	e96	112	87	99	40	40	29	49
23	110	87	e86	e180	e105	107	83	88	64	41	27	52
24	107	80	e92	e165	e140	104	98	83	104	50	26	40
25	75	76	e105	e150	e96	100	90	93	96	55	25	59
26	71	74	e93	e140	e96	97	83	147	75	39	23	75
27	69	80	e86	e130	e180	98	79	97	77	36	23	56
28	68	306	e83	e120	e405	99	77	92	72	38	25	42
29	68	140	e80	e115	---	99	74	119	62	35	27	38
30	69	104	e76	e110	---	99	96	92	77	32	25	36
31	72	---	e100	e108	---	96	---	83	---	29	23	---
TOTAL	2196	2808	3630	5828	3544	4519	2916	3525	1936	2241	1389	1122
MEAN	70.8	93.6	117	188	127	146	97.2	114	64.5	72.3	44.8	37.4
MAX	139	306	327	1000	405	434	219	232	104	310	237	159
MIN	58	73	76	83	78	96	74	74	40	29	23	20
(†)	37225	36390	36039	38007	37513	38043	37324	36821	34853	33934	31265	28730
(≠)	158	175	153	179	194	188	184	188	197	206	211	176

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1944 - 1992, 1994 - 1995, BY WATER YEAR (WY)

MEAN	119	142	186	217	264	281	283	253	219	151	117	136
MAX	857	590	675	770	724	804	1071	1102	2024	601	516	1493
(WY)	1980	1953	1973	1949	1951	1953	1952	1952	1972	1956	1971	1975
MIN	14.7	35.2	32.7	33.3	92.0	74.3	85.3	58.3	33.5	22.4	20.1	19.4
(WY)	1987	1966	1966	1966	1969	1981	1963	1963	1986	1966	1966	1986

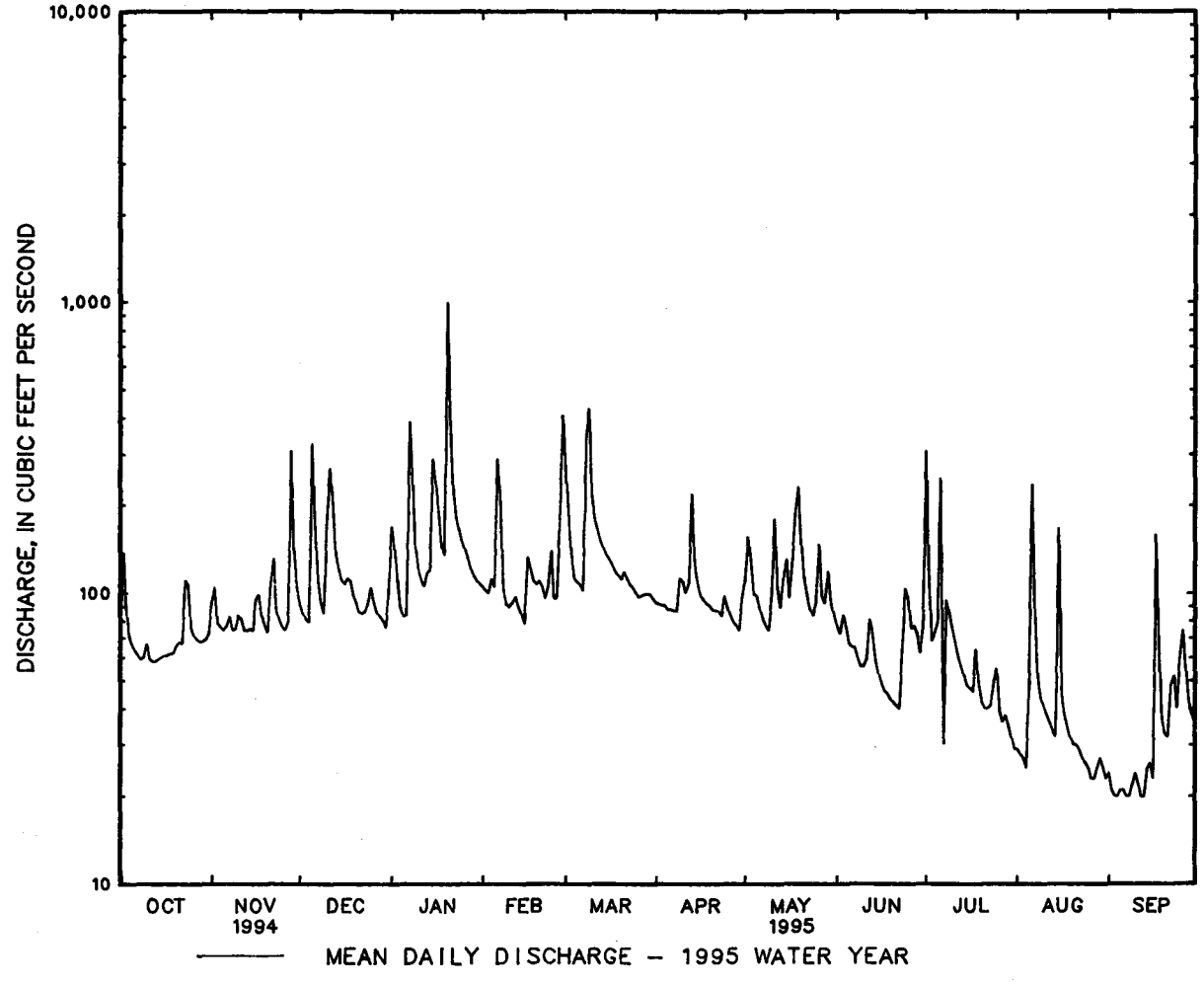
† Month-end contents, in millions of gallons in Liberty Reservoir. Records provided by Baltimore Department of Public Works.

≠ Diversions, in cubic feet per second, upstream from station for municipal supply of city of Westminster; from Liberty Reservoir for municipal supply of city of Baltimore and for part of Carroll County. Records provided by cities of Westminster and Baltimore, respectively.

01589000 PATAPSCO RIVER AT HOLLOFIELD, MD--Continued

SUMMARY STATISTICS	FOR 1995 WATER YEAR		WATER YEARS 1944 - 1992, 1994 - 1995	
ANNUAL TOTAL	35654			
ANNUAL MEAN	97.7		*197	
ANNUAL MEAN DIVERSIONS≠	184		165	
HIGHEST ANNUAL MEAN			*524	1972
LOWEST ANNUAL MEAN			*64.3	1966
HIGHEST DAILY MEAN	(e)1000	Jan 20	30000	Jun 22 1972
LOWEST DAILY MEAN	20	(a)	7.9	Oct 12 1986
ANNUAL SEVEN-DAY MINIMUM	20	Sep 2	9.7	Oct 6 1986
INSTANTANEOUS PEAK FLOW	UNKNOWN	Jan 20	(b)80600	Jun 22 1972
INSTANTANEOUS PEAK STAGE	UNKNOWN	Jan 20	(c)31.30	Jun 22 1972
INSTANTANEOUS LOW FLOW	19	(d)	6.0	Sep 6 1944
ANNUAL RUNOFF (CFSM)	.34		.69	
ANNUAL RUNOFF (INCHES)	4.65		9.40	
10 PERCENT EXCEEDS	161		411	
50 PERCENT EXCEEDS	86		111	
90 PERCENT EXCEEDS	32		39	

* Unadjusted for diversions.
≠ Diversions, in cubic feet per second, upstream from station for municipal supply of city of Westminster; and from Liberty Reservoir for municipal supply of city of Baltimore, and for part of Carroll County. Records provided by cities of Westminster and Baltimore, respectively.
e Estimated.
a Sept. 3, 4, 7, 8, 12, 13.
b From rating curve extended above 27,000 ft^3/s on basis of slope-area measurement of peak flow.
c From floodmarks.
d Sept. 7, 12 and 13.



01589330 DEAD RUN AT FRANKLINTOWN, MD

LOCATION.--Lat 39°18'40", long 76°43'02", Baltimore County, Hydrologic Unit 02070003, on right bank at downstream side of bridge on Colonial Road at Security Boulevard at Franklintown, 0.3 mi west of Baltimore City limits, 1.2 mi southwest of Woodlawn, and 2.5 mi upstream from mouth.

DRAINAGE AREA.--5.52 mi^2.

PERIOD OF RECORD.--October 1994 to September 1995.

WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TEMPER-ATURE AIR (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS NO3)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)
DEC 1994									
21...	1350	1.4	818	8.5	4.5	14.0	19.5	3.8	0.030
JAN 1995									
25...	1205	2.3	746	8.0	3.0	3.0	16.4	4.8	0.020
FEB									
22...	1155	2.1	1130	8.4	4.0	2.5	19.4	4.2	0.030
MAR									
22...	1245	2.1	1870	8.5	12.0	12.0	17.3	4.6	0.070
APR									
26...	1050	1.5	816	7.5	12.5	13.5	10.5	3.3	0.060
MAY									
24...	1120	1.5	841	7.4	19.5	26.0	9.4	2.1	0.020
JUN									
21...	1325	0.95	830	7.8	25.5	31.0	6.9	--	<0.010
JUL									
26...	0905	1.0	758	7.5	24.5	26.5	7.1	2.9	0.050

DATE	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)
DEC 1994								
21...	0.890	0.890	<0.015	<0.20	<0.20	<0.010	<0.010	<0.010
JAN 1995								
25...	1.10	1.10	<0.015	<0.20	<0.20	0.020	<0.010	0.010
FEB								
22...	0.980	0.980	0.020	0.20	0.30	<0.010	<0.010	0.010
MAR								
22...	1.10	1.10	<0.015	0.80	0.60	0.020	<0.010	<0.010
APR								
26...	0.810	0.810	0.030	0.50	0.40	0.050	0.020	<0.010
MAY								
24...	0.500	0.500	0.050	0.30	0.20	<0.010	<0.010	<0.010
JUN								
21...	--	<0.050	0.020	0.50	0.30	0.040	0.030	<0.010
JUL								
26...	0.700	0.700	0.160	0.60	0.40	0.050	0.020	0.020

01589500 SAWMILL CREEK AT GLEN BURNIE, MD

LOCATION.--Lat 39°10'12", long 76°37'51", Anne Arundel County, Hydrologic Unit 02060003, on left bank 300 ft upstream from bridge on State Highway 648, 0.25 mi southeast of State Highway 3, and 0.5 mi northwest of Glen Burnie.

DRAINAGE AREA.--4.97 mi^2.

PERIOD OF RECORD.--May 1944 to September 1952. Annual maximum, water years 1965-70. September 1983 to current year.

REVISED RECORDS.--WDR MD-DE-89-1: 1984-88.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 26.07 ft above sea level.

REMARKS.--Records good except those for estimated daily discharges (missing record and 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.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 20	0745	42	2.74	Aug. 6	1145	*75	*3.35
Mar. 8	2345	54	2.96				

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.4	e3.5	e2.3	e4.3	2.4	3.8	2.5	3.6	1.9	7.4	1.5	1.4
2	5.1	e2.6	e2.2	e3.2	2.3	3.0	2.5	5.7	1.9	5.3	1.5	1.3
3	2.7	e2.3	e2.3	e2.6	2.2	2.7	2.5	3.2	3.0	2.2	1.4	1.3
4	2.4	e2.2	e2.7	e2.6	2.5	2.6	2.5	2.6	2.6	2.5	1.4	1.4
5	2.3	e2.3	e7.6	e3.1	2.5	2.5	2.5	2.6	2.0	2.3	1.5	1.4
6	2.4	e2.3	e4.4	e8.0	2.0	2.6	2.5	2.3	2.1	2.6	23	1.4
7	2.2	e2.2	e3.3	e9.6	e2.0	2.5	2.5	2.2	2.2	2.4	6.1	1.4
8	2.2	e2.1	e2.8	e5.2	e2.0	15	2.5	2.1	1.9	2.1	2.9	1.4
9	e2.4	e2.2	e3.9	e3.3	2.1	21	2.6	2.1	1.8	1.8	2.5	1.4
10	e2.4	e3.0	e6.6	e2.7	2.2	6.4	2.6	3.9	1.9	1.9	2.3	1.4
11	e1.9	e2.4	e5.2	e2.5	2.5	4.1	2.5	6.9	1.9	2.0	2.2	1.3
12	e1.9	e2.1	e3.8	e2.4	2.4	3.4	3.4	2.8	4.7	1.9	2.0	1.4
13	e1.9	e2.0	e3.2	e2.6	2.1	3.2	5.2	2.4	2.8	1.8	1.9	1.5
14	e1.9	e2.0	e2.8	e3.8	2.2	3.1	2.9	3.6	2.1	1.8	1.8	1.8
15	e1.8	e2.2	e2.6	e5.8	2.4	3.0	2.6	2.9	1.8	1.8	1.8	1.4
16	e1.7	e2.7	e2.8	e4.0	3.2	3.0	2.5	2.3	1.7	2.0	1.8	1.5
17	e1.7	e2.7	e3.0	e2.9	3.1	2.9	2.5	3.6	1.6	1.8	1.7	11
18	e1.7	e2.3	e2.7	e2.5	2.9	2.9	2.5	3.7	1.6	1.8	1.7	2.6
19	e1.7	e2.1	e2.5	e2.3	2.7	2.7	2.4	5.7	1.6	1.7	1.5	1.8
20	e1.8	e2.4	e2.3	18	2.7	2.7	2.4	2.9	1.5	1.6	1.6	1.8
21	e1.9	e4.0	e2.3	6.9	2.7	3.2	2.4	2.3	1.5	1.7	1.6	1.7
22	e3.0	e3.0	e2.3	3.5	2.5	2.9	2.4	2.1	1.5	2.0	1.5	2.3
23	e5.3	e2.3	e2.4	3.1	2.5	2.8	2.2	2.0	2.3	2.2	1.5	2.3
24	e2.8	e2.2	e3.2	2.8	2.5	2.7	2.9	2.0	3.3	3.5	1.5	2.0
25	e2.0	e2.3	e3.4	2.5	2.4	2.5	2.4	1.9	2.3	2.4	1.4	3.3
26	e1.9	e2.6	e2.5	2.5	2.4	2.5	2.3	2.1	2.0	1.9	1.4	3.4
27	e1.9	e3.5	e2.2	2.4	2.8	2.5	2.2	2.0	2.5	1.7	1.5	2.4
28	e1.9	e6.0	e2.2	2.4	7.2	2.6	2.2	2.2	2.2	1.7	1.6	2.0
29	e2.0	e3.5	e2.2	2.4	---	2.5	2.2	2.6	2.0	1.6	1.6	1.8
30	e2.1	e2.7	e2.3	2.4	---	2.6	5.1	2.5	1.9	1.5	1.4	1.8
31	e2.5	---	e2.6	2.4	---	2.6	---	2.0	---	1.5	1.4	---
TOTAL	72.8	79.7	96.6	124.7	73.4	122.5	80.4	90.8	64.1	70.4	78.5	62.9
MEAN	2.35	2.66	3.12	4.02	2.62	3.95	2.68	2.93	2.14	2.27	2.53	2.10
MAX	5.3	6.0	7.6	18	7.2	21	5.2	6.9	4.7	7.4	23	11
MIN	1.7	2.0	2.2	2.3	2.0	2.5	2.2	1.9	1.5	1.5	1.4	1.3
CFSM	.47	.53	.63	.81	.53	.80	.54	.59	.43	.46	.51	.42
IN.	.54	.60	.72	.93	.55	.92	.60	.68	.48	.53	.59	.47

e Estimated

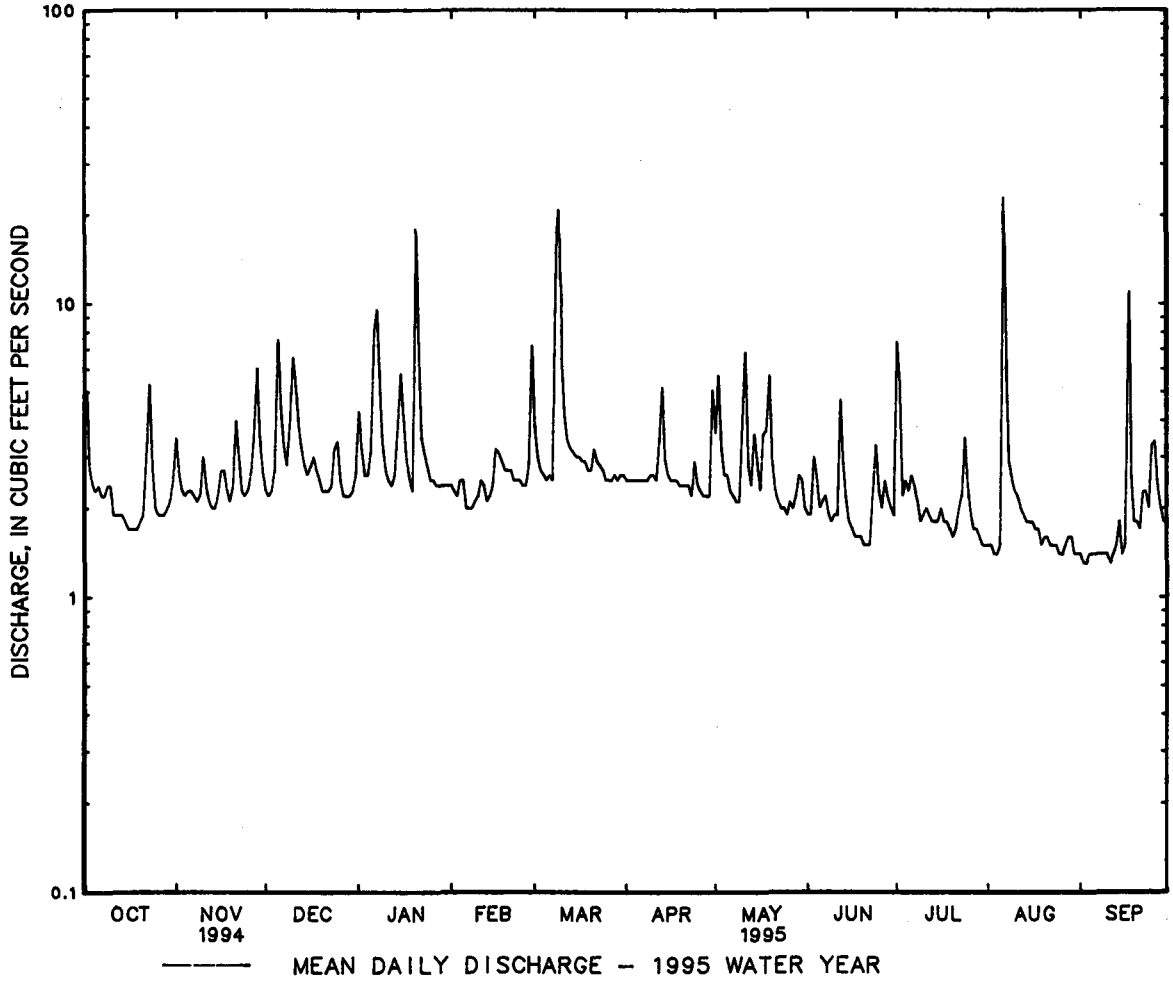
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1944 - 1952, 1983 - 1995, BY WATER YEAR (WY)

MEAN	3.51	4.13	4.54	4.79	4.93	5.79	5.51	5.60	4.88	4.52	4.46	4.33
MAX	9.03	10.3	13.0	14.4	14.4	13.5	13.8	13.3	11.4	9.45	12.4	13.1
(WY)	1949	1952	1949	1949	1949	1949	1952	1952	1948	1952	1948	1952
MIN	.030	.19	.13	.30	.76	.76	.75	.11	.081	.10	.15	.024
(WY)	1987	1987	1989	1989	1989	1986	1985	1986	1986	1985	1986	1986

01589500 SAWMILL CREEK AT GLEN BURNIE, MD--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1944 - 1952, 1983 - 1995	
ANNUAL TOTAL	1626.8		1016.8			
ANNUAL MEAN	4.46		2.79		4.74	
HIGHEST ANNUAL MEAN					11.0	1949
LOWEST ANNUAL MEAN					.43	1986
HIGHEST DAILY MEAN	41	Jul 28	23	Aug 6	84	Sep 1 1952
LOWEST DAILY MEAN	1.4	Jan 16	1.3	(a)	.01	(b)
ANNUAL SEVEN-DAY MINIMUM	1.8	Oct 14	1.4	Aug 30	.01	Jul 25 1986
INSTANTANEOUS PEAK FLOW			75	Aug 6	(c)178	Aug 29 1989
INSTANTANEOUS PEAK STAGE			3.35	Aug 6	5.12	Aug 29 1989
INSTANTANEOUS LOW FLOW			1.2	(d)	.00	(f)
ANNUAL RUNOFF (CFSM)	.90		.56		.95	
ANNUAL RUNOFF (INCHES)	12.18		7.61		12.97	
10 PERCENT EXCEEDS	7.2		3.8		9.4	
50 PERCENT EXCEEDS	3.2		2.4		3.9	
90 PERCENT EXCEEDS	2.2		1.6		.34	

a Sept. 2, 3, 11.
b Many days in 1985-87.
c From rating curve extended above 157 ft^3/s, on basis of contracted-opening measurement at gage height 4.77 ft.
d Feb. 4, Aug. 24, 25.
f Part of each day Sept. 6, 7, 1985, July 29, Aug. 2, 1986.



01591000 PATUXENT RIVER NEAR UNITY, MD

LOCATION.--Lat 39°14'18", long 77°03'23", Montgomery County, Hydrologic Unit 02060006, on right bank at downstream side of bridge on State Highway 97, 0.6 mi upstream from Cattail Creek, 0.8 mi upstream from Triadelphia Reservoir, 1.1 mi northeast of Unity, and 97 mi upstream from mouth.

DRAINAGE AREA.--34.8 mi^2.

WATER-DISCHARGE RECORDS

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 sea level (Washington Suburban Sanitary Commission bench mark). Prior to Aug. 14, 1946, non-recording gage at same site and datum.

REMARKS.--Water-discharge records good except those for estimated daily discharges (ice effect), which are fair.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 770 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 20	1115	*996	*5.99	No other peak greater than base discharge.			

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	18	23	33	35	48	26	30	20	18	6.9	3.6
2	30	21	21	29	34	40	26	45	20	19	6.9	3.2
3	19	16	21	25	32	37	25	36	32	15	6.6	3.0
4	16	16	20	23	e35	35	26	29	32	15	6.4	3.0
5	15	15	72	23	e34	34	24	28	22	15	8.7	3.1
6	15	17	45	26	e33	35	24	25	20	20	58	3.0
7	14	17	33	134	31	33	24	24	20	45	19	2.9
8	15	15	28	59	31	65	24	22	18	22	14	2.9
9	15	15	25	43	30	98	29	21	16	16	12	3.2
10	16	16	41	36	30	61	28	27	16	15	12	3.1
11	14	16	90	34	31	54	26	45	16	18	11	2.7
12	14	15	41	34	28	51	29	28	20	14	10	2.8
13	14	15	34	34	26	46	69	25	19	13	9.6	3.1
14	14	15	31	33	26	44	38	46	16	12	8.9	3.3
15	14	15	28	137	27	42	32	42	14	12	8.4	3.3
16	14	18	26	109	38	40	29	30	13	11	8.1	3.2
17	14	19	27	59	39	39	28	40	13	11	7.2	16
18	14	17	25	49	37	36	27	65	12	13	6.5	7.1
19	14	17	23	44	37	35	26	80	12	11	5.8	5.3
20	14	15	22	373	38	34	25	53	11	10	5.4	5.0
21	14	19	21	93	36	35	25	40	11	10	5.1	5.1
22	14	25	21	67	32	34	24	34	11	10	4.9	6.7
23	23	18	21	57	31	32	23	29	14	11	4.4	7.8
24	21	18	22	50	31	31	27	27	41	10	4.3	6.2
25	16	18	25	46	29	29	25	25	21	9.4	4.0	9.0
26	16	17	22	42	30	29	23	25	23	8.8	3.7	12
27	15	19	21	40	32	28	22	23	30	8.5	3.9	8.1
28	15	69	21	39	77	29	21	24	22	8.7	4.2	6.4
29	15	35	20	37	---	28	21	31	19	8.2	4.4	5.7
30	15	27	19	36	---	28	28	25	17	7.8	4.0	5.6
31	15	---	19	36	---	27	---	22	---	7.3	3.6	---
TOTAL	490	593	908	1880	950	1237	824	1046	571	424.7	277.9	155.4
MEAN	15.8	19.8	29.3	60.6	33.9	39.9	27.5	33.7	19.0	13.7	8.96	5.18
MAX	30	69	90	373	77	98	69	80	41	45	58	16
MIN	14	15	19	23	26	27	21	21	11	7.3	3.6	2.7
CFSM	.45	.57	.84	1.74	.97	1.15	.79	.97	.55	.39	.26	.15
IN.	.52	.63	.97	2.01	1.02	1.32	.88	1.12	.61	.45	.30	.17

e Estimated

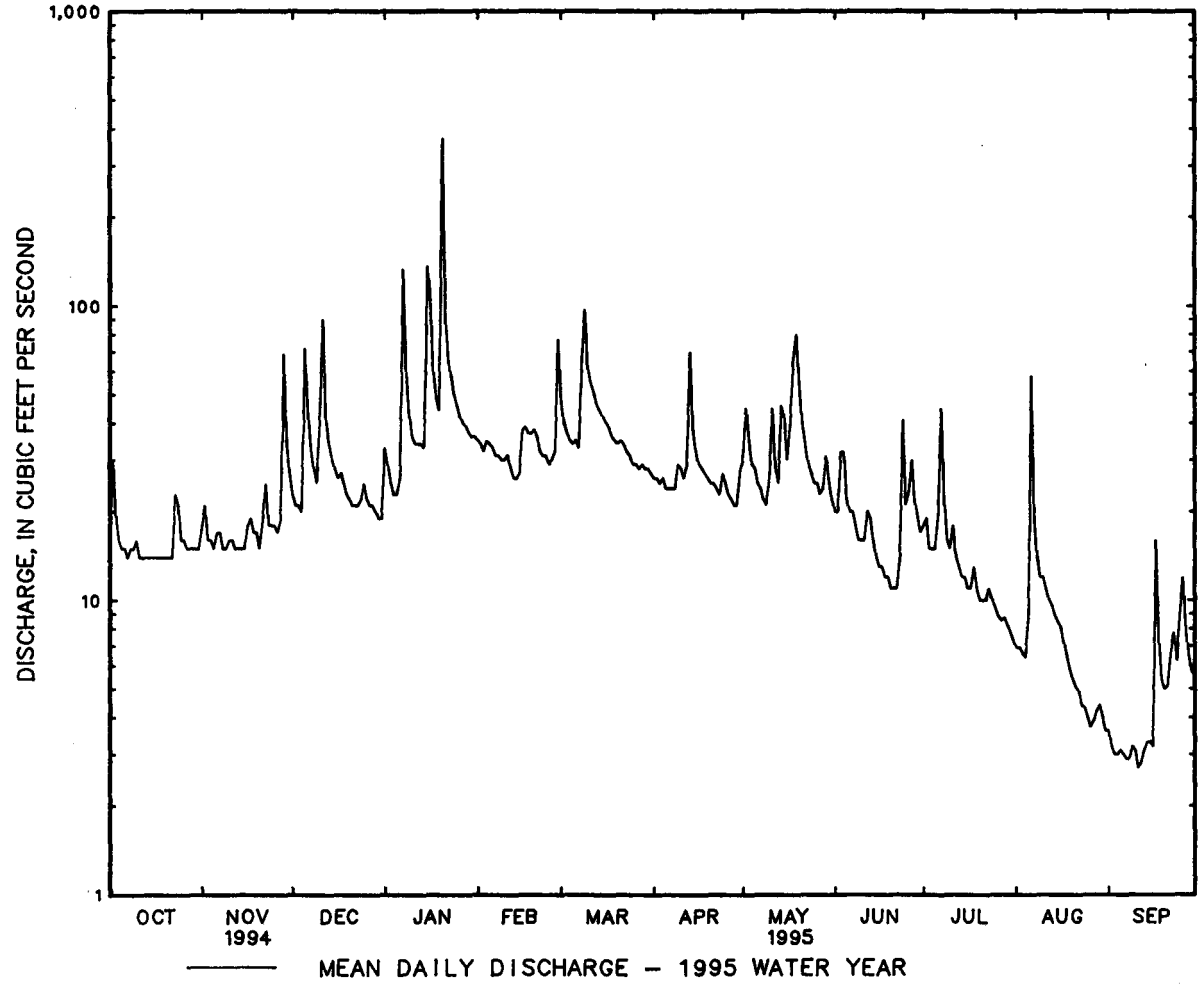
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1944 - 1995, BY WATER YEAR (WY)

MEAN	21.5	28.2	39.4	45.8	54.6	61.6	58.2	49.5	36.0	26.0	21.8	25.8
MAX	150	82.8	106	135	152	173	158	141	206	102	120	214
(WY)	1980	1953	1949	1979	1979	1993	1993	1952	1972	1956	1971	1971
MIN	4.19	9.09	8.51	10.0	19.6	23.9	21.6	15.2	8.75	4.15	2.79	4.51
(WY)	1987	1966	1966	1966	1947	1981	1963	1963	1986	1966	1966	1986

01591000 PATUXENT RIVER NEAR UNITY, MD--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1944 - 1995	
ANNUAL TOTAL	18079		9357.0			
ANNUAL MEAN	49.5		25.6		39.0	
HIGHEST ANNUAL MEAN					82.3	1972
LOWEST ANNUAL MEAN					19.8	1981
HIGHEST DAILY MEAN	425	Feb 24	373	Jan 20	2590	Sep 26 1975
LOWEST DAILY MEAN	11	(a)	2.7	Sep 11	.20	(b)
ANNUAL SEVEN-DAY MINIMUM	12	Jul 7	2.9	Sep 6	.40	Sep 6 1966
INSTANTANEOUS PEAK FLOW			996	Jan 20	(c)21800	Sep 11 1971
INSTANTANEOUS PEAK STAGE			5.99	Jan 20	18.60	Sep 11 1971
INSTANTANEOUS LOW FLOW			2.5	Sep 11	.20	(d)
ANNUAL RUNOFF (CFSM)	1.42		.74		1.12	
ANNUAL RUNOFF (INCHES)	19.33		10.00		15.22	
10 PERCENT EXCEEDS	103		42		70	
50 PERCENT EXCEEDS	27		22		25	
90 PERCENT EXCEEDS	14		6.4		9.0	

a July 11-13, Aug. 9-11.
b Sept. 10, 11, 1966.
c From rating curve extended above 1,500 ft^3/s on basis of slope-area measurement at gage height 13.00 ft.
d Sept. 10-12, 1966.



01591000 PATUXENT RIVER NEAR UNITY, MD--Continued

WATER-QUALITY RECORDS

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

REMARKS.--Water-quality data available through September 1994 only at time of publication.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TEMPER-ATURE AIR (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, CHEM-ICAL (LOW LEVEL) (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)
OCT 1993										
04...	1030	13	147	8.0	11.5	17.0	3.9	10.0	--	--
15...	1315	12	110	6.4	12.0	14.0	--	--	--	--
27...	0830	15	108	6.3	11.0	11.0	2.7	--	<10	0.9
NOV										
29...	1255	76	135	7.8	7.5	7.0	21	10.9	--	--
DEC										
05...	0218	720	--	--	--	--	540	--	13	--
05...	0416	935	--	--	--	--	310	--	<10	--
06...	1115	116	96	7.6	6.5	6.0	25	11.1	--	--
20...	1700	34	110	6.1	5.0	3.0	3.1	--	<10	0.5
JAN 1994										
11...	1225	37	121	7.7	0.5	3.0	6.6	13.7	--	--
12...	1514	87	--	--	--	--	--	--	--	--
24...	1115	38	128	7.9	0.5	10.0	5.2	--	<10	0.5
FEB										
15...	1105	31	123	7.5	1.0	5.5	5.4	13.7	--	--
18...	1932	205	--	--	--	--	--	--	--	--
22...	0950	108	411	5.9	4.0	3.0	11	--	<11	--
23...	0719	100	--	--	--	--	12	--	16	--
23...	1432	467	--	--	--	--	96	--	<10	--
23...	1757	449	--	--	--	--	59	--	<10	--
23...	2213	312	--	--	--	--	37	--	<10	--
24...	0447	209	--	--	--	--	21	--	<10	--
24...	1100	428	--	--	--	--	63	--	<10	--
24...	2336	236	--	--	--	--	60	--	<10	--
MAR										
07...	1105	104	118	7.1	4.0	8.0	18	12.3	--	--
10...	0948	543	--	--	--	--	160	--	<10	--
10...	1253	470	--	--	--	--	120	--	<10	--
10...	1905	530	--	--	--	--	170	--	<10	--
10...	2337	254	--	--	--	--	64	--	<10	--
17...	0930	87	--	--	--	--	8.7	--	<10	21
27...	1306	652	--	--	--	--	450	--	11	--
28...	1008	287	--	--	--	--	64	--	10	--
29...	0358	346	--	--	--	--	43	--	77	--
APR										
04...	1100	94	105	7.2	10.5	9.0	8.7	10.8	--	--
19...	1315	77	104	6.4	14.0	26.0	4.2	--	<10	0.5
MAY										
02...	1015	48	107	7.7	13.0	12.0	3.9	10.1	--	--
08...	0318	252	--	--	--	--	82	--	<10	--
16...	0637	103	--	--	--	--	240	--	<10	--
24...	0815	38	105	6.5	15.0	20.0	6.0	--	<10	0.9
JUN										
13...	1025	25	108	7.4	19.5	27.0	8.6	8.6	--	--
16...	0745	20	106	6.6	20.0	23.0	12	--	<10	1.4
JUL										
11...	1000	12	116	7.2	20.5	23.0	7.8	8.2	--	--
26...	0745	19	109	6.5	20.0	22.0	26	--	<10	--
AUG										
10...	1430	11	104	7.3	20.0	25.0	5.1	--	<10	2.0
17...	1140	58	104	7.2	18.5	22.0	71	8.5	--	--
21...	2120	261	--	--	--	--	190	--	11	--
SEP										
01...	1400	21	118	6.7	20.0	22.0	4.7	--	--	2.0
01...	1405	21	118	6.7	20.0	22.0	--	--	--	--
12...	0935	14	114	7.5	14.0	16.5	3.7	9.7	--	--

01591000 PATUXENT RIVER NEAR UNITY, MD--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WAT WH TOT IT FIELD MG/L AS CACO3	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)
OCT 1993								
04...	--	--	--	--	--	--	--	--
15...	30	6.8	3.1	5.3	2.2	--	3.4	11
27...	--	--	--	--	--	22	--	--
NOV								
29...	--	--	--	--	--	--	--	--
DEC								
05...	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	14	--	--
JAN 1994								
11...	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	12	--	--
FEB								
15...	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	17	--	--
23...	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--
MAR								
07...	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--	--
APR								
04...	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	12	--	--
MAY								
02...	--	--	--	--	--	--	--	--
08...	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	15	--	--
JUN								
13...	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	16	--	--
JUL								
11...	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	18	--	--
AUG								
10...	31	7.1	3.2	5.6	1.3	17	2.1	11
17...	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--
SEP								
01...	--	--	--	--	--	--	--	--
01...	35	8.0	3.6	6.2	1.8	17	3.3	13
12...	--	--	--	--	--	--	--	--

01591000 PATUXENT RIVER NEAR UNITY, MD--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	RESIDUE TOTAL AT 105 DEG. C, SUSPENDED (MG/L)	NITROGEN, NITRATE DISSOLVED (MG/L AS NO3)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)
OCT 1993									
04...	--	--	--	5	11	0.004	2.44	2.44	<0.008
15...	--	9.6	--	--	--	<0.010	2.10	2.10	--
27...	--	10	--	4	7.8	0.005	1.77	1.77	0.012
NOV									
29...	--	--	--	22	--	0.011	--	--	0.034
DEC									
05...	--	6.2	--	700	7.0	0.009	1.60	1.60	0.051
05...	--	6.6	--	475	6.1	0.011	1.40	1.40	0.066
06...	--	--	--	29	9.3	0.009	2.10	2.10	0.035
20...	--	9.4	--	2	14	0.005	3.20	3.20	0.011
JAN 1994									
11...	--	--	--	5	--	--	--	--	--
12...	--	--	--	--	--	--	--	--	--
24...	--	7.9	--	5	16	0.009	3.70	3.70	<0.008
FEB									
15...	--	--	--	7	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--
22...	--	9.6	--	20	--	<0.001	1.50	1.50	0.047
23...	--	9.0	--	26	--	--	1.60	1.60	0.141
23...	--	6.4	--	382	--	--	1.60	1.60	0.102
23...	--	6.8	--	234	--	--	1.40	1.40	0.111
23...	--	6.6	--	107	--	--	1.30	1.30	0.098
24...	--	6.6	--	76	--	--	1.30	1.30	0.074
24...	--	6.8	--	234	--	--	1.40	1.40	0.117
24...	--	8.1	--	167	--	--	1.20	1.20	0.062
MAR									
07...	--	--	--	20	--	--	--	--	--
10...	--	6.8	--	435	6.6	0.006	1.50	1.50	0.107
10...	--	7.1	--	322	6.2	0.005	1.40	1.40	0.083
10...	--	6.6	--	296	5.7	0.003	1.30	1.30	0.079
10...	--	7.7	--	123	4.3	0.010	0.980	0.980	0.044
17...	--	7.1	--	10	13	0.005	2.90	2.90	0.012
27...	--	7.5	--	850	7.1	0.006	1.60	1.60	0.195
28...	--	8.6	--	134	7.0	0.010	1.60	1.60	0.050
29...	--	8.6	--	121	6.6	0.011	1.50	1.50	0.047
APR									
04...	--	--	--	6	--	--	--	--	--
19...	--	7.0	--	8	13	0.010	2.92	2.92	0.012
MAY									
02...	--	--	--	9	--	--	--	--	--
08...	--	9.7	--	146	7.1	0.005	1.62	1.62	0.103
16...	--	11	--	164	4.4	0.009	1.00	1.00	0.085
24...	--	8.7	--	13	10	0.006	2.28	2.28	0.015
JUN									
13...	--	--	--	17	--	--	--	--	--
16...	--	9.3	--	20	12	0.016	2.80	2.80	0.011
JUL									
11...	--	--	--	4	--	--	--	--	--
26...	--	7.9	--	27	9.2	0.010	2.09	2.09	0.039
AUG									
10...	<0.10	9.2	71	5	11	0.003	2.46	2.46	0.020
17...	--	--	--	120	--	--	--	--	--
21...	--	10	--	440	7.3	0.009	1.65	1.65	0.043
SEP									
01...	--	9.0	--	2	12	0.004	2.73	2.73	<0.008
01...	<0.10	8.6	69	--	--	<0.010	2.50	2.50	--
12...	--	--	--	3	--	--	--	--	--

01591000 PATUXENT RIVER NEAR UNITY, MD--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DISSOLVED (MG/L AS C)
OCT 1993									
04...	0.38	--	0.020	--	0.024	--	--	1.6	--
15...	--	--	--	--	--	89	25	--	--
27...	0.21	0.18	<0.010	<0.010	0.010	--	--	2.6	2.5
NOV									
29...	0.57	--	0.060	--	0.045	--	--	3.3	--
DEC									
05...	2.9	0.73	0.900	0.120	0.054	--	--	12	--
05...	1.7	0.73	0.600	0.150	0.088	--	--	10	--
06...	0.42	--	0.020	--	0.058	--	--	3.3	--
20...	0.19	0.14	<0.010	<0.010	0.007	--	--	<0.50	0.50
JAN 1994									
11...	0.16	--	0.030	--	--	--	--	0.90	--
12...	--	--	--	--	--	--	--	--	--
24...	0.11	0.09	0.030	<0.010	0.004	--	--	0.50	0.63
FEB									
15...	0.20	--	0.020	--	--	--	--	1.0	--
18...	--	--	--	--	--	--	--	--	--
22...	0.41	0.41	0.050	0.030	0.024	--	--	1.7	1.6
23...	0.33	0.20	0.060	0.020	0.016	--	--	1.1	--
23...	1.1	0.29	0.320	0.030	0.102	--	--	3.6	3.9
23...	1.2	0.31	0.200	0.020	0.056	--	--	3.9	4.1
23...	0.82	0.31	0.170	0.020	0.041	--	--	3.2	3.1
24...	0.42	0.24	0.070	0.010	0.025	--	--	2.4	--
24...	0.92	0.52	0.140	0.030	0.037	--	--	7.5	--
24...	0.59	0.28	0.150	0.010	0.030	--	--	2.6	--
MAR									
07...	0.54	--	0.050	--	--	--	--	2.3	--
10...	1.4	0.33	0.460	0.050	0.030	--	--	4.0	--
10...	1.1	0.03	0.340	0.050	0.033	--	--	3.8	--
10...	1.0	0.26	0.390	0.060	0.043	--	--	4.5	3.5
10...	0.60	0.13	0.190	0.050	0.030	--	--	2.6	2.7
17...	0.14	0.10	0.020	0.010	0.007	--	--	0.50	--
27...	2.6	0.64	0.900	0.100	0.089	--	--	4.2	--
28...	0.46	0.21	0.140	0.030	0.028	--	--	2.9	--
29...	0.30	0.24	0.110	0.030	0.034	--	--	3.2	--
APR									
04...	0.21	--	0.040	--	--	--	--	0.90	--
19...	0.30	0.24	<0.010	<0.010	0.007	--	--	0.60	--
MAY									
02...	0.31	--	0.020	--	--	--	--	2.1	--
08...	1.2	0.40	0.220	0.020	0.037	--	--	3.6	3.7
16...	1.0	0.36	0.300	0.010	0.035	--	--	2.5	2.7
24...	0.26	0.11	<0.010	<0.010	0.005	--	--	3.0	--
JUN									
13...	0.71	--	0.040	--	--	--	--	1.9	--
16...	0.44	0.26	0.050	0.010	0.006	--	--	2.0	--
JUL									
11...	0.35	--	0.030	--	--	--	--	2.6	--
26...	0.36	0.26	0.060	0.010	0.012	--	--	3.1	--
AUG									
10...	0.20	0.20	0.020	<0.010	0.010	86	29	3.5	--
17...	0.74	--	0.150	--	--	--	--	3.6	--
21...	1.5	0.34	0.420	0.040	0.042	--	--	7.0	6.7
SEP									
01...	0.33	0.23	0.010	<0.010	0.010	--	--	2.7	--
01...	--	--	--	--	--	100	32	--	--
12...	0.28	--	0.020	--	--	--	--	2.1	--

01591000 PATUXENT RIVER NEAR UNITY, MD--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

SUSPENDED SEDIMENT DISCHARGE

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
OCT 1993				
27...	0830	15	1	0.04
DEC				
05...	0218	720	944	1840
05...	0416	935	507	1280
20...	1700	34	1	0.09
JAN 1994				
08...	1617	68	19	3.5
09...	2306	58	2	0.31
12...	1514	87	30	7.0
24...	1115	38	1	0.10
24...	2106	245	461	305
25...	1008	64	62	11
26...	0708	290	316	247
30...	0448	82	115	25
31...	0544	59	19	3.0
FEB				
18...	1932	205	429	237
22...	0950	108	34	9.9
23...	0719	100	38	10
23...	1432	467	519	654
23...	1757	449	313	379
23...	2213	312	142	120
24...	0447	209	84	47
24...	1100	428	263	304
24...	2336	236	207	132
MAR				
10...	0948	543	536	786
10...	1253	470	418	530
10...	1905	530	424	607
10...	2337	254	178	122
17...	0930	87	12	2.8
27...	1306	652	896	1580
28...	1008	287	129	100
29...	0358	346	83	78
APR				
19...	1315	77	6	1.2
MAY				
08...	0318	252	158	108
16...	0637	103	228	63
24...	0815	38	6	0.62
JUN				
16...	0745	20	18	0.97
JUL				
26...	0745	19	29	1.5
AUG				
10...	1430	11	5	0.15
21...	2120	261	526	371
SEP				
01...	1400	21	5	0.28

01591400 CATTAIL CREEK NEAR GLENWOOD, MD

LOCATION (REVISED).--Lat 39°15'21", long 77°03'05", Howard County, Hydrologic Unit 02060006, on right bank at downstream side of bridge on State Highway 97, 1.2 mi upstream from mouth.

DRAINAGE AREA.--22.9 mi^2.

WATER-DISCHARGE RECORDS

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. Elevation of gage is 400 ft above sea level, from topographic map. Prior to Dec. 28, 1983, at site 800 ft upstream at datum 1.76 ft lower.

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

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 20	0700	*1,480	*5.64	No other peak greater than base discharge.			

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	18	15	22	24	30	19	19	11	12	4.7	3.1
2	27	18	15	18	24	26	18	28	11	12	4.2	2.2
3	17	15	14	16	22	25	18	22	18	9.7	4.1	1.9
4	15	14	14	e16	e24	24	18	18	16	9.3	4.1	1.9
5	15	14	52	e16	e22	23	17	18	12	9.9	6.6	2.0
6	14	15	27	e20	e22	23	17	16	11	13	35	2.0
7	13	15	21	105	23	23	17	15	11	21	12	1.9
8	12	14	18	32	22	51	17	15	10	12	8.5	1.9
9	12	14	16	25	22	57	21	14	9.5	9.7	7.4	2.3
10	13	14	37	22	22	34	20	18	10	9.7	7.0	2.5
11	12	14	52	21	23	31	19	31	11	10	6.5	2.1
12	12	12	25	22	e21	29	21	19	14	8.6	6.3	2.0
13	12	12	21	21	e20	27	34	16	12	7.6	5.7	2.3
14	12	12	20	21	20	26	23	25	11	7.6	5.4	2.6
15	12	12	19	95	21	26	20	23	9.2	7.2	5.3	2.2
16	12	15	18	54	28	25	19	18	8.6	7.0	4.9	2.2
17	12	15	19	30	29	24	19	26	8.3	7.5	4.6	14
18	12	14	18	26	27	23	18	40	8.0	12	4.2	5.1
19	12	13	17	24	26	22	18	44	7.9	7.3	3.7	3.8
20	13	12	16	388	26	22	17	27	7.7	6.9	3.6	3.8
21	13	18	16	44	25	23	17	20	7.7	6.6	3.5	3.9
22	13	18	15	34	23	22	16	16	7.3	6.4	3.2	4.8
23	19	14	15	31	22	21	16	14	9.4	6.5	2.8	5.6
24	16	13	15	29	22	21	18	13	17	6.3	2.8	4.2
25	14	12	17	28	20	20	17	13	11	6.2	2.5	6.7
26	13	12	16	26	21	20	16	14	12	5.8	2.5	8.0
27	13	13	16	26	22	20	16	13	15	5.8	2.7	6.3
28	13	50	15	26	51	20	15	13	12	6.1	2.9	4.8
29	13	22	15	25	---	20	15	16	12	5.8	3.1	4.2
30	13	17	14	25	---	20	19	13	11	5.5	2.8	4.1
31	14	---	20	24	---	20	---	12	---	5.0	2.6	---
TOTAL	428	471	628	1312	674	798	555	609	331.6	266.0	175.2	114.4
MEAN	13.8	15.7	20.3	42.3	24.1	25.7	18.5	19.6	11.1	8.58	5.65	3.81
MAX	27	50	52	388	51	57	34	44	18	21	35	14
MIN	12	12	14	16	20	20	15	12	7.3	5.0	2.5	1.9
CFSM	.60	.69	.88	1.85	1.05	1.12	.81	.86	.48	.37	.25	.17
IN.	.70	.77	1.02	2.13	1.09	1.30	.90	.99	.54	.43	.28	.19

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1978 - 1995, BY WATER YEAR (WY)

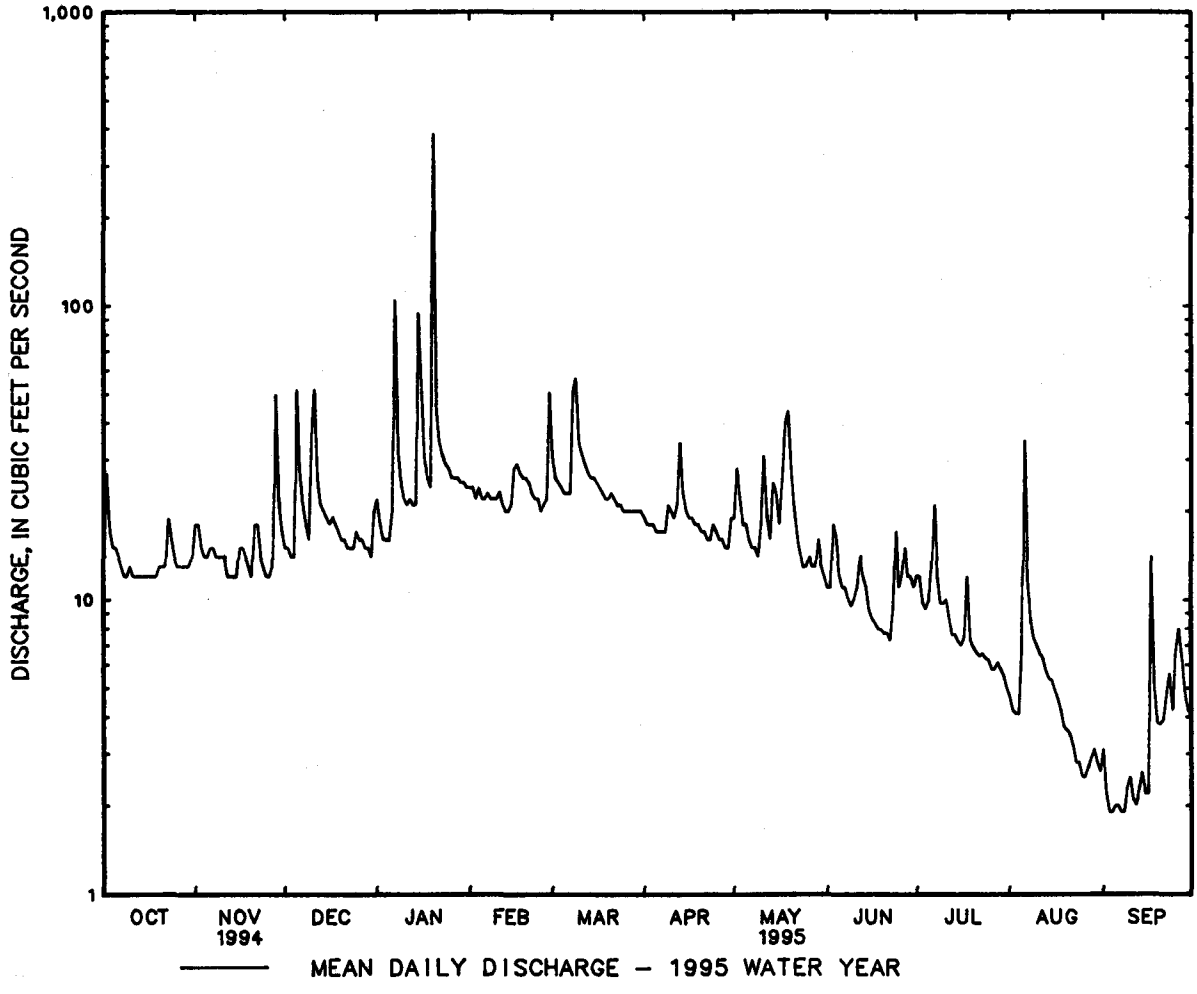
MEAN	18.0	21.2	27.6	29.8	39.4	39.3	37.4	32.1	21.0	15.5	12.5	14.4
MAX	76.6	62.8	83.1	83.0	103	109	112	92.5	38.4	31.5	30.7	81.6
(WY)	1980	1994	1984	1979	1979	1993	1993	1989	1989	1978	1984	1979
MIN	3.73	5.96	9.24	8.38	14.6	14.5	14.9	14.1	6.96	4.23	4.63	3.81
(WY)	1987	1982	1982	1981	1992	1981	1985	1986	1986	1986	1991	1995

01591400 CATTAIL CREEK NEAR GLENWOOD, MD--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1978 - 1995	
ANNUAL TOTAL	12908.7		6362.2			
ANNUAL MEAN	35.4		17.4		25.7	
HIGHEST ANNUAL MEAN					42.4	1994
LOWEST ANNUAL MEAN					13.1	1981
HIGHEST DAILY MEAN	521	Feb 20	388	Jan 20	1400	Feb 12 1985
LOWEST DAILY MEAN	9.2	Aug 10	1.9	(a)	1.9	Sep 3 1995
ANNUAL SEVEN-DAY MINIMUM	10	Aug 5	2.0	Sep 2	2.0	Sep 2 1995
INSTANTANEOUS PEAK FLOW			1480	Jan 20	(b)4340	Oct 23 1990
INSTANTANEOUS PEAK STAGE			5.64	Jan 20	8.41	Oct 23 1990
INSTANTANEOUS LOW FLOW			1.7	Sep 7	1.7	Aug 19 1991
ANNUAL RUNOFF (CFSM)	1.54		.76		1.12	
ANNUAL RUNOFF (INCHES)	20.97		10.34		15.22	
10 PERCENT EXCEEDS	59		26		40	
50 PERCENT EXCEEDS	20		15		16	
90 PERCENT EXCEEDS	12		4.2		6.5	

a Sept. 3, 4, 7, 8.

b From rating curve extended above 175 ft^3/s on basis of contracted-opening and flow-over-road measurement at gage.



01591400 CATTAIL CREEK NEAR GLENWOOD, MD--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1989-90, October 1993 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TEMPER-ATURE AIR (DEG C)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3
AUG 1995												
16...	1130	3.8	172	6.7	23.5	26.5	52	12	5.3	9.3	2.6	25

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS NO3)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
AUG 1995											
16...	3.2	21	<0.10	11	118	17	0.010	3.90	3.90	100	42

01591610 PATUXENT RIVER BELOW BRIGHTON DAM NEAR BRIGHTON, MD

LOCATION.--Lat 39°11'32", long 77°00'17", Montgomery County, Hydrologic Unit 02060006, on right bank at Brighton Dam, 500 ft downstream from Triadelphia Reservoir, 1.3 mi east of Brighton, and 92 mi upstream from mouth.

DRAINAGE AREA.--78.6 mi^2.

PERIOD OF RECORD.--October 1980 to current year.

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 310 ft above sea level, from topographic map. June 1978 to October 1980, nonrecording gage 300 ft upstream on left bank at different datum.

REMARKS.--Records good. Flow completely regulated by Triadelphia Reservoir, 500 ft upstream, usable capacity, 6,200,000,000 gal; no dead storage. Several measurements of water temperature were made during the year. Water-quality records for some prior years have been collected at this station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 22, 1972, reached a discharge of 17,800 ft^3/s. Data provided by Washington Suburban Sanitary Commission.

PEAK DISCHARGE FOR CURRENT YEAR.--Peak discharge, 838 ft^3/s, Jan. 20, gage height, 4.19 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	50	88	58	58	112	94	92	92	31	54	12	94
2	50	46	58	57	56	94	92	92	55	54	12	93
3	50	82	58	57	56	93	91	89	16	61	12	94
4	50	97	58	58	56	92	91	65	14	55	12	92
5	50	97	57	58	56	93	91	44	41	69	12	92
6	49	97	58	58	56	94	94	44	53	70	13	93
7	50	96	58	58	55	94	94	56	70	31	12	91
8	51	92	58	59	35	94	94	25	68	e20	12	90
9	51	94	57	58	22	95	94	9.6	88	e20	12	88
10	51	64	57	59	161	92	92	11	62	e20	9.8	90
11	50	94	57	120	157	94	92	11	61	e31	8.8	90
12	50	94	57	58	65	94	93	13	72	35	8.8	90
13	51	93	57	58	93	94	94	14	71	41	8.6	89
14	51	93	57	58	96	94	93	14	75	47	10	88
15	51	93	57	58	91	94	92	25	70	50	12	88
16	51	93	57	57	57	94	92	50	55	50	12	59
17	51	93	57	57	62	94	92	51	54	50	12	47
18	51	92	57	57	94	94	90	23	54	25	12	47
19	50	92	57	57	94	93	91	10	56	12	12	47
20	50	91	56	429	94	93	94	9.2	42	12	12	51
21	51	92	47	775	94	94	93	10	34	12	9.8	48
22	51	92	59	525	94	63	93	9.5	76	12	11	47
23	49	92	59	158	94	96	94	9.1	93	12	26	48
24	27	92	59	54	95	95	92	8.9	55	12	96	48
25	12	67	58	54	94	94	92	9.1	57	12	95	111
26	31	27	58	54	94	94	92	9.1	68	12	94	141
27	97	25	57	54	94	93	92	9.1	69	12	94	229
28	96	58	57	54	94	92	92	9.2	74	12	92	332
29	96	58	58	51	---	92	92	9.5	99	12	97	369
30	96	58	58	153	---	92	92	9.5	94	12	96	367
31	96	---	58	213	---	92	---	9.5	---	12	94	---
TOTAL	1710	2442	1774	3734	2321	2870	2772	850.3	1827	939	1031.8	3353
MEAN	55.2	81.4	57.2	120	82.9	92.6	92.4	27.4	60.9	30.3	33.3	112
MAX	97	97	59	775	161	96	94	92	99	70	97	369
MIN	12	25	47	51	22	63	90	8.9	14	12	8.6	47
(†)	6250	5600	5800	6100	6000	5900	5300	6200	5900	5800	5550	3800

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1981 - 1995, BY WATER YEAR (WY)

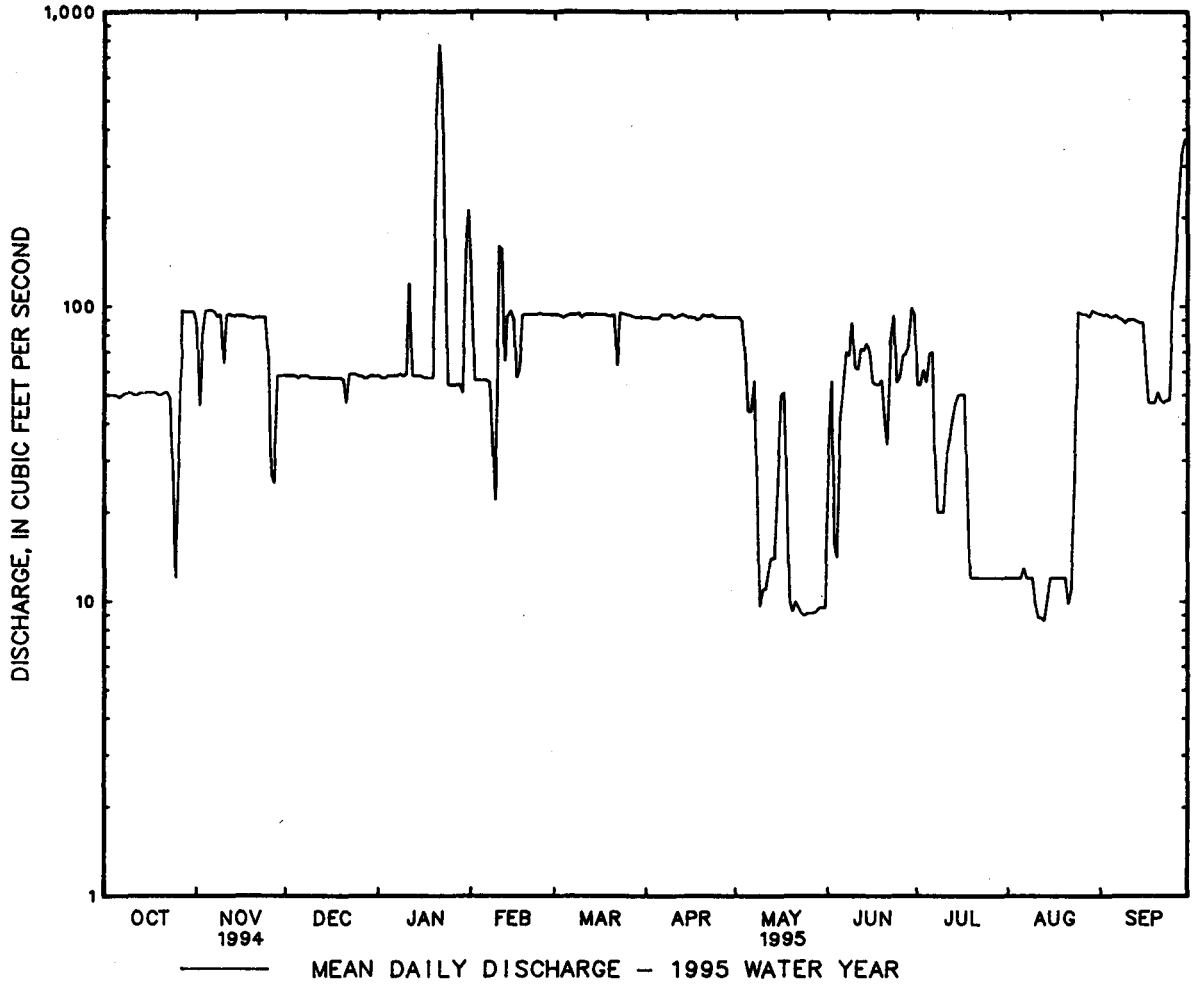
MEAN	58.6	50.9	84.2	76.4	81.1	116	129	94.3	72.8	55.5	60.1	74.2
MAX	117	85.8	373	183	256	320	304	229	170	66.9	86.4	205
(WY)	1981	1994	1984	1991	1994	1993	1993	1989	1989	1984	1982	1989
MIN	7.87	17.1	14.9	9.33	10.1	8.90	8.49	8.63	22.4	30.3	18.1	26.1
(WY)	1987	1989	1992	1982	1987	1981	1981	1981	1981	1995	1987	1991

† Monthend contents, in millions of gallons, in Triadelphia Reservoir (contents on Sept. 30, 1994, 6,550,000,000 gal). Records provided by Washington Suburban Sanitary Commission.

01591610 PATUXENT RIVER BELOW BRIGHTON DAM NEAR BRIGHTON, MD--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1981 - 1995	
ANNUAL TOTAL	40465		25624.1			
ANNUAL MEAN	111		70.2		79.3	
ANNUAL MEAN≠	110		59.3		80.9	
HIGHEST ANNUAL MEAN					134	1984
LOWEST ANNUAL MEAN					47.5	1992
HIGHEST DAILY MEAN	880	Feb 25	775	Jan 21	1730	May 6 1989
LOWEST DAILY MEAN	12	(a)	8.6	Aug 13	2.1	(b)
ANNUAL SEVEN-DAY MINIMUM	12	Sep 20	9.1	May 22	4.0	Oct 16 1980
INSTANTANEOUS PEAK FLOW			838	Jan 20	2650	May 6 1989
INSTANTANEOUS PEAK STAGE			4.19	Jan 20	10.26	May 6 1985
INSTANTANEOUS LOW FLOW			7.8	Aug 10	1.2	Dec 3 1985
ANNUAL RUNOFF (CFSM)	1.41		.89		1.01	
ANNUAL RUNOFF (CFSM)≠	1.40		.75		1.05	
ANNUAL RUNOFF (INCHES)	19.15		12.13		13.72	
ANNUAL RUNOFF (INCHES)≠	19.00		10.18		13.98	
10 PERCENT EXCEEDS	211		94		155	
50 PERCENT EXCEEDS	56		58		53	
90 PERCENT EXCEEDS	47		12		9.1	

≠ Adjusted for change in reservoir contents.
a Sept. 20-27, 29, Oct. 25.
b Jan. 27, 28, 1983.



01591700 HAWLINGS RIVER NEAR SANDY SPRING, MD

LOCATION.--Lat 39°10'29", long 77°01'22", Montgomery County, Hydrologic Unit 02060006, on right bank at downstream side of bridge on State Highway 650, 1.0 mi upstream from mouth, and 1.7 mi north of Sandy Spring.

DRAINAGE AREA.--27.0 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1978 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 320 ft above sea level, from topographic map.

REMARKS.--Water-discharge records good except those for estimated daily discharges (missing record), which are fair.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 700 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 20	0645	*664	*4.38	No peak greater than base discharge.			

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	14	16	26	22	37	19	21	12	23	4.2	2.1
2	11	16	15	21	22	29	19	34	13	14	4.1	2.0
3	12	11	15	20	21	25	18	24	19	9.3	4.0	1.9
4	11	10	14	19	25	24	18	19	17	22	3.8	1.9
5	10	10	59	18	e24	23	17	18	13	22	4.9	1.9
6	11	10	33	e19	e23	24	17	16	12	25	158	1.9
7	10	9.6	24	e90	e23	24	17	15	12	32	30	1.9
8	9.9	9.1	20	e45	e23	71	17	14	11	16	11	1.8
9	9.8	9.3	18	e30	e22	98	19	14	10	11	6.6	1.9
10	12	12	35	e22	e22	48	19	20	9.3	11	5.5	2.0
11	10	11	61	e21	e22	36	18	43	15	12	4.6	1.7
12	9.5	9.9	30	e21	e21	32	22	21	24	9.8	4.1	1.7
13	9.3	9.4	24	e21	e20	28	40	17	17	8.1	3.9	1.7
14	9.1	9.4	22	e21	e20	27	23	29	12	7.6	3.7	1.8
15	9.3	9.4	20	e100	e21	26	20	26	9.6	7.2	3.6	1.8
16	9.3	10	19	e80	e25	25	18	18	8.6	7.1	3.4	1.8
17	8.7	13	20	e36	34	24	18	32	7.7	7.2	3.3	13
18	8.8	12	20	29	31	22	18	47	7.4	7.2	3.3	4.9
19	9.1	11	19	27	27	22	18	58	7.3	6.7	3.1	3.5
20	9.1	10	18	297	28	21	17	33	7.4	6.3	3.0	3.3
21	9.9	17	17	66	26	22	17	23	6.6	6.1	3.0	3.1
22	10	20	17	40	23	22	16	19	6.3	6.2	2.8	5.9
23	18	13	17	33	22	21	15	17	8.9	6.3	2.6	7.0
24	14	12	17	29	21	20	18	16	19	6.1	2.5	3.9
25	10	11	21	27	20	20	17	14	20	5.9	2.4	6.8
26	9.4	10	19	25	20	19	16	15	24	5.6	2.2	9.1
27	9.4	12	18	24	21	19	15	14	17	5.6	2.2	6.2
28	9.3	48	17	23	64	19	15	15	14	5.4	2.2	4.3
29	8.9	24	17	23	---	19	14	19	11	5.4	2.3	3.5
30	9.3	18	16	23	---	19	19	15	10	5.2	2.3	3.3
31	9.4	---	17	23	---	19	---	14	---	4.7	2.1	---
TOTAL	317.5	401.1	695	1299	693	885	554	700	381.1	327.0	294.7	107.6
MEAN	10.2	13.4	22.4	41.9	24.7	28.5	18.5	22.6	12.7	10.5	9.51	3.59
MAX	18	48	61	297	64	98	40	58	24	32	158	13
MIN	8.7	9.1	14	18	20	19	14	14	6.3	4.7	2.1	1.7
CFSM	.38	.50	.83	1.55	.92	1.06	.68	.84	.47	.39	.35	.13
IN.	.44	.55	.96	1.79	.95	1.22	.76	.96	.53	.45	.41	.15

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1978 - 1995, BY WATER YEAR (WY)

MEAN	21.2	26.8	31.9	34.2	43.4	47.6	41.6	37.1	25.4	15.9	12.5	14.0
MAX	129	68.8	88.9	99.5	112	116	90.7	94.3	68.3	33.1	26.5	85.3
(WY)	1980	1994	1984	1979	1979	1993	1993	1989	1989	1978	1990	1979
MIN	2.68	7.27	11.8	9.31	20.3	18.8	18.5	15.1	6.21	4.72	3.98	3.11
(WY)	1987	1982	1981	1981	1992	1981	1995	1986	1986	1986	1987	1986

01591700 HAWLINGS RIVER NEAR SANDY SPRING, MD--Continued

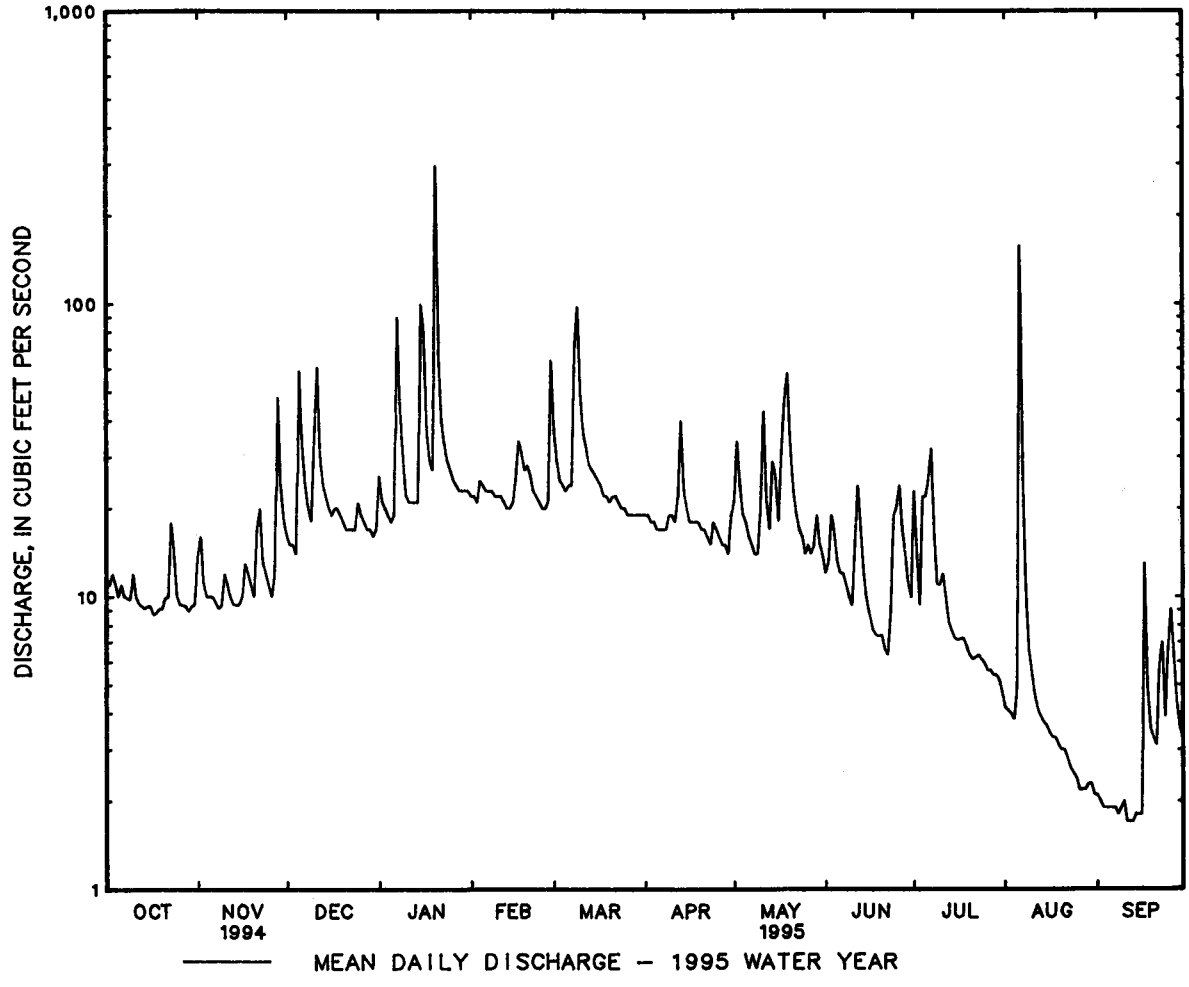
SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1978 - 1995	
ANNUAL TOTAL	12916.2		6655.0			
ANNUAL MEAN	35.4		18.2		29.1	
HIGHEST ANNUAL MEAN					48.3	1979
LOWEST ANNUAL MEAN					16.0	1986
HIGHEST DAILY MEAN	530	Feb 20	297	Jan 20	1500	Oct 1 1979
LOWEST DAILY MEAN	8.2	Aug 10	1.7	(a)	1.7	(a)
ANNUAL SEVEN-DAY MINIMUM	9.1	Oct 14	1.8	Sep 10	1.8	Sep 10 1995
INSTANTANEOUS PEAK FLOW			664	Jan 20	(b)4300	Sep 6 1979
INSTANTANEOUS PEAK STAGE			4.38	Jan 20	8.80	Sep 6 1979
INSTANTANEOUS LOW FLOW			1.6	(c)	(d).75	Jan 30 1981
ANNUAL RUNOFF (CFSM)	1.31		.68		1.08	
ANNUAL RUNOFF (INCHES)	17.80		9.17		14.64	
10 PERCENT EXCEEDS	62		29		48	
50 PERCENT EXCEEDS	19		16		18	
90 PERCENT EXCEEDS	10		3.5		5.6	

a Sept. 11-13, 1995.

b From rating curve extended above 1,200 ft^3/s on basis of contracted-opening and flow-over-road measurement of peak flow.

c Sept. 11, 12.

d Result of freezeup.



01591700 HAWLINGS RIVER NEAR SANDY SPRING, MD--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1993 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TEMPER-ATURE AIR (DEG C)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)
AUG 1995 16...	1215	3.8	144	6.7	24.0	26.0	50	13	4.3	6.6	2.7

DATE	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
AUG 1995 16...	33	6.9	12	<0.10	15	93	<0.010	1.30	1.30	190	92

01592500 PATUXENT RIVER NEAR LAUREL, MD

LOCATION.--Lat 39°06'56", long 76°52'27", Prince Georges County, Hydrologic Unit 02060006, on right bank at Rocky Gorge pumping station, 600 ft downstream from T. Howard Duckett Reservoir, 0.7 mi upstream from Walker Branch, 1.3 mi northwest of Laurel, and 81 mi upstream from mouth.

DRAINAGE AREA.--132 mi^2.

PERIOD OF RECORD.--October 1944 to current year.

REVISED RECORDS.--WDR MD-DE-78-1: 1976(M). WDR MD-DE-89-1: 1978(M), 1979(M).

GAGE.--Water-stage recorder. Datum of gage is 153.5 ft above sea level (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. Several measurements of water temperature were made during the year.

PEAK DISCHARGE FOR CURRENT YEAR.--Peak discharge, 100 ft^3/s, Nov. 23, gage height, 5.22 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	19	18	19	20	20	20	21	22	22	21	21
2	20	19	18	19	20	20	20	21	21	21	20	21
3	20	19	19	19	20	20	20	21	21	21	20	21
4	20	19	19	19	20	20	20	21	21	21	20	21
5	20	19	18	19	20	20	20	21	21	21	20	21
6	20	19	18	19	20	20	20	21	21	21	21	21
7	20	19	18	18	20	20	20	22	21	21	21	21
8	19	19	19	19	20	20	20	22	21	21	22	21
9	19	19	19	19	20	20	20	22	21	21	21	21
10	19	20	19	19	20	20	20	22	21	21	20	21
11	20	20	19	19	20	20	20	21	22	21	20	21
12	20	20	19	19	20	20	21	21	21	21	20	21
13	19	20	19	19	20	20	20	21	22	21	20	21
14	19	19	19	19	20	20	21	22	21	21	20	21
15	19	19	19	19	20	20	21	21	21	21	20	21
16	20	19	19	19	20	20	21	22	22	21	22	21
17	20	19	19	19	19	20	21	21	22	21	20	21
18	20	19	19	19	19	20	21	21	21	22	20	22
19	20	19	19	19	19	20	21	21	21	21	20	21
20	20	19	19	19	20	20	21	21	21	21	20	21
21	20	19	19	20	20	20	21	21	21	21	20	21
22	20	20	19	21	20	20	22	21	21	21	20	22
23	20	21	19	21	20	20	21	21	21	21	20	22
24	19	19	19	20	20	20	21	22	21	21	21	22
25	19	19	19	20	20	20	21	20	21	20	21	21
26	19	19	19	20	20	20	21	21	21	20	21	21
27	19	19	19	20	20	20	21	21	21	20	21	22
28	19	19	19	20	20	20	21	21	21	20	21	22
29	19	20	19	20	---	20	21	21	21	20	21	22
30	19	20	19	20	---	20	22	21	22	21	21	22
31	19	---	19	20	---	20	---	22	---	21	21	---
TOTAL	606	579	584	601	557	620	620	658	636	648	636	638
MEAN	19.5	19.3	18.8	19.4	19.9	20.0	20.7	21.2	21.2	20.9	20.5	21.3
MAX	20	21	19	21	20	20	22	22	22	22	22	22
MIN	19	19	18	18	19	20	20	20	21	20	20	21
(†)	8400	7900	7900	10000	10200	10850	10600	11700	11450	10700	9850	8650
(≠)	91.2	84.7	74.0	80.0	94.7	87.4	80.2	40.0	63.2	63.7	65.4	62.6

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1945 - 1995, BY WATER YEAR (WY)

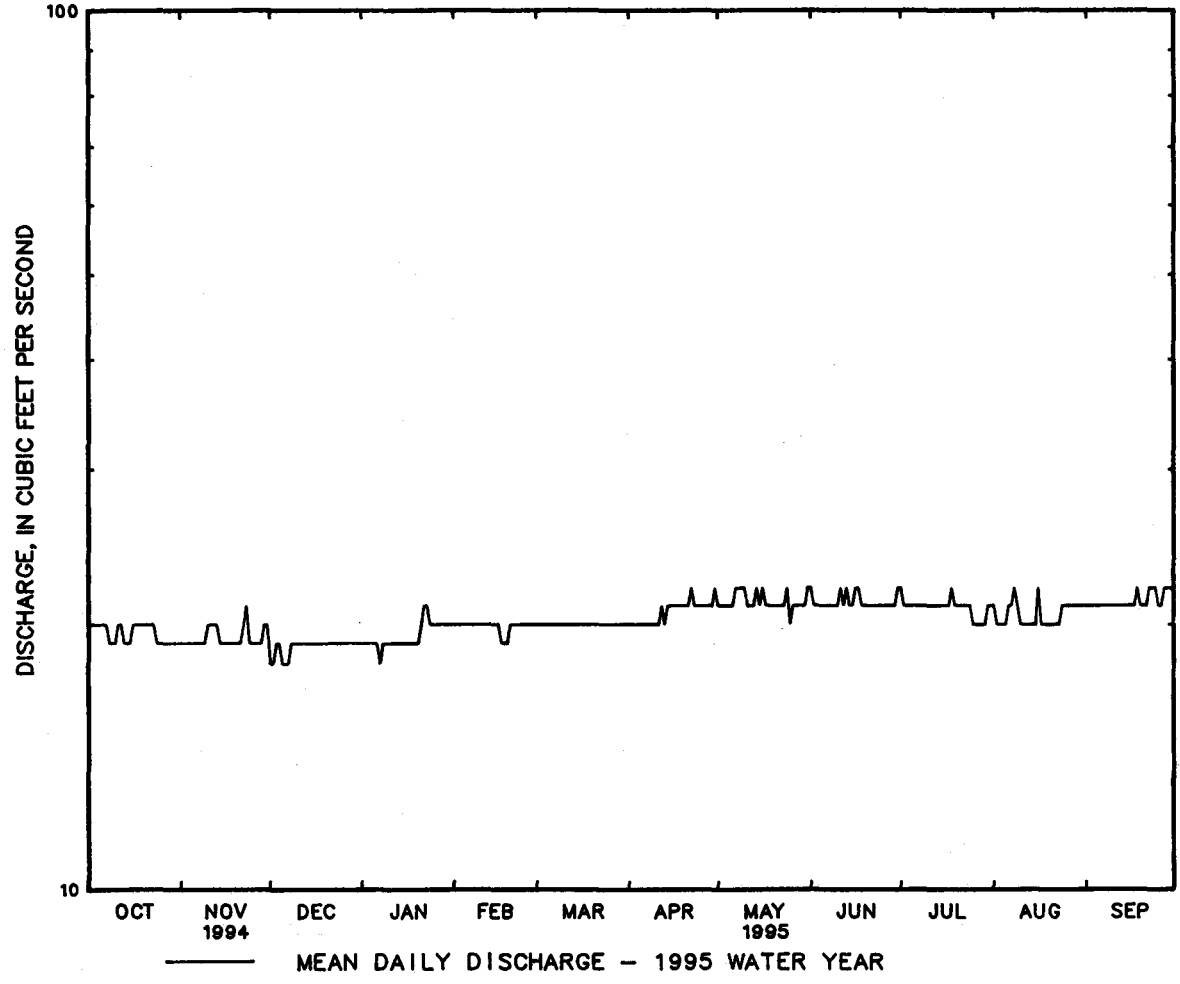
MEAN	43.6	47.5	73.7	104	117	134	139	114	85.2	59.0	48.5	62.5
MAX	379	272	390	480	462	557	444	397	822	280	226	587
(WY)	1980	1953	1984	1978	1979	1993	1952	1989	1972	1945	1971	1979
MIN	7.76	7.21	8.45	7.84	7.92	7.88	7.47	9.04	7.88	7.81	5.72	4.91
(WY)	1968	1985	1966	1966	1966	1966	1966	1985	1967	1967	1966	1966

† Combined month-end total contents, in millions of gallons, in Tridelphia and T. Howard Duckett Reservoirs (contents on Sept. 30, 1994, 9,600,000,000 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 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1945 - 1995	
ANNUAL TOTAL	36138		7383			
ANNUAL MEAN	99.0		20.2		85.5	
ANNUAL MEAN≠	186		94.0			
HIGHEST ANNUAL MEAN					241	1972
LOWEST ANNUAL MEAN					9.09	1966
HIGHEST DAILY MEAN	1080	Feb 23	22	(a)	13000	Jun 22 1972
LOWEST DAILY MEAN	18	(b)	18	(c)	1.1	Jun 26 1956
ANNUAL SEVEN-DAY MINIMUM	18	Dec 1	18	Dec 1	3.7	Aug 29 1966
INSTANTANEOUS PEAK FLOW			100	Nov 23	(d)26000	Jun 22 1972
INSTANTANEOUS PEAK STAGE			5.22	Nov 23	(f)25.00	Jun 22 1972
INSTANTANEOUS LOW FLOW			5.0	Jul 3	(g).05	Jul 18 1985
ANNUAL RUNOFF (CFSM)	.75		.15		.65	
ANNUAL RUNOFF (INCHES)	10.18		2.08		8.80	
10 PERCENT EXCEEDS	221		21		189	
50 PERCENT EXCEEDS	21		20		22	
90 PERCENT EXCEEDS	19		19		11	

≠ Adjusted for diversions.
a April 22, 30, May 7-10, 14, 16, 24, 31, June 1, 11, 13, 16, 17, Aug. 16, Sept. 18, 22-24, 27-30.
b Dec. 1, 2, 5-7.
c Dec. 1, 2, 5-7, Jan. 7.
d From rating curve extended above 6,600 ft^3/s on basis of contracted-opening measurement of peak flow.
f From floodmarks.
g Valve closed for repair.



01593500 LITTLE PATUXENT RIVER AT GUILFORD, MD

LOCATION.--Lat 39°10'04", long 76°51'07", Howard County, Hydrologic Unit 02060006, on left bank 25 ft downstream from bridge on Guilford Road (formerly State Highway 32), 1 mi west of Guilford, 3 mi upstream from Middle Patuxent River, 4 mi north of Laurel, and 20.1 mi upstream from mouth.

DRAINAGE AREA.--38.0 mi^2.

WATER-DISCHARGE RECORDS

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 sea level. Prior to June 25, 1946, nonrecording gage at same site and datum.

REMARKS.--Water-discharge records good except those for estimated daily discharges (ice effect), which are fair. Low flow affected by regulation from unknown source.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 800 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 20	0730	940	6.73	Aug. 6	1230	*1,150	*7.61
Mar. 8	2300	1,120	7.50				

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	102	20	39	25	46	23	36	17	61	5.7	5.5
2	44	44	19	28	25	35	23	82	17	44	5.4	5.4
3	21	21	18	22	24	30	22	40	79	19	5.3	5.2
4	16	18	18	25	28	28	23	28	56	35	5.3	5.2
5	18	18	140	29	e30	27	22	27	23	37	11	5.0
6	17	16	43	40	e26	28	21	23	19	139	486	4.9
7	15	16	29	301	22	26	21	21	18	155	49	5.0
8	14	15	24	56	22	453	20	19	16	30	19	4.9
9	14	15	21	37	21	388	27	19	15	20	14	7.3
10	18	26	59	31	22	62	26	46	14	21	13	6.6
11	14	19	92	29	e22	45	23	103	25	20	12	5.4
12	13	16	35	29	e20	39	44	32	59	16	11	5.0
13	13	15	27	27	e22	35	76	22	33	14	9.5	4.9
14	13	15	24	27	e21	33	32	47	19	13	11	6.1
15	13	15	23	72	e20	32	26	37	16	12	108	5.5
16	13	21	21	73	42	30	23	23	14	11	22	5.2
17	13	22	25	37	42	30	22	65	13	10	13	159
18	12	17	23	29	38	28	22	109	13	9.2	11	22
19	13	16	20	28	33	27	22	112	12	8.8	9.0	12
20	12	15	19	522	34	26	21	47	11	8.3	8.1	10
21	14	42	19	72	32	33	20	30	11	7.7	7.6	8.8
22	14	38	18	43	28	29	20	24	11	7.7	8.6	38
23	50	22	18	35	26	26	19	20	22	9.2	7.1	33
24	31	18	19	33	28	25	31	18	48	7.8	6.7	17
25	19	17	31	30	25	24	23	19	35	7.6	6.3	36
26	16	16	21	28	24	23	21	36	40	7.3	5.9	36
27	15	23	19	27	30	23	19	21	25	6.7	6.0	20
28	15	99	19	27	125	25	18	24	20	6.6	6.3	13
29	15	33	18	26	---	24	17	38	17	6.5	6.4	11
30	15	24	17	26	---	25	43	23	41	6.1	6.0	10
31	15	---	18	26	---	24	---	19	---	5.9	5.8	---
TOTAL	545	794	917	1854	857	1729	770	1210	759	762.4	901.0	512.9
MEAN	17.6	26.5	29.6	59.8	30.6	55.8	25.7	39.0	25.3	24.6	29.1	17.1
MAX	50	102	140	522	125	453	76	112	79	155	486	159
MIN	12	15	17	22	20	23	17	18	11	5.9	5.3	4.9
CFSM	.46	.70	.78	1.57	.81	1.47	.68	1.03	.67	.65	.76	.45
IN.	.53	.78	.90	1.81	.84	1.69	.75	1.18	.74	.75	.88	.50

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1932 - 1995, BY WATER YEAR (WY)

MEAN	25.8	36.6	44.6	51.9	60.8	65.4	59.0	49.6	38.3	29.4	27.6	30.6
MAX	107	108	119	145	147	181	160	197	265	119	130	214
(WY)	1980	1973	1973	1978	1979	1993	1973	1989	1972	1945	1955	1975
MIN	5.90	9.31	11.6	12.9	19.7	24.9	21.0	15.7	9.32	6.66	4.91	3.88
(WY)	1942	1942	1966	1955	1947	1981	1947	1955	1986	1966	1957	1932

01593500 LITTLE PATUXENT RIVER AT GUILFORD, MD--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1932 - 1995	
ANNUAL TOTAL	20283.4		11611.3			
ANNUAL MEAN	55.6		31.8		43.2	
HIGHEST ANNUAL MEAN					93.7	1972
LOWEST ANNUAL MEAN					17.7	1932
HIGHEST DAILY MEAN	873	Mar 3	522	Jan 20	4680	Jun 22 1972
LOWEST DAILY MEAN	4.6	Jul 13	4.9	(a)	.00	Sep 8 1966
ANNUAL SEVEN-DAY MINIMUM	8.2	Jul 7	5.1	Sep 2	.73	Sep 6 1966
INSTANTANEOUS PEAK FLOW			1150	Aug 6	(b)12400	Jun 22 1972
INSTANTANEOUS PEAK STAGE			7.61	Aug 6	(c)18.38	Jun 22 1972
INSTANTANEOUS LOW FLOW			4.8	(d)	.00	(f)
ANNUAL RUNOFF (CFSM)	1.46		.84		1.14	
ANNUAL RUNOFF (INCHES)	19.86		11.37		15.43	
10 PERCENT EXCEEDS	99		46		72	
50 PERCENT EXCEEDS	29		22		26	
90 PERCENT EXCEEDS	13		7.6		10	

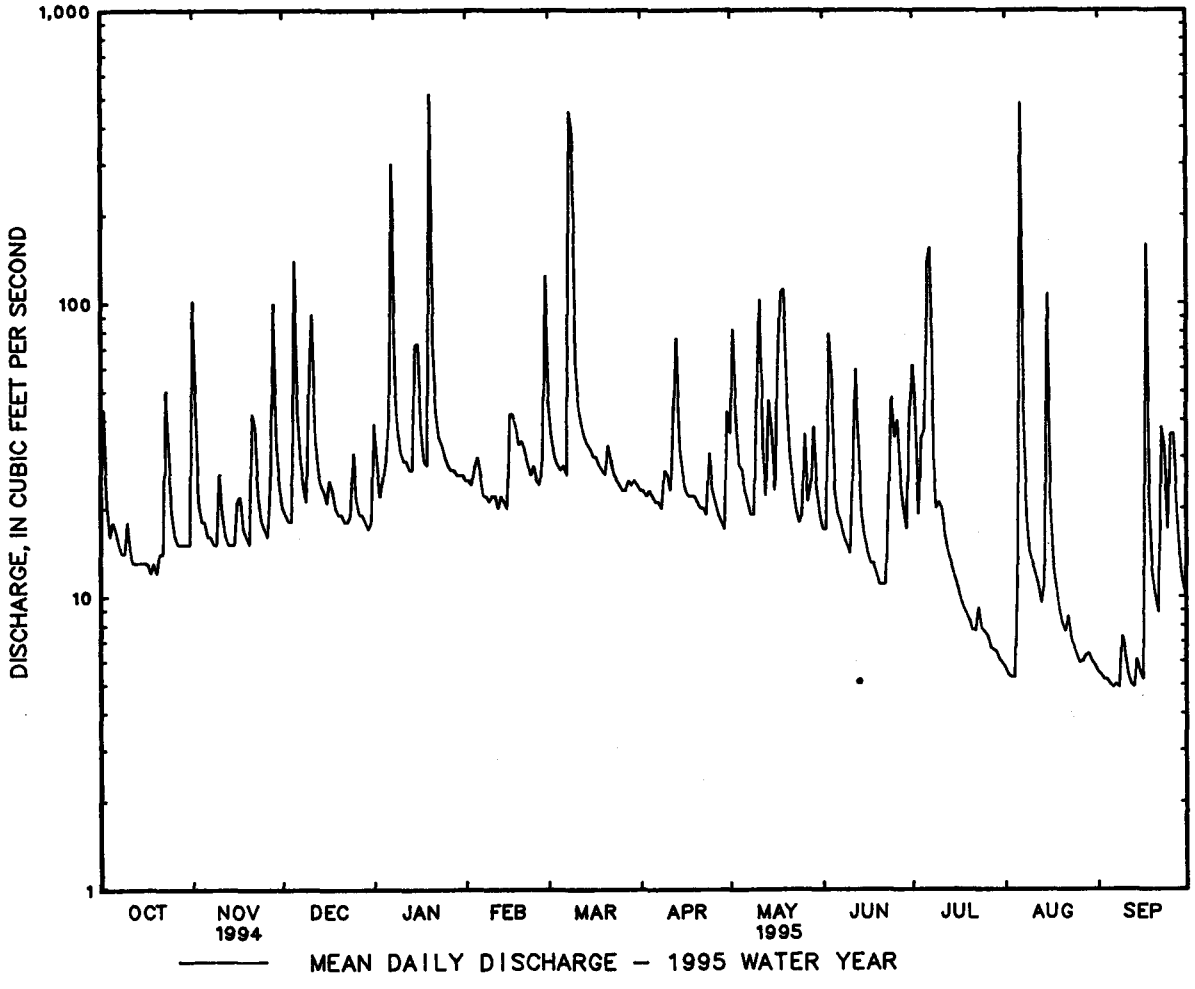
a Sept. 6, 8, 13.

b From rating curve extended above 1,800 ft^3/s on basis of contracted-opening measurement at gage height 13.26 ft and contracted-opening and flow-over-embankment measurement at gage height 18.38 ft.

c From high-water mark in well.

d Sept. 13, 14.

f Sept. 6-12, 1966.



01593500 LITTLE PATUXENT RIVER AT GUILFORD, MD--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1989, October 1993 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TEMPER-ATURE AIR (DEG C)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3
AUG 1995												
14...	1330	9.1	316	7.0	25.0	27.0	110	32	6.7	16	3.8	69

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS NO3)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
AUG 1995											
14...	9.6	38	<0.10	16	184	4.4	0.010	1.00	1.00	71	110

01593710 MIDDLE PATUXENT RIVER NEAR SIMPSONVILLE, MD

LOCATION.--Lat 39°11'48", long 76°53'59", Howard County, Hydrologic Unit 02060006, on right bank 0.8 mi upstream from bridge on State Highway 32 on W. R. Grace Company property, 1.3 mi northwest of Simpsonville, and 7.8 mi upstream from Little Patuxent River.

DRAINAGE AREA.--48.4 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1987 to September 1995 (Discontinued).

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

GAGE.--Water-stage recorder. Elevation of gage is 275 ft above sea level.

REMARKS--Water-discharge records good except those for estimated daily discharges (ice effect), which are fair.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 900 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 20	0845	*1,370	*4.90	Aug. 6	1015	1,040	4.41

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	44	29	44	38	59	33	37	25	33	8.3	6.8
2	42	37	27	36	37	47	31	64	26	26	7.8	6.2
3	27	24	26	30	35	43	31	43	48	19	7.5	5.9
4	24	24	26	29	e42	41	32	33	39	21	7.3	5.9
5	23	25	111	31	e45	39	30	33	26	27	12	5.9
6	22	24	54	42	e47	39	30	30	24	42	220	6.1
7	22	23	39	232	e40	40	31	28	24	49	26	6.1
8	21	23	34	67	44	198	30	26	21	24	15	5.6
9	21	23	32	49	40	200	35	26	20	19	13	7.7
10	23	28	60	42	41	81	34	38	20	20	12	7.5
11	20	26	104	39	42	65	33	81	22	21	11	6.4
12	20	23	47	39	39	58	39	39	38	16	11	6.1
13	20	24	39	39	38	53	71	32	29	15	11	6.3
14	21	23	36	37	38	49	40	51	22	14	10	6.8
15	20	23	34	82	38	47	35	47	21	14	29	6.2
16	20	28	31	91	54	45	33	34	21	13	12	6.0
17	19	30	34	50	59	43	32	61	20	13	10	53
18	19	26	32	44	51	40	31	103	20	14	9.5	14
19	19	25	30	41	47	39	31	118	19	12	8.7	10
20	20	24	28	436	49	39	30	61	19	12	8.5	9.2
21	20	41	28	92	47	43	29	44	18	12	8.4	9.3
22	22	47	27	64	41	39	29	37	16	12	8.6	20
23	41	28	27	55	39	38	27	32	23	12	7.8	18
24	31	25	28	50	39	36	34	30	41	11	7.6	11
25	22	25	36	46	36	34	30	28	79	11	7.2	19
26	22	24	30	43	36	34	29	31	36	10	7.0	22
27	21	27	28	41	38	33	27	29	27	9.9	7.3	15
28	22	97	27	41	112	34	27	30	26	10	7.6	11
29	23	42	27	40	---	35	25	38	24	9.7	7.9	10
30	23	32	26	39	---	34	35	29	26	9.2	7.5	9.6
31	23	---	26	39	---	33	---	26	---	8.7	6.9	---
TOTAL	718	915	1163	2050	1252	1658	984	1339	820	539.5	533.4	332.6
MEAN	23.2	30.5	37.5	66.1	44.7	53.5	32.8	43.2	27.3	17.4	17.2	11.1
MAX	42	97	111	436	112	200	71	118	79	49	220	53
MIN	19	23	26	29	35	33	25	26	16	8.7	6.9	5.6
CFSM	.48	.63	.78	1.37	.92	1.11	.68	.89	.56	.36	.36	.23
IN.	.55	.70	.89	1.58	.96	1.27	.76	1.03	.63	.41	.41	.26

e Estimated

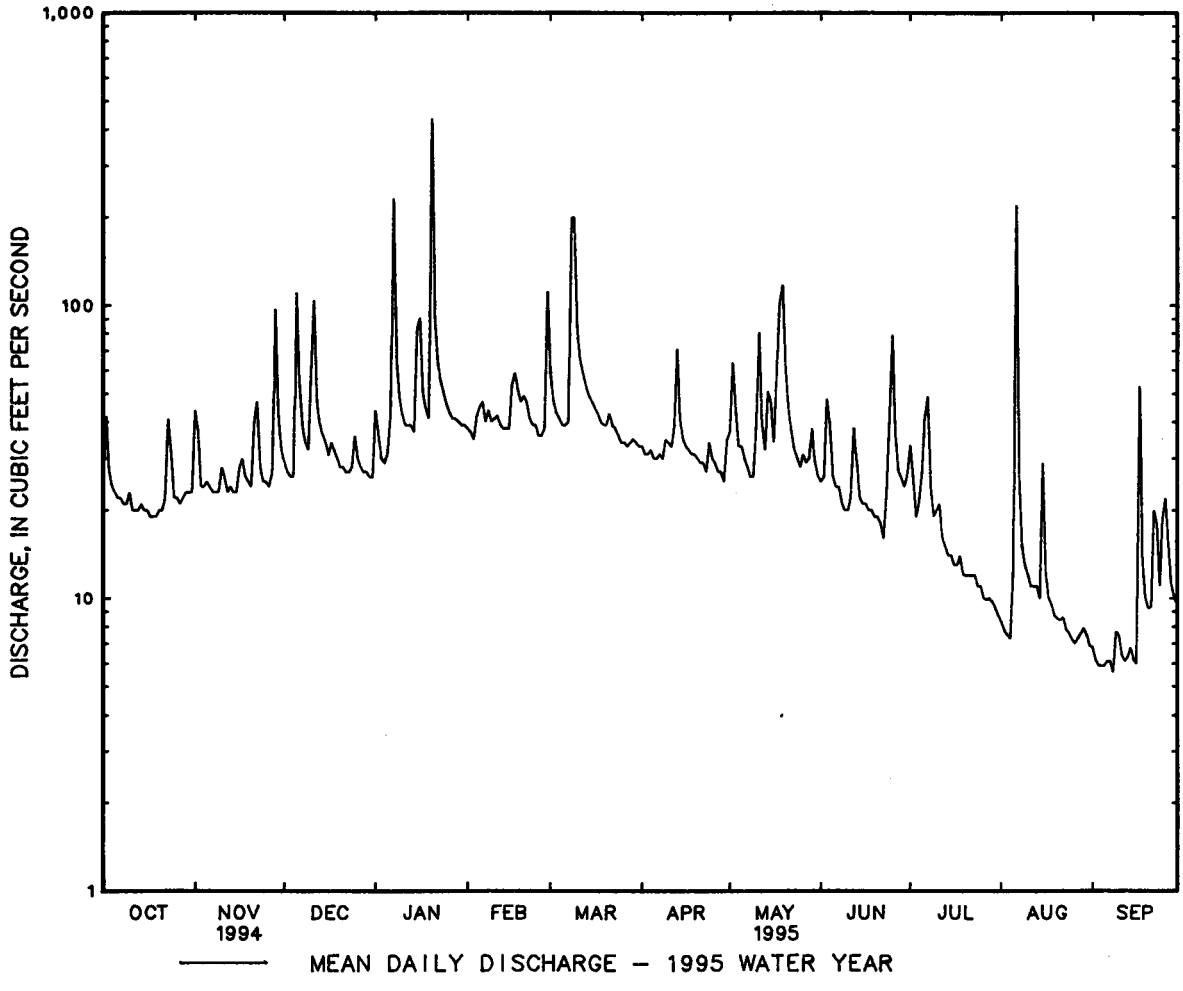
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 1995, BY WATER YEAR (WY)

MEAN	29.5	49.4	53.3	64.9	61.8	91.6	66.2	71.6	48.1	31.1	24.1	23.0
MAX	66.6	85.5	84.0	85.0	130	184	143	169	149	71.2	39.7	42.5
(WY)	1990	1994	1993	1991	1994	1993	1993	1989	1989	1989	1990	1987
MIN	14.6	21.0	26.5	36.5	40.5	47.5	32.8	36.4	21.1	13.3	9.66	11.1
(WY)	1992	1992	1989	1992	1992	1988	1995	1992	1991	1991	1987	1995

01593710 MIDDLE PATUXENT RIVER NEAR SIMPSONVILLE, MD--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1987 - 1995	
ANNUAL TOTAL	22458		12304.5			
ANNUAL MEAN	61.5		33.7		51.1	
HIGHEST ANNUAL MEAN					69.5	1994
LOWEST ANNUAL MEAN					32.8	1992
HIGHEST DAILY MEAN	548	Feb 19	436	Jan 20	2100	May 6 1989
LOWEST DAILY MEAN	16	(a)	5.6	Sep 8	5.6	(b)
ANNUAL SEVEN-DAY MINIMUM	18	Sep 2	6.0	Sep 2	6.0	Sep 2 1995
INSTANTANEOUS PEAK FLOW			1370	Jan 20	(c)4800	May 6 1989
INSTANTANEOUS PEAK STAGE			4.90	Jan 20	8.84	May 6 1989
INSTANTANEOUS LOW FLOW			5.6	(b)	5.6	(b)
ANNUAL RUNOFF (CFSM)	1.27		.70		1.06	
ANNUAL RUNOFF (INCHES)	17.26		9.46		14.36	
10 PERCENT EXCEEDS	106		50		80	
50 PERCENT EXCEEDS	37		29		36	
90 PERCENT EXCEEDS	20		9.3		15	

a Sept. 20, 21.
b Sept. 8, 9, 1995.
c From rating curve extended above 300 ft^3/s on the basis of slope-area measurement of peak flow.



01593710 MIDDLE PATUXENT RIVER NEAR SIMPSONVILLE, MD--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1989, October 1993 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TEMPER-ATURE AIR (DEG C)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3
AUG 1995 16...	1030	15	212	6.8	24.0	26.5	72	20	5.3	9.2	4.2	48

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS NO3)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
AUG 1995 16...	8.9	20	<0.10	14	134	8.3	0.020	1.90	1.90	93	43

01594000 LITTLE PATUXENT RIVER AT SAVAGE, MD

LOCATION.--Lat 39°08'06", long 76°48'58", Howard County, Hydrologic Unit 02060006, on left bank 20 ft downstream from bridge on southbound lanes of U.S. Highway 1, 0.4 mi southeast of Savage, 0.9 mi downstream from Middle Patuxent River, and 16.2 mi upstream from mouth.

DRAINAGE AREA.--98.4 mi^2.

WATER-DISCHARGE RECORDS

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 sea level, 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.--No estimated daily discharges. Water-discharge records good. Some diurnal fluctuation at low flow caused by plant 0.5 mi upstream.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 7	0600	*1,010	*6.83	No peak greater than base discharge.			

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	41	147	59	100	68	136	61	92	47	135	14	11
2	102	118	54	78	68	97	60	178	48	98	14	11
3	54	53	52	65	64	84	58	105	107	49	12	9.3
4	40	46	51	63	74	78	61	68	136	59	12	9.5
5	38	44	299	70	78	76	57	65	57	83	18	9.1
6	40	43	137	125	83	77	55	60	49	146	447	9.0
7	36	42	82	564	80	75	58	54	49	254	125	9.4
8	34	38	68	170	70	413	57	50	43	69	47	8.5
9	34	38	61	101	70	572	68	48	39	48	34	9.1
10	41	56	121	84	70	196	67	90	38	49	30	15
11	33	49	278	78	74	139	62	238	59	51	26	9.9
12	31	41	101	78	71	119	74	86	120	39	24	8.5
13	31	41	78	76	66	107	213	65	80	34	22	9.0
14	33	41	72	74	65	95	86	106	49	31	22	10
15	33	40	68	150	69	89	69	104	43	29	207	9.5
16	31	48	64	240	106	85	64	67	39	26	47	8.5
17	31	60	69	106	113	81	61	115	37	25	29	251
18	31	49	67	87	99	76	60	256	35	25	24	52
19	31	46	61	82	86	74	61	299	33	24	20	24
20	31	42	58	633	88	72	59	134	31	21	18	19
21	33	85	57	225	85	82	57	85	30	21	17	18
22	33	121	57	129	74	75	58	71	28	21	18	70
23	98	60	57	104	70	69	53	62	47	23	16	75
24	80	50	57	93	72	67	71	57	116	21	14	30
25	43	47	81	85	67	63	61	53	107	20	14	60
26	38	46	64	79	66	62	57	73	116	19	13	72
27	37	51	58	76	75	62	54	57	60	16	13	47
28	36	245	57	75	303	65	52	55	57	17	14	29
29	35	94	55	73	---	65	49	88	48	17	14	23
30	37	69	54	72	---	65	86	59	91	16	14	21
31	37	---	54	71	---	63	---	51	---	15	12	---
TOTAL	1283	1950	2551	4106	2374	3479	2009	2991	1839	1501	1351	947.3
MEAN	41.4	65.0	82.3	132	84.8	112	67.0	96.5	61.3	48.4	43.6	31.6
MAX	102	245	299	633	303	572	213	299	136	254	447	251
MIN	31	38	51	63	64	62	49	48	28	15	12	8.5
CFSM	.42	.66	.84	1.35	.86	1.14	.68	.98	.62	.49	.44	.32
IN.	.49	.74	.96	1.55	.90	1.32	.76	1.13	.70	.57	.51	.36

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1958, 1976 - 1980, 1985 - 1995, BY WATER YEAR (WY)

MEAN	70.1	95.3	115	142	141	163	140	127	92.6	74.8	63.4	65.1
MAX	336	228	260	386	375	368	351	367	294	312	315	432
(WY)	1980	1953	1978	1979	1979	1994	1952	1989	1951	1945	1955	1979
MIN	14.7	22.5	35.8	34.0	57.7	85.3	60.0	39.5	25.5	21.9	15.1	12.8
(WY)	1942	1942	1942	1942	1942	1947	1947	1955	1986	1957	1957	1986

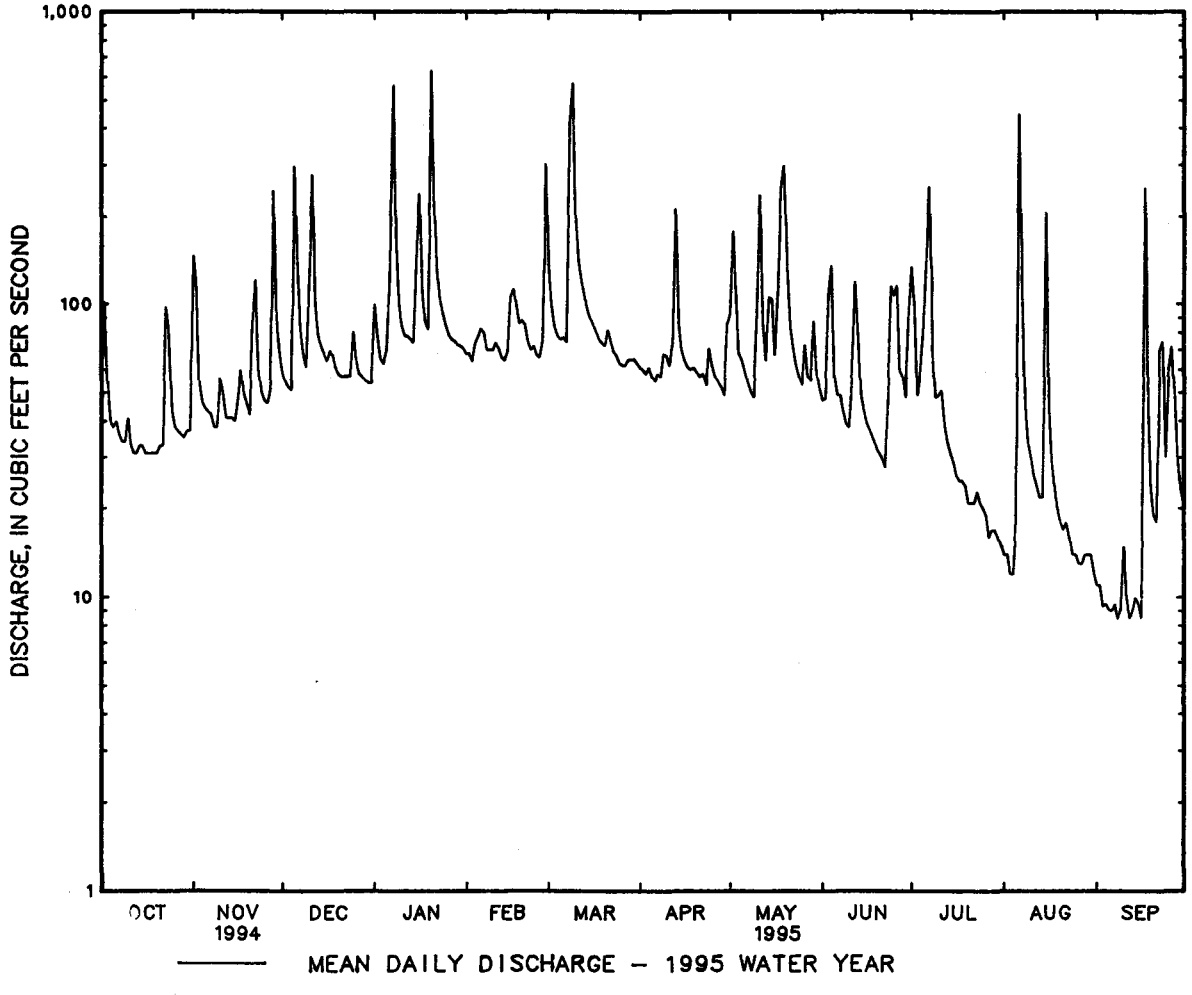
01594000 LITTLE PATUXENT RIVER AT SAVAGE, MD--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1940 - 1958, 1976 - 1980, 1985 - 1995	
ANNUAL TOTAL	46787		26381.3			
ANNUAL MEAN	128		72.3		107	
HIGHEST ANNUAL MEAN					196	1979
LOWEST ANNUAL MEAN					59.3	1942
HIGHEST DAILY MEAN	1310	Mar 3	633	Jan 20	5250	Sep 6 1979
LOWEST DAILY MEAN	23	Sep 14	8.5	(a)	7.0	Sep 19 1943
ANNUAL SEVEN-DAY MINIMUM	29	Sep 8	9.1	Sep 3	8.7	Oct 6 1986
INSTANTANEOUS PEAK FLOW			1010	Jan 7	(b)35400	Jun 22 1972
INSTANTANEOUS PEAK STAGE			6.83	Jan 7	(c)25.40	Jun 22 1972
INSTANTANEOUS LOW FLOW			7.1	Sep 9	1.6	Aug 26 1944
ANNUAL RUNOFF (CFSM)	1.30		.73		1.09	
ANNUAL RUNOFF (INCHES)	17.69		9.97		14.84	
10 PERCENT EXCEEDS	259		119		182	
50 PERCENT EXCEEDS	78		59		70	
90 PERCENT EXCEEDS	34		18		27	

a Sept. 8, 12, 16.

b From rating curve extended above 11,000 ft^3/s on basis of contracted-opening measurement of peak flow.

c From floodmarks.



01594000 LITTLE PATUXENT RIVER AT SAVAGE, MD--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1969, 1985-92, October 1992 to current year.

REMARKS.--Water-quality data available through September 1994 only at time of publication.

WATER QUALITY DATA, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TEMPER-ATURE AIR (DEG C)	TUR-BID-ITY (NTU)	OXYGEN DEMAND, CHEM-ICAL (LOW LEVEL) (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
OCT 1993												
15...	0945	36	230	6.9	12.0	12.0	--	--	--	76	22	5.1
27...	1030	33	249	7.1	12.0	15.0	2.1	<10	1.3	--	--	--
NOV												
27...	2318	1270	--	--	--	--	240	43	--	--	--	--
28...	0145	2400	--	--	--	--	740	52	--	--	--	--
DEC												
05...	0216	1790	--	--	--	--	260	69	--	--	--	--
05...	1311	3000	--	--	--	--	240	31	--	--	--	--
20...	1600	77	239	6.5	5.0	6.0	3.6	<10	0.5	--	--	--
21...	1230	505	--	--	--	--	86	<10	--	--	--	--
FEB 1994												
22...	1145	259	311	6.5	4.0	10.0	43	<10	2.5	--	--	--
23...	1622	1700	--	--	--	--	370	10	--	--	--	--
23...	1854	1630	--	--	--	--	270	10	--	--	--	--
23...	2149	1320	--	--	--	--	180	10	--	--	--	--
24...	0138	946	--	--	--	--	120	<10	--	--	--	--
24...	0711	709	--	--	--	--	77	<10	--	--	--	--
24...	1148	1200	--	--	--	--	150	<10	--	--	--	--
24...	1454	1480	--	--	--	--	220	<10	--	--	--	--
24...	1732	1640	--	--	--	--	220	<10	--	--	--	--
MAR												
03...	0247	1600	--	--	--	--	230	<10	--	--	--	--
03...	1000	1550	--	--	--	--	150	<10	--	--	--	--
03...	1304	1250	--	--	--	--	130	<10	--	--	--	--
03...	1655	1010	--	--	--	--	100	<10	--	--	--	--
03...	2130	923	--	--	--	--	84	<10	--	--	--	--
04...	0253	698	--	--	--	--	69	<10	--	--	--	--
10...	1005	1350	--	--	--	--	230	<10	--	--	--	--
10...	1100	1570	--	--	--	--	240	<10	--	--	--	--
10...	1341	1650	--	--	--	--	290	<10	--	--	--	--
10...	1639	1270	--	--	--	--	220	<10	--	--	--	--
10...	2026	1000	--	--	--	--	150	<10	--	--	--	--
11...	0217	578	--	--	--	--	88	<10	--	--	--	--
17...	1130	137	--	--	--	--	6.3	<10	0.8	--	--	--
27...	1409	1470	--	--	--	--	390	64	--	--	--	--
27...	1642	1680	--	--	--	--	650	48	--	--	--	--
27...	1943	1180	--	--	--	--	470	20	--	--	--	--
28...	0536	941	--	--	--	--	190	13	--	--	--	--
28...	0920	1230	--	--	--	--	210	16	--	--	--	--
28...	1240	1210	--	--	--	--	230	13	--	--	--	--
29...	1131	1180	--	--	--	--	110	12	--	--	--	--
APR												
14...	0136	790	--	--	--	--	340	14	--	--	--	--
14...	0925	361	--	--	--	--	120	17	--	--	--	--
19...	1030	139	248	7.4	14.0	25.0	2.5	<10	0.5	--	--	--
MAY												
08...	0527	771	--	--	--	--	350	12	--	--	--	--
08...	1302	375	--	--	--	--	170	16	--	--	--	--
16...	0556	829	--	--	--	--	580	16	--	--	--	--
16...	1633	247	--	--	--	--	200	22	--	--	--	--
24...	1000	77	249	7.3	18.0	25.0	2.8	<10	1.3	--	--	--
JUN												
15...	1130	48	256	7.7	25.0	32.0	1.9	<10	0.8	--	--	--
17...	0142	317	--	--	--	--	290	29	--	--	--	--
JUL												
26...	0615	97	171	7.1	22.0	20.0	340	<10	--	--	--	--
28...	0756	381	--	--	--	--	530	67	--	--	--	--
AUG												
11...	0730	28	251	7.8	20.0	21.0	--	--	--	85	24	6.2
11...	0735	24	251	7.8	20.0	21.0	1.5	<10	2.0	--	--	--
21...	2140	1210	--	--	--	--	2200	<10	--	--	--	--
22...	0115	1160	--	--	--	--	780	20	--	--	--	--
22...	0630	492	--	--	--	--	350	18	--	--	--	--
SEP												
01...	1245	38	246	8.2	23.0	--	--	--	--	82	23	5.9
01...	1250	38	246	8.2	23.0	21.0	1.8	--	2.0	--	--	--
27...	0330	403	--	--	--	--	140	<10	--	--	--	--

01594000 LITTLE PATUXENT RIVER AT SAVAGE, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT WH TOT IT FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS NO3)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)
OCT 1993											
15...	10	3.5	54	9.1	25	--	11	--	--	--	<0.010
27...	--	--	61	--	--	--	14	--	3	6.3	0.005
NOV											
27...	--	--	--	--	--	--	4.9	--	940	3.2	0.009
28...	--	--	--	--	--	--	5.1	--	835	3.0	0.008
DEC											
05...	--	--	--	--	--	--	6.0	--	790	4.2	0.009
05...	--	--	--	--	--	--	4.7	--	465	3.0	0.009
20...	--	--	47	--	--	--	15	--	2	11	0.007
21...	--	--	--	--	--	--	9.4	--	152	7.1	0.006
FEB 1994											
22...	--	--	33	--	--	--	7.9	--	57	5.7	0.011
23...	--	--	--	--	--	--	5.6	--	860	--	--
23...	--	--	--	--	--	--	4.9	--	690	--	--
23...	--	--	--	--	--	--	4.7	--	550	--	--
24...	--	--	--	--	--	--	5.6	--	340	--	--
24...	--	--	--	--	--	--	6.2	--	224	--	--
24...	--	--	--	--	--	--	5.6	--	1030	--	--
24...	--	--	--	--	--	--	5.3	--	650	--	--
24...	--	--	--	--	--	--	4.9	--	600	--	--
MAR											
03...	--	--	--	--	--	--	5.1	--	795	4.8	0.015
03...	--	--	--	--	--	--	4.5	--	400	4.3	0.012
03...	--	--	--	--	--	--	4.7	--	256	4.1	0.011
03...	--	--	--	--	--	--	5.1	--	202	4.4	0.010
03...	--	--	--	--	--	--	5.8	--	196	5.3	0.013
04...	--	--	--	--	--	--	10	--	154	5.3	0.010
10...	--	--	--	--	--	--	6.6	--	730	5.3	0.010
10...	--	--	--	--	--	--	6.2	--	675	5.3	0.010
10...	--	--	--	--	--	--	5.6	--	680	4.8	0.010
10...	--	--	--	--	--	--	5.3	--	530	4.4	0.010
10...	--	--	--	--	--	--	6.0	--	288	5.3	0.010
11...	--	--	--	--	--	--	6.2	--	198	0.83	0.003
17...	--	--	--	--	--	--	13	--	5	10	0.009
27...	--	--	--	--	--	--	7.1	--	1230	4.4	0.013
27...	--	--	--	--	--	--	6.2	--	1180	4.4	0.014
27...	--	--	--	--	--	--	5.8	--	1250	4.3	0.012
28...	--	--	--	--	--	--	7.1	--	490	4.4	0.014
28...	--	--	--	--	--	--	7.3	--	430	4.4	0.012
28...	--	--	--	--	--	--	6.8	--	520	4.2	0.012
29...	--	--	--	--	--	--	7.1	--	200	4.4	0.015
APR											
14...	--	--	--	--	--	--	7.9	--	580	6.1	0.014
14...	--	--	--	--	--	--	8.9	--	46	5.6	0.014
19...	--	--	47	--	--	--	12	--	7	8.8	0.012
MAY											
08...	--	--	--	--	--	--	9.2	--	485	7.0	0.020
08...	--	--	--	--	--	--	8.1	--	290	5.0	0.019
16...	--	--	--	--	--	--	7.8	--	840	7.8	0.026
16...	--	--	--	--	--	--	8.0	--	256	6.0	0.027
24...	--	--	50	--	--	--	14	--	11	9.1	0.009
JUN											
15...	--	--	53	--	--	--	15	--	5	8.8	0.017
17...	--	--	--	--	--	--	7.9	--	1010	7.5	0.044
JUL											
26...	--	--	36	--	--	--	7.7	--	525	5.2	0.021
28...	--	--	--	--	--	--	8.5	--	1040	5.9	0.016
AUG											
11...	12	2.5	61	7.8	28	0.10	9.2	150	--	--	<0.010
11...	--	--	--	--	--	--	9.8	--	2	7.8	0.005
21...	--	--	--	--	--	--	5.6	--	3300	3.2	0.020
22...	--	--	--	--	--	--	5.5	--	2060	3.7	0.017
22...	--	--	--	--	--	--	6.6	--	600	3.7	0.016
SEP											
01...	12	3.0	54	8.4	28	<0.10	13	139	--	--	<0.010
01...	--	--	54	--	--	--	14	--	3	8.8	0.007
27...	--	--	--	--	--	--	7.2	--	340	3.6	0.007

01594000 LITTLE PATUXENT RIVER AT SAVAGE, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)
OCT 1993												
15...	1.40	1.40	--	--	--	--	--	--	34	9	--	--
27...	1.42	1.42	0.010	0.25	0.19	0.020	<0.010	0.007	--	--	3.1	3.1
NOV												
27...	0.740	0.740	0.033	2.9	0.54	0.600	0.060	0.035	--	--	12	5.3
28...	0.690	0.690	0.041	5.3	0.57	1.40	0.030	0.020	--	--	23	7.6
DEC												
05...	0.960	0.960	0.044	2.0	0.45	0.600	0.060	0.045	--	--	9.1	5.6
05...	0.690	0.690	0.076	1.4	0.73	0.500	0.100	0.065	--	--	9.9	9.9
20...	2.50	2.50	0.010	0.15	0.13	0.020	0.020	0.010	--	--	<0.50	0.23
21...	1.60	1.60	0.035	0.68	0.28	0.190	0.020	0.015	--	--	0.60	--
FEB 1994												
22...	1.30	1.30	0.408	1.5	1.0	0.180	0.040	0.035	--	--	7.5	--
23...	1.10	1.10	0.244	3.3	0.57	1.60	0.010	0.023	--	--	6.8	--
23...	1.10	1.10	0.218	2.3	0.61	1.10	0.020	0.030	--	--	7.0	7.1
23...	0.980	0.980	0.262	2.3	0.76	0.800	0.030	0.039	--	--	7.0	--
24...	1.00	1.00	0.267	2.0	0.69	0.800	0.040	0.044	--	--	6.7	7.1
24...	1.10	1.10	0.258	1.2	0.69	0.270	0.040	0.042	--	--	6.4	6.0
24...	1.00	1.00	0.228	2.0	0.74	0.450	0.040	0.041	--	--	9.4	--
24...	1.00	1.00	0.230	1.9	0.91	0.360	0.040	0.043	--	--	8.2	8.0
24...	0.480	0.480	0.209	2.0	0.73	0.510	0.050	0.054	--	--	4.6	--
MAR												
03...	1.10	1.10	0.186	1.1	0.59	0.180	0.020	0.028	--	--	4.4	3.9
03...	0.990	0.990	0.196	1.2	0.45	0.340	0.030	0.040	--	--	4.8	4.3
03...	0.940	0.940	0.209	1.3	0.69	0.030	0.030	0.044	--	--	4.9	--
03...	1.00	1.00	0.221	1.7	0.61	0.320	0.040	0.048	--	--	5.3	4.5
03...	1.20	1.20	0.285	1.2	0.73	0.250	0.040	0.056	--	--	4.4	4.2
04...	1.20	1.20	0.236	0.76	0.60	0.140	0.040	0.054	--	--	4.9	4.4
10...	1.20	1.20	0.137	2.5	0.44	1.00	0.050	0.026	--	--	5.1	--
10...	1.20	1.20	0.148	2.2	0.54	0.800	0.060	0.029	--	--	5.9	--
10...	1.10	1.10	0.152	2.2	0.62	0.780	0.060	0.030	--	--	6.8	--
10...	1.00	1.00	0.149	1.6	0.46	0.640	0.060	0.034	--	--	7.9	7.3
10...	1.20	1.20	0.159	1.3	0.52	0.450	0.070	0.035	--	--	6.4	--
11...	0.190	0.190	0.147	0.91	0.55	0.260	0.070	0.032	--	--	3.7	--
17...	2.30	2.30	0.024	0.25	0.17	0.020	<0.010	0.008	--	--	1.5	--
27...	1.00	1.00	0.088	2.3	0.30	0.800	0.010	0.013	--	--	4.5	--
27...	1.00	1.00	0.105	3.1	0.56	1.30	<0.010	0.018	--	--	7.3	7.5
27...	0.980	0.980	0.124	2.7	0.56	1.10	0.020	0.020	--	--	6.8	6.7
28...	1.00	1.00	0.107	1.5	0.46	0.320	0.050	0.024	--	--	5.5	4.9
28...	1.00	1.00	0.101	1.5	0.47	0.490	0.020	0.021	--	--	5.4	5.2
28...	0.970	0.970	0.093	1.5	0.58	0.600	0.030	0.022	--	--	5.9	--
29...	1.00	1.00	0.088	0.99	0.44	0.280	0.040	0.029	--	--	6.2	--
APR												
14...	1.40	1.40	0.028	2.0	0.34	0.640	0.030	0.011	--	--	4.8	5.0
14...	1.28	1.28	0.042	1.2	0.38	0.310	0.020	0.019	--	--	6.0	5.5
19...	2.01	2.01	0.009	0.28	0.08	<0.010	<0.010	0.005	--	--	1.3	1.5
MAY												
08...	1.60	1.60	0.128	2.6	0.42	0.070	<0.010	0.012	--	--	5.3	--
08...	1.14	1.14	0.179	2.0	0.56	0.360	<0.010	0.019	--	--	6.4	--
16...	1.79	1.79	0.010	3.9	0.37	1.10	<0.010	0.006	--	--	4.5	--
16...	1.38	1.38	0.338	1.9	0.91	0.360	<0.010	0.021	--	--	5.3	4.9
24...	2.07	2.07	0.011	0.22	0.15	<0.010	<0.010	0.006	--	--	3.0	--
JUN												
15...	2.01	2.01	<0.008	0.50	0.42	0.030	0.010	0.011	--	--	2.7	--
17...	1.74	1.74	0.302	2.5	0.90	0.900	0.070	0.068	--	--	7.6	--
JUL												
26...	1.20	1.20	0.074	0.97	0.32	0.430	0.010	0.013	--	--	6.3	5.0
28...	1.35	1.35	0.058	2.9	0.44	1.00	0.040	0.026	--	--	18	8.0
AUG												
11...	1.80	1.80	--	--	--	--	--	--	31	11	--	--
11...	1.76	1.76	0.009	0.22	0.19	0.010	<0.010	0.007	--	--	3.4	3.0
21...	0.740	0.740	0.098	4.9	0.39	2.90	0.030	0.023	--	--	6.8	--
22...	0.850	0.850	0.163	3.2	0.68	1.40	0.040	0.044	--	--	10	--
22...	0.860	0.860	0.091	1.8	0.62	0.570	0.060	0.051	--	--	11	--
SEP												
01...	1.70	1.70	--	--	--	--	--	--	41	11	--	--
01...	2.00	2.00	<0.008	0.28	0.32	0.020	<0.010	0.012	--	--	3.6	3.9
27...	0.820	0.820	0.012	1.2	0.35	0.310	0.010	0.011	--	--	7.4	7.7

01594000 LITTLE PATUXENT RIVER AT SAVAGE, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

SUSPENDED SEDIMENT DISCHARGE

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
OCT 1993				
27...	1030	33	3	0.27
NOV				
27...	2318	1270	437	1490
28...	0145	2400	1450	9400
DEC				
05...	0216	1790	575	2770
05...	1311	3000	366	2960
20...	1600	77	4	0.83
21...	1230	505	135	184
FEB 1994				
22...	1145	259	55	38
23...	1622	1700	1440	6630
23...	1854	1630	940	4140
23...	2149	1320	564	2010
24...	0138	946	352	899
24...	0711	709	257	492
24...	1148	1200	504	1630
24...	1454	1480	751	3000
24...	1732	1640	751	3330
MAR				
03...	0247	1600	1100	4760
03...	1000	1550	448	1870
03...	1304	1250	366	1240
03...	1655	1010	274	749
03...	2130	923	209	521
04...	0253	698	177	334
10...	1005	1350	875	3200
10...	1100	1570	765	3240
10...	1341	1650	872	3890
10...	1639	1270	600	2050
10...	2026	1000	405	1090
11...	0217	578	207	323
17...	1130	137	6	2.2
27...	1409	1470	924	3670
27...	1642	1680	1280	5820
27...	1943	1180	863	2760
28...	0536	941	332	844
28...	0920	1230	532	1770
28...	1240	1210	453	1480
29...	1131	1180	236	753
APR				
14...	0136	790	647	1380
14...	0925	361	246	240
19...	1030	139	1	0.38
MAY				
08...	0527	771	501	1040
08...	1302	375	249	252
16...	0556	829	941	2110
16...	1633	247	303	202
24...	1000	77	3	0.62
JUN				
15...	1130	48	4	0.52
17...	0142	317	549	470
JUL				
26...	0615	97	351	92
28...	0756	381	1160	1190
AUG				
11...	0735	24	4	0.26
21...	2140	1210	4150	13600
22...	0115	1160	1580	4950
22...	0630	492	490	651
SEP				
01...	1250	38	3	0.31
27...	0330	403	371	404

01594440 PATUXENT RIVER NEAR BOWIE, MD

LOCATION.--Lat 38°57'21", long 76°41'36", 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 west of Bowie City Hall, 3.1 mi downstream from mouth of Little Patuxent River, 4.2 mi northwest of Davidsonville, and 60 mi upstream from mouth.

DRAINAGE AREA.--348 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1955 to June 1977 (gage heights and discharge measurements only), June 1977 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 13.10 ft above sea level. Prior to June 27, 1977, nonrecording gage at same site and datum.

REMARKS.--Water-discharge records good except those for estimated daily discharges (ice and/or orifice line leak), which are fair. Flow regulated by T. Howard Duckett Reservoir, usable capacity 5,600,000,000 gal, 21 mi upstream from station.

PEAK DISCHARGE FOR CURRENT YEAR.--Peak discharge, 4,100 ft^3/s, Mar. 9, gage height, 12.32 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	147	149	191	227	208	618	184	374	163	438	69	87
2	244	418	171	244	203	305	182	355	164	576	68	81
3	205	204	161	193	194	250	179	463	229	191	66	80
4	155	160	162	169	199	227	175	234	305	173	66	78
5	141	155	494	157	e210	219	175	204	200	239	65	81
6	139	151	689	148	e210	218	171	190	165	177	368	77
7	136	150	281	932	e190	215	171	178	162	610	1520	79
8	135	141	218	997	187	397	169	169	152	274	277	80
9	133	140	187	367	175	3170	177	162	143	155	154	79
10	152	153	211	265	180	1550	203	209	136	128	129	80
11	144	188	737	231	189	545	187	629	141	152	118	86
12	128	153	400	234	210	390	184	351	309	127	111	79
13	127	145	241	224	175	329	566	211	345	104	107	79
14	128	144	211	213	176	291	313	223	186	97	102	82
15	129	144	198	233	181	267	220	364	150	95	367	83
16	132	142	185	625	256	254	195	230	139	90	234	80
17	130	157	192	345	357	240	186	224	130	90	133	416
18	127	158	205	249	307	227	182	743	124	101	109	332
19	127	159	185	221	263	216	181	1050	121	85	98	129
20	133	147	177	1040	255	213	177	723	117	80	94	105
21	132	172	168	1950	247	224	172	298	113	79	92	97
22	133	385	165	577	222	234	173	226	117	81	90	106
23	184	217	166	350	206	207	169	194	147	90	90	306
24	373	174	167	293	203	199	193	179	293	85	88	141
25	183	155	194	258	198	192	196	171	305	83	86	144
26	149	150	200	236	189	189	173	194	239	82	84	239
27	143	150	171	222	191	186	165	187	163	80	85	183
28	139	462	164	217	606	184	161	170	146	77	88	128
29	140	375	163	221	---	190	157	240	135	76	88	109
30	143	220	159	218	---	186	223	229	125	77	85	103
31	144	---	153	217	---	193	---	181	---	72	86	---
TOTAL	4755	5818	7366	12073	6387	12325	5959	9555	5364	4864	5217	3829
MEAN	153	194	238	389	228	398	199	308	179	157	168	128
MAX	373	462	737	1950	606	3170	566	1050	345	610	1520	416
MIN	127	140	153	148	175	184	157	162	113	72	65	77
CFSM	.44	.56	.68	1.12	.66	1.14	.57	.89	.51	.45	.48	.37
IN.	.51	.62	.79	1.29	.68	1.32	.64	1.02	.57	.52	.56	.41

e Estimated

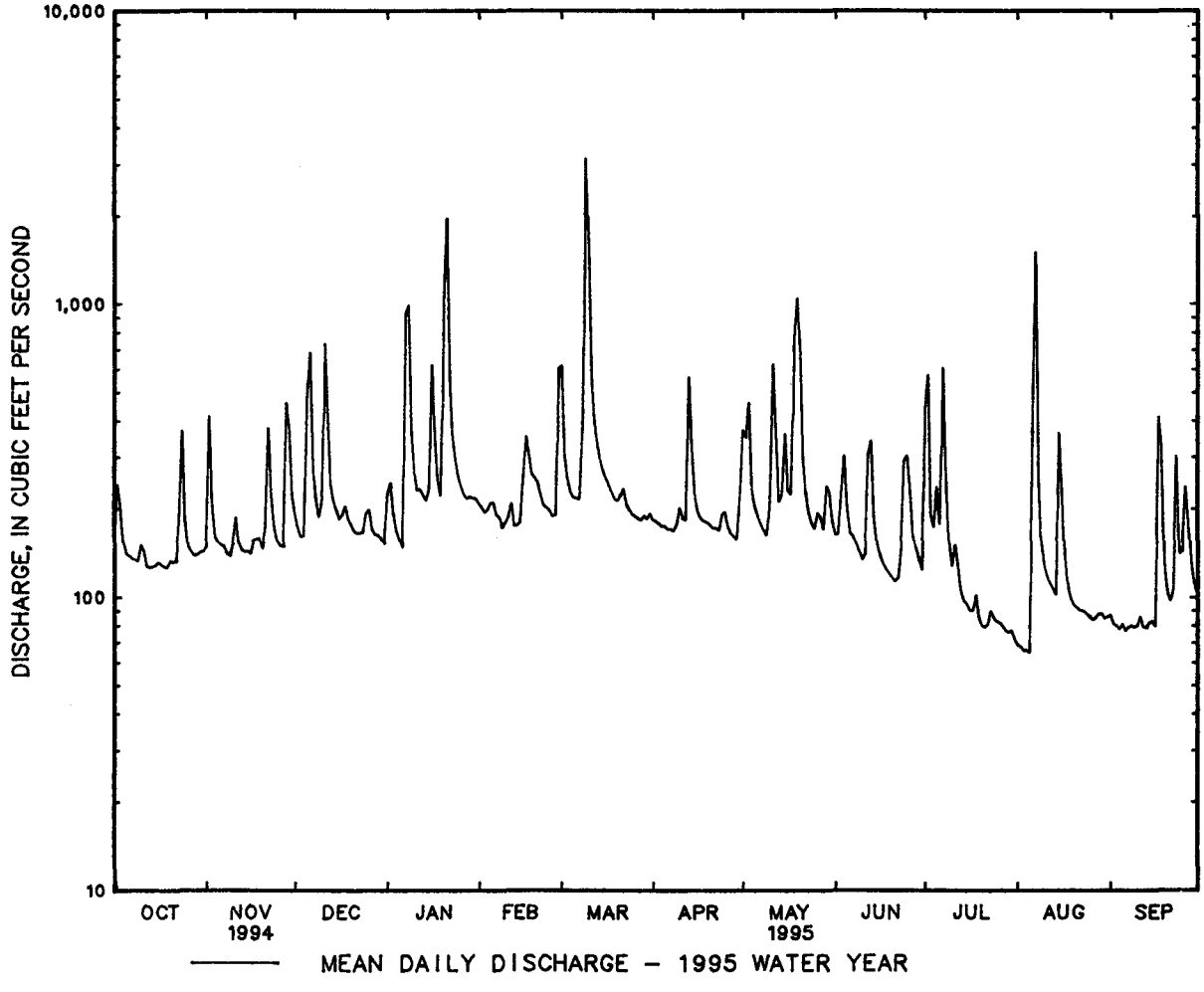
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1977 - 1995, BY WATER YEAR (WY)

MEAN	231	275	379	472	455	592	510	479	314	203	196	219
MAX	1093	459	1030	1316	1232	1358	1247	1291	846	492	532	1358
(WY)	1980	1980	1984	1978	1979	1993	1983	1989	1989	1989	1979	1979
MIN	80.4	108	136	119	228	173	167	154	113	102	86.1	65.2
(WY)	1987	1982	1981	1981	1995	1981	1985	1986	1977	1986	1987	1986

01594440 PATUXENT RIVER NEAR BOWIE, MD--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1977 - 1995	
ANNUAL TOTAL	164321		83512			
ANNUAL MEAN	450		229		358	
HIGHEST ANNUAL MEAN					637	1979
LOWEST ANNUAL MEAN					112	1977
HIGHEST DAILY MEAN	3770	Feb 24	3170	Mar 9	8860	Jan 27 1978
LOWEST DAILY MEAN	89	(a)	65	Aug 5	56	(b)
ANNUAL SEVEN-DAY MINIMUM	97	Jul 8	69	Jul 30	57	Sep 15 1986
INSTANTANEOUS PEAK FLOW			4100	Mar 9	(c)31100	Jun 22 1972
INSTANTANEOUS PEAK STAGE			12.32	Mar 9	(d)27.90	Jun 22 1972
INSTANTANEOUS LOW FLOW			72	(f)	32	Aug 9 1966
ANNUAL RUNOFF (CFSM)	1.29		.66		1.03	
ANNUAL RUNOFF (INCHES)	17.57		8.93		13.97	
10 PERCENT EXCEEDS	984		367		747	
50 PERCENT EXCEEDS	234		178		207	
90 PERCENT EXCEEDS	129		86		99	

a July 13, 14.
b Sept. 17-19, 1986.
c On basis of contracted-opening measurement of peak flow.
d From floodmarks.
f Sept. 6-10.



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.--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, Dec. 15, 1989; minimum daily, 100 microsiemens, 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: Maximun 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 1994 TO SEPTEMBER 1995

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TEMPER-ATURE AIR (DEG C)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)
OCT 1994									
13...	1430	129	311	7.3	12.5	20.5	771	8.6	80
NOV									
16...	1330	139	305	7.3	12.5	8.5	769	7.9	74
DEC									
05...	1300	474	281	7.1	11.0	21.0	759	8.9	81
06...	1200	721	196	6.8	11.0	20.0	775	9.0	80
JAN 1995									
16...	0945	718	264	6.4	12.0	11.5	757	8.8	82
17...	1030	336	247	7.1	9.5	9.0	764	9.2	80
20...	1200	994	172	7.0	8.5	7.0	744	9.6	84
21...	1100	2270	149	6.6	7.0	7.0	750	9.8	82
22...	1000	562	217	6.8	5.5	0.5	758	10.4	83
MAR									
09...	1200	3500	151	7.2	6.0	1.5	768	10.1	80
10...	1130	1300	240	7.3	4.5	2.0	777	11.3	86
APR									
13...	1130	694	312	7.4	14.0	19.0	759	7.8	76
MAY									
01...	1145	421	252	7.4	12.5	15.5	761	8.0	75
02...	1245	320	257	7.3	12.5	8.5	756	8.2	78
03...	0900	527	239	7.5	11.5	15.0	763	9.0	82
11...	0845	608	246	7.6	15.0	15.0	755	7.6	76
12...	--	391	217	7.3	15.5	18.0	756	8.4	85
JUN									
20...	0900	138	322	7.6	21.0	27.0	759	6.4	72
JUL									
20...	0845	98	336	7.1	23.5	27.5	762	6.0	70
AUG									
07...	0900	2170	146	7.1	22.5	20.5	765	5.0	57
08...	0845	274	169	7.2	21.0	22.0	768	6.2	69
22...	0700	91	333	7.7	23.0	19.0	762	6.3	74
SEP									
07...	0830	82	364	7.8	20.5	22.0	764	6.6	73

01594440 PATUXENT RIVER NEAR BOWIE, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	ALKALINITY WAT WH TOT IT FIELD MG/L AS CACO3	BICARBONATE WATER WH FET FIELD MG/L AS HCO3	BICARBONATE WATER DIS IT FIELD MG/L AS HCO3	SILICA, DISSOLVED (MG/L AS SIO2)	NITROGEN, NITRATE DISSOLVED (MG/L AS NO3)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NITRATE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)
OCT 1994										
13...	69	--	84	20	4.8	--	0.010	1.09	1.10	1.10
NOV										
16...	63	--	77	7.4	6.4	2.2	0.060	1.44	1.50	1.50
DEC										
05...	44	--	53	8.1	5.6	2.1	0.030	1.27	1.30	1.30
06...	37	--	45	8.1	4.2	1.9	0.020	0.950	0.970	0.970
JAN 1995										
16...	43	--	52	7.8	5.7	1.8	0.020	1.28	1.30	1.30
17...	41	--	50	8.7	4.7	1.8	0.030	1.07	1.10	1.10
20...	32	--	38	5.6	3.1	1.8	0.020	0.710	0.730	0.730
21...	21	--	26	5.8	3.0	1.4	0.020	0.680	0.700	0.700
22...	34	--	42	8.4	4.3	1.8	0.020	0.980	1.00	1.00
MAR										
09...	22	--	26	4.4	2.4	1.2	0.010	0.540	0.550	0.550
10...	27	--	32	6.5	3.9	1.6	0.020	0.870	0.890	0.890
APR										
13...	51	--	62	5.4	6.5	2.3	0.040	1.46	1.50	1.50
MAY										
01...	45	--	54	5.9	5.6	2.1	0.040	1.26	1.30	1.30
02...	43	--	53	7.2	5.1	1.9	0.040	1.16	1.20	1.20
03...	41	--	50	6.4	4.3	1.7	0.020	0.970	0.990	0.990
11...	47	--	58	6.6	5.7	2.2	0.020	1.28	1.30	1.30
12...	40	--	49	6.9	4.3	1.6	0.020	0.980	1.00	1.00
JUN										
20...	69	--	84	8.1	7.0	2.1	0.020	1.58	1.60	1.60
JUL										
20...	73	--	89	7.6	5.3	1.7	0.010	1.19	1.20	1.20
AUG										
07...	24	29	29	5.6	3.5	1.3	0.020	0.780	0.800	0.800
08...	38	--	47	8.5	3.3	1.3	0.010	0.740	0.750	0.750
22...	67	--	82	9.0	--	1.5	<0.010	--	1.10	1.10
SEP										
07...	--	--	--	6.6	--	2.1	<0.010	--	1.70	1.70

DATE	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	ALUMINUM, DISSOLVED (UG/L AS AL)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C)
OCT 1994										
13...	<0.015	<0.20	0.20	0.030	0.020	0.030	20	4.6	--	--
NOV										
16...	0.370	0.70	0.50	0.070	0.040	0.040	10	4.3	3.9	0.50
DEC										
05...	0.210	0.80	0.40	0.140	0.050	0.050	50	6.4	--	--
06...	0.210	0.90	0.50	0.140	0.070	0.050	150	--	--	--
JAN 1995										
16...	0.190	0.50	0.50	0.060	0.050	0.040	90	6.4	--	--
17...	0.320	0.70	0.60	0.050	0.050	0.030	130	6.8	--	--
20...	0.210	1.1	0.60	0.290	0.030	0.030	220	7.7	--	--
21...	0.080	0.70	0.40	0.180	0.030	0.030	350	8.8	--	--
22...	0.240	0.80	0.70	0.120	0.030	0.030	160	7.0	--	--
MAR										
09...	0.090	0.70	0.50	0.130	0.030	0.030	320	12	--	--
10...	0.170	0.70	0.50	0.050	0.030	0.020	230	10	--	--
APR										
13...	0.100	0.80	0.30	0.150	0.020	0.030	60	6.9	--	--
MAY										
01...	0.150	0.80	0.60	0.130	0.060	0.040	40	8.1	--	--
02...	0.100	0.70	0.50	0.150	0.050	0.040	50	6.6	--	--
03...	0.080	0.70	0.40	0.120	0.060	0.040	60	7.6	--	--
11...	0.110	0.90	0.50	0.270	0.050	0.050	70	8.4	--	--
12...	0.080	0.60	0.40	0.120	0.030	0.030	130	7.0	--	--
JUN										
20...	0.090	0.50	0.40	0.130	0.060	0.060	30	4.8	--	--
JUL										
20...	0.080	0.50	0.40	0.180	0.040	0.070	10	4.9	--	--
AUG										
07...	0.060	0.50	0.50	0.080	0.050	0.040	230	11	--	--
08...	0.090	0.60	0.50	0.100	0.050	0.050	130	8.5	--	--
22...	0.090	0.40	0.40	0.090	0.060	0.070	20	4.7	--	--
SEP										
07...	0.050	0.40	0.30	0.180	0.110	0.100	10	5.7	--	--

01594440 PATUXENT RIVER NEAR BOWIE, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

SUSPENDED SEDIMENT DISCHARGE

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV 1994					
16...	1330	139	7	2.6	96
DEC					
05...	1300	474	32	41	--
06...	1200	721	41	80	--
JAN 1995					
16...	0945	718	78	151	--
17...	1030	336	31	28	--
20...	1200	994	299	802	--
21...	1100	2270	87	533	--
22...	1000	562	44	67	--
MAR					
09...	1200	3500	190	1800	--
10...	1130	1300	57	200	--
APR					
13...	1130	694	49	92	--
MAY					
01...	1145	421	30	34	--
02...	1245	320	20	17	--
03...	0900	527	36	51	--
11...	0845	608	82	135	--
12...	--	391	33	35	--
JUN					
20...	0900	138	18	6.7	--
JUL					
20...	0845	98	17	4.5	--
AUG					
07...	0900	2170	122	715	--
08...	0845	274	38	28	--
22...	0700	91	20	4.9	--
SEP					
07...	0830	82	14	3.1	--

01594500 WESTERN BRANCH NEAR LARGO, MD

LOCATION.--Lat 38°52'24", long 76°47'54", Prince Georges County, Hydrologic Unit 02060006, on right bank 200 ft upsteam from culvert on State Highway 202, 200 ft downstream from small tributary, 0.1 mi upstream from Southwest Branch, 2.3 mi southeast of Largo, 4.8 mi northwest of Upper Marlboro, and 11 mi upstream from mouth.

DRAINAGE AREA.--30.2 mi^2.

PERIOD OF RECORD.--October 1994 to September 1995.

WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TEMPER-ATURE AIR (DEG C)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3
AUG 1995												
17...	1045	1.5	454	7.3	25.0	27.0	150	41	11	31	7.5	110

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS NO3)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
AUG 1995											
17...	24	46	0.10	12	261	6.6	0.020	1.50	1.50	28	78

01594526 WESTERN BRANCH AT UPPER MARLBORO, MD

LOCATION.--Lat 38°48'50", long 76°44'50", Prince Georges County, Hydrologic Unit 02060006, on left bank 1000 ft upstream from bridge on Water street, 0.2 mi south of Upper Marlboro, and 4.7 mi upstream from mouth.

DRAINAGE AREA.--89.7 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1985 to April 1989, April 1992 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 5 ft above sea level, from topographic map.

REMARKS.--Water-discharge records good.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar. 9	1215	*1,600	*11.16	No other peak greater than base discharge.			

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	28	35	82	61	145	43	114	23	48	9.1	3.2
2	32	59	32	61	56	90	42	143	22	77	8.6	3.0
3	28	29	29	45	50	71	42	99	128	39	7.6	3.0
4	25	28	28	39	62	64	42	59	70	194	7.2	2.6
5	24	26	174	34	67	59	39	61	34	198	6.4	2.7
6	23	24	111	41	62	61	38	45	26	87	39	2.7
7	22	24	64	448	55	55	39	36	26	225	34	2.7
8	22	24	46	178	49	200	39	32	21	305	13	2.6
9	21	24	39	91	e46	1340	38	24	19	72	8.9	2.5
10	30	37	55	75	44	529	42	54	17	57	7.6	2.5
11	24	36	132	60	49	150	40	160	20	66	7.1	2.1
12	25	28	72	57	63	109	43	71	106	39	6.4	2.1
13	22	26	51	51	54	89	188	42	63	32	6.0	2.5
14	22	26	44	47	48	79	83	62	36	28	5.7	6.3
15	22	27	40	72	48	73	55	63	23	22	59	4.1
16	21	26	37	116	132	68	47	39	18	19	17	2.5
17	20	27	48	73	155	63	41	38	15	17	7.6	110
18	21	30	46	56	107	57	39	251	14	22	6.0	27
19	20	36	39	51	85	55	39	555	14	15	4.7	9.4
20	21	29	35	575	77	54	37	230	13	13	4.3	6.1
21	21	79	34	471	75	64	37	76	13	14	3.9	5.1
22	20	102	34	131	63	63	36	46	12	33	3.6	31
23	96	57	34	91	59	56	33	34	34	19	3.3	68
24	80	36	34	74	57	52	69	28	480	13	3.3	14
25	39	31	49	64	50	48	47	25	277	15	3.2	19
26	30	28	40	58	49	47	37	41	76	11	3.0	41
27	26	29	35	55	49	46	34	30	50	11	3.0	34
28	23	81	33	55	217	47	32	23	40	14	3.2	16
29	22	57	32	62	---	47	29	57	36	22	3.3	11
30	22	43	31	62	---	47	104	60	31	26	3.6	8.1
31	22	---	31	61	---	45	---	30	---	11	3.2	---
TOTAL	878	1137	1544	3436	1989	3973	1474	2628	1757	1764	301.8	446.8
MEAN	28.3	37.9	49.8	111	71.0	128	49.1	84.8	58.6	56.9	9.74	14.9
MAX	96	102	174	575	217	1340	188	555	480	305	59	110
MIN	20	24	28	34	44	45	29	23	12	11	3.0	2.1
CFSM	.32	.42	.56	1.24	.79	1.43	.55	.95	.65	.63	.11	.17
IN.	.36	.47	.64	1.42	.82	1.65	.61	1.09	.73	.73	.13	.19

e Estimated

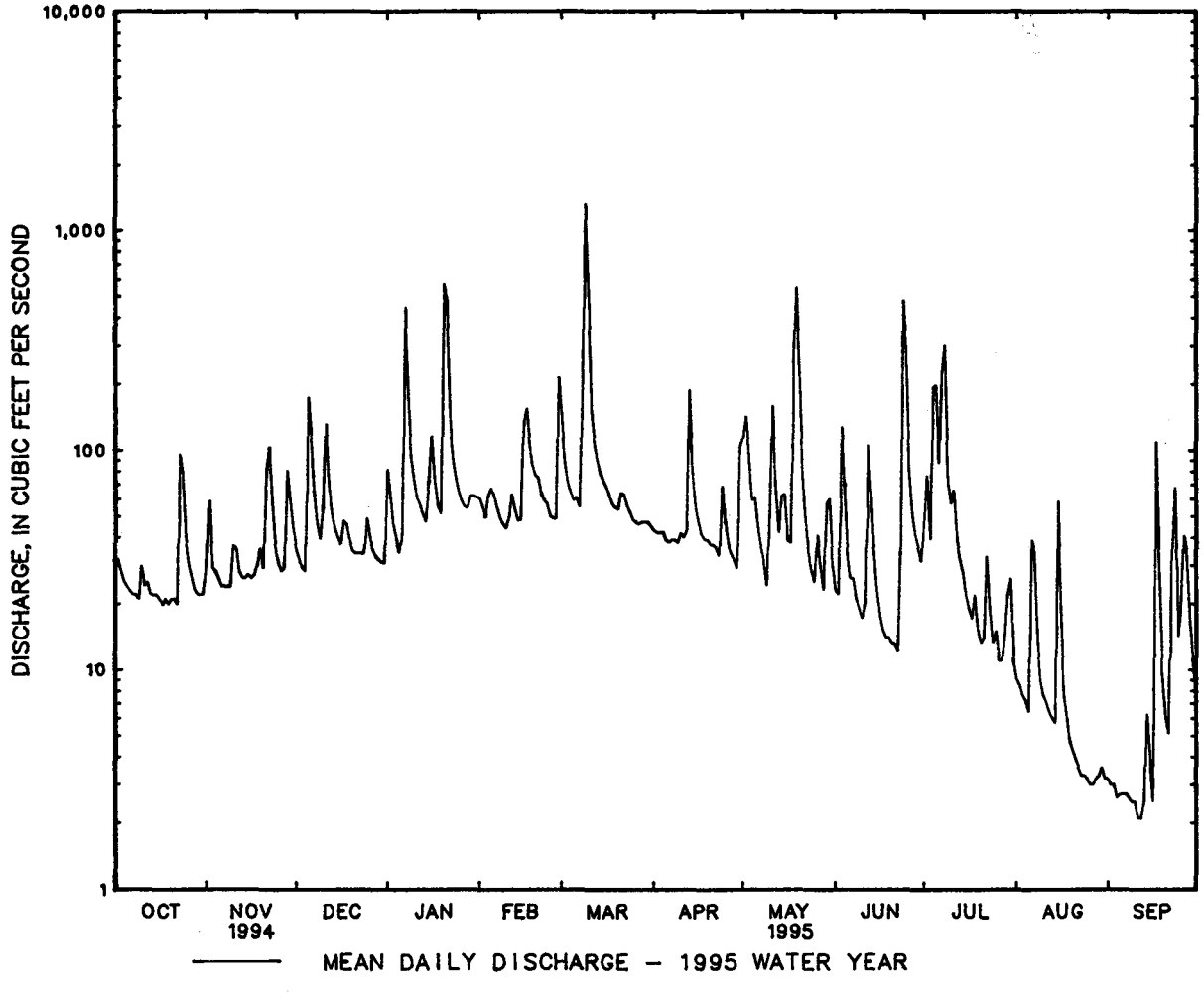
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1986 - 1989, 1992 - 1995, BY WATER YEAR (WY)

MEAN	29.9	78.9	88.3	107	123	192	107	72.1	35.0	45.2	39.2	33.6
MAX	70.5	95.2	146	171	220	445	191	122	58.6	94.2	95.5	58.2
(WY)	1986	1986	1987	1994	1994	1994	1993	1988	1995	1994	1994	1994
MIN	10.9	37.9	38.4	54.5	71.0	76.8	49.1	23.3	9.42	12.3	9.74	9.35
(WY)	1987	1995	1989	1986	1995	1986	1995	1986	1986	1987	1995	1986

01594526 WESTERN BRANCH AT UPPER MARLBORO, MD--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1986 - 1989, 1992 - 1995	
ANNUAL TOTAL	43495		21328.6			
ANNUAL MEAN	119		58.4		81.3	
HIGHEST ANNUAL MEAN					128	1994
LOWEST ANNUAL MEAN					54.8	1986
HIGHEST DAILY MEAN	2100	Mar 3	1340	Mar 9	2100	Mar 3 1994
LOWEST DAILY MEAN	15	Jun 22	2.1	(a)	2.1	(a)
ANNUAL SEVEN-DAY MINIMUM	17	Sep 8	2.4	Sep 7	2.4	Sep 7 1995
INSTANTANEOUS PEAK FLOW			1600	Mar 9	2930	Mar 3 1994
INSTANTANEOUS PEAK STAGE			11.16	Mar 9	12.80	Mar 3 1994
INSTANTANEOUS LOW FLOW			1.9	(a)	1.9	(a)
ANNUAL RUNOFF (CFSM)	1.33		.65		.91	
ANNUAL RUNOFF (INCHES)	18.04		8.85		12.32	
10 PERCENT EXCEEDS	233		103		168	
50 PERCENT EXCEEDS	56		38		46	
90 PERCENT EXCEEDS	21		6.8		9.8	

a Sept. 11, 12, 1995.



01594526 WESTERN BRANCH AT UPPER MARLBORO, MD--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1986 to current year.

REMARKS.--Water-quality records available through September 1994 only at time of publication.

WATER QUALITY DATA, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TEMPER-ATURE AIR (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, CHEM-ICAL (LOW LEVEL) (MG/L)
OCT 1993									
05...	1230	9.7	307	7.6	18.0	18.0	--	9.9	--
19...	1120	13	282	7.5	16.0	17.0	--	9.3	--
26...	1330	14	261	6.8	12.0	17.0	6.8	--	10
NOV									
30...	1030	133	204	7.5	7.0	6.0	--	9.4	--
DEC									
15...	1123	48	270	8.6	6.0	8.0	--	10.5	--
20...	1400	54	250	6.4	5.0	8.0	15	--	<10
JAN 1994									
08...	0329	416	--	--	--	--	--	--	--
08...	0946	568	--	--	--	--	--	--	--
08...	1528	583	--	--	--	--	--	--	--
08...	2124	515	--	--	--	--	--	--	--
09...	0550	278	--	--	--	--	--	--	--
12...	1421	385	--	--	--	--	--	--	12
13...	1010	236	269	6.7	2.0	4.0	--	12.6	--
25...	0033	400	--	--	--	--	--	--	--
25...	1035	252	--	--	--	--	--	--	--
26...	0331	326	--	--	--	--	--	--	--
26...	1157	375	--	--	--	--	--	--	--
26...	2355	194	--	--	--	--	--	--	--
28...	1911	660	--	--	--	--	--	--	--
28...	2349	797	--	--	--	--	--	--	--
29...	0343	886	--	--	--	--	--	--	--
29...	0733	845	--	--	--	--	--	--	--
29...	1815	389	--	--	--	--	--	--	--
30...	0547	212	--	--	--	--	--	--	--
FEB									
16...	0005	149	--	--	--	--	22	--	<10
16...	2234	295	--	--	--	--	110	--	<10
18...	0124	335	--	--	--	--	--	--	--
18...	1543	212	--	--	--	--	--	--	--
18...	2318	495	--	--	--	--	--	--	--
19...	0723	321	--	--	--	--	--	--	--
19...	1731	555	--	--	--	--	--	--	--
19...	2250	627	--	--	--	--	--	--	--
20...	0419	577	--	--	--	--	--	--	--
20...	1049	420	--	--	--	--	--	--	--
22...	1415	221	311	6.4	5.0	12.0	31	--	<10
23...	1510	819	--	--	--	--	750	--	<10
23...	1850	957	--	--	--	--	300	--	<10
23...	2200	1160	--	--	--	--	210	--	<10
24...	0040	1320	--	--	--	--	170	--	<10
24...	0320	1330	--	--	--	--	140	--	10
24...	0601	1270	--	--	--	--	120	--	<10
24...	0840	1230	--	--	--	--	120	--	<10
24...	1125	1170	--	--	--	--	120	--	<10
24...	1413	1130	--	--	--	--	130	--	<10
24...	1714	1060	--	--	--	--	110	--	<10
24...	2214	938	--	--	--	--	91	--	<10
25...	0202	813	--	--	--	--	81	--	<10
25...	0636	643	--	--	--	--	81	--	<10
25...	0920	526	242	6.9	3.0	5.0	--	11.5	--

01594526 WESTERN BRANCH AT UPPER MARLBORO, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	ALKA-LINITY WAT WH TOT IT FIELD MG/L AS CACO3	SILICA, DIS-SOLVED (MG/L AS SIO2)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS NO3)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)
OCT 1993								
05...	--	--	12	<2	1.1	0.006	0.260	0.260
19...	--	--	11	<2	0.30	0.003	0.070	0.070
26...	6.8	65	13	8	0.16	0.004	0.040	0.040
NOV								
30...	--	--	8.9	36	1.8	0.010	0.410	0.410
DEC								
15...	--	--	14	5	1.6	0.008	0.370	0.370
20...	0.5	39	13	3	1.9	0.008	0.440	0.440
JAN 1994								
08...	--	--	--	--	--	--	--	--
08...	--	--	--	--	--	--	--	--
08...	--	--	--	--	--	--	--	--
08...	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--
12...	--	--	10	7	--	--	0.700	0.700
13...	--	--	--	38	--	--	--	--
25...	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--
FEB								
16...	--	--	10	411	3.9	0.024	0.900	0.900
16...	--	--	8.1	34	3.1	0.022	0.720	0.720
18...	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--
22...	1.4	24	9.4	46	3.2	0.009	0.730	0.730
23...	--	--	5.1	1030	--	--	0.590	0.590
23...	--	--	4.9	660	--	--	0.520	0.520
23...	--	--	4.7	370	--	--	0.510	0.510
24...	--	--	4.9	250	--	--	0.510	0.510
24...	--	--	5.1	210	--	--	0.560	0.560
24...	--	--	5.3	315	--	--	0.560	0.560
24...	--	--	5.6	295	--	--	0.650	0.650
24...	--	--	5.8	310	--	--	0.640	0.640
24...	--	--	6.0	144	--	--	0.640	0.640
24...	--	--	5.8	144	--	--	0.650	0.650
24...	--	--	6.2	86	--	--	0.640	0.640
25...	--	--	6.6	98	--	--	0.690	0.690
25...	--	--	7.1	118	--	--	0.710	0.710
25...	--	--	--	74	--	--	--	--

01594526 WESTERN BRANCH AT UPPER MARLBORO, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DISSOLVED (MG/L AS C)
OCT 1993								
05...	0.036	--	--	0.060	0.030	0.019	4.9	4.3
19...	0.010	--	--	0.060	0.030	0.024	5.3	4.6
26...	<0.008	0.36	0.23	0.070	0.040	0.016	5.2	5.5
NOV								
30...	0.048	--	--	0.120	0.020	0.010	7.8	5.6
DEC								
15...	0.094	--	--	0.050	0.020	0.012	4.4	3.5
20...	0.067	0.29	0.22	0.060	<0.010	0.015	1.1	--
JAN 1994								
08...	--	--	--	--	--	--	--	--
08...	--	--	--	--	--	--	--	--
08...	--	--	--	--	--	--	--	--
08...	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--
12...	--	0.69	0.56	0.440	0.020	--	4.4	--
13...	--	--	--	0.110	0.020	--	6.2	4.0
25...	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--
FEB								
16...	0.991	4.1	3.3	0.120	0.020	0.004	5.1	--
16...	0.874	4.4	3.4	0.550	0.020	0.009	6.6	6.1
18...	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--
22...	0.260	0.79	0.60	0.120	0.020	0.012	5.2	4.6
23...	0.224	5.0	0.50	3.50	<0.010	0.017	12	6.9
23...	0.228	5.2	0.54	2.10	<0.010	0.010	9.8	8.6
23...	0.207	1.7	0.49	1.00	<0.010	0.012	8.6	8.1
24...	0.199	1.3	0.48	0.700	<0.010	0.010	7.9	8.2
24...	0.200	1.3	0.48	0.540	0.010	0.010	7.5	7.1
24...	0.204	1.0	0.48	0.370	0.020	0.012	12	6.4
24...	0.216	0.96	0.42	0.280	<0.010	0.009	7.1	6.5
24...	0.255	0.85	0.48	0.190	<0.010	0.010	14	12
24...	0.266	1.2	0.65	0.300	<0.010	0.012	7.4	--
24...	0.269	1.2	0.68	0.340	<0.010	0.011	3.8	1.8
24...	0.268	1.1	0.58	0.210	<0.010	0.010	6.7	6.1
25...	0.264	0.89	0.60	0.230	<0.010	0.011	6.2	--
25...	0.262	1.0	0.55	0.260	<0.010	0.009	6.0	6.1
25...	--	--	--	0.150	0.030	--	8.2	4.4

01594526 WESTERN BRANCH AT UPPER MARLBORO, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TEMPER-ATURE AIR (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, CHEM-ICAL (LOW LEVEL) (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)
MAR 1994										
02...	2355	1010	--	--	--	--	460	--	<10	--
03...	0254	1180	--	--	--	--	330	--	<10	--
03...	0534	1480	--	--	--	--	250	--	<10	--
03...	0814	2050	--	--	--	--	160	--	<10	--
03...	1053	2610	--	--	--	--	140	--	<10	--
03...	1333	2880	--	--	--	--	110	--	<10	--
03...	1958	2290	--	--	--	--	76	--	<10	--
04...	0024	2150	--	--	--	--	75	--	<10	--
04...	0450	1850	--	--	--	--	76	--	<10	--
10...	1115	721	--	--	--	--	200	--	--	--
10...	1445	837	--	--	--	--	200	--	<10	--
10...	1914	936	--	--	--	--	120	--	<10	--
10...	2337	965	--	--	--	--	97	--	<10	--
11...	0403	920	--	--	--	--	91	--	<10	--
14...	1040	146	234	7.4	8.0	16.0	--	10.9	--	--
17...	1330	105	--	--	--	--	10	--	<10	0.8
27...	1935	755	--	--	--	--	210	--	52	--
28...	0625	1380	--	--	--	--	360	--	54	--
28...	0925	1620	128	7.6	8.5	12.0	--	9.6	--	--
28...	2209	2200	--	--	--	--	140	--	91	--
29...	1126	1790	--	--	--	--	120	--	80	--
APR										
11...	1005	154	233	7.4	12.5	15.0	--	9.3	--	--
19...	0830	100	236	6.7	14.0	23.0	6.4	--	<10	0.5
25...	0935	72	246	7.4	16.0	22.0	--	10.1	--	--
MAY										
09...	0930	123	231	7.4	13.0	18.0	--	9.3	--	--
23...	0920	42	256	7.7	16.5	29.0	--	10.0	--	--
24...	1200	38	262	7.2	19.0	25.0	6.9	--	17	0.9
JUN										
07...	0919	22	281	7.4	22.0	25.0	--	9.0	--	--
15...	0915	17	296	7.2	23.0	31.0	8.6	--	<10	0.9
21...	0755	16	279	7.2	23.0	24.0	--	6.5	--	--
JUL										
05...	0805	32	263	7.2	23.5	25.0	--	6.9	--	--
20...	0820	54	231	7.4	25.0	30.0	--	6.9	--	--
27...	0730	224	--	--	--	--	240	--	18	--
27...	1300	164	155	6.6	23.0	26.0	110	--	19	--
28...	0523	395	--	--	--	--	340	--	37	--
28...	1011	901	--	--	--	--	230	--	35	--
28...	1600	1280	--	--	--	--	150	--	23	--
29...	0015	1100	--	--	--	--	130	--	17	--
AUG										
04...	0904	39	260	7.3	24.5	--	--	7.1	--	--
12...	0115	443	--	--	--	--	480	--	15	--
12...	0700	600	--	--	--	--	330	--	19	--
22...	1005	48	252	7.5	23.0	22.0	--	7.4	--	--
SEP										
06...	0930	19	298	7.6	19.0	23.0	--	9.9	--	--
19...	0844	23	292	7.4	19.0	23.0	--	7.8	--	--
20...	1210	20	268	7.3	19.0	23.0	--	--	--	--
20...	1215	20	268	7.3	19.0	23.0	6.2	--	<10	2.7
23...	0130	677	--	--	--	--	500	--	<10	--
23...	0630	650	--	--	--	--	210	--	10	--

01594526 WESTERN BRANCH AT UPPER MARLBORO, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT WH TOT IT FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
MAR 1994								
02...	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--	--
APR								
11...	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	33	--	--
25...	--	--	--	--	--	--	--	--
MAY								
09...	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	47	--	--
JUN								
07...	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	64	--	--
21...	--	--	--	--	--	--	--	--
JUL								
05...	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	28	--	--
28...	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--	--
AUG								
04...	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--
SEP								
06...	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--
20...	92	30	4.1	12	4.2	60	18	28
20...	--	--	--	--	--	60	--	--
23...	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--

01594526 WESTERN BRANCH AT UPPER MARLBORO, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	RESIDUE TOTAL AT 105 DEG. C, SUSPENDED (MG/L)	NITROGEN, NITRATE DISSOLVED (MG/L AS NO3)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)
MAR 1994									
02...	--	4.5	--	950	2.9	0.013	0.670	0.670	0.191
03...	--	4.1	--	1010	2.6	0.012	0.610	0.610	0.186
03...	--	3.9	--	455	2.4	0.012	0.550	0.550	0.192
03...	--	3.4	--	350	2.1	0.011	0.490	0.490	0.179
03...	--	3.4	--	500	2.3	0.010	0.520	0.520	0.161
03...	--	3.9	--	110	2.2	0.011	0.510	0.510	0.166
03...	--	4.5	--	70	2.4	0.009	0.560	0.560	0.176
04...	--	4.5	--	50	2.4	0.006	0.540	0.540	0.177
04...	--	4.9	--	50	2.6	0.005	0.590	0.590	0.203
10...	--	6.0	--	235	2.8	0.010	0.650	0.650	0.137
10...	--	5.8	--	365	2.6	0.010	0.590	0.590	0.150
10...	--	6.0	--	172	2.6	0.010	0.600	0.600	0.123
10...	--	6.2	--	124	2.6	0.009	0.600	0.600	0.114
11...	--	6.4	--	96	--	<0.002	0.630	0.630	0.109
14...	--	--	--	5	--	--	--	--	--
17...	--	13	--	8	13	0.008	2.90	2.90	0.076
27...	--	6.2	--	430	2.0	0.010	0.460	0.460	0.099
28...	--	5.6	--	550	1.9	0.009	0.440	0.440	0.084
28...	--	--	--	248	--	--	--	--	--
28...	--	5.6	--	118	2.1	0.018	0.500	0.500	0.070
29...	--	6.2	--	100	2.3	0.017	0.530	0.530	0.063
APR									
11...	--	--	--	10	--	--	--	--	--
19...	--	11	--	13	2.1	0.008	0.480	0.480	0.013
25...	--	--	--	5	--	--	--	--	--
MAY									
09...	--	--	--	15	--	--	--	--	--
23...	--	--	--	3	--	--	--	--	--
24...	--	13	--	10	2.1	0.005	0.490	0.490	0.024
JUN									
07...	--	--	--	10	--	--	--	--	--
15...	--	16	--	5	2.0	0.017	0.470	0.470	0.167
21...	--	--	--	9	--	--	--	--	--
JUL									
05...	--	--	--	9	--	--	--	--	--
20...	--	--	--	17	--	--	--	--	--
27...	--	5.8	--	505	2.4	0.026	0.560	0.560	0.075
27...	--	8.0	--	134	1.9	0.020	0.450	0.450	0.070
28...	--	5.2	--	655	2.0	0.019	0.480	0.480	0.094
28...	--	5.3	--	305	2.0	0.018	0.470	0.470	0.102
28...	--	5.7	--	140	1.9	0.015	0.440	0.440	0.085
29...	--	6.1	--	96	1.6	0.013	0.380	0.380	0.062
AUG									
04...	--	--	--	11	--	--	--	--	--
12...	--	9.4	--	890	2.4	0.024	0.560	0.560	0.094
12...	--	5.0	--	540	2.7	0.028	0.640	0.640	0.127
22...	--	--	--	4	--	--	--	--	--
SEP									
06...	--	--	--	9	--	--	--	--	--
19...	--	--	--	2	--	--	--	--	--
20...	0.30	10	174	--	1.1	0.010	0.260	0.260	--
20...	--	11	--	16	1.2	0.034	0.310	0.310	0.010
23...	--	4.4	--	670	1.5	0.012	0.350	0.350	0.080
23...	--	4.6	--	315	1.5	0.012	0.360	0.360	0.064

01594526 WESTERN BRANCH AT UPPER MARLBORO, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DISSOLVED (MG/L AS C)
MAR 1994									
02...	3.9	0.64	2.80	<0.010	0.017	--	--	6.5	5.8
03...	2.1	0.65	1.30	<0.010	0.015	--	--	6.4	4.9
03...	1.5	0.58	0.900	<0.010	0.015	--	--	6.2	5.5
03...	1.4	0.57	0.590	<0.010	0.017	--	--	6.1	5.0
03...	1.0	0.46	0.420	<0.010	0.015	--	--	5.8	5.5
03...	0.97	0.59	0.340	<0.010	0.015	--	--	5.8	5.0
03...	1.4	1.0	0.200	<0.010	0.017	--	--	5.8	--
04...	1.0	0.81	0.100	<0.010	0.017	--	--	5.7	5.2
04...	1.4	0.95	0.170	<0.010	0.017	--	--	5.7	5.1
10...	1.5	0.35	1.10	0.040	0.014	--	--	6.9	--
10...	1.7	0.41	1.20	0.060	0.015	--	--	7.6	5.7
10...	1.1	0.41	0.610	0.030	0.015	--	--	4.9	--
10...	0.74	0.39	0.360	0.030	0.012	--	--	4.3	4.3
11...	0.67	0.34	0.250	0.030	0.011	--	--	3.9	3.7
14...	--	--	0.050	0.020	--	--	--	3.7	3.0
17...	0.26	0.14	0.040	<0.010	0.009	--	--	2.5	2.7
27...	1.8	0.50	1.00	0.020	0.014	--	--	6.9	5.3
28...	2.0	0.47	1.20	0.020	0.017	--	--	8.2	5.7
28...	--	--	0.570	0.040	--	--	--	15	5.7
28...	0.70	0.22	0.330	0.050	0.017	--	--	8.0	6.4
29...	0.59	0.38	0.270	0.030	0.018	--	--	7.3	--
APR									
11...	--	--	0.060	0.020	--	--	--	5.1	4.1
19...	0.27	0.12	0.040	<0.010	0.011	--	--	3.1	--
25...	--	--	0.040	0.020	--	--	--	3.9	3.2
MAY									
09...	--	--	0.080	0.030	--	--	--	6.0	4.9
23...	--	--	0.050	0.020	--	--	--	4.0	3.5
24...	0.18	0.24	0.020	<0.010	0.013	--	--	4.5	--
JUN									
07...	--	--	0.060	0.030	--	--	--	4.1	3.6
15...	0.57	0.32	0.080	0.010	0.012	--	--	4.8	--
21...	--	--	0.090	0.040	--	--	--	6.6	5.7
JUL									
05...	--	--	0.080	0.050	--	--	--	7.1	6.2
20...	--	--	0.100	0.060	--	--	--	7.6	6.5
27...	1.5	0.50	0.630	0.040	0.022	--	--	8.1	8.0
27...	--	0.52	--	0.040	0.027	--	--	8.1	7.6
28...	1.7	0.47	1.10	0.040	0.024	--	--	15	8.9
28...	1.4	0.57	0.700	0.040	0.022	--	--	13	9.0
28...	1.0	0.44	0.440	0.030	0.018	--	--	9.8	8.0
29...	0.84	0.44	0.280	0.040	0.021	--	--	9.9	8.5
AUG									
04...	--	--	0.100	0.050	--	--	--	7.3	6.1
12...	3.1	0.50	2.00	0.060	0.028	--	--	--	--
12...	1.9	0.70	1.10	0.040	0.026	--	--	--	--
22...	--	--	0.100	0.060	--	--	--	6.8	5.8
SEP									
06...	--	--	0.080	0.030	--	--	--	5.9	4.4
19...	--	--	0.060	0.030	--	--	--	6.0	5.1
20...	--	--	--	--	--	21	60	--	--
20...	0.40	0.38	0.080	0.080	0.018	--	--	5.6	5.8
23...	1.9	0.35	1.40	0.050	0.031	--	--	5.9	6.2
23...	1.0	0.37	0.700	0.030	0.024	--	--	7.6	6.7

01594526 WESTERN BRANCH AT UPPER MARLBORO, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

SUSPENDED SEDIMENT DISCHARGE

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
OCT 1993				
26...	1330	14	7	0.26
DEC				
20...	1400	54	12	1.7
JAN 1994				
08...	0329	416	364	409
08...	0946	568	263	403
08...	1528	583	202	318
08...	2124	515	148	206
09...	0550	278	100	75
12...	1421	385	230	239
25...	0033	400	198	214
25...	1035	252	89	61
26...	0331	326	273	240
26...	1157	375	247	250
26...	2355	194	132	69
28...	1911	660	1040	1850
28...	2349	797	568	1220
29...	0343	886	407	974
29...	0733	845	271	618
29...	1815	389	345	362
30...	0547	212	262	150
FEB				
16...	0005	149	45	18
16...	2234	295	237	189
18...	0124	335	210	190
18...	1543	212	164	94
18...	2318	495	387	517
19...	0723	321	213	185
19...	1731	555	840	1260
19...	2250	627	499	845
20...	0419	577	284	442
20...	1049	420	219	248
22...	1415	221	70	42
23...	1510	819	2590	5730
23...	1850	957	1030	2660
23...	2200	1160	684	2140
24...	0040	1320	354	1260
24...	0320	1330	258	924
24...	0601	1270	205	703
24...	0840	1230	169	563
24...	1125	1170	165	523
24...	1413	1130	204	624
24...	1714	1060	213	610
24...	2214	938	121	306
25...	0202	813	122	268
25...	0636	643	130	226

01594526 WESTERN BRANCH AT UPPER MARLBORO, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

SUSPENDED SEDIMENT DISCHARGE

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
MAR 1994				
02...	2355	1010	1470	4010
03...	0254	1180	963	3070
03...	0534	1480	403	1610
03...	0814	2050	237	1310
03...	1053	2610	203	1430
03...	1333	2880	138	1070
03...	1958	2290	107	662
04...	0024	2150	80	465
04...	0450	1850	86	430
10...	1115	721	729	1420
10...	1445	837	559	1260
10...	1914	936	307	776
10...	2337	965	166	433
11...	0403	920	128	318
17...	1330	105	12	3.4
27...	1935	755	516	1050
28...	0625	1380	562	2090
28...	2209	2200	141	837
29...	1126	1790	124	600
APR				
19...	0830	100	11	3.0
MAY				
24...	1200	38	6	0.62
JUN				
15...	0915	17	11	0.50
JUL				
27...	0730	224	439	266
27...	1300	164	146	65
28...	0523	395	613	654
28...	1011	901	402	978
28...	1600	1280	171	591
29...	0015	1100	114	339
AUG				
12...	0115	443	994	1190
12...	0700	600	582	943
SEP				
20...	1215	20	15	0.81
23...	0130	677	854	1560
23...	0630	650	399	700

01594670 HUNTING CREEK NEAR HUNTINGTOWN, MD

LOCATION.--Lat 38°35'02", long 76°36'20", Calvert County, Hydrologic Unit 02060006, on right bank at downstream side of bridge on MD Rte. 263, 200 ft east of intersection of MD Rte. 4, 2.4 mi south of Huntingtown, and 0.1 mi upstream from Sewell Branch.

DRAINAGE AREA.--9.38 mi^2.

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder and timber control. Elevation of gage is 10 ft above sea level, from topographic map.

REMARKS.--Water-discharge records good above 1.0 ft^3/s and poor below due to leakage around and under control.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 250 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
July 11	0945	*88	*6.82	No peak greater than base discharge.			

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.0	5.4	5.8	6.0	8.2	8.0	6.8	11	2.0	5.2	e.37	e.00
2	5.6	6.0	5.5	5.5	7.4	5.9	6.6	20	1.9	13	e.32	e.00
3	5.5	5.0	5.5	4.9	6.1	5.3	6.6	13	12	4.6	e.29	e.00
4	5.2	4.8	5.5	4.9	17	4.9	6.6	8.1	7.0	8.0	e.28	e.00
5	5.0	4.8	14	4.1	14	5.1	6.2	11	3.6	6.9	e.27	e.00
6	4.8	4.9	9.9	4.2	6.2	5.4	6.0	7.9	2.9	4.6	e.32	e.00
7	4.6	5.3	7.0	34	5.2	5.3	6.4	6.1	3.3	4.8	e.29	e.00
8	4.6	4.9	5.7	14	5.9	10	6.2	5.5	2.4	12	e.28	.00
9	4.5	4.8	5.2	8.3	5.2	51	6.1	5.3	1.8	5.3	e.29	.00
10	4.5	5.7	6.3	6.9	5.9	16	6.1	10	1.7	3.9	.29	.00
11	4.2	6.3	9.7	6.3	7.6	12	6.0	14	2.0	49	.31	.00
12	4.1	5.3	7.0	6.2	7.3	11	6.8	7.5	5.9	9.5	.28	.00
13	4.1	4.9	5.6	6.1	4.9	9.7	28	5.9	4.6	3.7	.23	.00
14	4.3	4.9	5.3	5.9	5.4	9.5	11	7.8	3.6	2.7	.19	.00
15	4.5	4.9	5.2	11	6.1	9.3	7.8	7.9	2.4	2.3	.24	.00
16	4.3	4.8	5.1	14	15	9.1	6.9	5.5	1.7	1.8	.32	.00
17	4.1	6.1	6.2	7.8	14	8.7	6.5	5.2	1.2	1.7	.24	.10
18	4.1	8.8	6.4	6.6	9.0	8.1	6.6	7.6	.86	21	.21	.04
19	4.2	8.7	5.4	6.7	7.6	8.0	6.6	16	.75	3.8	.17	.03
20	4.3	6.1	5.1	40	7.7	8.0	6.0	8.1	.65	2.2	.16	.04
21	4.4	13	5.0	24	7.2	12	6.5	5.4	e.54	1.8	.15	.00
22	4.3	25	5.0	13	6.0	11	6.3	4.9	e.47	1.8	.14	.09
23	6.2	9.0	5.1	10	6.8	8.3	5.7	4.0	5.6	1.8	.12	.12
24	8.0	6.5	5.1	9.1	6.6	7.9	14	3.2	21	1.5	.10	.12
25	5.3	5.9	5.5	11	5.1	7.1	9.0	3.1	26	1.4	.08	.15
26	4.7	5.7	5.1	8.0	5.2	7.1	6.5	4.7	14	1.2	.01	.47
27	5.3	5.8	4.8	7.0	5.1	7.1	5.9	3.9	5.2	e.95	.01	.35
28	4.9	13	4.8	7.2	9.8	7.1	5.5	3.5	5.0	e.86	.02	.23
29	4.6	8.8	4.8	8.0	---	7.1	5.1	4.8	4.2	e.72	e.06	.16
30	4.7	6.6	4.7	8.0	---	7.3	12	3.6	3.5	e.58	e.01	.15
31	4.8	---	4.6	8.5	---	7.2	---	2.6	---	e.45	e.00	---
TOTAL	149.7	211.7	185.9	317.2	217.5	299.5	232.3	227.1	147.77	179.06	6.05	2.05
MEAN	4.83	7.06	6.00	10.2	7.77	9.66	7.74	7.33	4.93	5.78	.20	.068
MAX	8.0	25	14	40	17	51	28	20	26	49	.37	.47
MIN	4.1	4.8	4.6	4.1	4.9	4.9	5.1	2.6	.47	.45	.00	.00
CFSM	.51	.75	.64	1.09	.83	1.03	.83	.78	.53	.62	.02	.01
IN.	.59	.84	.74	1.26	.86	1.19	.92	.90	.59	.71	.02	.01

e Estimated

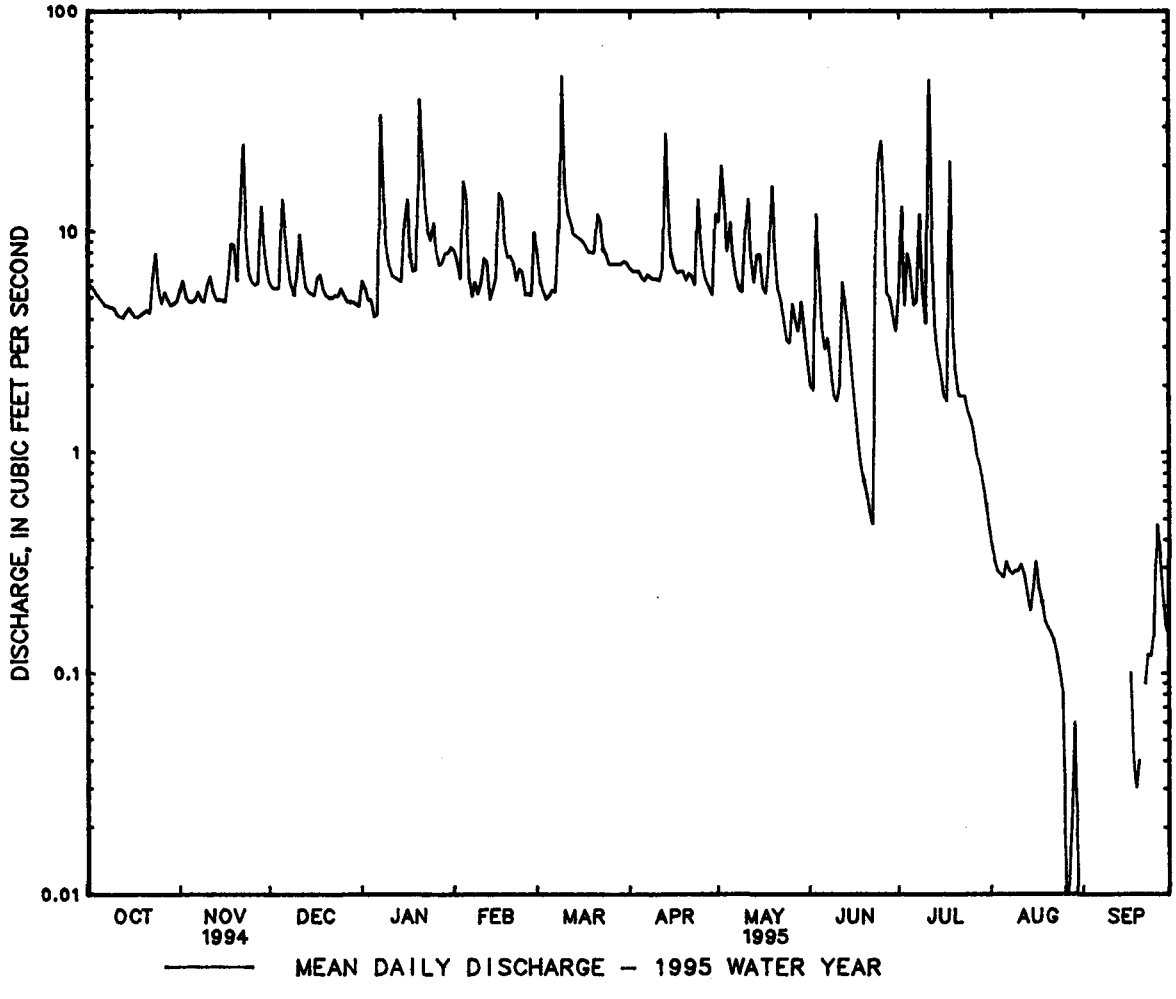
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 1995, BY WATER YEAR (WY)

MEAN	4.15	6.36	7.70	11.6	11.3	21.4	16.6	15.6	11.8	7.38	5.55	4.74
MAX	10.3	11.4	12.8	18.6	22.8	45.5	27.4	28.8	31.0	24.0	14.2	12.8
(WY)	1990	1990	1993	1990	1994	1994	1993	1990	1989	1989	1990	1994
MIN	.52	1.43	3.80	4.77	5.54	9.66	7.74	6.82	2.19	.93	.20	.068
(WY)	1989	1992	1989	1992	1992	1995	1995	1992	1991	1993	1995	1995

01594670 HUNTING CREEK NEAR HUNTINGTOWN, MD--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1989 - 1995	
ANNUAL TOTAL	5120.6		2175.83			
ANNUAL MEAN	14.0		5.96		10.3	
HIGHEST ANNUAL MEAN					14.7	1990
LOWEST ANNUAL MEAN					5.79	1992
HIGHEST DAILY MEAN	274	Mar 3	51	Mar 9	274	Mar 3 1994
LOWEST DAILY MEAN	2.2	(a)	.00	(b)	.00	(c)
ANNUAL SEVEN-DAY MINIMUM	2.4	Sep 10	.00	Aug 31	.00	Aug 27 1993
INSTANTANEOUS PEAK FLOW			88	Jul 11	568	Jun 15 1990
INSTANTANEOUS PEAK STAGE			6.82	Jul 11	9.54	Jun 15 1990
INSTANTANEOUS LOW FLOW			.00	(d)	.00	(f)
ANNUAL RUNOFF (CFSM)	1.50		.64		1.10	
ANNUAL RUNOFF (INCHES)	20.31		8.63		14.99	
10 PERCENT EXCEEDS	27		11		22	
50 PERCENT EXCEEDS	7.0		5.3		6.6	
90 PERCENT EXCEEDS	3.3		.15		.68	

a Sept. 13, 14.
b Aug. 31, Sept. 1-16, 21.
c Sept. 12, 16, 17, 19-23, 1991, Aug. 31, Sept. 1-16, 21, 1995.
d Aug. 26, 27, 31, Sept. 1-16, 21, 22.
f Sept. 10-24, 1991, Aug. 26, 27, 31, Sept. 1-16, 21, 22, 1995.



01594670 HUNTING CREEK NEAR HUNTINGTOWN, MD--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1986, 1988 to current year.

REMARKS.--Water-quality data available through September 1994 only at time of publication.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TEMPER-ATURE AIR (DEG C)	TUR-BID-ITY (NTU)	OXYGEN DEMAND, CHEM-ICAL (LOW LEVEL) (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	ALKA-LINITY WAT WH TOT IT FIELD MG/L AS CACO3	SILICA, DIS-SOLVED (MG/L AS SIO2)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L)
OCT 1993												
26...	1015	1.2	163	6.5	11.0	16.0	11	<10	6.4	34	17	5
DEC												
20...	1240	4.9	144	6.2	4.0	8.0	6.4	<10	0.5	28	13	1
JAN 1994												
24...	1745	9.3	219	7.3	1.0	4.0	7.5	<10	0.5	22	13	5
FEB												
17...	1030	21	152	6.3	0.5	6.0	7.5	<10	0.5	18	11	9
23...	1257	55	--	--	--	--	24	<10	--	--	9.4	37
23...	1600	119	--	--	--	--	54	<10	--	--	8.6	46
23...	1754	155	--	--	--	--	58	<10	--	--	12	39
23...	1930	167	--	--	--	--	54	<10	--	--	7.7	19
23...	2106	169	--	--	--	--	46	<10	--	--	7.9	20
23...	2242	169	--	--	--	--	37	<10	--	--	8.3	20
24...	0018	160	--	--	--	--	33	<10	--	--	8.6	14
24...	0212	140	--	--	--	--	30	10	--	--	8.8	20
24...	1042	90	--	--	--	--	21	<10	--	--	9.6	17
24...	1406	80	--	--	--	--	19	<10	--	--	9.6	12
MAR												
02...	1424	40	--	--	--	--	6.7	<10	--	--	12	7
02...	1900	110	--	--	--	--	22	<10	--	--	9.8	20
03...	0945	333	--	--	--	--	54	<10	--	--	8.3	35
03...	1100	282	--	--	--	--	50	<10	--	--	7.7	26
03...	1215	240	--	--	--	--	45	<10	--	--	8.1	20
03...	1330	208	--	--	--	--	39	<10	--	--	8.6	14
03...	1455	182	--	--	--	--	35	<10	--	--	9.0	12
03...	1630	161	--	--	--	--	32	<10	--	--	9.4	10
03...	1942	132	--	--	--	--	24	<10	--	--	2.6	9
03...	2200	118	--	--	--	--	20	<10	--	--	16	5
04...	0036	105	--	--	--	--	18	<10	--	--	13	3
04...	0330	93	--	--	--	--	16	<10	--	--	14	2
04...	0648	81	--	--	--	--	13	<10	--	--	12	2
10...	0536	38	--	--	--	--	6.8	<10	--	--	8.8	11
10...	1500	54	--	--	--	--	8.8	<10	--	--	13	11
10...	2227	53	--	--	--	--	9.3	<10	--	--	13	8
16...	1215	23	120	7.0	8.0	6.0	4.4	<10	0.8	18	14	1
27...	1730	53	--	--	--	--	12	57	--	--	--	9
28...	0405	73	--	--	--	--	13	18	--	--	--	8
28...	0930	125	--	--	--	--	45	18	--	--	9.6	20
28...	1205	135	--	--	--	--	30	71	--	--	10	22
28...	1455	151	--	--	--	--	39	66	--	--	10	24
28...	2040	135	--	--	--	--	32	12	--	--	11	18
APR												
18...	0900	21	131	6.5	12.0	14.0	4.6	<10	0.5	29	13	4
MAY												
23...	1215	9.1	145	6.6	19.0	28.0	9.5	10	1.8	38	14	10
JUN												
14...	1000	4.1	177	6.7	23.0	29.0	21	15	1.3	54	19	2
30...	0530	37	--	--	--	--	48	25	--	--	14	41
JUL												
03...	1945	28	--	--	--	--	--	--	--	--	--	--
04...	0030	80	--	--	--	--	--	--	--	--	--	--
04...	0430	54	--	--	--	--	--	--	--	--	--	--
04...	1030	37	--	--	--	--	--	--	--	--	--	--
27...	0800	21	122	6.4	22.0	22.0	32	13	--	28	15	22

01594670 HUNTING CREEK NEAR HUNTINGTOWN, MD

WATER-QUALITY DATA, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	NITROGEN, NITRATE DISSOLVED (MG/L AS NO3)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DISSOLVED (MG/L AS C)
OCT 1993												
26...	0.12	0.003	0.030	0.030	0.057	0.40	0.35	0.070	0.010	0.014	6.3	6.2
DEC												
20...	0.55	0.005	0.130	0.130	0.021	0.25	0.29	0.030	0.010	0.010	1.4	--
JAN 1994												
24...	1.3	0.005	0.300	0.300	0.078	0.25	0.23	0.030	<0.010	0.008	2.5	2.7
FEB												
17...	1.3	0.004	0.300	0.300	0.087	0.65	0.46	0.020	<0.010	0.007	2.7	--
23...	--	--	0.200	0.200	0.051	0.41	0.26	0.070	0.030	<0.004	4.1	--
23...	--	--	0.200	0.200	0.091	0.57	0.49	0.120	<0.010	0.004	5.7	--
23...	--	--	0.200	0.200	0.085	0.55	0.38	0.140	<0.010	0.004	6.3	--
23...	--	--	0.200	0.200	0.082	0.47	0.32	0.110	<0.010	0.004	6.4	--
23...	--	--	0.200	0.200	0.064	0.42	0.31	0.090	<0.010	0.008	6.4	--
23...	--	--	0.200	0.200	0.059	0.36	0.27	0.080	<0.010	0.007	6.7	--
24...	--	--	0.200	0.200	0.062	0.34	0.26	0.100	<0.010	0.007	6.7	--
24...	--	--	0.200	0.200	0.133	0.34	0.22	0.060	<0.010	0.010	6.7	7.1
24...	--	--	0.210	0.210	0.029	0.38	0.31	0.120	<0.010	0.009	5.0	--
24...	--	--	0.200	0.200	0.404	0.42	0.40	0.040	<0.010	0.078	7.1	--
MAR												
02...	1.1	0.006	0.260	0.260	0.032	0.20	<0.10	<0.010	<0.010	0.009	2.6	3.0
02...	1.4	0.004	0.310	0.310	0.051	0.22	0.16	0.040	<0.010	0.011	3.9	3.9
03...	1.1	0.006	0.260	0.260	0.035	0.30	0.14	0.090	<0.010	0.013	5.3	5.7
03...	1.1	0.006	0.250	0.250	0.034	0.45	0.24	0.080	<0.010	0.013	5.5	5.4
03...	1.1	0.006	0.260	0.260	0.033	0.39	0.50	0.070	<0.010	0.012	5.3	--
03...	1.2	0.010	0.270	0.270	0.028	0.37	0.29	0.090	<0.010	0.013	5.2	5.6
03...	1.1	0.006	0.250	0.250	0.027	1.7	0.36	0.060	<0.010	0.012	5.1	--
03...	1.1	0.006	0.260	0.260	0.023	0.36	0.37	0.050	<0.010	0.011	4.8	--
03...	1.3	0.002	0.300	0.300	0.021	0.45	0.45	0.040	<0.010	0.011	4.6	--
03...	1.2	0.002	0.270	0.270	0.018	0.76	0.19	0.030	<0.010	0.010	4.3	--
04...	0.08	0.002	0.020	0.020	0.020	0.81	0.80	0.020	<0.010	0.009	4.1	--
04...	--	<0.002	0.220	0.220	0.017	0.67	0.58	0.040	0.010	0.009	4.1	--
04...	1.0	0.002	0.230	0.230	0.200	0.67	0.52	<0.010	<0.010	0.008	3.8	--
10...	0.96	0.003	0.220	0.220	0.017	0.15	0.12	0.040	0.020	0.007	2.0	--
10...	0.83	0.003	0.190	0.190	0.012	0.19	0.18	0.060	0.020	0.007	2.2	--
10...	0.70	0.011	0.170	0.170	0.011	0.17	0.13	0.040	0.020	0.007	2.3	--
16...	0.38	0.004	0.090	0.090	0.008	0.15	<0.10	0.030	<0.010	0.006	3.1	3.2
27...	0.39	0.003	0.090	0.090	0.020	0.44	0.30	0.040	<0.010	0.009	4.5	--
28...	0.42	0.004	0.100	0.100	0.023	0.34	0.25	0.030	<0.010	0.008	4.5	4.5
28...	0.73	0.005	0.170	0.170	0.033	0.48	0.34	0.110	<0.010	0.008	5.5	5.0
28...	0.85	0.009	0.200	0.200	0.019	0.24	0.14	0.090	0.010	0.009	5.8	--
28...	0.75	0.010	0.180	0.180	0.020	0.23	0.17	0.070	0.020	0.008	5.6	--
28...	0.66	0.010	0.160	0.160	0.018	0.26	0.15	0.070	0.020	0.008	6.0	--
APR												
18...	0.37	0.006	0.090	0.090	0.033	0.31	0.18	0.020	<0.010	0.012	4.2	4.3
MAY												
23...	0.59	0.006	0.140	0.140	0.038	0.29	0.21	0.020	<0.010	0.017	8.0	--
JUN												
14...	0.62	0.009	0.150	0.150	0.054	0.87	0.44	0.100	0.040	0.034	7.9	8.1
30...	0.76	0.008	0.180	0.180	0.033	0.27	0.01	0.020	0.050	0.024	9.4	9.6
JUL												
03...	--	--	--	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--	--	--	--
27...	0.47	0.003	0.110	0.110	0.034	0.54	0.34	0.190	0.040	0.028	8.1	8.0

01594670 HUNTING CREEK NEAR HUNTINGTOWN, MD

WATER-QUALITY DATA, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

SUSPENDED SEDIMENT DISCHARGE

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
OCT 1993				
26...	1015	1.2	6	0.02
DEC				
20...	1240	4.9	1	0.01
JAN 1994				
24...	1745	9.3	2	0.05
FEB				
17...	1030	21	3	0.17
23...	1257	55	59	8.8
23...	1600	119	62	20
23...	1754	155	63	26
23...	1930	167	55	25
23...	2106	169	42	19
23...	2242	169	40	18
24...	0018	160	26	11
24...	0212	140	26	9.8
24...	1042	90	26	6.3
24...	1406	80	18	3.9
MAR				
02...	1424	40	3	0.32
02...	1900	110	17	5.0
03...	0945	333	29	26
03...	1100	282	22	17
03...	1215	240	26	17
03...	1330	208	21	12
03...	1455	182	17	8.4
03...	1630	161	16	7.0
03...	1942	132	17	6.1
03...	2200	118	11	3.5
04...	0036	105	9	2.6
04...	0330	93	8	2.0
04...	0648	81	6	1.3
10...	0536	38	9	0.92
10...	1500	54	11	1.6
10...	2227	53	10	1.4
16...	1215	23	3	0.19
27...	1730	53	16	2.3
28...	0405	73	13	2.6
28...	0930	125	34	11
28...	1205	135	23	8.4
28...	1455	151	22	9.0
28...	2040	135	16	5.8
APR				
18...	0900	21	5	0.28
MAY				
23...	1215	9.1	7	0.17
JUN				
14...	1000	4.1	19	0.21
30...	0530	37	56	5.6
JUL				
03...	1945	28	153	12
04...	0030	80	89	19
04...	0430	54	40	5.8
04...	1030	37	31	3.1
27...	0800	21	32	1.8

01594710 KILLPECK CREEK AT HUNTERSVILLE, MD

LOCATION.--Lat 38°28'37", long 76°44'08", St Marys County, Hydrologic Unit 02060006, on left bank at private footbridge, 600 ft upstream from culvert on All Faith Church Road, 0.65 mi north of Huntersville, and 2.3 mi upstream from mouth.

DRAINAGE AREA.--3.26 mi^2.

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WRD MD-DE-95: Drainage area.

GAGE.--Water-stage recorder and concrete block control. Elevation of gage is 50 ft above sea level, from topographic map.

REMARKS.--Water-discharge records good except those for estimated daily discharges (backwater from leaves), which are fair.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 20	0515	*83	*3.55	No peak greater than base discharge.			

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.0	3.1	2.3	2.5	3.2	3.4	3.0	3.7	1.1	1.2	.49	.29
2	2.0	2.1	2.2	2.2	3.0	3.1	3.1	9.5	1.2	1.1	.49	.33
3	2.0	1.8	2.2	2.0	2.7	3.0	2.9	4.6	4.3	.96	.47	.30
4	2.0	1.8	2.2	2.0	5.9	2.9	2.9	3.8	1.9	1.2	.47	.30
5	1.9	1.7	4.5	1.8	3.5	2.6	2.9	3.9	1.4	1.2	.46	.28
6	1.8	e1.6	2.6	3.0	2.8	2.8	2.9	3.2	1.4	1.4	.63	.22
7	1.8	e1.6	2.4	11	2.8	2.9	2.7	2.9	1.3	1.4	.53	.25
8	1.8	e1.6	2.1	3.6	2.7	12	2.6	2.8	1.1	2.8	.49	.33
9	1.8	2.0	2.0	3.0	2.8	9.5	2.6	2.7	1.1	1.1	.49	.30
10	2.1	2.6	2.7	2.6	2.6	4.5	2.6	4.3	1.1	1.1	.49	.44
11	1.8	e2.2	2.8	2.6	2.6	3.9	2.4	5.3	2.0	8.5	.47	.26
12	1.6	e2.0	2.3	2.5	2.5	3.6	4.4	3.2	2.7	1.7	.46	.30
13	1.6	e1.9	2.4	2.3	2.6	3.4	8.5	2.8	1.9	1.2	.44	.26
14	2.3	e1.9	2.4	2.2	2.8	3.3	3.7	4.8	1.6	.96	.49	.23
15	1.8	e1.9	2.4	3.6	3.0	3.4	3.2	3.6	1.2	.87	1.1	.22
16	1.6	e1.9	2.4	2.8	4.7	3.4	3.0	2.7	1.0	.81	.44	.44
17	e1.5	e2.6	3.0	2.4	4.1	3.3	2.7	2.9	.95	.85	.37	1.5
18	e1.5	3.2	2.7	2.3	3.7	3.1	2.6	3.2	1.0	1.0	.31	.47
19	e1.4	2.6	2.6	2.3	3.4	3.1	2.6	5.6	.96	.69	.30	.42
20	e1.4	2.4	2.4	17	3.1	3.0	2.5	2.8	.88	.62	.31	.42
21	e1.4	7.5	2.4	5.3	2.9	4.2	2.9	2.2	.90	.75	.31	.44
22	e1.7	4.0	2.4	3.9	2.9	3.4	2.6	1.6	1.1	.86	.33	2.0
23	3.2	2.9	2.4	3.7	3.3	3.1	2.4	1.5	3.2	.71	.32	.75
24	2.0	2.6	2.5	3.6	3.0	3.2	6.5	1.5	5.4	.69	.29	.59
25	1.9	2.3	2.6	3.3	2.9	3.1	3.6	1.5	2.2	.81	.28	.94
26	2.6	2.2	2.4	3.1	2.9	3.1	3.0	2.0	1.7	.63	.29	.71
27	e2.2	3.1	2.3	2.9	2.9	3.1	2.8	1.7	1.6	.57	.31	.57
28	e1.9	3.6	2.2	2.9	4.3	3.0	2.6	1.8	1.6	.86	.31	.54
29	e1.8	2.6	2.1	3.2	---	2.9	2.4	1.9	1.6	.55	.30	.49
30	e1.7	2.4	2.0	3.1	---	2.9	5.8	1.4	1.4	.52	.29	.49
31	e1.8	---	2.1	3.2	---	2.9	---	1.2	---	.49	.29	---
TOTAL	57.9	75.7	76.0	111.9	89.6	115.1	98.4	96.6	50.79	38.10	13.02	15.08
MEAN	1.87	2.52	2.45	3.61	3.20	3.71	3.28	3.12	1.69	1.23	.42	.50
MAX	3.2	7.5	4.5	17	5.9	12	8.5	9.5	5.4	8.5	1.1	2.0
MIN	1.4	1.6	2.0	1.8	2.5	2.6	2.4	1.2	.88	.49	.28	.22
CFSM	.57	.77	.75	1.11	.98	1.14	1.01	.96	.52	.38	.13	.15
IN.	.66	.86	.87	1.28	1.02	1.31	1.12	1.10	.58	.43	.15	.17

e Estimated

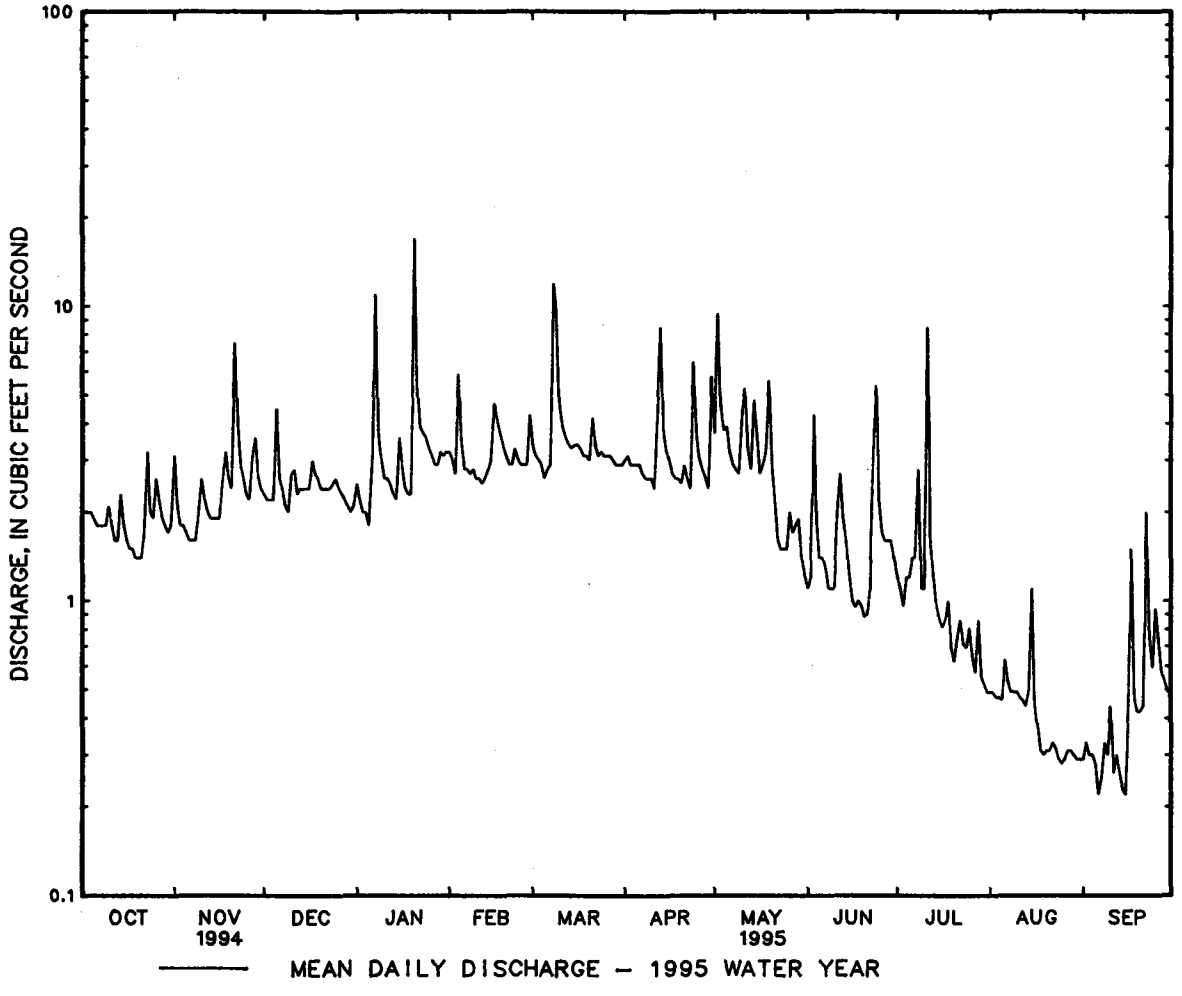
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1986 - 1995, BY WATER YEAR (WY)

MEAN	2.20	3.16	3.66	4.51	4.81	6.70	5.24	4.58	3.12	2.31	2.01	1.99
MAX	4.83	7.20	5.92	6.60	8.07	14.1	7.81	9.43	8.10	6.05	4.49	5.46
(WY)	1990	1986	1987	1990	1994	1994	1994	1990	1990	1989	1990	1992
MIN	.83	.94	2.09	2.45	2.27	3.71	2.97	1.93	.98	.76	.42	.50
(WY)	1989	1992	1989	1992	1992	1995	1992	1986	1986	1991	1995	1995

01594710 KILLPECK CREEK AT HUNTERSVILLE, MD--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1986 - 1995	
ANNUAL TOTAL	1767.69		838.19			
ANNUAL MEAN	4.84		2.30		3.68	
HIGHEST ANNUAL MEAN					5.33	1990
LOWEST ANNUAL MEAN					2.30	1995
HIGHEST DAILY MEAN	80	Mar 3	17	Jan 20	86	Mar 4 1993
LOWEST DAILY MEAN	.99	Sep 15	.22	(a)	.22	(a)
ANNUAL SEVEN-DAY MINIMUM	1.1	Sep 10	.28	Sep 1	.28	Sep 1 1995
INSTANTANEOUS PEAK FLOW			83	Jan 20	255	May 29 1990
INSTANTANEOUS PEAK STAGE			3.55	Jan 20	5.50	May 29 1990
INSTANTANEOUS LOW FLOW			.13	(b)	.13	(b)
ANNUAL RUNOFF (CFSM)	1.49		.70		1.13	
ANNUAL RUNOFF (INCHES)	20.17		9.56		15.36	
10 PERCENT EXCEEDS	8.6		3.6		6.9	
50 PERCENT EXCEEDS	3.0		2.2		2.7	
90 PERCENT EXCEEDS	1.6		.45		.76	

a Sept. 6, 15, 1995.
b Sept. 14-16, 1995.



01594710 KILLPECK CREEK AT HUNTERSVILLE, MD--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1986 to current year.

REMARKS.--Water-quality data available through September 1994 only at time of publication.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TEMPER-ATURE AIR (DEG C)	TUR-BID-ITY (NTU)	OXYGEN DEMAND, CHEM-ICAL (LOW LEVEL) (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
OCT 1993												
25...	1030	1.1	165	6.7	10.0	16.0	1.9	<10	6.3	--	--	--
DEC												
20...	1030	2.9	168	6.4	4.0	4.0	4.2	<10	0.5	--	--	--
JAN 1994												
24...	1630	6.5	204	7.0	3.0	10.0	49	20	3.3	--	--	--
28...	1545	36	--	--	--	--	--	--	--	--	--	--
28...	1624	30	--	--	--	--	--	--	--	--	--	--
28...	1724	22	--	--	--	--	--	--	--	--	--	--
FEB												
17...	1245	5.4	149	7.3	4.0	11.0	21	<10	0.8	--	--	--
23...	1100	68	--	--	--	--	750	<10	--	--	--	--
23...	1230	98	--	--	--	--	540	14	--	--	--	--
23...	1418	138	--	--	--	--	410	13	--	--	--	--
23...	1434	145	--	--	--	--	310	14	--	--	--	--
23...	1524	154	--	--	--	--	290	11	--	--	--	--
23...	1621	136	--	--	--	--	270	10	--	--	--	--
23...	1836	36	--	--	--	--	220	10	--	--	--	--
24...	0130	14	--	--	--	--	74	<10	--	--	--	--
24...	1330	19	--	--	--	--	76	<10	--	--	--	--
MAR												
02...	1436	55	--	--	--	--	230	13	--	--	--	--
02...	1609	88	--	--	--	--	240	10	--	--	--	--
02...	1824	58	--	--	--	--	160	10	--	--	--	--
02...	1954	73	--	--	--	--	160	11	--	--	--	--
02...	2124	110	--	--	--	--	460	10	--	--	--	--
02...	2224	155	--	--	--	--	380	13	--	--	--	--
02...	2300	185	--	--	--	--	350	15	--	--	--	--
03...	0142	185	--	--	--	--	310	11	--	--	--	--
16...	0945	7.2	144	6.4	7.0	6.0	8.8	<10	0.5	--	--	--
28...	0430	96	--	--	--	--	500	91	--	--	--	--
28...	1015	98	--	--	--	--	550	86	--	--	--	--
28...	1345	39	--	--	--	--	170	88	--	--	--	--
29...	0005	24	--	--	--	--	72	16	--	--	--	--
29...	0430	30	--	--	--	--	70	52	--	--	--	--
29...	0840	35	--	--	--	--	80	13	--	--	--	--
APR												
18...	1345	7.2	137	6.5	16.0	14.0	6.4	<10	0.5	--	--	--
MAY												
23...	1015	3.6	153	6.8	14.0	25.0	7.5	<10	1.8	--	--	--
JUN												
14...	1300	1.8	163	6.6	20.0	24.0	5.6	<10	0.8	--	--	--
16...	1145	16	--	--	--	--	--	--	--	--	--	--
23...	1930	15	--	--	--	--	--	--	--	--	--	--
JUL												
27...	1115	2.4	168	6.6	22.0	24.0	8.5	<10	--	--	--	--
SEP												
14...	1000	1.1	202	7.0	17.0	26.0	5.6	<10	2.0	--	--	--
14...	1005	1.3	202	7.0	17.0	26.0	--	--	--	47	14	3.0
22...	1715	64	--	--	--	--	460	41	--	--	--	--
22...	2000	119	--	--	--	--	280	20	--	--	--	--
22...	2205	86	--	--	--	--	230	21	--	--	--	--
26...	2030	20	--	--	--	--	280	22	--	--	--	--

01594710 KILLPECK CREEK AT HUNTERSVILLE, MD--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1993 TO SEPTEMBER 19934

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT WH TOT IT FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS NO3)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)
OCT 1993											
25...	--	--	34	--	--	--	12	--	4	5.3	0.005
DEC											
20...	--	--	27	--	--	--	11	--	3	6.6	0.005
JAN 1994											
24...	--	--	20	--	--	--	7.5	--	55	5.7	0.014
28...	--	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--	--
FEB											
17...	--	--	17	--	--	--	8.6	--	16	4.8	0.008
23...	--	--	--	--	--	--	4.3	--	680	--	--
23...	--	--	--	--	--	--	3.2	--	1360	--	--
23...	--	--	--	--	--	--	3.2	--	1560	--	--
23...	--	--	--	--	--	--	3.0	--	810	--	--
23...	--	--	--	--	--	--	3.0	--	410	--	--
23...	--	--	--	--	--	--	3.2	--	560	--	--
23...	--	--	--	--	--	--	4.3	--	1180	--	--
24...	--	--	--	--	--	--	6.6	--	152	--	--
24...	--	--	--	--	--	--	6.0	--	156	--	--
MAR											
02...	--	--	--	--	--	--	4.1	--	700	5.7	0.008
02...	--	--	--	--	--	--	3.4	--	895	2.1	0.007
02...	--	--	--	--	--	--	3.9	--	270	2.0	0.006
02...	--	--	--	--	--	--	3.6	--	430	2.2	0.009
02...	--	--	--	--	--	--	3.0	--	870	1.7	0.007
02...	--	--	--	--	--	--	2.8	--	415	1.4	0.011
02...	--	--	--	--	--	--	2.6	--	240	1.4	0.008
03...	--	--	--	--	--	--	2.4	--	280	1.3	0.007
16...	--	--	17	--	--	--	8.3	--	6	7.1	0.007
28...	--	--	--	--	--	--	3.9	--	720	1.6	0.009
28...	--	--	--	--	--	--	3.6	--	720	1.5	0.008
28...	--	--	--	--	--	--	4.3	--	196	1.6	0.006
29...	--	--	--	--	--	--	6.2	--	92	2.7	0.013
29...	--	--	--	--	--	--	5.8	--	98	2.5	0.013
29...	--	--	--	--	--	--	5.3	--	124	2.7	0.015
APR											
18...	--	--	18	--	--	--	8.5	--	13	8.7	0.025
MAY											
23...	--	--	25	--	--	--	9.9	--	14	7.3	0.014
JUN											
14...	--	--	25	--	--	--	9.8	--	3	7.2	0.011
16...	--	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--	--
JUL											
27...	--	--	29	--	--	--	11	--	12	6.2	0.006
SEP											
14...	--	--	24	--	--	--	10	--	2	12	0.007
14...	14	4.2	24	14	24	<0.10	9.5	119	--	--	<0.010
22...	--	--	--	--	--	--	4.2	--	740	1.2	0.008
22...	--	--	--	--	--	--	3.5	--	425	1.0	0.007
22...	--	--	--	--	--	--	4.3	--	565	1.1	0.006
26...	--	--	--	--	--	--	5.1	--	415	1.8	0.007

01594710 KILLPECK CREEK AT HUNTERSVILLE, MD--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1993 TO SEPTEMBER 19934

DATE	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)
OCT 1993												
25...	1.20	1.20	0.022	0.28	0.24	0.040	0.010	0.026	--	--	3.0	--
DEC												
20...	1.50	1.50	0.039	0.20	0.22	0.030	0.020	0.015	--	--	0.0	--
JAN 1994												
24...	1.30	1.30	0.297	1.2	0.97	0.150	0.040	0.030	--	--	6.9	--
28...	--	--	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--	--	--
FEB												
17...	1.10	1.10	0.108	1.2	0.44	0.050	0.010	0.010	--	--	3.3	--
23...	0.500	0.500	0.091	4.2	0.37	1.90	0.020	0.014	--	--	14	--
23...	0.340	0.340	0.064	5.4	0.47	2.40	0.030	0.017	--	--	13	11
23...	0.310	0.310	0.058	2.6	0.30	1.10	0.030	0.024	--	--	13	--
23...	0.300	0.300	0.060	2.2	0.31	1.00	0.030	0.029	--	--	12	11
23...	0.300	0.300	0.056	2.3	0.89	0.630	0.020	0.029	--	--	12	11
23...	0.300	0.300	0.057	2.1	0.94	0.650	0.030	0.026	--	--	12	9.7
23...	0.420	0.420	0.056	1.9	0.71	0.640	0.050	0.016	--	--	7.4	7.4
24...	0.680	0.680	0.061	1.3	0.66	0.250	<0.010	0.011	--	--	6.6	--
24...	0.590	0.590	0.064	0.66	0.44	0.200	<0.010	0.015	--	--	5.6	--
MAR												
02...	1.30	1.30	0.800	3.3	1.5	0.900	<0.010	0.014	--	--	7.4	5.9
02...	0.480	0.480	1.10	3.1	2.0	0.500	0.020	0.024	--	--	9.9	7.1
02...	0.450	0.450	0.503	2.0	1.3	0.360	0.020	0.026	--	--	7.9	6.4
02...	0.500	0.500	0.900	2.7	1.5	0.530	0.030	0.038	--	--	8.6	7.5
02...	0.390	0.390	0.900	5.0	1.4	1.80	0.030	0.040	--	--	13	7.1
02...	0.330	0.330	0.510	2.2	0.96	0.650	0.050	0.055	--	--	13	7.8
02...	0.320	0.320	0.444	1.7	0.81	0.470	0.030	0.042	--	--	13	7.6
03...	0.300	0.300	0.394	1.7	0.73	0.540	0.030	0.040	--	--	13	7.3
16...	1.60	1.60	0.056	0.24	0.21	0.050	0.020	0.014	--	--	2.3	--
28...	0.380	0.380	0.164	2.8	0.58	1.20	0.040	0.034	--	--	11	10
28...	0.350	0.350	0.228	3.5	0.68	1.40	0.090	0.089	--	--	15	8.6
28...	0.360	0.360	0.125	1.5	0.54	0.430	0.050	0.043	--	--	9.9	8.4
29...	0.630	0.630	0.097	0.72	0.46	0.250	0.050	0.035	--	--	8.0	8.3
29...	0.580	0.580	0.109	1.2	0.50	0.510	0.060	0.044	--	--	8.6	--
29...	0.630	0.630	0.113	0.78	0.51	0.270	0.070	0.048	--	--	8.4	--
APR												
18...	1.98	1.98	0.047	0.32	0.28	0.040	0.010	0.023	--	--	2.7	--
MAY												
23...	1.67	1.67	0.043	0.31	0.21	0.040	<0.010	0.022	--	--	3.6	--
JUN												
14...	1.64	1.64	0.049	0.60	0.30	0.070	0.030	0.032	--	--	3.7	--
16...	--	--	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--	--	--
JUL												
27...	1.40	1.40	0.043	0.41	--	0.090	--	0.038	--	--	4.8	--
SEP												
14...	2.68	2.68	0.022	0.34	0.18	0.050	0.030	0.023	--	--	3.7	4.0
14...	2.40	2.40	--	--	--	--	--	--	84	24	--	--
22...	0.280	0.280	0.054	2.6	0.46	1.30	0.100	0.046	--	--	11	11
22...	0.240	0.240	0.058	1.4	0.48	0.700	0.070	0.043	--	--	12	--
22...	0.250	0.250	0.037	1.2	0.46	0.520	0.060	0.044	--	--	13	--
26...	0.410	0.410	0.052	1.5	0.48	0.530	0.060	0.042	--	--	12	12

01594710 KILLPECK CREEK AT HUNTERSVILLE, MD--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1993 TO SEPTEMBER 19934

SUSPENDED SEDIMENT DISCHARGE

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
OCT 1993				
25...	1030	1.1	1	<0.01
DEC				
20...	1030	2.9	1	0.01
JAN 1994				
24...	1630	6.5	58	1.0
28...	1545	36	1230	120
28...	1624	30	729	59
28...	1724	22	77	4.6
FEB				
17...	1245	5.4	16	0.23
23...	1100	68	3460	635
23...	1230	98	2660	704
23...	1418	138	1520	566
23...	1434	145	989	387
23...	1524	154	880	366
23...	1621	136	1030	378
23...	1836	36	1400	136
24...	0130	14	266	10
24...	1330	19	314	16
MAR				
02...	1436	55	992	147
02...	1609	88	1070	254
02...	1824	58	559	88
02...	1954	73	621	122
02...	2124	110	1490	443
02...	2224	155	689	288
02...	2300	185	464	232
03...	0142	185	377	188
16...	0945	7.2	14	0.27
28...	0430	96	1070	277
28...	1015	98	940	249
28...	1345	39	323	34
29...	0005	24	129	8.4
29...	0430	30	130	11
29...	0840	35	133	13
APR				
18...	1345	7.2	10	0.19
MAY				
23...	1015	3.6	9	0.09
JUN				
14...	1300	1.8	9	0.04
16...	1145	16	509	22
23...	1930	15	814	33
JUL				
27...	1115	2.4	9	0.06
SEP				
14...	1000	1.1	25	0.07
22...	1715	64	1170	202
22...	2000	119	556	179
22...	2205	86	568	132
26...	2030	20	386	21

01594930 LAUREL RUN AT DOBBIN ROAD NEAR WILSON, MD

LOCATION.--Lat 39°14'37", long 79°25'43", Garrett County, Hydrologic Unit 02070002, on left bank at downstream side of bridge (abandoned) on Dobbin Road, 0.6 mi south of intersection of Kempton Road, 1.2 mi from mouth, and 3.0 mi southwest of Wilson.

DRAINAGE AREA.--8.23 mi^2.

PERIOD OF RECORD.--May 1980 to current year.

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 2,600 ft above sea level, from topographic map.

REMARKS.--Records good except those for estimated daily discharges (beaver dam, ice effect), which are fair. Natural flow of stream affected by inflow from deep coal mine dewatering process. Several measurements of water temperature were made during the year. Water-quality records for some prior years have been collected at this location.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 170 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 12	0545	258	4.45	Aug. 6	1100	*684	*8.14
May 14	1100	442	5.86				

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.8	e7.0	16	27	13	47	8.3	16	12	8.8	3.0	3.5
2	5.7	e12	14	29	12	37	7.9	22	27	7.0	2.8	3.4
3	5.5	e7.0	13	24	11	32	7.6	20	27	4.8	2.7	3.3
4	5.1	e5.2	14	20	e11	27	9.2	18	18	4.3	2.6	3.2
5	5.2	e4.6	60	21	e11	24	7.9	18	15	3.9	2.6	3.1
6	e5.0	e4.2	45	20	e10	31	7.7	16	13	4.3	277	3.1
7	e4.7	e4.0	34	62	e10	27	7.1	13	12	4.1	58	3.0
8	e4.4	e3.8	26	38	e9.8	25	7.0	12	12	3.4	28	3.0
9	e4.7	e4.5	28	30	e9.8	23	7.4	11	9.7	3.3	19	2.9
10	e4.3	e7.5	65	25	e9.8	21	8.0	12	9.1	3.3	19	2.9
11	e4.0	7.1	93	23	e9.8	22	8.3	17	8.9	3.1	18	2.8
12	e3.8	5.9	48	32	e9.8	25	8.0	13	12	2.9	12	2.9
13	e3.7	5.4	35	38	e10	25	8.7	11	10	2.9	11	3.0
14	e3.6	5.1	26	34	e11	22	8.9	179	8.3	2.7	25	3.1
15	e3.5	5.1	22	37	17	20	8.1	67	7.4	3.2	13	2.9
16	e3.4	6.3	19	33	148	18	7.8	40	6.6	7.0	13	2.9
17	e3.4	8.3	24	27	48	17	9.3	67	6.2	3.5	11	7.6
18	e3.6	7.1	23	24	38	15	10	91	5.9	3.1	8.4	7.2
19	e3.9	6.5	21	22	36	14	8.8	77	5.5	2.8	7.3	4.7
20	e4.2	6.1	18	48	42	13	8.1	50	5.3	2.7	6.6	3.6
21	e4.4	12	17	35	47	15	8.4	39	4.9	2.7	6.0	3.4
22	e3.8	13	16	30	37	16	7.7	31	4.8	3.1	5.5	3.7
23	e3.5	10	15	26	45	13	7.7	25	4.9	3.1	5.1	4.2
24	e3.3	9.6	15	23	79	12	15	20	6.2	2.8	4.8	3.1
25	e4.0	10	14	20	46	11	19	18	10	2.7	4.6	2.6
26	e3.5	9.4	13	18	38	10	14	16	11	3.1	4.4	2.6
27	e3.2	11	12	16	34	9.6	13	14	6.0	7.8	4.3	2.4
28	e2.9	35	12	16	50	10	12	22	5.1	9.0	4.1	2.3
29	e3.3	24	11	14	---	9.3	11	20	4.8	8.1	4.0	2.2
30	e2.8	18	10	14	---	9.1	16	15	4.8	5.2	3.8	2.2
31	e4.8	---	12	13	---	8.8	---	13	---	3.5	3.6	---
TOTAL	126.0	274.7	791	839	853.0	608.8	287.9	1003	293.4	132.2	590.2	100.8
MEAN	4.06	9.16	25.5	27.1	30.5	19.6	9.60	32.4	9.78	4.26	19.0	3.36
MAX	5.7	35	93	62	148	47	19	179	27	9.0	277	7.6
MIN	2.8	3.8	10	13	9.8	8.8	7.0	11	4.8	2.7	2.6	2.2
CFSM	.49	1.11	3.10	3.29	3.70	2.39	1.17	3.93	1.19	.52	2.31	.41
IN.	.57	1.24	3.58	3.79	3.86	2.75	1.30	4.53	1.33	.60	2.67	.46

e Estimated

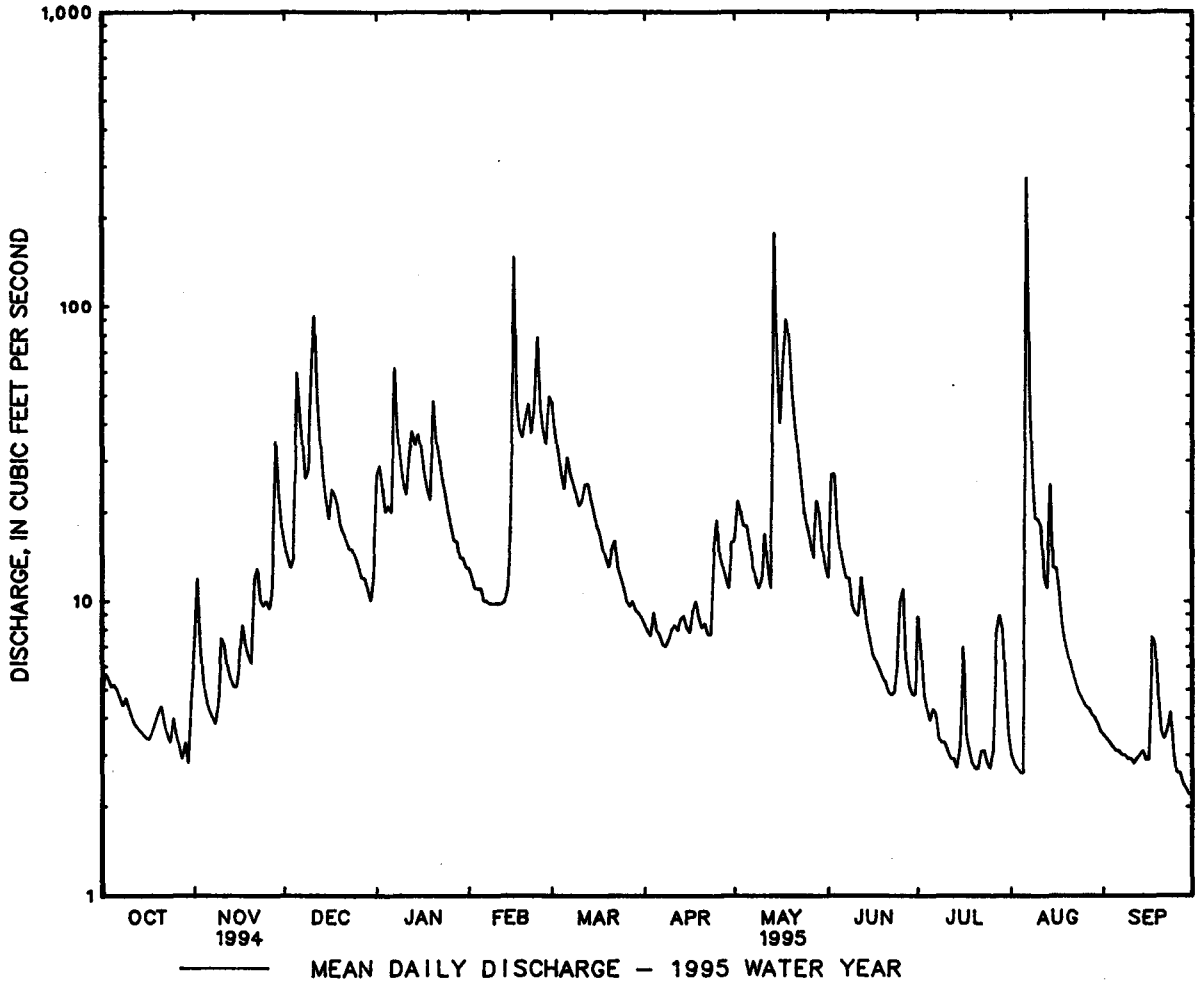
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1980 - 1995, BY WATER YEAR (WY)

MEAN	9.81	24.0	30.8	25.3	36.7	39.5	32.3	27.8	19.1	17.6	11.4	6.95
MAX	20.4	90.8	51.9	44.2	68.5	71.6	61.0	46.9	62.8	42.8	40.2	13.6
(WY)	1990	1986	1985	1994	1994	1994	1984	1983	1981	1992	1980	1987
MIN	3.27	6.21	16.8	8.85	7.24	13.9	9.60	9.35	6.36	2.88	2.30	2.99
(WY)	1992	1992	1990	1981	1993	1990	1995	1991	1991	1988	1993	1991

01594930 LAUREL RUN AT DOBBIN ROAD NEAR WILSON, MD--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1980 - 1995	
ANNUAL TOTAL	10625.4		5900.0			
ANNUAL MEAN	29.1		16.2		23.0	
HIGHEST ANNUAL MEAN					30.5	1994
LOWEST ANNUAL MEAN					16.2	1995
HIGHEST DAILY MEAN	492	Feb 9	277	Aug 6	800	Nov 4 1985
LOWEST DAILY MEAN	(e)2.8	Oct 30	2.2	(a)	(e)1.1	(b)
ANNUAL SEVEN-DAY MINIMUM	3.3	Oct 24	2.5	Sep 24	1.3	Aug 23 1993
INSTANTANEOUS PEAK FLOW			684	Aug 6	(c)863	Nov 5 1985
INSTANTANEOUS PEAK STAGE			8.14	Aug 6	10.10	Nov 5 1985
INSTANTANEOUS LOW FLOW			2.2	Sep 29	UNKNOWN	
ANNUAL RUNOFF (CFSM)	3.54		1.96		2.79	
ANNUAL RUNOFF (INCHES)	48.03		26.67		37.97	
10 PERCENT EXCEEDS	64		35		48	
50 PERCENT EXCEEDS	16		10		15	
90 PERCENT EXCEEDS	5.1		3.1		4.1	

e Estimated
a Sept. 29, 30.
b Aug. 15, 27, 1993.
c From rating curve extended above 450 ft^3/s on basis of runoff comparisons with nearby stations.



01594936 NORTH FORK SAND RUN NEAR WILSON, MD

LOCATION.--Lat 39°15'36", long 79°24'36", Garrett County, Hydrologic Unit 02070002, on right bank, 0.1 mi northwest of Wilson-Corunna Road, 0.1 mi upstream from mouth and 0.8 mi northwest of Wilson.

DRAINAGE AREA.--1.91 mi^2.

PERIOD OF RECORD.--May 1980 to current year.

GAGE.--Water-stage recorder and steel weir plate. Elevation of gage is 2,515 ft above sea level, from topographic map.

REMARKS.--Records good above 0.5 ft^3/s and fair below, except those for estimated daily discharges (backwater), 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 location.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 40 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 16	0345	43	3.28	Aug. 6	0930	*221	*5.20
May 14	0900	132	4.37	Aug. 15	2115	114	4.18
May 18	1330	44	3.30				

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.50	e.90	2.3	5.7	2.8	10	1.9	3.7	2.8	1.1	.47	.53
2	.73	2.1	1.7	6.1	3.0	8.1	1.3	6.2	7.3	1.3	.95	.56
3	.57	.92	1.5	4.1	2.6	6.9	1.0	5.7	7.0	.64	.63	.58
4	.44	.92	1.3	3.8	2.5	5.8	1.9	4.7	3.8	.53	.42	.44
5	.59	.75	12	3.7	1.8	4.7	1.8	4.5	3.1	.47	.34	.38
6	.72	.49	8.2	5.1	1.4	6.4	1.5	3.6	3.0	.46	60	.43
7	.55	.38	5.2	13	1.7	6.2	1.3	3.1	2.7	.46	9.9	.59
8	.56	.47	4.7	7.2	2.1	5.7	1.2	2.9	2.4	.40	5.1	.66
9	.47	.78	4.7	5.5	1.9	5.6	1.1	3.2	1.8	.34	3.1	.58
10	.36	2.3	14	4.7	1.8	4.9	1.4	3.0	1.8	.33	2.4	.43
11	.33	1.2	19	4.6	1.8	5.7	1.7	3.5	1.7	.69	5.0	.30
12	.36	.93	10	7.6	1.2	6.0	2.1	2.8	3.3	.51	4.0	.36
13	.47	.98	7.1	8.7	1.4	5.5	2.6	2.8	2.4	.43	2.6	.56
14	.41	.84	5.2	7.5	1.6	5.0	2.7	39	1.7	.48	3.2	.65
15	.36	.89	4.3	8.7	3.0	4.5	1.9	13	1.3	.94	14	.55
16	.31	1.2	3.8	7.8	23	4.5	1.4	8.6	1.1	3.1	15	.53
17	.27	1.6	5.4	6.5	11	4.1	1.8	14	.98	.73	6.9	2.5
18	.30	.98	4.8	5.7	9.7	3.7	2.5	21	.79	1.1	4.1	.91
19	e.37	1.1	4.2	5.0	9.4	2.8	2.3	17	.73	.64	3.0	.82
20	e.43	.69	3.6	12	12	2.4	2.1	12	.94	.64	2.2	.61
21	e.30	2.4	3.3	8.2	12	3.3	2.1	8.7	.81	.75	1.8	.64
22	e.37	1.7	3.6	6.3	9.1	3.8	1.8	6.6	.75	.84	1.5	.77
23	e.29	1.2	3.1	5.3	12	3.4	1.3	6.1	.94	.50	1.3	.87
24	e.35	1.1	3.1	4.9	15	2.6	3.5	5.1	1.3	.43	1.1	.56
25	e.41	.84	3.1	4.5	10	2.6	5.4	4.2	1.4	.53	.96	.45
26	e.24	.71	2.6	4.1	8.0	2.6	4.0	3.6	1.4	.60	.83	.43
27	e.27	1.0	2.2	3.7	7.4	1.6	3.5	2.8	.74	1.6	.76	.47
28	e.24	7.3	2.1	3.1	11	2.2	3.2	4.9	.74	1.9	.68	.48
29	e.27	4.2	2.0	2.8	---	1.8	2.9	4.3	.60	1.5	.66	.48
30	e.34	2.6	1.7	2.5	---	1.9	3.5	2.9	.55	.83	.62	.51
31	e.26	---	2.0	2.7	---	1.9	---	2.9	---	.56	.59	---
TOTAL	12.44	43.47	151.8	181.1	180.2	136.2	66.7	226.4	59.87	25.33	154.11	18.63
MEAN	.40	1.45	4.90	5.84	6.44	4.39	2.22	7.30	2.00	.82	4.97	.62
MAX	.73	7.3	19	13	23	10	5.4	39	7.3	3.1	60	2.5
MIN	.24	.38	1.3	2.5	1.2	1.6	1.0	2.8	.55	.33	.34	.30
CFSM	.21	.76	2.56	3.06	3.37	2.30	1.16	3.82	1.04	.43	2.60	.33
IN.	.24	.85	2.96	3.53	3.51	2.65	1.30	4.41	1.17	.49	3.00	.36

e Estimated

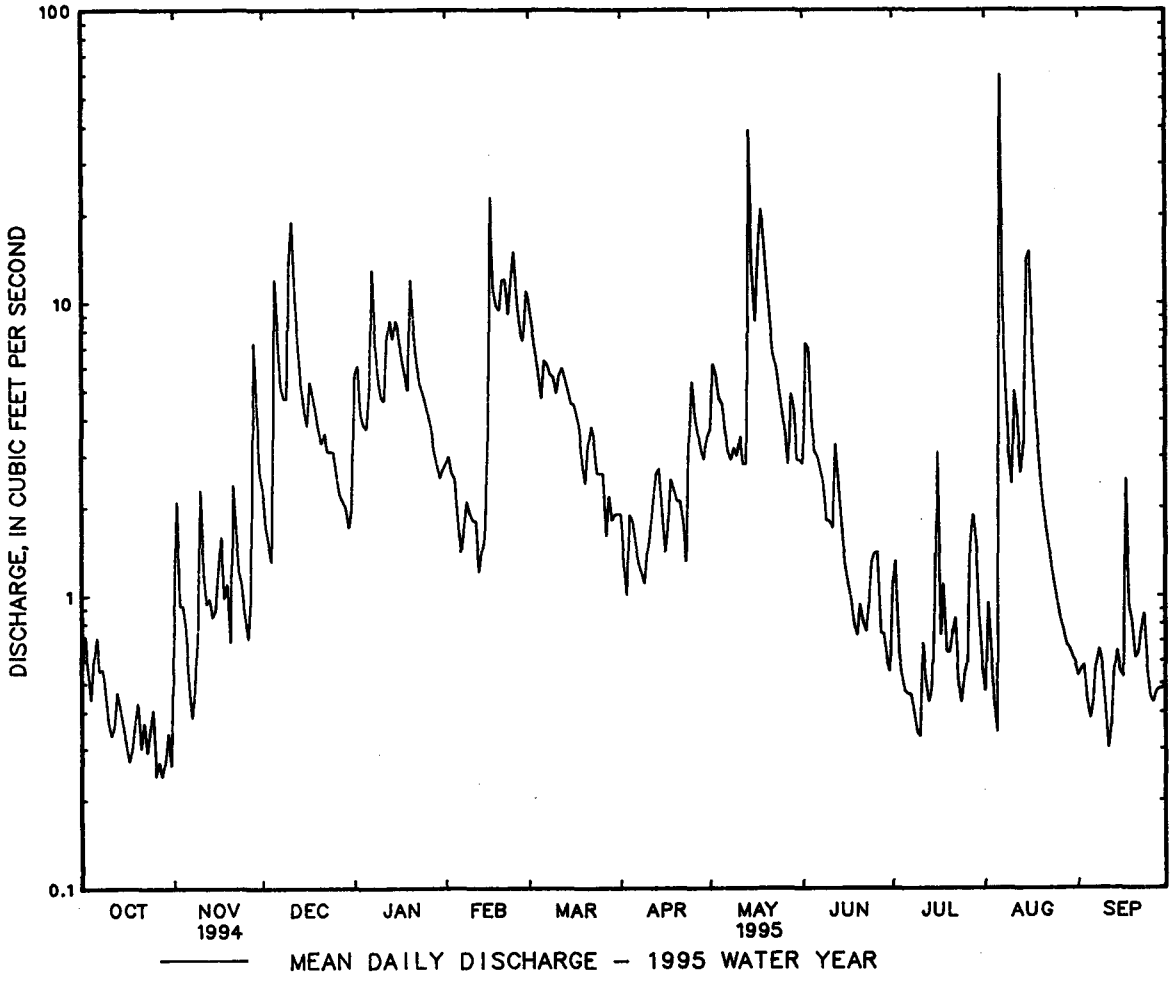
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1980 - 1995, BY WATER YEAR (WY)

MEAN	1.43	4.26	5.78	5.15	7.67	8.49	6.77	5.57	3.37	3.06	1.86	1.16
MAX	3.65	17.5	8.67	9.75	15.9	16.1	13.4	9.25	12.7	8.78	7.91	3.42
(WY)	1990	1986	1991	1991	1986	1994	1984	1988	1981	1992	1980	1981
MIN	.21	.62	2.83	1.29	1.37	2.52	2.22	1.58	.63	.28	.30	.19
(WY)	1992	1992	1990	1981	1993	1990	1995	1991	1991	1988	1983	1991

01594936 NORTH FORK SAND RUN NEAR WILSON, MD--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1980 - 1995	
ANNUAL TOTAL	2075.23		1256.25			
ANNUAL MEAN	5.69		3.44		4.47	
HIGHEST ANNUAL MEAN					6.03	1994
LOWEST ANNUAL MEAN					3.43	1983
HIGHEST DAILY MEAN	141	Feb 9	60	Aug 6	141	Feb 9 1994
LOWEST DAILY MEAN	(e).24	(a)	(e).24	(a)	.09	(b)
ANNUAL SEVEN-DAY MINIMUM	.29	Oct 25	.29	Oct 25	.12	Aug 12 1988
INSTANTANEOUS PEAK FLOW			221	Aug 6	(c)895	May 31 1985
INSTANTANEOUS PEAK STAGE			5.20	Aug 6	10.47	May 31 1985
INSTANTANEOUS LOW FLOW			.25	(d)	.01	(f)
ANNUAL RUNOFF (CFSM)	2.98		1.80		2.34	
ANNUAL RUNOFF (INCHES)	40.42		24.47		31.80	
10 PERCENT EXCEEDS	14		7.9		10	
50 PERCENT EXCEEDS	2.8		1.9		2.7	
90 PERCENT EXCEEDS	.58		.44		.43	

e Estimated.
a Oct. 26, 28.
b Aug. 22, 1985, Aug. 24, 1993.
c From rating curve extended above 90 ft^3/s on basis of contracted-opening measurement of peak flow.
d Oct. 18, Sept. 11, 12.
f July 18 and Aug. 9, 1988, result of beaver activity upstream.



01594950 MCMILLAN FORK NEAR FORT PENDLETON, MD

LOCATION.--Lat 39°16'36", long 79°23'26", Garrett County, Hydrologic Unit 02070002, on left bank upstream side of culvert on private driveway off Wilson-Corunna Road, 1.7 mi southwest of Fort Pendleton, 1.0 mi south of Bayard, WV, and 200 ft upstream from mouth.

DRAINAGE AREA.--2.30 mi^2.

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder and sacrete bag control. Datum of gage is 2,441.94 ft above sea level (Garrett County bench mark).

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

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 40 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 16	0215	81	3.11	Aug. 6	0915	*307	*5.91
May 14	0900	138	4.05	Aug. 15	2115	107	3.58
May 18	1245	49	2.45				

REVISIONS--The maximum discharges for some water years have been revised, as shown in the following table. They supersede figures published in reports for 1988, 1991-93.

Water Year	Date	Time	Discharge (ft^3/s)	Gage height (ft)	Water Year	Date	Time	Discharge (ft^3/s)	Gage height (ft)
1988	July 13	0745	*84	*3.18	1992	July 9	0915	*82	*3.14
1991	Dec. 30	2300	*91	*3.30	1993	Apr. 1	0015	*106	*3.56

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.12	.11	1.4	4.3	1.8	11	.87	2.8	1.7	.78	e.05	.26
2	.20	.31	1.1	5.3	1.8	8.7	.79	4.8	5.5	.62	e.12	.22
3	.11	.12	.90	5.0	1.6	6.9	.73	4.7	5.6	.24	e.03	.20
4	.07	.08	.89	4.2	1.6	5.5	.95	4.1	3.8	.16	.02	.18
5	.06	.07	9.6	5.0	e1.5	4.9	.76	3.8	3.0	.13	.02	.17
6	.05	.06	6.7	5.8	e1.4	6.2	.70	3.3	2.6	.13	61	.16
7	.05	.05	4.7	13	e1.4	5.6	.64	2.7	2.2	.10	7.8	.15
8	.04	.05	3.7	6.9	e1.3	5.1	.57	2.4	1.9	.06	3.8	.13
9	.05	.05	4.2	5.3	e1.3	4.4	.64	2.2	1.4	.05	2.5	.13
10	.05	.36	13	4.5	e1.2	4.3	.80	2.1	1.1	.04	1.9	.11
11	.05	.34	18	4.0	1.0	4.3	.95	2.4	1.1	.04	5.4	.10
12	.06	.18	9.8	5.8	.86	4.9	.83	1.8	2.5	.04	4.8	.09
13	.07	.12	6.8	7.8	.76	4.6	1.0	1.5	1.6	.03	2.9	.09
14	.07	.07	5.3	6.6	.88	4.1	1.1	38	.97	.03	2.7	.10
15	.06	.05	4.1	8.5	4.4	3.8	1.0	13	.75	1.1	12	.06
16	.05	.15	3.4	7.3	35	3.5	.94	7.9	.61	1.8	16	.07
17	.05	.55	4.5	5.7	10	3.0	1.1	12	.53	.33	7.3	.74
18	.04	.38	4.3	4.8	7.7	2.6	1.3	22	.47	.36	4.7	.28
19	.06	.30	3.8	4.3	7.8	2.4	1.1	19	.41	.16	3.5	.16
20	.09	.23	3.3	11	10	2.1	.96	12	.36	.08	2.7	.10
21	.07	1.2	2.8	7.6	11	2.3	.96	8.6	.31	.06	2.2	.10
22	.05	1.1	2.6	6.0	7.9	2.4	.84	6.5	.27	.09	1.6	.16
23	.06	.63	2.5	5.1	12	1.8	.81	5.2	.30	.07	1.2	.13
24	.05	.50	2.4	4.4	17	1.5	2.2	4.3	.35	.04	.97	.10
25	.04	.43	2.2	3.8	11	1.3	3.7	3.6	.47	.07	.79	.08
26	.04	.38	1.8	3.3	8.2	1.2	2.9	3.1	.47	.11	.68	.07
27	.04	.56	1.6	3.1	6.9	1.1	2.4	2.6	.28	.27	.60	.05
28	.03	4.8	1.5	2.9	12	1.2	2.1	4.3	.24	e.15	.52	.04
29	.03	3.0	1.4	2.6	---	1.1	1.7	3.5	.20	e.09	.45	.04
30	.03	2.0	1.3	2.2	---	1.0	2.7	2.6	.19	e.06	.39	.04
31	.03	---	1.5	2.0	---	.95	---	2.1	---	e.05	.31	---
TOTAL	1.87	18.23	131.09	168.1	179.30	113.75	38.04	208.9	41.18	7.34	148.95	4.31
MEAN	.060	.61	4.23	5.42	6.40	3.67	1.27	6.74	1.37	.24	4.80	.14
MAX	.20	4.8	18	13	35	11	3.7	38	5.6	1.8	61	.74
MIN	.03	.05	.89	2.0	.76	.95	.57	1.5	.19	.03	.02	.04
CFSM	.03	.26	1.84	2.36	2.78	1.60	.55	2.93	.60	.10	2.09	.06
IN.	.03	.29	2.12	2.72	2.90	1.84	.62	3.38	.67	.12	2.41	.07

e Estimated

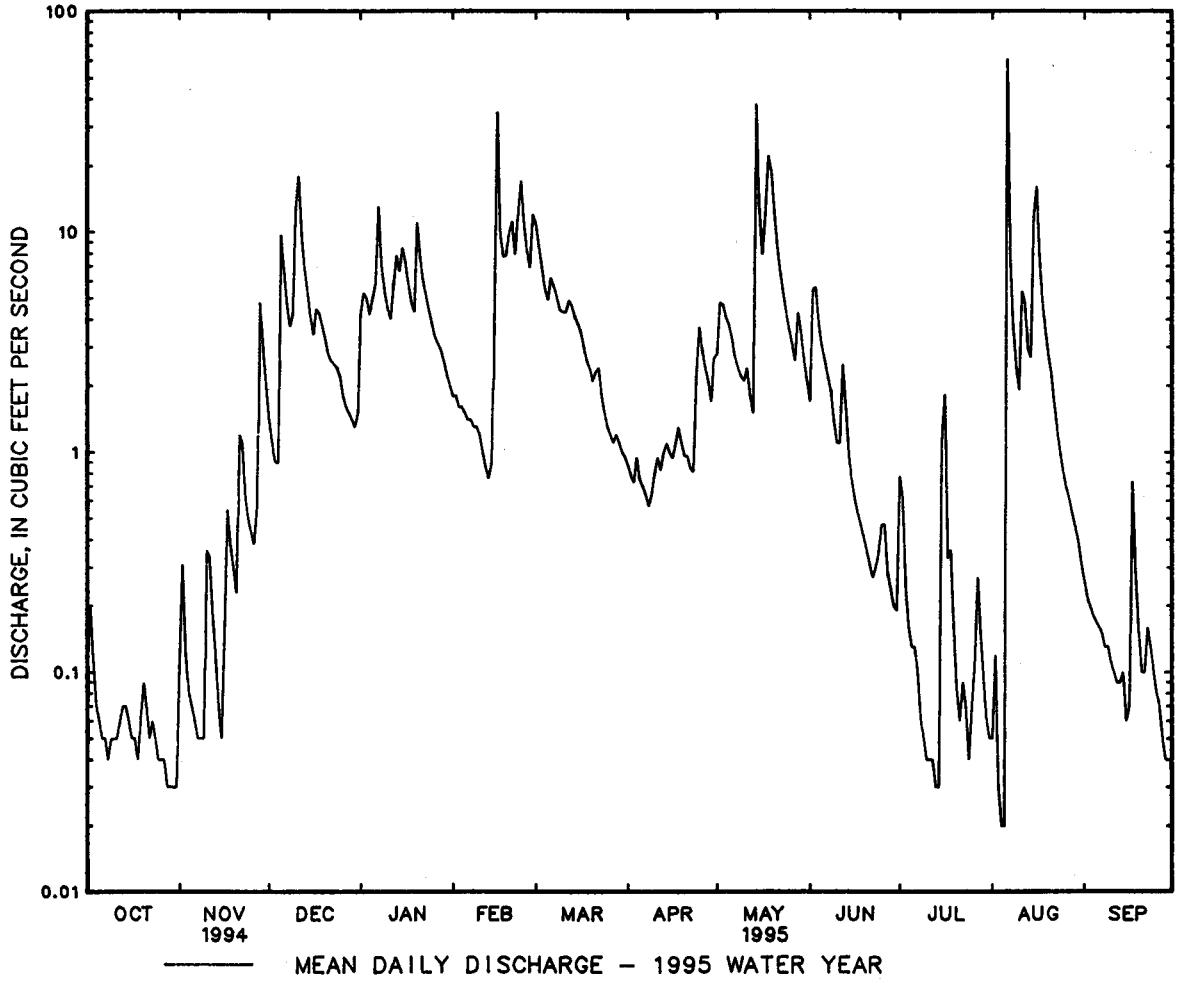
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 1995, BY WATER YEAR (WY)

MEAN	1.40	3.21	5.92	7.09	7.30	8.96	6.64	6.12	1.94	2.37	1.43	1.01
MAX	4.57	10.2	10.0	11.5	14.7	17.6	11.3	12.2	5.29	7.65	4.80	3.71
(WY)	1990	1987	1991	1990	1994	1994	1987	1990	1989	1992	1995	1987
MIN	.060	.30	3.92	4.05	1.27	3.34	1.27	1.12	.23	.14	.065	.11
(WY)	1995	1992	1990	1992	1993	1990	1995	1993	1993	1993	1993	1991

01594950 MCMILLAN FORK NEAR FORT PENDLETON, MD--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1987 - 1995	
ANNUAL TOTAL	1952.99		1061.06			
ANNUAL MEAN	5.35		2.91		4.44	
HIGHEST ANNUAL MEAN					5.62	1994
LOWEST ANNUAL MEAN					2.91	1995
HIGHEST DAILY MEAN	100	Feb 9	61	Aug 6	110	May 26 1990
LOWEST DAILY MEAN	.03	(a)	.02	(b)	.02	(b)
ANNUAL SEVEN-DAY MINIMUM	.03	Oct 25	.03	Oct 25	.03	Aug 23 1993
INSTANTANEOUS PEAK FLOW			307	Aug 6	340	Feb 9 1994
INSTANTANEOUS PEAK STAGE			5.91	Aug 6	(c)7.23	Feb 9 1994
INSTANTANEOUS LOW FLOW			.01	(b)	.01	(b)
ANNUAL RUNOFF (CFSM)	2.33		1.26		1.93	
ANNUAL RUNOFF (INCHES)	31.59		17.16		26.23	
10 PERCENT EXCEEDS	14		7.3		10	
50 PERCENT EXCEEDS	2.1		1.2		2.8	
90 PERCENT EXCEEDS	.10		.05		.14	

a Oct. 28-31.
b Aug. 4, 5, 1995.
c Affected by backwater.



01594950 MCMILLAN FORK NEAR FORT PENDLETON, MD--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1987 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: November 1986 to current year.
pH: November 1986 to current year.
WATER TEMPERATURE: November 1986 to current year.

INSTRUMENTATION.--Water-quality monitor since November 1986. Digital recorder set for one-hour-interval punches.

REMARKS.--Periods of missing record due to monitor/probe malfunction or dead batteries.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 281 microsiemens, Sept. 4, 1988; minimum, 54 microsiemens, Feb. 9, 1994.
pH: Maximum, 9.4 units, Sept. 15, 1993; minimum, 4.9 units, Nov. 21, 22, 1988.
WATER TEMPERATURE: Maximum, 25.1°C, July 15, 1995; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT PERIOD.--
SPECIFIC CONDUCTANCE: Maximum, 209 microsiemens, June 21; minimum, 57 microsiemens, Aug. 16.
WATER TEMPERATURE: Maximum, 25.1°C, July 15; minimum, 0.0°C, on many days during winter periods.

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	153	110	121	137	89	97	133	88	110	119	100	109
2	145	114	124	137	106	116	122	89	107	103	96	100
3	142	114	116	134	90	109	126	81	109	107	102	104
4	135	113	116	100	90	96	116	77	88	115	106	109
5	133	113	116	146	99	116	78	72	75	124	115	120
6	118	115	116	100	98	99	76	70	73	128	107	124
7	137	113	123	151	100	119	71	69	70	107	90	95
8	137	112	122	128	99	118	73	70	72	101	92	96
9	137	111	121	139	92	108	74	71	73	112	101	106
10	137	112	126	142	87	99	74	69	72	120	112	116
11	141	110	125	172	134	150	71	67	69	123	120	122
12	130	106	117	162	119	142	82	70	75	125	112	120
13	112	103	105	162	112	132	94	82	87	112	104	106
14	130	104	114	148	109	117	104	94	100	109	104	107
15	142	100	113	138	103	118	111	104	108	109	103	105
16	---	96	e110	104	95	100	116	111	114	111	104	107
17	144	98	113	125	103	117	113	103	107	118	111	115
18	125	97	109	126	121	123	106	103	105	124	118	121
19	133	97	106	157	119	133	111	106	109	128	124	126
20	121	95	100	153	116	128	115	111	113	128	100	106
21	155	100	112	145	105	e122	119	115	117	112	104	108
22	156	101	111	127	103	108	121	118	120	119	112	116
23	102	98	101	138	104	130	124	121	123	125	119	122
24	130	94	107	138	117	128	126	123	124	131	125	128
25	100	95	98	135	111	125	131	124	128	135	130	133
26	98	95	97	159	109	128	133	130	132	138	135	136
27	98	96	97	142	89	117	136	133	134	141	136	138
28	126	94	108	94	83	87	136	134	135	139	136	138
29	121	95	105	127	82	100	137	134	135	140	136	138
30	123	91	106	138	81	104	139	136	138	139	138	139
31	136	91	108	---	---	---	141	116	136	141	139	140
MONTH	---	91	112	172	81	116	141	67	105	141	90	118

e Estimated

01594950 MCMILLAN FORT NEAR FORT PENDLETON, MD--CONTINUED

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	140	136	138	---	---	e98	132	129	131	95	91	93
2	137	135	136	---	---	e105	138	129	131	93	87	89
3	139	133	137	---	---	e110	145	129	133	90	86	88
4	135	132	134	---	---	e115	132	121	125	89	86	87
5	142	135	138	124	118	122	130	123	127	93	88	90
6	143	139	141	119	106	111	130	126	128	99	93	95
7	142	138	140	110	107	109	130	126	128	103	98	100
8	138	135	137	112	107	110	130	125	128	108	103	105
9	136	134	135	117	112	115	128	123	126	110	107	108
10	135	132	134	121	116	118	127	113	122	111	108	109
11	133	131	132	121	107	116	124	116	121	110	106	107
12	138	132	135	110	103	108	123	116	120	111	108	109
13	139	137	138	107	103	104	118	115	117	114	111	112
14	138	133	136	111	106	108	115	110	112	114	71	84
15	134	81	127	115	110	112	112	110	111	91	75	81
16	86	67	74	119	114	116	111	109	110	104	91	98
17	76	69	72	123	119	121	111	102	106	115	76	96
18	85	76	79	125	123	123	106	102	104	94	67	78
19	90	85	88	128	125	126	106	103	105	89	72	81
20	91	83	88	129	126	127	107	105	106	104	89	97
21	92	83	86	129	122	125	106	102	104	114	104	109
22	101	92	96	125	119	122	108	104	105	124	114	119
23	101	72	91	126	122	124	107	101	105	132	124	127
24	85	70	77	131	124	126	101	90	94	146	132	136
25	95	85	89	128	126	127	90	86	88	147	141	144
26	102	94	98	129	127	128	88	86	87	153	147	150
27	104	99	103	130	127	128	88	85	87	158	153	156
28	---	90	e95	130	125	127	89	87	88	160	125	146
29	---	---	---	134	128	129	94	89	91	145	137	141
30	---	---	---	130	128	129	96	87	92	166	145	151
31	---	---	---	131	128	129	---	---	---	160	155	156
MONTH	---	67	113	---	---	118	145	85	111	166	67	111

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	164	160	162	177	121	147	159	130	137	178	174	176
2	165	122	149	175	137	154	181	128	143	174	172	173
3	159	97	118	171	146	151	158	130	140	198	173	184
4	104	96	101	178	148	154	146	127	133	202	166	183
5	112	104	107	175	147	152	136	120	127	---	---	---
6	121	111	114	176	150	155	120	66	81	---	---	---
7	131	121	127	178	148	157	90	84	86	---	---	---
8	140	131	135	178	147	155	95	89	91	---	---	---
9	149	140	144	180	146	160	102	95	98	---	---	---
10	155	149	151	184	147	159	105	100	103	---	---	---
11	155	125	134	183	148	161	104	85	99	---	---	---
12	132	125	127	182	146	158	88	82	85	---	---	---
13	139	131	136	177	144	162	91	85	87	---	---	---
14	149	138	142	174	150	162	89	83	85	---	---	---
15	160	149	155	168	90	154	87	70	83	---	---	---
16	166	160	161	170	101	153	70	57	61	195	186	190
17	165	162	163	159	147	151	87	65	74	186	115	140
18	168	164	166	157	147	153	96	80	89	190	176	184
19	197	166	173	159	152	155	106	91	99	176	170	172
20	200	170	178	157	150	153	117	106	112	172	169	170
21	209	170	179	165	151	157	128	117	123	172	169	170
22	209	171	176	202	139	161	133	126	129	172	151	163
23	201	157	172	170	135	141	141	133	137	154	151	153
24	182	154	159	142	136	139	145	140	142	156	151	153
25	180	124	151	145	121	138	148	144	146	160	155	156
26	177	130	146	134	124	130	154	147	150	159	157	158
27	157	148	151	135	104	125	164	152	157	158	155	156
28	157	153	155	121	111	117	170	161	165	157	155	156
29	189	155	159	148	118	126	170	156	163	---	---	---
30	186	151	160	155	121	127	168	163	165	---	---	---
31	---	---	---	192	124	136	175	164	168	---	---	---
MONTH	209	96	148	202	90	148	181	57	118	---	---	---

e Estimated

01594950 MCMILLAN FORT NEAR FORT PENDLETON, MD--CONTINUED

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	7.2	6.9	7.1	7.2	7.1	7.2	6.8	6.8	6.8	7.1	6.8	7.0
2	7.1	6.9	7.0	7.2	7.1	7.1	6.9	6.8	6.9	7.0	6.8	6.9
3	7.2	7.1	7.2	7.2	7.1	7.2	6.9	6.9	6.9	7.0	6.9	7.0
4	7.5	7.3	7.4	7.2	7.1	7.1	6.9	6.8	6.9	7.1	7.0	7.0
5	7.4	7.2	7.3	7.2	7.1	7.2	6.9	6.4	6.5	7.0	6.9	7.0
6	7.4	7.3	7.4	7.2	7.1	7.2	6.5	6.4	6.5	7.0	6.8	6.9
7	7.5	7.4	7.4	7.3	7.2	7.2	6.7	6.5	6.6	7.0	6.9	6.9
8	7.5	7.4	7.4	7.3	7.2	7.3	6.8	6.7	6.8	7.1	6.9	7.0
9	7.4	7.4	7.4	7.3	7.0	7.2	6.8	6.7	6.8	7.2	7.0	7.1
10	7.5	7.4	7.5	7.2	7.0	7.1	6.7	6.5	6.6	7.2	7.1	7.2
11	7.6	7.5	7.5	7.2	7.1	7.1	6.8	6.5	6.6	7.2	7.2	7.2
12	7.6	7.4	7.5	7.3	7.2	7.3	7.0	6.8	6.9	7.3	7.1	7.2
13	7.5	7.4	7.4	7.4	7.2	7.3	7.2	7.0	7.1	7.3	7.2	7.3
14	7.4	7.3	7.4	7.4	7.3	7.4	7.2	7.2	7.2	7.5	7.2	7.4
15	7.5	7.3	7.4	7.4	7.2	7.3	7.3	7.2	7.3	7.4	7.3	7.4
16	7.4	7.4	7.4	7.4	7.3	7.3	7.4	7.3	7.4	7.3	7.3	7.3
17	7.4	7.4	7.4	7.4	7.1	7.2	7.4	7.2	7.4	7.4	7.3	7.3
18	7.4	7.3	7.4	7.1	7.0	7.1	7.3	7.1	7.2	7.4	7.3	7.4
19	7.3	7.2	7.3	7.2	7.1	7.2	7.2	7.1	7.1	7.5	7.3	7.4
20	7.2	7.1	7.2	7.3	7.2	7.2	7.2	7.1	7.1	7.4	7.1	7.2
21	7.4	7.2	7.3	7.3	6.8	7.0	7.1	6.9	7.0	7.3	7.1	7.2
22	7.4	7.2	7.3	7.0	6.8	6.9	7.0	6.9	7.0	7.3	7.2	7.3
23	7.3	7.2	7.2	7.1	7.0	7.0	7.0	6.9	6.9	7.4	7.3	7.4
24	7.4	7.3	7.3	7.1	7.1	7.1	6.9	6.9	6.9	7.4	7.3	7.4
25	7.4	7.3	7.3	7.1	7.1	7.1	7.0	6.9	6.9	7.4	7.3	7.4
26	7.4	7.3	7.4	7.2	7.1	7.1	7.0	6.9	6.9	7.4	7.3	7.4
27	7.4	7.3	7.4	7.2	7.1	7.2	6.9	6.9	6.9	7.4	7.3	7.4
28	7.4	7.3	7.4	7.1	6.6	6.7	7.0	6.9	6.9	7.4	7.2	7.3
29	7.4	7.3	7.3	6.7	6.6	6.7	7.0	6.9	6.9	7.3	7.2	7.2
30	7.3	7.3	7.3	6.8	6.7	6.7	7.0	6.9	6.9	7.3	7.2	7.2
31	7.3	7.1	7.2	---	---	---	7.0	6.8	6.9	7.3	7.1	7.2
MONTH	7.6	6.9	7.3	7.4	6.6	7.1	7.4	6.4	6.9	7.5	6.8	7.2
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	7.4	7.2	7.3	7.3	7.2	7.3	---	---	---	7.7	7.6	7.7
2	7.3	7.2	7.2	7.3	7.2	7.2	---	---	---	7.7	7.5	7.6
3	7.2	7.1	7.2	7.3	7.1	7.2	---	---	---	7.6	7.5	7.6
4	7.2	7.1	7.1	7.3	7.1	7.2	---	---	---	7.7	7.6	7.7
5	7.1	7.0	7.1	7.2	7.1	7.2	---	---	---	7.8	7.7	7.7
6	7.0	7.0	7.0	7.2	7.1	7.1	---	---	---	7.9	7.8	7.9
7	7.0	6.8	6.9	7.4	7.0	7.2	---	---	---	8.0	7.9	7.9
8	6.9	6.8	6.8	7.2	6.9	7.1	---	---	---	8.0	7.9	8.0
9	6.9	6.7	6.8	7.1	6.9	7.0	---	---	---	8.1	8.0	8.0
10	6.8	6.8	6.8	7.2	6.9	7.1	---	---	---	8.1	8.0	8.0
11	6.9	6.8	6.8	7.4	7.1	7.2	---	---	---	8.1	8.0	8.1
12	6.9	6.8	6.8	7.3	7.1	7.2	---	---	---	8.3	8.1	8.2
13	6.8	6.7	6.7	7.5	7.1	7.3	---	---	---	8.3	8.2	8.3
14	6.7	6.6	6.7	7.4	7.2	7.3	7.8	7.7	7.8	8.2	7.0	7.4
15	6.7	6.7	6.7	7.5	7.2	7.3	7.8	7.7	7.8	7.2	7.1	7.2
16	6.7	6.5	6.6	7.6	7.3	7.4	7.9	7.8	7.8	7.2	7.1	7.2
17	7.1	6.7	6.9	7.7	7.4	7.5	7.8	7.7	7.8	7.3	6.6	7.1
18	7.2	6.9	7.0	7.6	7.4	7.5	7.8	7.7	7.7	7.1	6.8	7.0
19	7.2	7.0	7.1	7.7	7.3	7.5	7.8	7.7	7.8	7.4	7.0	7.2
20	7.3	7.1	7.2	7.8	7.5	7.6	7.9	7.8	7.9	7.5	7.4	7.4
21	7.1	7.0	7.1	7.8	7.6	7.7	7.9	7.8	7.8	7.6	7.5	7.6
22	7.2	7.1	7.1	7.7	7.5	7.6	7.9	7.8	7.8	7.7	7.6	7.6
23	7.2	7.0	7.1	---	---	---	7.9	7.8	7.8	7.8	7.7	7.7
24	7.1	6.8	7.0	---	---	---	7.8	7.4	7.6	7.8	7.7	7.8
25	7.3	7.0	7.2	---	---	---	7.4	7.4	7.4	7.9	7.7	7.8
26	7.4	7.3	7.3	---	---	---	7.5	7.4	7.4	7.9	7.7	7.8
27	7.6	7.4	7.4	---	---	---	7.6	7.5	7.5	8.0	7.9	8.0
28	7.4	7.2	7.4	---	---	---	7.6	7.6	7.6	8.0	7.7	7.9
29	---	---	---	---	---	---	7.7	7.6	7.7	8.0	7.8	7.8
30	---	---	---	---	---	---	7.7	7.6	7.6	8.1	8.0	8.1
31	---	---	---	---	---	---	---	---	---	8.2	7.9	8.1
MONTH	7.6	6.5	7.0	---	---	---	---	---	---	8.3	6.6	7.7

01594950 MCMILLAN FORT NEAR FORT PENDLETON, MD--CONTINUED

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	8.0	7.9	7.9	---	---	---	---	---	---	8.1	7.4	7.8
2	8.0	7.6	7.9	---	---	---	---	---	---	7.6	7.0	7.3
3	7.9	7.4	7.7	---	---	---	---	---	---	7.6	6.5	7.1
4	8.0	7.9	7.9	---	---	---	---	---	---	8.0	7.0	7.4
5	8.0	7.9	7.9	---	---	---	---	---	---	---	---	---
6	8.0	7.9	8.0	---	---	---	---	---	---	---	---	---
7	8.2	8.0	8.1	---	---	---	---	---	---	---	---	---
8	8.1	8.1	8.1	---	---	---	---	---	---	---	---	---
9	8.1	8.0	8.1	---	---	---	---	---	---	---	---	---
10	8.1	7.9	8.0	---	---	---	---	---	---	---	---	---
11	8.0	7.8	7.9	---	---	---	---	---	---	---	---	---
12	7.9	7.7	7.8	---	---	---	---	---	---	---	---	---
13	7.9	7.7	7.8	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	7.2	6.7	6.9	---	---	---
18	---	---	---	---	---	---	7.2	6.5	7.0	---	---	---
19	---	---	---	---	---	---	7.3	6.8	7.1	---	---	---
20	---	---	---	---	---	---	7.3	7.0	7.1	---	---	---
21	---	---	---	---	---	---	7.2	6.9	7.1	---	---	---
22	---	---	---	---	---	---	7.5	7.1	7.3	---	---	---
23	---	---	---	---	---	---	7.5	6.9	7.2	---	---	---
24	---	---	---	---	---	---	7.6	7.1	7.3	---	---	---
25	---	---	---	---	---	---	7.6	7.2	7.4	---	---	---
26	---	---	---	---	---	---	7.7	7.1	7.4	---	---	---
27	---	---	---	---	---	---	7.7	7.3	7.5	---	---	---
28	---	---	---	---	---	---	7.8	7.4	7.6	---	---	---
29	---	---	---	---	---	---	7.9	7.5	7.6	---	---	---
30	---	---	---	---	---	---	7.9	7.4	7.6	---	---	---
31	---	---	---	---	---	---	8.1	7.2	7.6	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	14.1	8.2	11.4	8.4	4.1	6.6	2.6	1.6	2.3	3.8	1.9	3.1
2	13.3	10.6	12.6	5.2	3.4	4.7	2.4	.7	1.6	3.3	.0	1.1
3	10.7	7.7	9.9	6.9	2.0	4.6	3.2	.9	2.1	.4	.0	.2
4	8.7	5.5	7.5	9.2	4.9	7.0	6.2	3.2	4.7	.2	.0	.1
5	8.8	6.8	8.0	10.7	6.5	8.2	8.5	6.2	7.6	.0	.0	.0
6	8.1	4.8	6.4	11.5	7.5	9.3	8.7	8.1	8.4	.0	.0	.0
7	9.1	4.4	6.7	7.8	3.7	5.9	8.1	6.6	7.5	1.0	.0	.5
8	9.6	5.1	7.3	8.4	2.7	5.4	6.6	3.9	4.9	1.4	.8	1.1
9	11.0	6.4	8.8	10.5	5.5	8.3	6.1	3.5	4.3	2.1	.9	1.6
10	8.0	4.3	6.8	9.4	4.8	7.2	6.1	5.6	5.8	2.9	1.8	2.3
11	5.8	2.3	4.1	4.8	2.3	3.5	5.9	4.0	4.8	2.6	1.9	2.3
12	5.7	2.0	4.0	4.4	.8	2.8	4.2	3.2	3.8	3.7	2.6	3.1
13	8.5	4.4	6.5	7.5	2.8	4.9	3.7	2.2	3.0	5.1	3.3	4.1
14	11.0	7.3	8.8	6.8	2.7	4.8	3.7	2.1	3.0	6.9	4.1	5.6
15	8.0	5.4	6.9	7.0	4.6	6.0	4.3	3.5	3.9	7.4	6.7	7.0
16	6.8	3.4	5.0	7.1	5.3	6.2	4.2	3.6	3.9	6.9	4.5	5.4
17	6.3	2.1	4.0	5.8	5.3	5.6	5.2	4.1	4.7	4.7	4.2	4.5
18	8.2	2.6	5.0	8.2	5.8	7.1	4.8	3.5	4.1	5.7	4.3	4.9
19	9.4	4.5	7.5	7.6	4.3	6.1	3.5	3.0	3.3	5.5	4.3	5.0
20	11.6	9.1	10.2	6.3	4.1	5.1	3.1	1.9	2.6	5.2	2.6	4.1
21	10.7	7.3	9.0	8.8	5.3	7.5	2.7	1.1	1.9	2.6	1.3	2.0
22	10.0	4.6	7.4	8.2	3.3	5.6	3.1	1.4	2.3	1.5	.8	1.2
23	11.7	6.6	9.5	3.3	1.0	1.9	3.4	1.9	2.6	1.9	1.2	1.5
24	8.4	4.3	6.4	1.4	.4	.9	2.9	1.6	2.5	1.3	.6	.9
25	6.8	3.7	5.9	2.4	1.2	2.0	2.8	1.8	2.4	1.0	.3	.7
26	5.4	3.3	4.1	2.4	1.3	2.0	2.4	1.3	1.9	.5	.0	.3
27	5.7	2.3	4.0	3.5	1.3	2.0	1.9	.1	1.1	1.2	.0	.6
28	4.0	1.5	2.5	7.2	3.5	5.9	2.8	1.3	2.1	1.3	.0	.9
29	4.5	1.0	2.5	5.1	3.8	4.4	2.7	1.5	2.3	.9	.0	.5
30	5.0	1.2	3.0	3.8	2.5	3.1	1.5	.5	1.0	1.5	.6	1.0
31	9.1	3.5	6.4	---	---	---	1.9	.0	.9	.8	.0	.5
MONTH	14.1	1.0	6.7	11.5	.4	5.2	8.7	.0	3.5	7.4	.0	2.1

01594950 MCMILLAN FORT NEAR FORT PENDLETON, MD--CONTINUED

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	2.0	.7	1.4	4.2	3.1	3.8	4.1	1.8	3.0	8.9	6.8	7.9
2	1.8	1.1	1.5	3.7	2.4	3.0	4.0	2.1	3.0	8.0	6.7	7.2
3	1.1	.0	.4	3.5	1.8	2.8	6.5	1.0	3.9	10.4	5.9	8.0
4	.1	.0	.1	4.2	2.5	3.3	6.8	3.0	5.7	8.6	7.3	8.1
5	.0	.0	.0	4.2	2.3	3.4	3.0	.2	1.6	8.6	7.9	8.2
6	.0	.0	.0	5.8	3.9	4.9	6.7	1.0	3.8	11.3	7.6	9.3
7	.0	.0	.0	8.8	4.5	6.7	8.5	5.0	6.6	11.3	6.8	9.1
8	.0	.0	.0	7.4	1.5	4.7	9.7	4.5	7.3	11.7	6.8	9.4
9	.1	.0	.1	2.1	.7	1.3	11.5	7.6	9.5	11.3	8.2	10.0
10	.3	.1	.2	2.4	.0	1.1	9.8	5.4	7.0	14.1	9.8	12.0
11	.4	.1	.4	4.6	.9	2.6	9.6	5.2	7.3	12.3	10.5	11.5
12	.1	.0	.0	6.2	1.9	3.9	9.7	7.2	8.8	11.6	9.6	10.7
13	.0	.0	.0	7.1	2.6	4.8	7.2	4.9	6.3	12.6	7.9	10.5
14	.0	.0	.0	7.7	3.3	5.5	5.3	4.1	4.8	13.2	11.0	11.8
15	.0	.0	.0	8.1	3.9	6.1	6.8	3.1	4.9	14.0	10.4	11.9
16	.6	.0	.1	8.5	4.4	6.5	8.4	4.6	6.6	12.8	8.9	11.0
17	3.2	.6	2.0	8.1	5.2	6.7	7.7	5.7	6.8	12.1	10.1	11.2
18	3.5	.8	2.0	7.0	3.8	5.4	10.5	7.3	8.8	13.6	11.5	12.2
19	4.2	1.2	2.6	7.4	3.0	5.3	13.5	10.0	11.5	11.6	9.8	11.0
20	4.9	2.6	3.6	8.3	4.9	6.7	10.9	8.6	10.0	13.2	9.3	11.0
21	3.7	1.7	2.9	7.8	6.2	7.1	12.9	8.9	10.8	12.0	9.3	10.7
22	3.4	1.2	2.2	6.7	5.0	5.9	11.3	8.3	10.4	13.3	9.3	11.1
23	4.9	3.0	3.9	6.0	4.1	4.9	8.3	4.9	7.1	13.3	8.6	11.0
24	3.9	1.9	2.8	5.2	3.4	4.3	5.6	4.7	5.2	15.4	11.0	13.2
25	3.7	1.4	2.5	4.7	2.3	3.6	8.1	5.2	6.6	14.5	12.3	13.5
26	3.7	2.4	3.2	6.0	2.1	4.3	9.7	5.0	7.3	14.9	12.7	13.7
27	4.6	2.9	3.7	7.1	4.7	5.9	10.8	5.8	8.6	13.0	11.9	12.4
28	4.6	3.7	4.1	5.8	5.0	5.4	9.7	7.8	8.8	12.4	11.7	12.1
29	---	---	---	5.4	4.6	5.0	10.8	6.8	8.8	14.7	11.2	13.0
30	---	---	---	5.0	3.8	4.5	8.6	7.2	7.8	13.4	11.1	12.2
31	---	---	---	4.2	2.8	3.7	---	---	---	14.0	10.4	12.2
MONTH	4.9	.0	1.4	8.8	.0	4.6	13.5	.2	7.0	15.4	5.9	10.9

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	13.2	10.7	12.2	16.9	16.1	16.5	23.0	17.6	20.2	17.9	15.3	17.0
2	14.7	12.1	13.4	16.5	14.6	15.6	23.7	18.2	20.8	15.3	12.7	13.8
3	14.8	12.7	13.7	17.4	13.5	15.3	24.0	17.8	20.6	14.1	10.7	12.5
4	14.3	12.4	13.4	19.2	14.4	16.4	25.0	18.3	21.2	15.3	12.3	13.9
5	14.8	12.2	13.6	19.6	15.3	17.4	24.5	19.0	21.1	---	---	---
6	15.1	12.9	14.0	20.5	15.7	17.9	20.1	17.3	18.3	---	---	---
7	16.0	12.8	14.6	20.6	16.4	18.2	17.4	16.6	17.1	---	---	---
8	16.9	15.0	15.8	18.1	14.2	16.2	16.6	15.9	16.3	---	---	---
9	17.4	15.0	16.1	18.5	12.0	15.1	16.5	15.5	16.1	---	---	---
10	17.1	15.4	16.2	20.1	14.4	16.9	17.2	15.4	16.4	---	---	---
11	17.5	15.2	16.3	20.7	15.1	17.5	17.9	15.8	16.9	---	---	---
12	16.1	13.5	14.7	21.4	14.7	18.0	18.4	16.1	17.3	---	---	---
13	13.7	11.8	12.9	22.6	15.0	18.7	19.9	17.9	18.8	---	---	---
14	14.4	11.7	13.1	23.9	17.4	20.5	19.8	17.9	18.9	---	---	---
15	14.9	11.6	13.4	25.1	16.4	21.0	19.9	17.7	18.7	---	---	---
16	15.2	11.7	13.4	19.9	16.8	18.4	19.0	17.8	18.4	14.0	12.1	13.2
17	15.3	11.5	13.5	20.3	17.6	18.7	19.4	17.0	18.1	14.1	13.1	13.6
18	15.9	11.8	13.8	19.9	17.3	18.6	18.2	16.9	17.5	14.0	12.1	13.4
19	16.8	12.1	14.4	19.8	15.6	17.4	18.3	15.5	16.9	13.6	10.8	12.1
20	17.7	13.8	15.6	20.3	13.7	16.8	18.0	16.0	17.0	14.0	11.1	12.7
21	19.0	14.7	16.5	19.9	16.3	18.1	17.9	15.7	16.9	16.3	13.6	14.9
22	17.9	15.0	16.4	21.6	17.6	19.4	17.2	14.9	16.5	14.9	11.2	13.8
23	16.2	15.1	15.7	22.2	17.6	19.6	16.3	13.5	15.1	11.2	7.9	9.6
24	17.5	14.8	16.1	21.7	17.7	19.7	17.1	14.0	15.6	10.3	7.2	8.7
25	18.8	15.5	16.5	23.0	17.3	20.0	16.8	15.1	15.9	12.4	8.6	10.5
26	18.2	15.4	16.6	21.9	18.8	20.0	16.8	14.4	15.6	12.4	9.2	11.1
27	18.1	16.3	17.0	21.7	17.5	19.0	17.3	15.1	16.2	11.4	7.5	9.5
28	18.8	16.2	17.1	20.1	17.5	18.7	17.7	15.5	16.6	11.4	7.6	9.5
29	18.9	16.3	17.3	20.8	17.6	19.0	17.7	15.9	16.8	---	---	---
30	19.1	15.8	17.2	21.3	17.1	19.1	17.5	15.4	16.4	---	---	---
31	---	---	---	21.8	16.9	19.2	17.8	14.3	16.2	---	---	---
MONTH	19.1	10.7	15.0	25.1	12.0	18.2	25.0	13.5	17.6	---	---	---

01595000 NORTH BRANCH POTOMAC RIVER AT STEYER, MD

LOCATION.--Lat 39°18'07", long 79°18'26", 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.--73.0 mi^2.

PERIOD OF RECORD.--July 1956 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,276.01 ft above sea level.

REMARKS.--Records fair except those for estimated daily discharges (missing record, 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 OUTSIDE PERIOD OF RECORD.--Flood of Oct. 15, 1954, reached a stage of 13.0 ft, from floodmarks; discharge, 11,300 ft^3/s, from rating curve extended as explained above.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,200 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
May 14	1115	2,570	6.61	Aug. 6	1215	*4,170	*8.09

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	26	82	205	e98	400	65	142	90	148	28	30
2	32	59	73	232	e96	290	61	217	124	105	29	29
3	33	36	65	180	e96	242	58	212	163	70	27	26
4	38	27	66	184	e94	208	67	170	117	66	23	23
5	36	20	326	256	e90	180	58	158	100	57	23	21
6	30	19	271	384	e88	220	50	139	90	57	1710	22
7	28	18	180	532	e85	207	40	118	81	54	383	25
8	27	21	143	292	e85	182	47	109	82	48	170	25
9	29	19	139	221	e83	190	48	108	72	45	118	23
10	23	40	378	190	e82	182	53	103	62	43	107	25
11	28	40	565	176	e81	179	84	116	60	31	188	22
12	25	29	301	235	e81	214	72	97	91	22	180	20
13	25	24	225	287	e82	206	68	82	85	19	111	20
14	21	23	187	244	e88	181	75	1090	63	18	225	19
15	23	27	168	365	e240	164	67	484	56	17	129	18
16	22	29	149	e250	800	151	59	277	50	78	196	24
17	19	49	179	e200	409	128	67	371	46	39	122	62
18	20	41	169	e180	288	110	99	633	42	29	99	45
19	21	34	159	e170	264	101	80	547	42	19	84	35
20	22	28	139	e430	320	94	70	362	43	19	73	30
21	26	56	125	e300	360	113	72	268	42	19	65	27
22	23	77	120	e220	261	120	71	214	41	22	58	31
23	21	47	119	e190	361	102	58	174	45	21	54	34
24	19	38	109	e170	601	95	113	144	49	21	50	24
25	22	31	104	e150	360	80	172	125	66	19	43	21
26	19	28	94	e130	288	69	136	115	116	20	43	23
27	17	26	87	e120	262	64	114	98	72	30	43	25
28	16	201	92	e115	427	77	105	141	65	59	36	29
29	19	133	91	e108	---	77	97	152	60	51	34	27
30	16	94	86	e102	---	73	119	117	70	46	33	21
31	17	---	82	e100	---	68	---	103	---	32	32	---
TOTAL	747	1340	5073	6918	6470	4767	2345	7186	2185	1324	4516	806
MEAN	24.1	44.7	164	223	231	154	78.2	232	72.8	42.7	146	26.9
MAX	38	201	565	532	800	400	172	1090	163	148	1710	62
MIN	16	18	65	100	81	64	40	82	41	17	23	18
CFSM	.33	.61	2.24	3.06	3.17	2.11	1.07	3.18	1.00	.59	2.00	.37
IN.	.38	.68	2.59	3.53	3.30	2.43	1.19	3.66	1.11	.67	2.30	.41

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1956 - 1995, BY WATER YEAR (WY)

MEAN	72.2	135	230	233	261	341	280	193	117	88.5	73.2	49.2
MAX	316	588	527	569	604	885	573	419	442	340	334	238
(WY)	1977	1986	1973	1974	1994	1963	1958	1967	1981	1978	1956	1971
MIN	12.8	26.2	56.7	41.8	65.9	112	78.2	62.5	15.5	14.3	6.72	5.99
(WY)	1964	1966	1966	1977	1993	1990	1995	1965	1965	1965	1965	1959

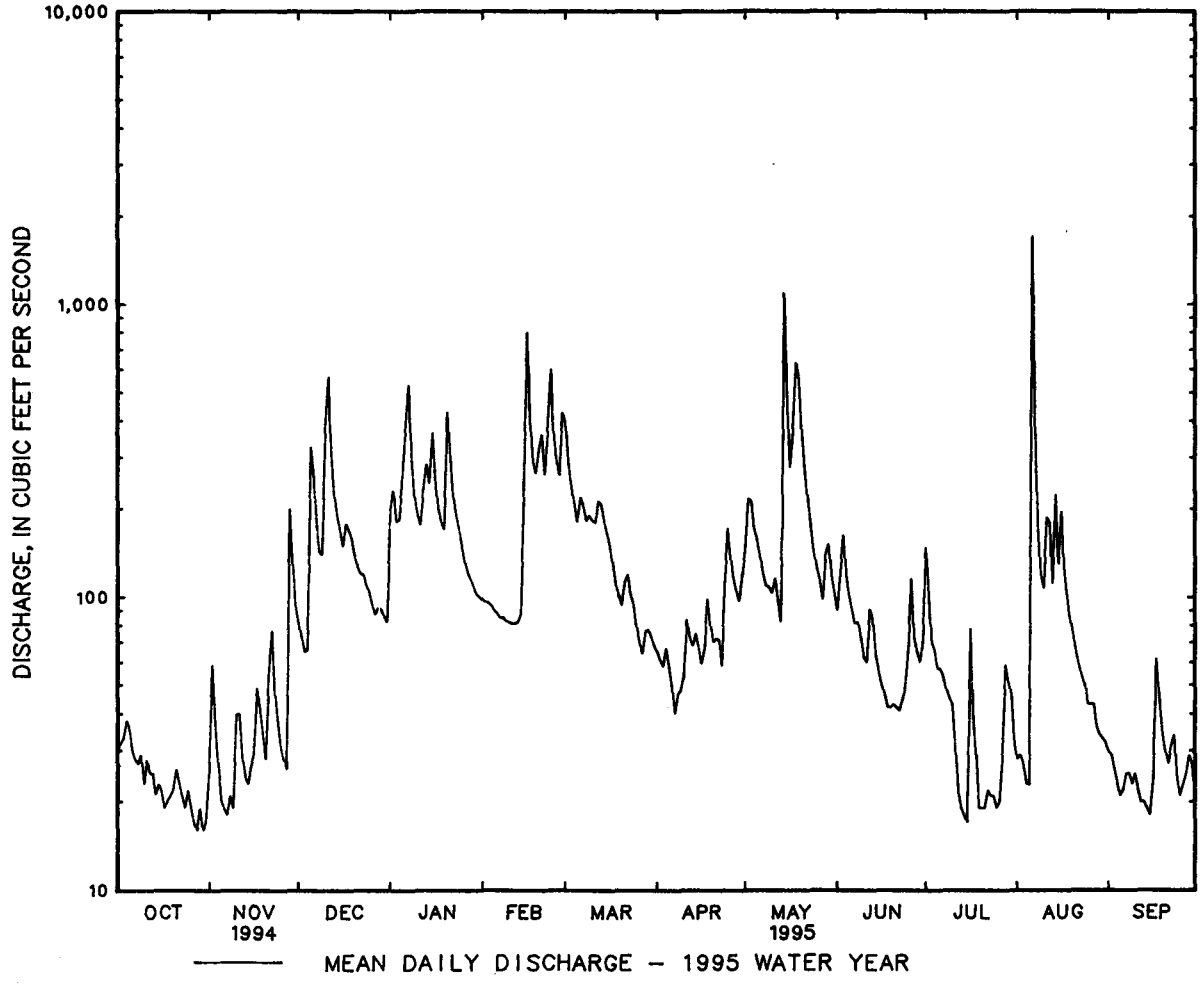
01595000 NORTH BRANCH POTOMAC RIVER AT STEYER, MD--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1956 - 1995	
ANNUAL TOTAL	84815		43677			
ANNUAL MEAN	232		120		172	
HIGHEST ANNUAL MEAN					247	1994
LOWEST ANNUAL MEAN					115	1959
HIGHEST DAILY MEAN	4530	Feb 9	1710	Aug 6	4530	Feb 9 1994
LOWEST DAILY MEAN	16	(a)	16	(a)	3.1	Sep 9 1965
ANNUAL SEVEN-DAY MINIMUM	18	Oct 25	18	Oct 25	3.6	Sep 23 1959
INSTANTANEOUS PEAK FLOW			4170	Aug 6	(b)11500	Nov 5 1985
INSTANTANEOUS PEAK STAGE			8.09	Aug 6	13.14	Nov 5 1985
INSTANTANEOUS LOW FLOW			15	(c)	2.9	Sep 10 1965
ANNUAL RUNOFF (CFSM)	3.18		1.64		2.35	
ANNUAL RUNOFF (INCHES)	43.22		22.26		31.97	
10 PERCENT EXCEEDS	538		261		382	
50 PERCENT EXCEEDS	138		80		101	
90 PERCENT EXCEEDS	28		22		20	

a Oct. 28, 30.

b From rating curve extended above 3,000 ft^3/s on basis of slope-area measurement at gage height 10.30 ft.

c Oct. 27, 28, Sept. 15.



01595200 STONY RIVER NEAR MOUNT STORM, WV

LOCATION.--Lat 39°16'10", long 79°15'45", Grant County, Hydrologic Unit 02070002, on left bank 100 ft downstream from highway bridge on U.S. Highway 50, 1.0 mi west of Mt. Storm, and at mile 6.4.

DRAINAGE AREA.--48.8 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1961 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,554.54 ft above sea level.

REMARKS.--No estimated daily discharges. Water-discharge records poor because of shifting control conditions. Prior to June 1987, flow regulated by Stony River Reservoir, 14.0 mi upstream from station. Regulation since 1963 by Virginia Electric and Power Company dam (Mount Storm Lake), 4.0 mi upstream from station.

PEAK DISCHARGE FOR CURRENT YEAR.--Peak discharge, 1,840 ft^3/s, Aug. 6, gage height, 6.87 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	14	19	83	36	251	53	84	92	230	7.7	12
2	9.4	18	18	80	31	216	60	181	95	173	7.9	9.6
3	8.8	11	13	61	34	190	67	346	100	149	7.8	5.9
4	8.8	7.9	12	53	29	166	69	327	97	126	8.9	5.4
5	12	7.8	55	43	25	163	55	110	113	123	7.8	5.4
6	14	7.7	34	47	26	145	47	98	108	119	554	7.2
7	13	8.5	23	163	27	112	43	91	97	105	174	7.4
8	8.8	7.7	19	108	32	124	35	92	89	79	151	7.8
9	7.2	7.3	20	138	32	130	34	88	76	63	154	7.5
10	8.7	12	45	146	32	130	38	83	62	55	152	5.3
11	13	9.9	76	133	32	128	48	87	53	56	144	4.9
12	7.9	7.9	83	200	31	136	45	79	65	48	122	7.1
13	7.9	7.4	94	217	31	132	44	71	60	43	108	7.1
14	8.7	7.2	78	182	31	127	42	490	49	34	122	6.8
15	7.4	9.5	70	493	32	122	36	338	40	25	112	6.3
16	7.1	13	65	1020	188	117	33	260	31	33	107	5.4
17	6.9	18	67	753	113	110	38	190	27	21	94	7.0
18	7.2	15	68	110	134	96	52	256	25	22	79	7.1
19	7.8	14	59	109	147	92	51	349	24	24	63	7.2
20	8.4	9.3	53	242	162	90	48	334	28	19	53	6.6
21	8.1	17	53	162	169	94	41	322	24	13	46	6.8
22	7.7	18	49	133	152	95	37	318	26	13	37	7.4
23	7.9	12	38	131	214	89	35	310	22	11	28	7.4
24	7.8	11	34	131	247	78	57	262	23	9.5	24	7.0
25	9.4	9.9	32	225	197	67	89	124	142	12	20	6.6
26	9.7	9.4	29	574	203	56	90	101	126	25	16	7.4
27	11	11	30	251	237	52	73	84	77	15	12	7.4
28	13	53	35	33	279	58	65	98	130	14	11	7.4
29	11	28	61	29	---	52	59	106	124	11	12	6.6
30	7.3	21	69	30	---	49	70	90	213	8.5	11	5.8
31	7.1	---	58	37	---	49	---	94	---	7.6	11	---
TOTAL	284.0	403.4	1459	6117	2903	3516	1554	5863	2238	1686.6	2457.1	208.8
MEAN	9.16	13.4	47.1	197	104	113	51.8	189	74.6	54.4	79.3	6.96
MAX	14	53	94	1020	279	251	90	490	213	230	554	12
MIN	6.9	7.2	12	29	25	49	33	71	22	7.6	7.7	4.9

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1962 - 1995, BY WATER YEAR (WY)

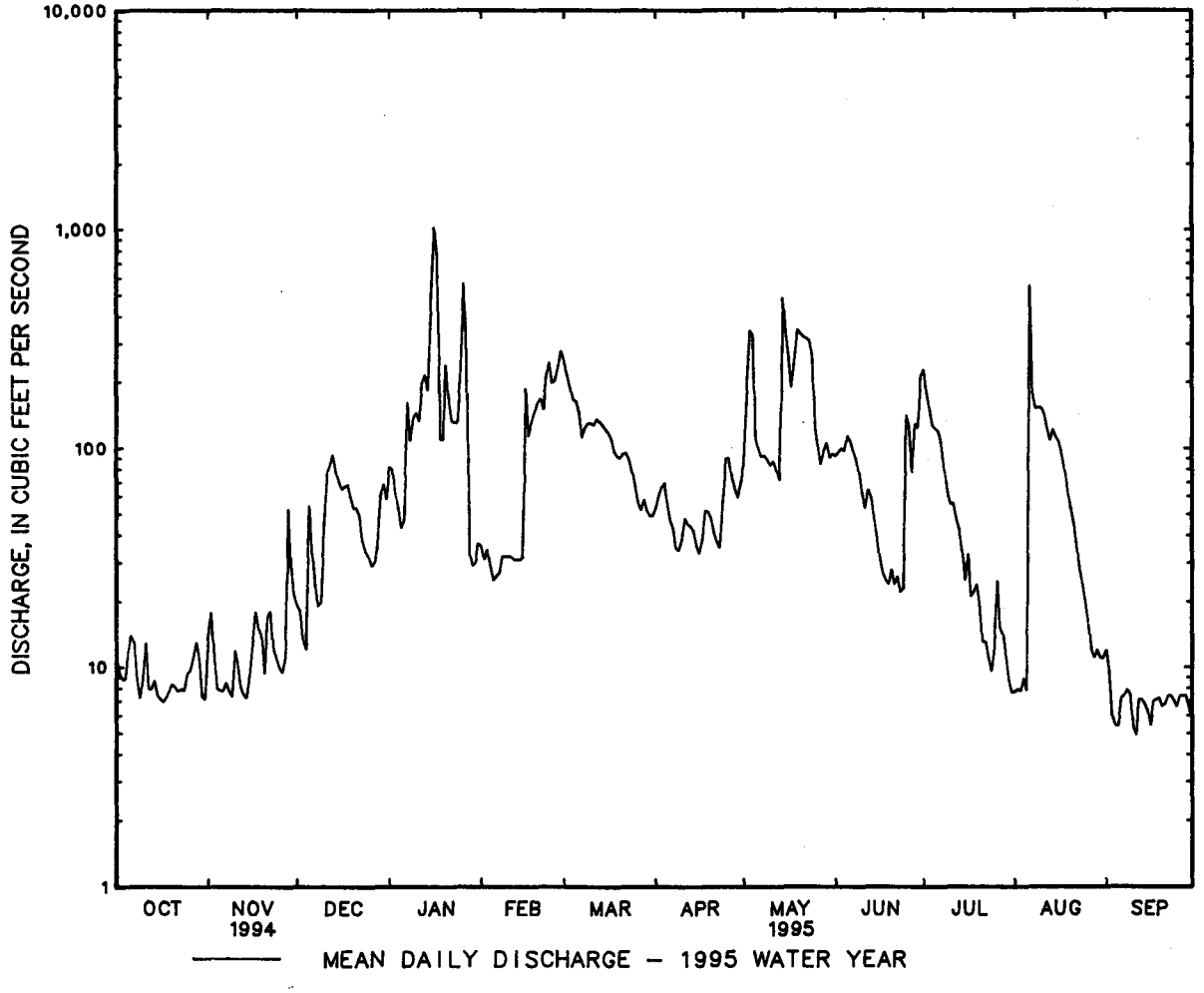
MEAN	48.9	87.1	111	116	140	218	158	120	69.7	45.7	31.1	29.2
MAX	234	669	301	239	361	537	371	271	237	205	104	140
(WY)	1977	1986	1973	1974	1994	1963	1987	1988	1981	1978	1975	1979
MIN	3.36	7.00	10.8	20.9	21.3	46.9	51.8	28.3	9.91	4.36	3.92	3.89
(WY)	1992	1992	1966	1981	1978	1990	1995	1964	1964	1968	1988	1985

01595200 STONY RIVER NEAR MOUNT STORM, WV--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1962 - 1995	
ANNUAL TOTAL	43772.9		28689.9			
ANNUAL MEAN	(a)120		(a)78.6		(a)97.7	
HIGHEST ANNUAL MEAN					134	1978
LOWEST ANNUAL MEAN					42.0	1964
HIGHEST DAILY MEAN	3210	Feb 9	1020	Jan 16	9880	Nov 5 1985
LOWEST DAILY MEAN	6.9	Oct 17	4.9	Sep 11	1.3	Aug 28 1988
ANNUAL SEVEN-DAY MINIMUM	7.6	Oct 15	6.1	Sep 10	1.7	Aug 28 1988
INSTANTANEOUS PEAK FLOW			1840	Aug 6	(b)14000	Nov 5 1985
INSTANTANEOUS PEAK STAGE			6.87	Aug 6	(c)16.41	Nov 5 1985
INSTANTANEOUS LOW FLOW			4.8	(d)	1.3	(f)
10 PERCENT EXCEEDS	303		181		229	
50 PERCENT EXCEEDS	43		46		48	
90 PERCENT EXCEEDS	9.2		7.5		8.5	

a Unadjusted.

b From rating curve extended above 7,500 ft^3/s on basis of slope-area measurement of peak flow.
c From floodmarks.
d Sept. 10, 11, 16.
f Aug. 22, 23, 28, 29, 1988.



01595200 STONY RIVER NEAR MOUNT STORM, WV--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1962 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: December 1961 to March 1974, September 1974 to September 1995 (Discontinued).

INSTRUMENTATION.--Temperature recorder (continuous ethyl alcohol - actuated thermograph) since December 1961.

REMARKS.--Prior to June 1987, flow regulated by Stony River Reservoir, 14.0 mi upstream from station. Regulation since 1963 by Virginia Electric and Power Company dam (Mount Storm Lake), 4.0 mi upstream from station.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum, 27.5°C, Aug. 14, 1984 and July 19, 1990; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum, 23.0°C, July 15; minimum, 2.5°C, Feb. 11-18.

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	14.0	13.5	10.0	8.5	5.5	5.5	5.5	4.5	3.5	3.5	8.0	8.0
2	15.0	14.0	8.5	7.5	5.5	5.5	4.5	3.5	3.5	3.5	8.0	7.5
3	14.0	13.5	7.5	7.0	5.5	5.5	3.5	3.5	3.5	3.5	7.5	7.5
4	13.5	12.0	9.5	7.5	5.5	5.0	3.5	3.5	3.5	3.5	8.0	7.5
5	12.0	12.0	10.0	9.5	6.5	5.5	3.5	3.5	3.5	3.0	8.0	8.0
6	12.0	10.5	11.0	10.0	7.0	6.5	3.5	3.0	3.0	3.0	9.0	8.0
7	12.0	10.5	10.0	8.5	7.0	6.5	3.0	3.0	3.0	3.0	9.5	8.5
8	11.5	10.5	8.5	7.5	6.5	5.5	3.0	3.0	3.0	3.0	9.5	7.0
9	11.5	11.0	9.0	8.0	5.5	5.5	3.5	3.0	3.0	3.0	7.0	6.5
10	11.5	9.5	9.0	8.0	5.5	5.5	4.0	3.0	3.0	3.0	6.5	6.5
11	9.5	8.5	8.0	6.5	5.5	5.5	4.0	4.0	3.0	2.5	7.5	6.5
12	8.5	8.5	6.5	6.5	5.5	5.5	6.5	4.0	2.5	2.5	8.0	7.0
13	9.0	8.5	7.0	6.5	5.5	5.0	7.0	6.5	2.5	2.5	9.5	8.0
14	10.5	9.0	7.0	6.5	5.0	5.0	7.0	7.0	2.5	2.5	9.5	8.5
15	10.0	9.5	7.5	6.5	6.0	5.0	8.0	6.0	2.5	2.5	10.5	9.5
16	10.0	8.0	7.0	6.5	6.0	6.0	8.0	8.0	2.5	2.5	10.5	10.0
17	9.0	7.5	6.5	6.5	6.0	6.0	8.5	7.0	2.5	2.5	10.5	10.0
18	9.0	7.5	7.5	6.5	6.0	6.0	7.0	5.0	3.5	2.5	10.0	9.5
19	10.0	9.0	7.5	6.5	6.0	6.0	5.0	4.0	4.5	3.5	10.0	9.0
20	12.0	10.0	6.5	6.5	6.0	5.5	4.0	3.0	5.0	4.5	10.0	10.0
21	12.0	10.5	7.5	6.5	5.5	5.0	3.0	3.0	5.0	5.0	10.0	9.5
22	10.5	9.0	7.5	5.5	5.0	5.0	3.0	3.0	5.0	5.0	9.5	9.0
23	12.0	10.5	5.5	5.5	5.0	4.5	3.0	3.0	5.5	5.0	9.0	9.0
24	11.0	9.5	5.5	5.5	4.5	4.5	4.0	3.0	5.5	5.5	9.0	9.0
25	10.0	9.5	5.5	5.0	4.5	4.5	6.5	4.0	5.5	5.5	9.0	7.5
26	9.5	8.5	5.0	5.0	4.5	4.0	8.0	6.5	6.0	5.5	8.0	7.5
27	8.5	8.0	5.0	5.0	4.0	4.0	8.0	6.5	8.0	6.0	9.0	8.0
28	8.0	7.0	5.5	5.0	4.0	4.0	6.5	4.0	8.0	8.0	9.0	8.5
29	7.5	7.0	5.5	5.0	4.0	4.0	4.0	3.5	---	---	8.5	8.0
30	8.0	7.0	5.5	5.5	4.0	4.0	3.5	3.5	---	---	8.0	7.5
31	10.0	8.0	---	---	5.5	4.0	3.5	3.5	---	---	7.5	7.5
MONTH	15.0	7.0	11.0	5.0	7.0	4.0	8.5	3.0	8.0	2.5	10.5	6.5

01595200 STONY RIVER NEAR MOUNT STORM, WV--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	7.5	7.5	11.0	10.5	18.0	17.5	19.5	19.0	21.0	20.0	21.5	21.0
2	8.0	7.5	11.0	10.5	18.0	17.5	20.0	19.0	21.0	19.0	21.0	17.0
3	9.5	7.5	13.5	10.5	18.5	18.0	20.5	19.5	21.0	19.0	18.5	15.5
4	9.5	7.5	13.5	13.5	18.5	18.0	21.0	20.5	21.0	20.5	19.0	16.0
5	7.5	7.0	13.5	11.0	19.5	18.0	22.0	21.0	21.0	20.5	18.0	15.5
6	11.0	7.0	13.5	10.5	19.5	19.5	22.0	22.0	21.0	17.0	17.5	15.0
7	12.0	10.5	13.5	11.0	20.0	19.5	22.0	22.0	18.0	17.0	17.0	16.0
8	12.0	10.5	13.5	11.0	20.0	20.0	22.0	21.5	18.5	17.5	17.0	16.5
9	13.0	11.5	13.5	12.0	20.5	20.0	21.5	21.0	19.5	18.5	17.5	16.5
10	13.0	10.5	15.0	13.0	20.5	20.0	21.5	21.0	21.0	19.5	19.5	16.5
11	11.0	10.5	15.0	14.0	22.0	20.0	21.5	21.0	21.0	21.0	16.5	16.0
12	11.5	11.0	14.0	13.0	22.0	19.0	21.5	21.0	21.5	21.0	16.0	14.0
13	11.0	10.5	14.0	11.5	19.0	17.0	21.5	21.0	22.0	21.5	15.0	14.0
14	10.5	8.5	14.0	11.5	19.0	17.5	21.5	21.0	22.0	22.0	17.0	15.0
15	10.0	7.5	15.0	14.0	19.0	18.0	23.0	21.5	22.0	22.0	16.0	13.5
16	10.0	8.5	15.5	14.5	19.5	17.5	22.5	22.0	22.0	22.0	16.0	14.0
17	10.0	9.5	15.5	15.0	19.5	18.0	22.0	22.0	22.0	22.0	14.0	13.5
18	12.0	10.0	15.5	15.0	20.5	18.0	22.0	21.5	22.0	21.5	13.5	13.5
19	14.5	12.0	15.5	15.0	20.5	18.0	21.5	21.5	21.5	21.0	14.0	13.0
20	14.5	14.0	16.5	15.5	21.0	19.0	21.5	21.5	21.0	21.0	14.0	13.5
21	14.0	13.5	16.5	16.5	21.5	20.0	21.5	21.5	21.0	21.0	15.0	13.5
22	13.5	12.0	17.0	16.5	21.5	20.0	21.5	21.5	21.0	21.0	15.0	14.0
23	12.0	11.0	17.0	16.5	20.0	18.5	21.5	21.5	21.0	20.5	14.0	14.0
24	11.0	11.0	19.0	17.0	20.0	18.0	21.5	21.0	21.5	20.5	14.0	14.0
25	11.0	11.0	18.5	18.0	20.0	18.0	21.5	21.0	20.5	20.5	14.0	14.0
26	12.0	11.0	18.5	18.0	18.5	17.0	21.0	20.5	20.5	20.5	14.0	14.0
27	14.0	11.0	18.5	17.0	18.5	18.5	20.5	20.5	20.5	20.5	14.0	14.0
28	14.0	11.5	17.0	16.0	18.0	18.0	20.5	20.0	20.5	20.5	14.0	13.0
29	14.0	11.0	18.0	16.0	18.5	18.0	20.0	20.0	22.0	20.5	14.0	13.0
30	13.0	10.5	18.0	16.5	20.0	18.5	21.0	18.5	21.5	21.0	13.5	13.0
31	---	---	18.0	16.0	---	---	21.0	20.0	21.5	21.0	---	---
MONTH	14.5	7.0	19.0	10.5	22.0	17.0	23.0	18.5	22.0	17.0	21.5	13.0
YEAR	23.0	2.5										

01596500 SAVAGE RIVER NEAR BARTON, MD

LOCATION.--Lat 39°34'05", long 79°06'10", Garrett County, Hydrologic Unit 02070002, on right bank 0.9 mi upstream from Bear Pen Run, 1.5 mi downstream from Poplar Lick Run, 5.4 mi northwest of Barton, and 10 mi upstream from mouth.

DRAINAGE AREA.--49.1 mi^2.

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1,603.88 ft above sea level.

REMARKS.--Records good except those for estimated daily discharges (ice effect and periods of no contact between well and stream), which are fair. U.S. Army Corps of Engineers satellite 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.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 800 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
June 2	2030	818	3.36	June 27	1700	*2,010	*4.72

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e3.0	4.6	31	63	e35	212	22	62	28	162	6.3	e2.0
2	4.3	e7.0	23	68	33	174	21	93	142	128	6.3	e2.0
3	e3.3	e6.0	20	85	29	128	20	145	227	91	6.1	e2.0
4	e3.2	e4.8	18	108	e28	103	21	139	116	69	5.9	e2.0
5	e3.0	4.2	104	208	e27	89	21	119	80	56	5.9	e1.9
6	e2.9	e3.4	105	355	e26	91	19	96	60	47	50	e1.9
7	e2.9	e3.2	77	147	e25	93	19	79	47	40	22	e1.9
8	e2.8	e3.1	57	75	e25	97	20	67	51	32	13	e1.9
9	e2.8	e3.3	45	74	e25	94	34	60	44	25	9.9	e1.9
10	e2.7	8.0	86	65	e24	82	64	60	49	22	8.6	e1.8
11	e2.6	9.5	188	51	e24	80	75	135	37	21	9.6	e1.8
12	e2.6	6.0	131	47	e24	92	77	118	63	19	15	e2.0
13	e2.6	4.7	92	62	e23	96	84	102	56	16	9.8	e2.1
14	e2.5	4.1	69	80	e23	94	79	330	44	13	7.9	e1.9
15	e2.5	3.8	54	608	e23	87	74	365	36	11	6.9	e1.9
16	e2.5	7.5	45	643	e80	78	67	205	29	13	6.3	e2.1
17	e2.5	22	44	370	e75	70	62	154	23	20	e5.6	9.4
18	e2.4	14	50	203	e70	59	59	271	20	22	e5.1	7.9
19	e2.5	12	51	135	e80	52	53	367	18	14	e4.7	e4.7
20	e2.7	8.4	50	269	e90	47	46	228	16	11	e4.4	e2.9
21	e2.7	14	47	261	e120	47	43	150	15	9.6	e4.0	e2.2
22	e2.5	24	44	175	99	43	39	112	14	9.3	e3.5	e3.0
23	e2.5	15	41	124	97	38	36	87	17	8.5	e3.1	7.7
24	e2.4	12	38	97	151	34	55	69	21	7.8	e2.7	e5.0
25	e2.3	11	37	78	131	29	91	56	17	7.8	e2.5	e3.7
26	e2.3	9.7	33	68	109	26	92	48	18	7.4	e2.3	e3.6
27	e2.3	9.6	30	64	93	25	86	42	571	7.1	e2.3	e2.8
28	e2.3	97	31	52	138	29	78	41	669	9.4	e2.1	e2.3
29	e2.3	70	28	e48	---	26	68	52	308	11	e2.1	e2.1
30	e2.2	44	31	e44	---	24	66	40	195	7.8	e2.1	e1.9
31	e2.2	---	54	e40	---	23	---	32	---	6.4	e2.0	---
TOTAL	82.3	445.9	1754	4767	1727	2262	1591	3924	3031	924.1	238.0	90.3
MEAN	2.65	14.9	56.6	154	61.7	73.0	53.0	127	101	29.8	7.68	3.01
MAX	4.3	97	188	643	151	212	92	367	669	162	50	9.4
MIN	2.2	3.1	18	40	23	23	19	32	14	6.4	2.0	1.8
CFSM	.05	.30	1.15	3.13	1.26	1.49	1.08	2.58	2.06	.61	.16	.06
IN.	.06	.34	1.33	3.61	1.31	1.71	1.21	2.97	2.30	.70	.18	.07

e Estimated

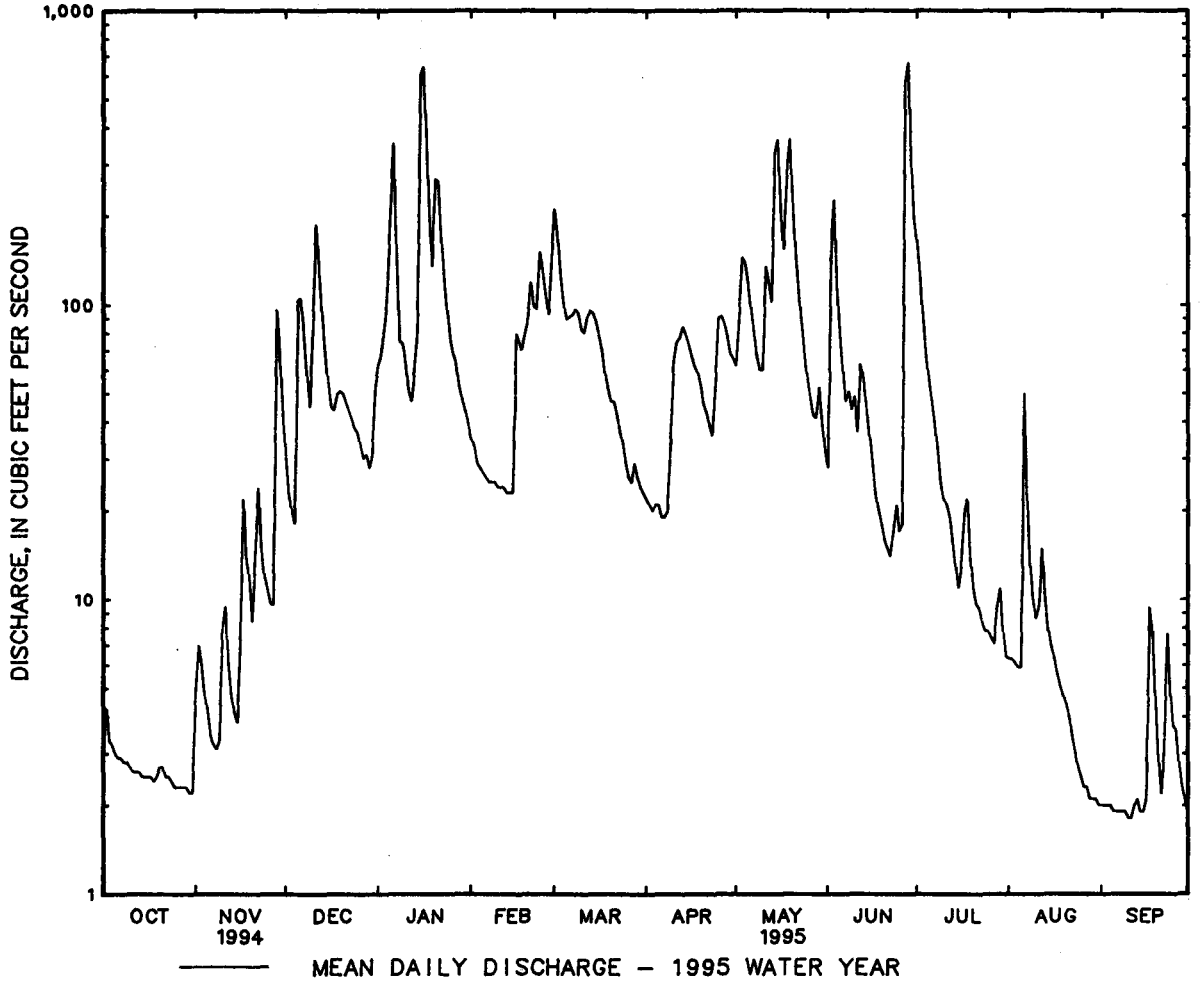
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1948 - 1995, BY WATER YEAR (WY)

MEAN	27.1	50.6	90.9	95.0	124	181	144	91.8	45.1	20.0	16.3	14.9
MAX	157	336	256	251	307	362	343	205	154	111	116	98.1
(WY)	1955	1986	1973	1952	1956	1994	1993	1968	1981	1989	1956	1950
MIN	1.52	2.32	5.96	13.7	19.4	30.8	33.0	21.8	5.48	2.68	2.05	1.78
(WY)	1964	1954	1954	1977	1954	1990	1968	1991	1965	1965	1966	1991

01596500 SAVAGE RIVER NEAR BARTON, MD--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1948 - 1995	
ANNUAL TOTAL	30691.8		20836.6			
ANNUAL MEAN	84.1		57.1		74.9	
HIGHEST ANNUAL MEAN					102	1955
LOWEST ANNUAL MEAN					34.9	1954
HIGHEST DAILY MEAN	859	Mar 28	669	Jun 28	2180	Nov 5 1985
LOWEST DAILY MEAN	(e)2.2	(a)	(e)1.8	(b)	.50	(c)
ANNUAL SEVEN-DAY MINIMUM	2.3	Oct 25	1.9	Sep 5	.63	Aug 29 1966
INSTANTANEOUS PEAK FLOW			2010	Jun 27	(d)7510	Oct 15 1954
INSTANTANEOUS PEAK STAGE			4.72	Jun 27	8.45	Oct 15 1954
INSTANTANEOUS LOW FLOW			UNKNOWN		.40	(f)
ANNUAL RUNOFF (CFSM)	1.71		1.16		1.52	
ANNUAL RUNOFF (INCHES)	23.25		15.79		20.71	
10 PERCENT EXCEEDS	263		129		186	
50 PERCENT EXCEEDS	28		29		33	
90 PERCENT EXCEEDS	3.0		2.5		3.9	

e Estimated.
a Oct. 30, 31.
b Sept. 10, 11.
c Sept. 2, 3, 12, 1966
d From rating curve extended above 1,600 ft^3/s on basis of slope-area measurement of peak flow.
f Sept. 3, 4, 1966.



01598500 NORTH BRANCH POTOMAC RIVER AT LUKE, MD

LOCATION.--Lat 39°28'45", long 79°03'55", 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.--404 mi^2.

PERIOD OF RECORD.--June 1899 to July 1906 (published as "at Piedmont, W. Va."), October 1949 to current year.

REVISED RECORDS.--WSP 192: 1899-1904. WSP 1432: 1905-6, drainage area at former site.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 946.22 ft above sea level. 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 telemeter 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.

PEAK DISCHARGE FOR CURRENT YEAR.--Peak discharge, 7,350 ft^3/s, June 27, gage height, 8.31 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	345	249	264	439	544	758	342	247	437	1170	330	499
2	353	248	270	447	543	871	309	316	501	1160	329	506
3	344	245	267	469	511	1070	277	337	852	1010	328	506
4	341	244	271	501	480	1280	281	389	770	799	326	505
5	341	243	369	493	470	1280	278	444	630	618	327	504
6	339	243	325	501	396	1200	277	416	537	496	1330	503
7	339	242	321	662	318	1150	276	405	439	442	2390	502
8	341	242	312	803	316	1150	277	472	437	401	1010	502
9	341	249	314	796	313	1140	278	610	407	390	729	501
10	338	249	378	795	315	1020	278	628	388	358	663	498
11	338	841	416	907	314	893	279	570	387	335	670	429
12	336	745	431	1130	309	897	279	525	406	341	734	396
13	337	233	511	1140	309	895	280	1030	390	339	743	305
14	337	236	502	1150	307	893	280	1890	370	331	665	291
15	337	236	553	2220	312	691	278	3880	340	331	616	304
16	336	245	542	3420	396	507	279	2360	337	328	558	306
17	333	245	518	3400	473	503	280	1820	336	330	483	322
18	333	240	520	3070	478	500	280	2360	333	328	410	308
19	334	237	510	2740	485	497	280	2410	310	324	464	304
20	332	236	560	2550	503	428	280	1770	282	321	431	457
21	330	260	613	2480	521	360	280	1610	280	328	397	694
22	330	254	604	2430	510	357	279	1500	281	337	411	329
23	330	247	602	2220	524	354	281	1120	298	336	407	778
24	330	246	605	1820	610	350	299	917	291	336	408	974
25	329	245	601	1320	635	347	288	810	285	335	408	328
26	330	243	596	970	631	345	266	595	294	350	441	320
27	300	255	593	902	627	346	244	751	2000	330	473	315
28	245	312	489	802	641	349	245	776	2600	347	505	311
29	245	270	406	659	---	347	244	552	1480	335	546	310
30	245	259	416	605	---	675	249	519	1140	330	547	309
31	245	---	420	545	---	346	---	464	---	330	517	---
TOTAL	10034	8539	14099	42386	12791	21799	8343	32493	17838	13846	18596	13116
MEAN	324	285	455	1367	457	703	278	1048	595	447	600	437
MAX	353	841	613	3420	641	1280	342	3880	2600	1170	2390	974
MIN	245	233	264	439	307	345	244	247	280	321	326	291
CFSM	.80	.70	1.13	3.38	1.13	1.74	.69	2.59	1.47	1.11	1.48	1.08
IN.	.92	.79	1.30	3.90	1.18	2.01	.77	2.99	1.64	1.27	1.71	1.21

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1899 - 1906, 1950 - 1995, BY WATER YEAR (WY)

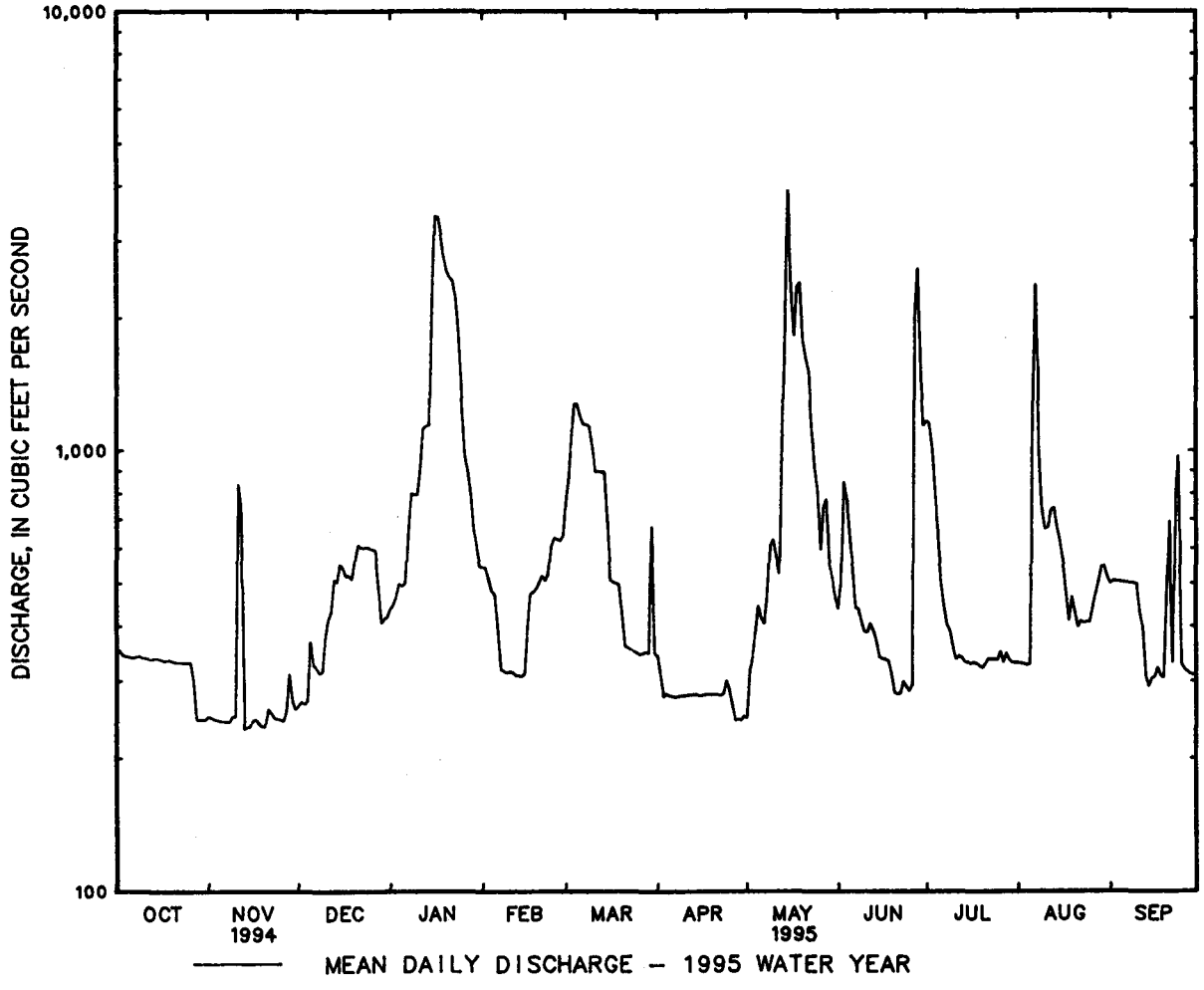
MEAN	333	443	818	901	1079	1558	1218	885	525	330	299	251
MAX	1423	2806	2536	2276	2487	3414	3098	2238	1493	1294	1401	737
(WY)	1955	1986	1973	1952	1994	1963	1993	1988	1981	1990	1955	1971
MIN	27.6	33.5	131	166	99.8	467	278	165	108	91.4	37.0	17.1
(WY)	1905	1905	1954	1977	1905	1988	1995	1982	1969	1953	1904	1904

01598500 NORTH BRANCH POTOMAC RIVER AT LUKE, MD--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1899 - 1906, 1950 - 1995	
ANNUAL TOTAL	377888		213880			
ANNUAL MEAN	1035		586		721	
ANNUAL MEAN≠	1036		560		722	
HIGHEST ANNUAL MEAN					1090	1994
LOWEST ANNUAL MEAN					412	1969
HIGHEST DAILY MEAN	7740	Mar 27	3880	May 15	18400	Aug 18 1955
LOWEST DAILY MEAN	233	Nov 13	233	Nov 13	6.0	Sep 4 1904
ANNUAL SEVEN-DAY MINIMUM	237	Jul 14	239	Nov 13	11	Aug 29 1904
INSTANTANEOUS PEAK FLOW			7350	Jun 27	(a)39400	Oct 15 1954
INSTANTANEOUS PEAK STAGE			8.31	Jun 27	17.15	Oct 15 1954
INSTANTANEOUS LOW FLOW			197	Sep 11	UNKNOWN	
ANNUAL RUNOFF (CFSM)	2.56		1.45		1.78	
ANNUAL RUNOFF (CFSM)≠	2.56		1.39		1.79	
ANNUAL RUNOFF (INCHES)	34.80		19.69		24.24	
ANNUAL RUNOFF (INCHES)≠	34.82		18.82		24.26	
10 PERCENT EXCEEDS	2830		1130		1620	
50 PERCENT EXCEEDS	489		396		402	
90 PERCENT EXCEEDS	245		265		108	

≠ Adjusted for change in reservoir contents since October 1949.

a From rating curve extended above 25,000 ft^3/s on basis of slope-area measurement of peak flow.



01599000 GEORGES CREEK AT FRANKLIN, MD

LOCATION.--Lat 39°29'38", long 79°02'42", Allegany County, Hydrologic Unit 02070002, on right bank at Franklin, and 1.2 mi upstream from Westernport and mouth.

DRAINAGE AREA.--72.4 mi^2.

PERIOD OF RECORD.--May 1905 to July 1906 (published as "at Westernport"), October 1929 to current year.

REVISED RECORDS.--WSP 726: Drainage area. WSP 1502: 1940. WDR MD-DE-86-1: 1984(M).

GAGE.--Water-stage recorder. Datum of gage is 958.96 ft above sea level (Westvaco Corporation bench mark). 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 (backwater from leaves; ice effect), which are fair. Records include about 0.5 ft^3/s of sewage from city of Frostburg, which obtains its water supply from Big Piney Run (Monongahela River basin) and Savage River. A negligible discharge is diverted upstream from station by Frostburg Water Co. for municipal supplies of Eckhart and Welch 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). 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.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,200 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
June 2	1700	1,780	7.31	June 27	1530	*3,360	*9.55

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.0	16	21	66	55	114	36	69	56	256	21	9.9
2	13	16	17	70	50	98	34	139	531	186	21	9.8
3	9.9	12	15	51	46	89	33	136	502	138	20	9.5
4	8.0	11	14	43	44	86	36	108	277	116	18	9.3
5	7.6	10	126	e33	36	81	33	102	194	99	18	8.9
6	7.3	10	75	42	e39	87	31	92	146	93	108	8.8
7	7.2	9.4	48	77	39	84	30	83	113	79	49	8.6
8	7.3	9.1	36	61	33	87	30	79	111	66	32	8.5
9	7.4	9.5	33	50	32	86	36	75	96	58	26	8.7
10	7.6	15	84	45	34	79	46	84	98	50	25	8.1
11	7.4	13	135	41	34	83	43	145	82	46	27	7.5
12	7.1	11	80	46	31	94	40	96	114	41	27	8.0
13	7.4	11	59	63	e30	87	44	86	90	37	23	9.0
14	7.5	10	48	71	e29	83	43	324	75	34	21	8.8
15	7.4	10	43	650	28	82	40	257	64	36	19	8.2
16	7.3	15	39	523	57	81	39	187	54	35	18	8.3
17	7.3	22	55	295	54	77	40	181	47	37	17	28
18	7.5	16	63	205	50	71	41	249	42	50	15	14
19	e7.4	15	55	153	58	67	40	235	39	32	15	12
20	e7.4	13	47	283	79	61	37	178	36	27	14	11
21	e7.7	29	42	200	89	62	38	142	33	26	14	13
22	e7.5	28	40	154	77	59	36	115	31	25	13	21
23	e7.4	17	38	126	78	54	34	97	45	24	12	17
24	e7.4	15	39	105	97	49	79	88	48	23	12	13
25	e7.4	14	39	90	83	45	98	82	42	22	11	12
26	e7.4	13	34	83	82	42	82	76	63	22	11	12
27	e7.6	16	31	76	82	40	77	69	756	20	11	11
28	e7.5	95	29	72	107	45	75	95	633	72	11	10
29	e7.5	51	27	64	---	41	67	99	405	47	11	9.8
30	e7.4	29	24	61	---	39	67	74	305	27	11	9.7
31	e7.4	---	25	55	---	38	---	64	---	23	10	---
TOTAL	238.2	561.0	1461	3954	1553	2191	1405	3906	5128	1847	661	333.4
MEAN	7.68	18.7	47.1	128	55.5	70.7	46.8	126	171	59.6	21.3	11.1
MAX	13	95	135	650	107	114	98	324	756	256	108	28
MIN	7.0	9.1	14	33	28	38	30	64	31	20	10	7.5
CFSM	.11	.26	.65	1.76	.77	.98	.65	1.74	2.36	.82	.29	.15
IN.	.12	.29	.75	2.03	.80	1.13	.72	2.01	2.63	.95	.34	.17

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1905 - 1906, 1930 - 1995, BY WATER YEAR (WY)

MEAN	32.6	41.3	73.8	92.6	123	206	175	121	57.5	30.8	22.0	19.4
MAX	270	355	314	371	283	682	420	294	171	185	120	141
(WY)	1943	1986	1973	1937	1971	1936	1993	1989	1995	1989	1955	1945
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 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1905 - 1906, 1930 - 1995	
ANNUAL TOTAL	43471.2		23238.6			
ANNUAL MEAN	119		63.7		81.8	
HIGHEST ANNUAL MEAN					129	1984
LOWEST ANNUAL MEAN					30.7	1969
HIGHEST DAILY MEAN	1240	Mar 24	756	Jun 27	4130	Mar 17 1936
LOWEST DAILY MEAN	6.6	Sep 30	7.0	Oct 1	1.6	(a)
ANNUAL SEVEN-DAY MINIMUM	7.3	Oct 6	7.3	Oct 6	1.6	Sep 29 1930
INSTANTANEOUS PEAK FLOW			3360	Jun 27	(b)8500	Mar 17 1936
INSTANTANEOUS PEAK STAGE			9.55	Jun 27	(c)9.60	Mar 17 1936
INSTANTANEOUS LOW FLOW			6.6	(d)	1.6	(f)
ANNUAL RUNOFF (CFSM)	1.65		.88		1.13	
ANNUAL RUNOFF (INCHES)	22.34		11.94		15.35	
10 PERCENT EXCEEDS	350		114		197	
50 PERCENT EXCEEDS	34		40		37	
90 PERCENT EXCEEDS	8.0		8.7		7.1	

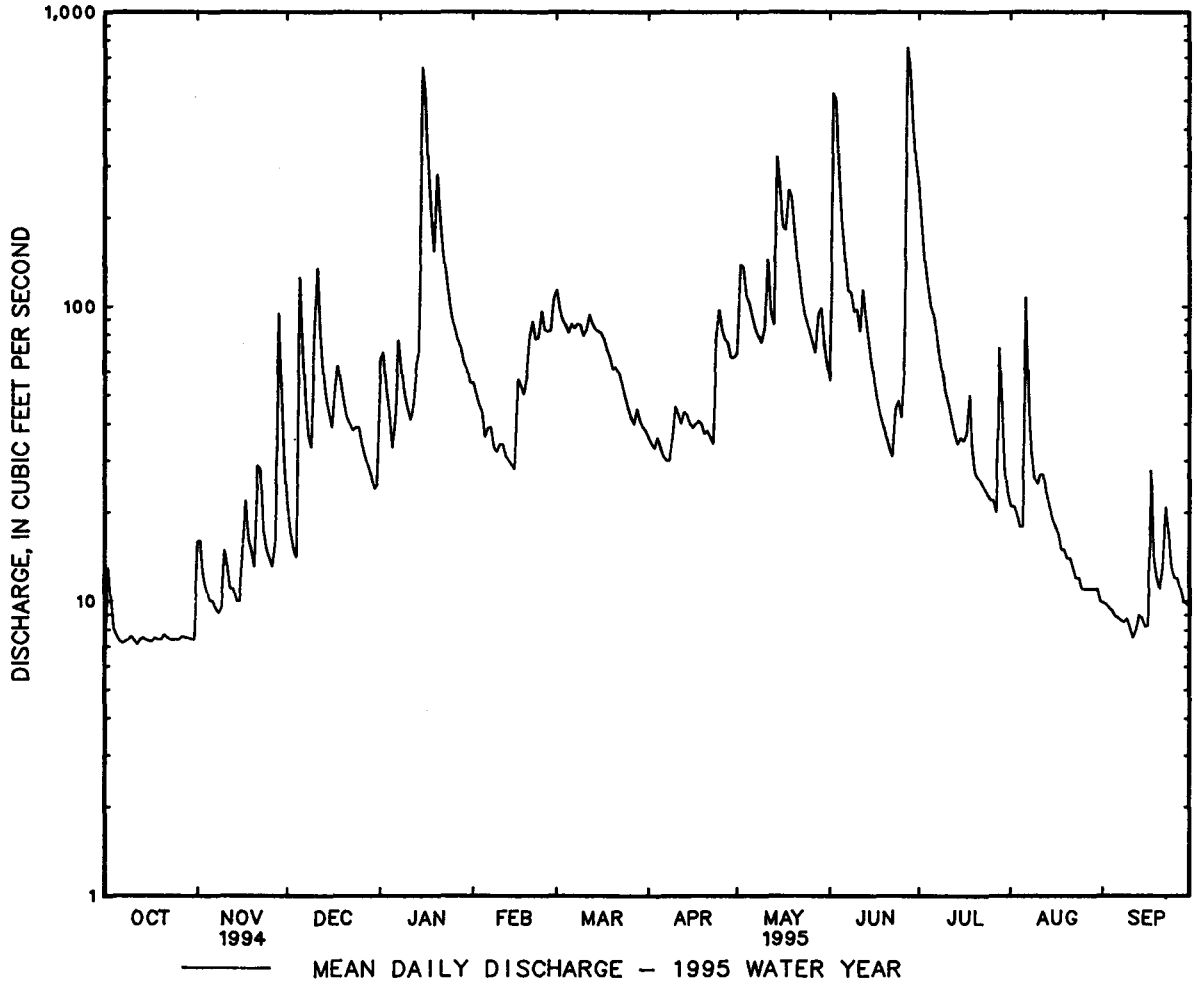
a Sept. 29, 30, 1930.

b From rating curve extended above 2,000 ft^3/s on basis of slope-area measurement of peak flow.

c At site then in use.

d Oct. 1, 12.

f Sept. 29 to Oct. 13, 1930.



01601500 WILLS CREEK NEAR CUMBERLAND, MD

LOCATION.--Lat 39°40'07", long 78°47'18", Allegany County, Hydrologic Unit 02070002, on right bank at downstream side of Western Maryland Railway bridge, 0.15 mi downstream from Braddock Run, 2.0 mi upstream from Cumberland, and mouth.

DRAINAGE AREA.--247 mi^2.

PERIOD OF RECORD.--May 1905 to July 1906 (published as "at Cumberland"), October 1929 to current year.

REVISED RECORDS.--WSP 726: Drainage area. WSP 1432: 1906, 1930(M), 1933-34(M), 1936-37, 1945(M).

GAGE.--Water-stage recorder. Datum of gage is 640.89 ft above sea level. 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 fair. 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 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.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 15	2015	4,030	6.86	June 30	2200	*5,100	*7.44

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	36	186	200	189	570	129	253	193	2450	58	28
2	33	47	149	237	174	549	122	335	555	1240	56	28
3	35	45	126	e180	141	475	116	398	1170	786	53	27
4	34	38	113	e170	e130	405	117	401	708	563	50	27
5	31	35	610	e135	e110	349	119	412	497	438	55	26
6	30	33	612	e180	91	393	109	372	384	364	151	26
7	29	32	450	e270	e89	387	107	323	312	296	132	25
8	29	31	332	225	e86	431	111	285	320	246	82	25
9	29	31	261	180	e84	462	258	257	252	214	67	25
10	29	41	394	160	e82	417	354	262	219	187	62	25
11	29	46	748	146	e80	416	415	519	202	192	71	25
12	28	43	611	150	e78	439	424	439	385	158	75	24
13	28	37	453	192	e76	418	430	423	388	137	66	24
14	28	34	347	228	e74	406	379	812	321	123	56	25
15	28	33	283	1850	82	384	340	946	264	118	51	24
16	28	46	239	2520	132	355	307	793	220	179	47	24
17	27	95	239	1280	184	319	282	734	187	263	46	49
18	27	77	248	826	176	280	266	903	160	287	43	38
19	27	63	235	619	188	254	250	1030	142	164	40	33
20	29	54	212	1090	248	238	225	852	129	133	39	29
21	29	71	201	1040	312	234	209	672	123	117	37	29
22	30	124	196	807	270	229	199	526	111	111	35	33
23	30	87	193	619	274	204	185	414	139	104	34	36
24	29	72	189	490	365	186	253	343	161	100	33	37
25	29	64	206	394	331	165	302	293	165	100	32	32
26	29	58	175	327	327	151	271	258	283	89	31	30
27	29	67	156	275	307	143	277	221	1060	82	31	28
28	29	381	149	261	388	153	278	292	1380	81	30	27
29	29	344	144	213	---	146	262	376	1260	75	30	26
30	29	242	127	217	---	138	254	249	1970	68	29	26
31	29	---	109	183	---	133	---	215	---	62	28	---
TOTAL	909	2407	8693	15664	5068	9829	7350	14608	13660	9527	1650	861
MEAN	29.3	80.2	280	505	181	317	245	471	455	307	53.2	28.7
MAX	35	381	748	2520	388	570	430	1030	1970	2450	151	49
MIN	27	31	109	135	74	133	107	215	111	62	28	24
CFSM	.12	.32	1.14	2.05	.73	1.28	.99	1.91	1.84	1.24	.22	.12
IN.	.14	.36	1.31	2.36	.76	1.48	1.11	2.20	2.06	1.43	.25	.13

e Estimated

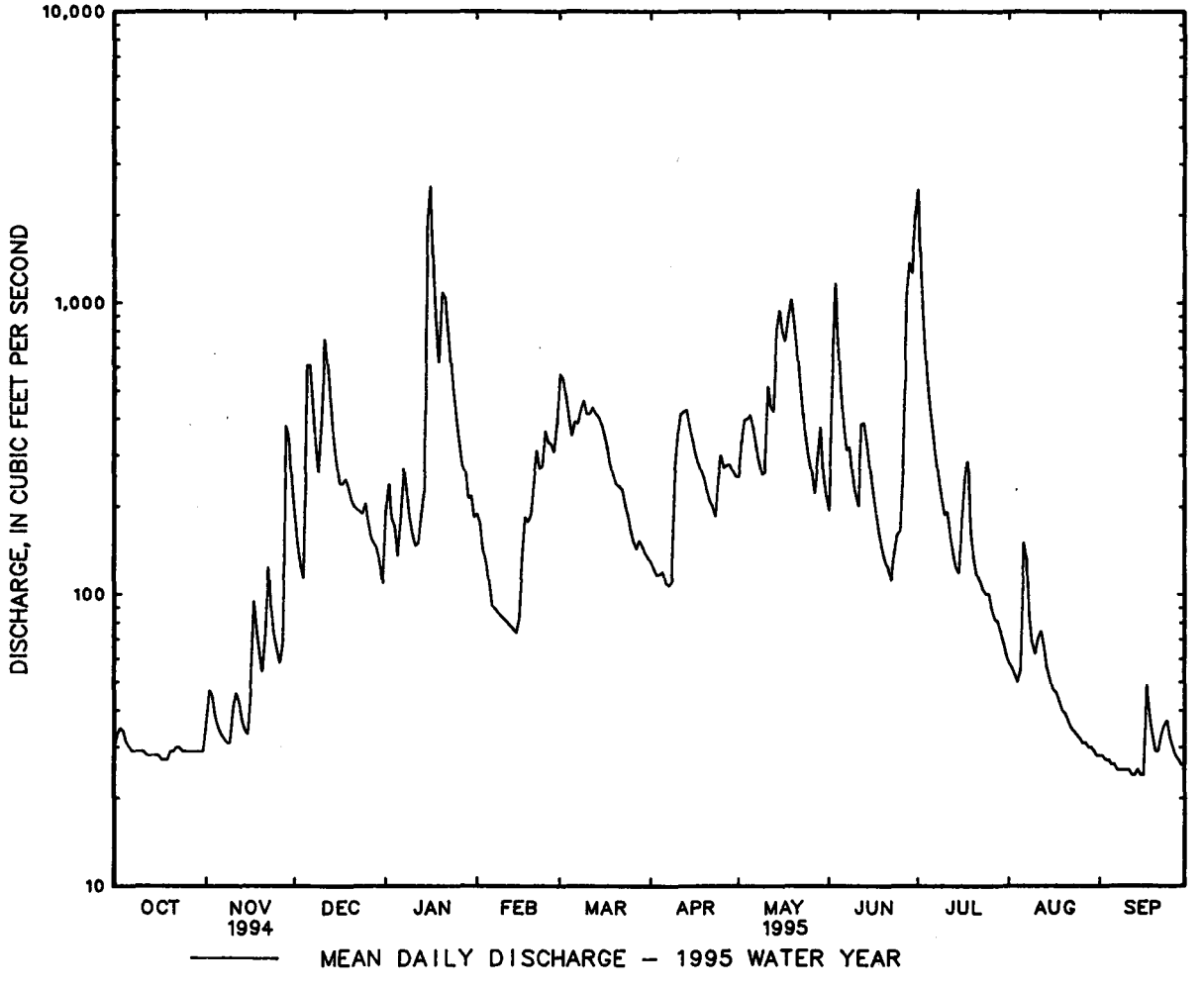
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1905 - 1906, 1930 - 1995, BY WATER YEAR (WY)

MEAN	137	192	326	382	503	814	686	454	228	115	90.6	72.8
MAX	1130	1520	1113	1477	1255	2410	1910	1109	967	641	674	412
(WY)	1943	1986	1973	1937	1971	1936	1993	1989	1972	1989	1984	1945
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 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1905 - 1906, 1930 - 1995	
ANNUAL TOTAL	149831		90226			
ANNUAL MEAN	410		247		333	
HIGHEST ANNUAL MEAN					499	1993
LOWEST ANNUAL MEAN					122	1954
HIGHEST DAILY MEAN	5340	Mar 25	2520	Jan 16	15700	Oct 15 1942
LOWEST DAILY MEAN	27	(a)	24	(b)	10	(c)
ANNUAL SEVEN-DAY MINIMUM	28	Oct 13	24	Sep 10	10	Oct 8 1930
INSTANTANEOUS PEAK FLOW			5100	Jun 30	(d)38100	Mar 17 1936
INSTANTANEOUS PEAK STAGE			7.44	Jun 30	(f)20.20	Mar 17 1936
INSTANTANEOUS LOW FLOW			22	Sep 12	9.0	Oct 14 1930
ANNUAL RUNOFF (CFSM)	1.66		1.00		1.35	
ANNUAL RUNOFF (INCHES)	22.57		13.59		18.31	
10 PERCENT EXCEEDS	1140		506		791	
50 PERCENT EXCEEDS	162		164		147	
90 PERCENT EXCEEDS	33		29		30	

a Oct. 17-19.
b Sept. 12, 13, 15, 16.
c Oct. 8-10, 1930.
d From rating curve extended above 11,000 ft^3/s on basis of slope-area measurements at gage heights of 13.45 and 20.2 ft.
f From floodmarks at present site.



01603000 NORTH BRANCH POTOMAC RIVER NEAR CUMBERLAND, MD

LOCATION.--Lat 39°37'18", long 78°46'24", 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.--875 mi^2.

PERIOD OF RECORD.--May 1929 to current year. Gage-height records collected at various sites about 2.0 mi upstream from September 1901 to December 1932 and thereafter at present site, are contained in reports of the National Weather Service.

REVISED RECORDS.--WSP 726: Drainage area. WSP 781: 1932(M).

GAGE.--Water-stage recorder. Datum of gage is 585.22 ft above sea level. Prior to June 18, 1929, nonrecording gage at same site and datum.

REMARKS.--Records good except those for estimated daily discharges (ice effect), which are fair. 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 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, 29.2 ft June 1, 1889, discharge, about 89,000 ft^3/s.

Flood of Mar. 29, 1924, reached a stage of 28.4 ft, discharge, about 82,000 ft^3/s.

PEAK DISCHARGE FOR CURRENT YEAR.--Peak discharge, 14,200 ft^3/s, June 28, gage height, 12.56 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	393	328	541	814	936	1630	621	754	851	4620	443	517
2	428	339	492	945	916	1730	599	951	1290	3090	436	526
3	415	331	459	836	869	1680	525	1410	3110	2370	428	522
4	401	317	443	e790	831	1900	513	1300	2210	1850	420	519
5	393	311	1300	e740	765	1840	519	1340	1600	1520	442	518
6	392	310	1410	e760	e650	1880	494	1230	1370	1240	915	510
7	389	304	1040	1010	e600	1780	491	1100	1100	1090	3160	509
8	388	303	851	1260	e550	1830	494	1010	1070	902	1410	509
9	387	304	738	1170	e520	1910	683	1070	954	827	911	508
10	387	355	949	1130	492	1800	811	1220	869	760	801	503
11	387	352	1820	1100	484	1600	899	1550	824	726	792	500
12	385	1300	1440	1360	456	1670	895	1340	1080	655	822	435
13	384	396	1250	1490	424	1630	910	1350	1110	624	904	379
14	384	307	1090	1560	427	1600	849	2940	939	588	790	334
15	384	305	987	4480	423	1550	797	5400	822	573	730	322
16	378	341	1010	7560	439	1200	750	3680	733	710	639	340
17	378	420	944	5680	748	1130	721	3320	675	819	640	464
18	378	391	1000	4360	851	1060	713	3190	629	873	458	406
19	381	357	971	3830	915	1010	694	4470	596	643	486	368
20	386	340	915	4230	1030	973	652	3130	530	573	499	356
21	385	392	980	4080	1180	847	632	2720	504	536	438	676
22	384	519	966	3630	1100	824	615	2390	482	538	437	635
23	384	407	950	3240	1090	775	588	2020	565	525	431	451
24	379	372	945	2760	1260	734	781	1560	645	514	427	1200
25	379	356	978	2200	1290	687	925	1450	642	513	421	640
26	377	347	922	1660	1250	658	868	1220	859	510	420	373
27	378	373	885	1440	1230	644	818	1030	3190	503	476	364
28	334	957	865	1400	1330	670	792	1330	8000	486	484	359
29	296	919	676	1150	---	653	757	1500	4260	593	551	353
30	296	657	650	1100	---	985	732	1070	4230	483	558	350
31	297	---	626	947	---	751	---	932	---	456	553	---
TOTAL	11687	13010	29093	68712	23056	39631	21138	58977	45739	30710	21322	14446
MEAN	377	434	938	2217	823	1278	705	1902	1525	991	688	482
MAX	428	1300	1820	7560	1330	1910	925	5400	8000	4620	3160	1200
MIN	296	303	443	740	423	644	491	754	482	456	420	322
CFSM	.43	.50	1.07	2.53	.94	1.46	.81	2.17	1.74	1.13	.79	.55
IN.	.50	.55	1.24	2.92	.98	1.68	.90	2.51	1.94	1.31	.91	.61

e Estimated

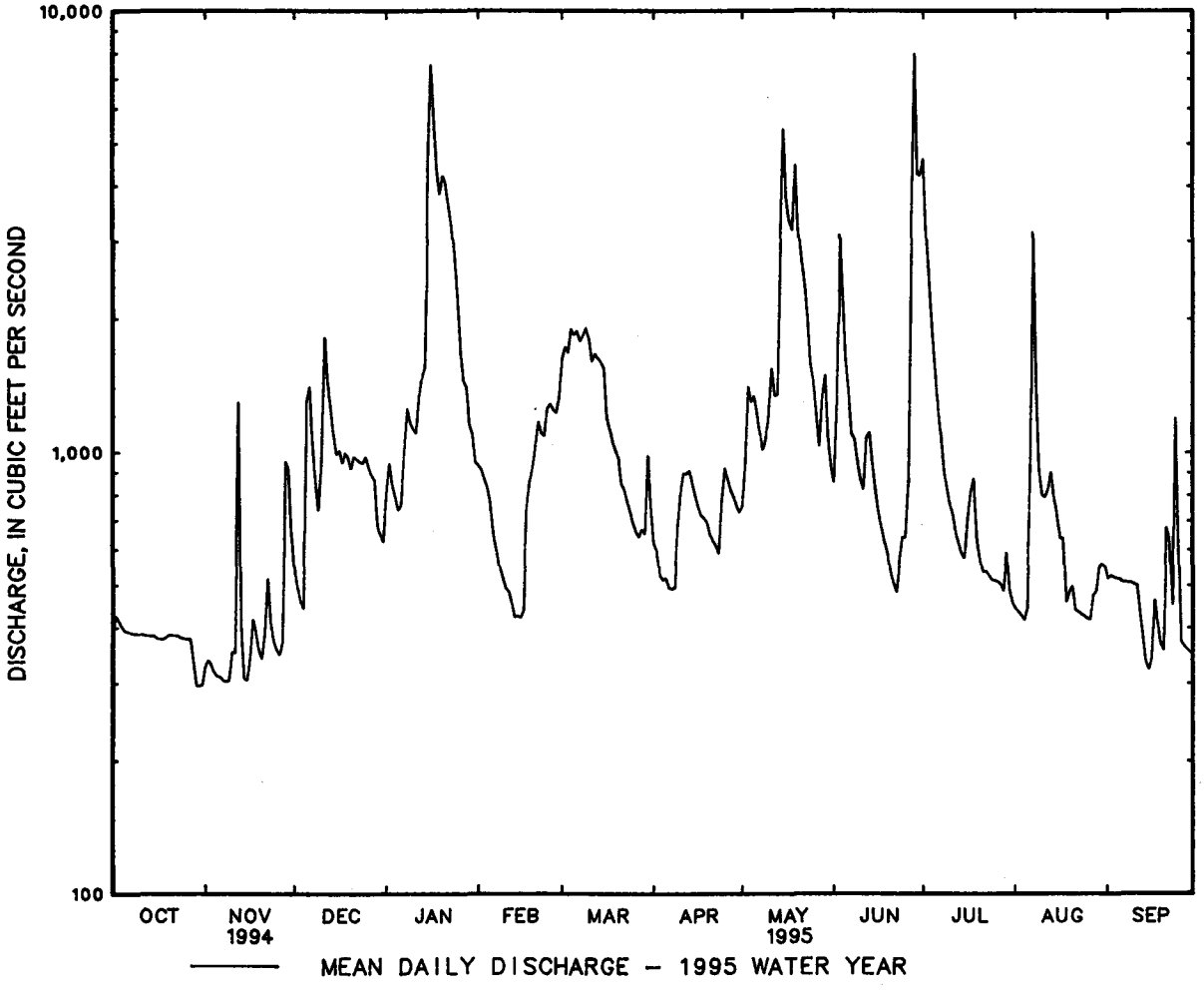
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1929 - 1995, BY WATER YEAR (WY)

MEAN	599	753	1292	1551	1977	2899	2372	1713	886	518	440	390
MAX	3791	5350	4652	5115	4125	8763	5866	3902	2375	2270	2028	2036
(WY)	1943	1986	1973	1937	1961	1936	1993	1988	1981	1989	1955	1945
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 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1929 - 1995	
ANNUAL TOTAL	618389		377521			
ANNUAL MEAN	1694		1034		1280	
ANNUAL MEAN≠	1695		1008		1281	
HIGHEST ANNUAL MEAN					1801	1973
LOWEST ANNUAL MEAN					632	1969
HIGHEST DAILY MEAN	12700	Mar 25	8000	Jun 28	47400	Mar 18 1936
LOWEST DAILY MEAN	292	Jul 20	296	(a)	13	(b)
ANNUAL SEVEN-DAY MINIMUM	311	Nov 3	311	Nov 3	16	Sep 20 1932
INSTANTANEOUS PEAK FLOW			14200	Jun 28	(c)88200	Mar 17 1936
INSTANTANEOUS PEAK STAGE			12.56	Jun 28	29.10	Mar 17 1936
INSTANTANEOUS LOW FLOW			277	Sep 15	12	Sep 22 1932
ANNUAL RUNOFF (CFSM)	1.94		1.18		1.46	
ANNUAL RUNOFF (CFSM)≠	1.94		1.15		1.46	
ANNUAL RUNOFF (INCHES)	26.29		16.05		19.88	
ANNUAL RUNOFF (INCHES)≠	26.31		15.64		19.88	
10 PERCENT EXCEEDS	4680		1830		2960	
50 PERCENT EXCEEDS	824		750		668	
90 PERCENT EXCEEDS	351		378		166	

≠ Adjusted for change in reservoir contents since October 1981.
a Oct. 29, 30.
b Sept. 21-24, 1932.
c From rating curve extended above 33,000 ft^3/s on basis of slope-area measurement of peak flow.



01604500 PATTERSON CREEK NEAR HEADSVILLE, WV

LOCATION.--Lat 39°26'35", long 78°49'20", 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 12.5.

DRAINAGE AREA.--219 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1938 to current year.

REVISED RECORDS.--WSP 951: 1939-40.

GAGE.--Water-stage recorder. Datum of gage is 624.90 ft above sea level (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.--Water-discharge records good except those for estimated daily discharges (ice effect), which are poor. The flow from 115 mi^2 upstream from station is partially controlled, but not diverted, by several floodwater detention reservoirs with a total combined detention capacity of 19,887 acre-ft.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,000 ft^3/s, Aug. 19, 1955, gage height, 12.20 ft, from rating curve extended above 4,900 ft^3/s, on basis of contracted-opening measurement at gage height 11.53 ft; minimum daily discharge, 1.2 ft^3/s, Aug. 18, 1988.

PEAK DISCHARGE FOR CURRENT YEAR.--Peak discharge, 2,000 ft^3/s, Jan. 15, gage height, 8.22 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	17	74	66	126	161	58	110	93	425	21	11
2	13	21	54	100	131	155	55	179	83	361	20	11
3	13	16	43	106	132	146	52	364	98	279	19	9.9
4	13	14	38	e90	133	136	50	344	129	221	17	9.6
5	12	14	178	e60	132	128	46	312	97	176	16	9.3
6	12	14	257	e70	e100	127	45	272	81	225	378	8.8
7	12	14	191	112	e80	122	44	231	69	465	623	8.7
8	12	13	137	181	e85	118	42	194	59	239	444	8.3
9	12	13	103	171	89	133	45	164	51	166	369	8.3
10	11	16	130	147	92	133	45	157	49	123	310	8.3
11	11	18	396	132	e85	146	46	243	48	95	245	8.0
12	11	17	315	126	e80	182	47	197	76	75	192	7.9
13	12	16	238	140	e70	191	50	160	71	58	127	7.9
14	12	16	177	166	e72	182	49	459	54	47	84	8.3
15	12	15	140	801	e75	168	46	722	44	39	57	7.7
16	12	18	117	1210	e80	156	45	532	38	36	41	7.8
17	12	28	120	726	147	141	44	468	34	44	33	13
18	12	28	131	586	200	127	45	468	30	119	30	16
19	11	26	138	497	217	116	46	482	27	105	27	14
20	12	23	128	662	223	108	45	400	25	77	25	13
21	13	30	114	628	230	102	44	343	24	57	23	12
22	13	46	101	514	218	98	44	297	22	42	21	15
23	13	36	94	446	202	94	42	254	30	34	19	15
24	13	30	88	390	196	88	75	222	36	31	17	13
25	14	27	83	336	182	79	139	191	31	29	16	12
26	13	24	75	287	168	71	164	164	52	27	15	12
27	13	24	66	242	158	66	157	138	581	26	14	11
28	13	151	61	214	161	66	139	148	778	30	14	10
29	15	149	56	187	---	66	123	188	525	32	13	9.9
30	14	104	51	159	---	64	111	143	455	30	13	9.4
31	14	---	47	136	---	62	---	115	---	24	12	---
TOTAL	386	978	3941	9688	3864	3732	1983	8661	3790	3737	3255	316.1
MEAN	12.5	32.6	127	313	138	120	66.1	279	126	121	105	10.5
MAX	15	151	396	1210	230	191	164	722	778	465	623	16
MIN	11	13	38	60	70	62	42	110	22	24	12	7.7
CFSM	.06	.15	.58	1.43	.63	.55	.30	1.28	.58	.55	.48	.05
IN.	.07	.17	.67	1.65	.66	.63	.34	1.47	.64	.63	.55	.05

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 1995, BY WATER YEAR (WY)

MEAN	75.8	79.9	162	199	305	427	318	223	106	60.0	50.3	38.4
MAX	745	901	825	558	893	1346	1085	763	379	415	475	395
(WY)	1943	1986	1973	1991	1994	1963	1993	1988	1940	1989	1955	1945
MIN	2.24	4.39	9.70	22.0	30.7	58.3	54.1	21.2	13.4	4.45	5.20	2.80
(WY)	1992	1992	1944	1981	1954	1990	1969	1969	1969	1966	1966	1991

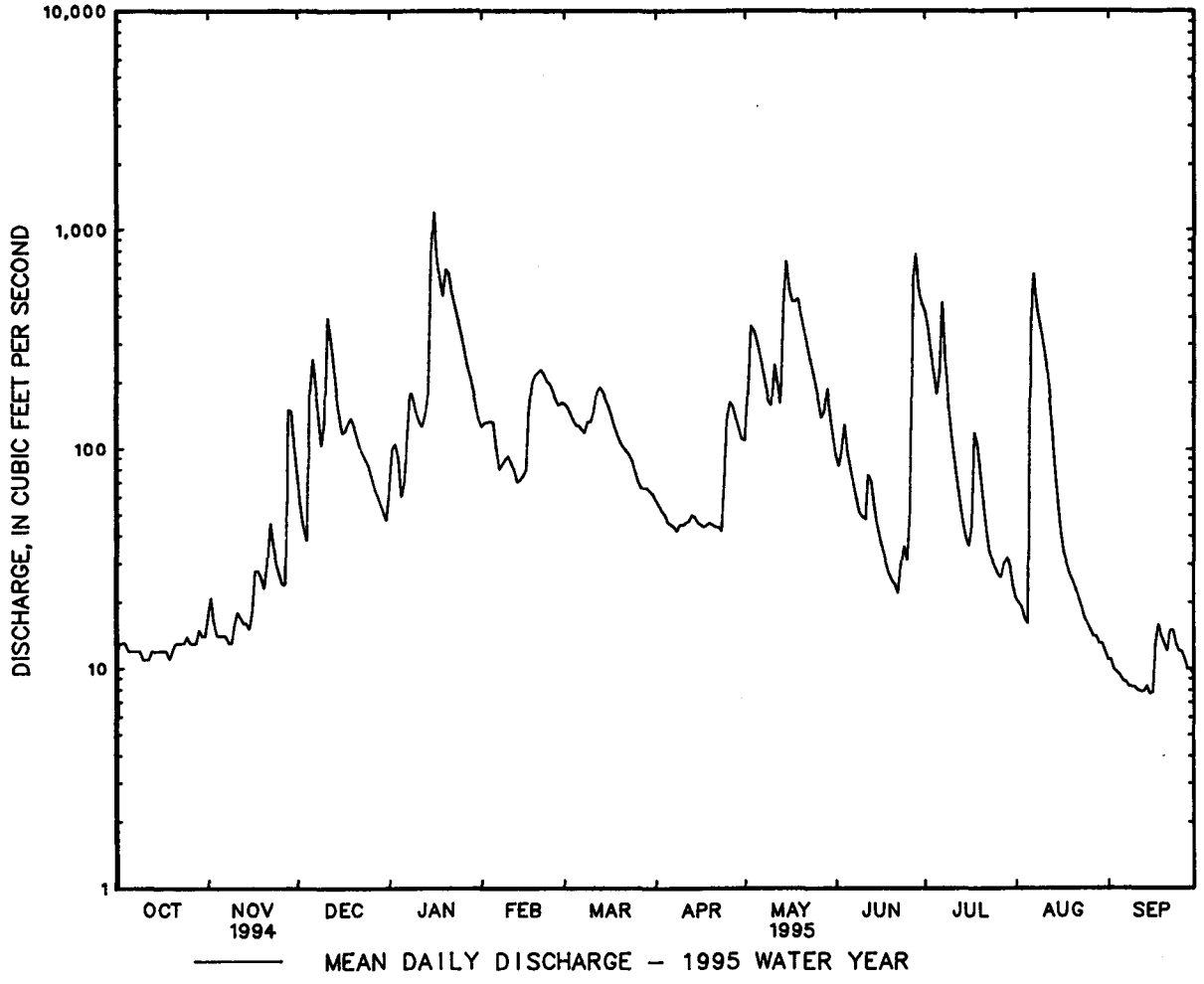
01604500 PATTERSON CREEK NEAR HEADSVILLE, WV--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1938 - 1995	
ANNUAL TOTAL	102882		44331.1			
ANNUAL MEAN	282		121		170	
HIGHEST ANNUAL MEAN					299	1994
LOWEST ANNUAL MEAN					35.1	1969
HIGHEST DAILY MEAN	2630	May 8	1210	Jan 16	11100	Oct 15 1942
LOWEST DAILY MEAN	11	(a)	7.7	Sep 15	1.2	Aug 18 1988
ANNUAL SEVEN-DAY MINIMUM	12	Oct 6	8.0	Sep 10	1.7	Sep 5 1965
INSTANTANEOUS PEAK FLOW			2000	Jan 15	(b)16000	Aug 19 1955
INSTANTANEOUS PEAK STAGE			8.22	Jan 15	12.20	Aug 19 1955
INSTANTANEOUS LOW FLOW			7.4	Sep 13	1.1	(c)
ANNUAL RUNOFF (CFSM)	1.29		.55		.78	
ANNUAL RUNOFF (INCHES)	17.48		7.53		10.53	
10 PERCENT EXCEEDS	907		302		430	
50 PERCENT EXCEEDS	70		70		58	
90 PERCENT EXCEEDS	13		12		9.8	

a Sept. 21, 22, 30, Oct. 1, 10-12, 19.

b From rating curve extended above 4,900 ft^3/s on basis of contracted-opening measurement of peak flow.

c Aug. 18, 19, 1988.



01604500 PATTERSON CREEK NEAR HEADSVILLE, WV---Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1960-61, 1969 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)
DEC 1994								
01...	1505	71	255	5.8	5.0	758	12.8	101
JAN 1995								
24...	1300	407	107	5.8	3.0	746	14.7	112
APR								
06...	1230	44	277	5.9	8.5	745	14.7	129
MAY								
17...	1115	442	83	7.0	12.0	737	9.8	94
JUN								
27...	1450	239	65	7.0	21.0	748	7.4	85
AUG								
29...	1115	14	219	6.9	24.5	758	6.5	78

01606500 SOUTH BRANCH POTOMAC RIVER NEAR PETERSBURG, WV

LOCATION.--Lat 38°59'28", long 79°10'34", 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 72.7.

DRAINAGE AREA.--642 mi^2.

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WSP 951: 1939-41. WSP 1141: 1932, 1933(M), 1936-38.

GAGE.--Water-stage recorder. Datum of gage is 966.00 ft above sea level. Prior to Dec. 4, 1928, nonrecording gage at site 700 ft downstream and at different datum. June 1928 to Nov. 5, 1985, water-stage recorder at site 700 ft downstream at datum 4.00 ft lower. Nov. 5, 1985 to June 22, 1994, water-stage recorder at site 700 ft downstream at datum 2.34 ft higher.

REMARKS.--Water-discharge records good except those for February and March, which are fair, and those for estimated daily discharges (ice effect), which are poor. National Weather Service gage-height telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in 1877 reached a stage of 21.2 ft, from floodmarks at previous site and datum.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 6,000 ft^3/s and maximum(*):

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Jan. 15	2100	*13,400	*10.83	Aug. 6	1615	6,590	8.62
May 14	2015	9,090	9.53				

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	94	98	187	202	455	1710	517	660	388	1990	144	99
2	90	110	168	281	461	1420	488	1330	371	1170	134	92
3	89	127	155	278	475	1090	454	2060	448	799	126	91
4	89	126	148	e230	e430	913	434	1740	421	625	119	86
5	89	116	240	e205	e370	751	431	1510	374	534	123	82
6	87	108	461	214	e280	681	398	1260	337	527	2860	76
7	86	103	388	2480	e290	672	383	1030	315	500	1810	71
8	86	100	319	2030	e310	694	365	883	301	434	728	68
9	85	98	271	1210	e330	763	363	777	275	358	475	73
10	85	105	271	857	e320	665	375	750	252	319	378	69
11	85	110	540	698	e300	652	430	745	294	293	320	67
12	85	112	567	703	e285	793	424	680	381	267	280	64
13	83	112	444	831	e265	926	472	614	390	238	245	67
14	84	110	380	888	e245	939	528	3800	331	218	419	67
15	86	108	341	6640	268	885	505	5300	276	202	315	65
16	85	114	312	7610	420	816	481	3030	243	224	247	64
17	85	133	297	3600	917	734	478	2200	220	401	221	96
18	86	169	295	2250	973	655	610	2490	202	345	201	117
19	87	171	300	1610	957	590	625	3430	191	285	182	133
20	87	159	279	2630	1100	542	597	2810	183	220	168	114
21	88	165	256	2650	1310	500	588	2020	176	195	158	119
22	88	224	243	1930	1170	648	553	1520	168	192	150	114
23	92	233	238	1470	990	865	502	1140	553	184	139	112
24	95	180	232	1150	1190	819	586	922	725	167	129	103
25	100	157	226	920	1230	727	707	770	1330	168	121	98
26	99	145	216	762	1060	654	718	673	920	207	116	97
27	95	144	206	659	958	600	703	586	839	209	114	103
28	93	221	192	634	1170	637	676	549	712	258	111	105
29	92	239	187	594	---	625	625	556	885	207	110	94
30	88	220	183	533	---	577	604	488	776	175	107	86
31	89	---	180	494	---	549	---	430	---	158	100	---
TOTAL	2752	4317	8722	47243	18529	24092	15620	46753	13277	12069	10850	2692
MEAN	88.8	144	281	1524	662	777	521	1508	443	389	350	89.7
MAX	100	239	567	7610	1310	1710	718	5300	1330	1990	2860	133
MIN	83	98	148	202	245	500	363	430	168	158	100	64
CFSM	.14	.22	.44	2.37	1.03	1.21	.81	2.35	.69	.61	.55	.14
IN.	.16	.25	.51	2.74	1.07	1.40	.91	2.71	.77	.70	.63	.16

e Estimated

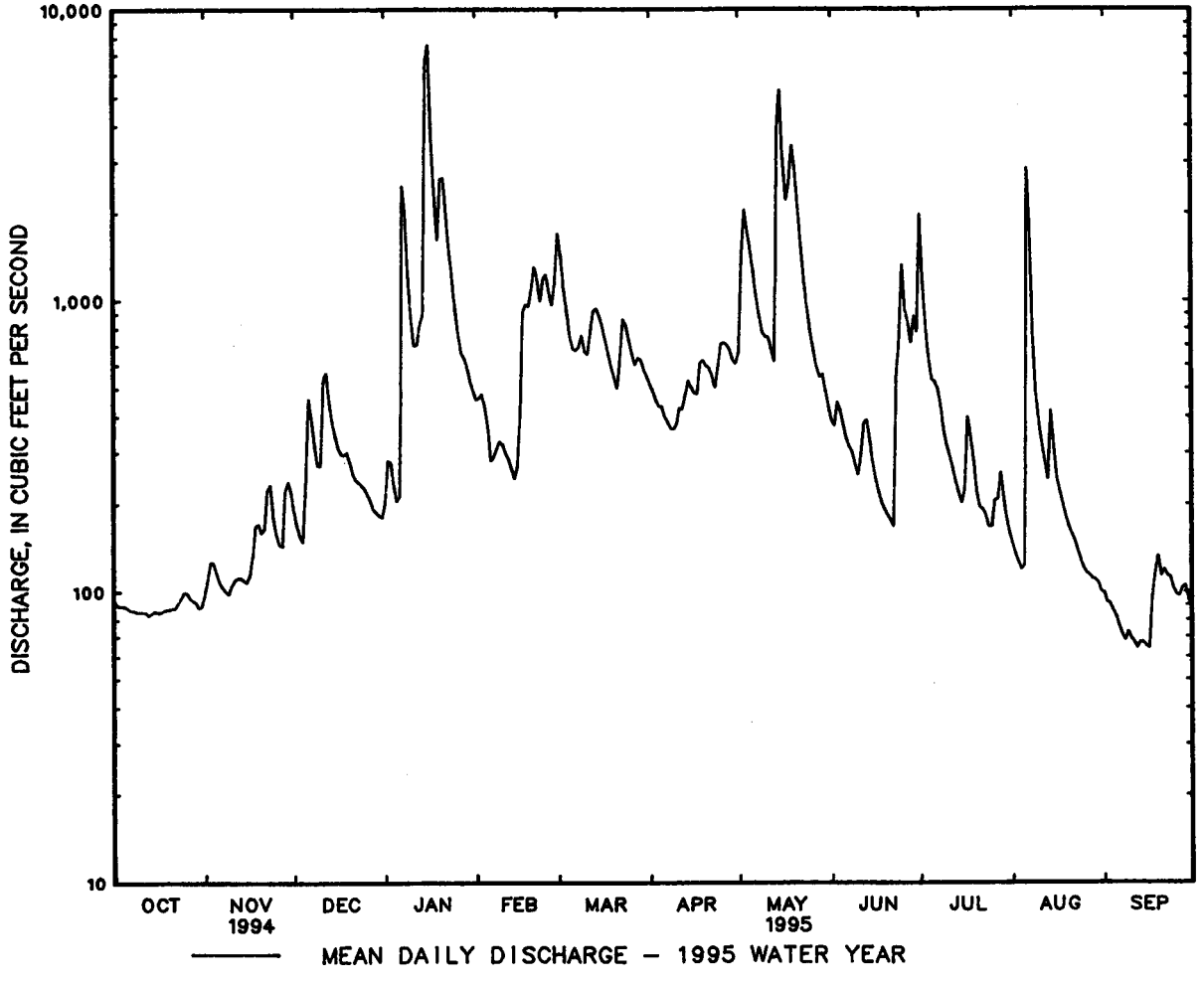
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 1995, BY WATER YEAR (WY)

MEAN	330	476	705	897	1139	1611	1278	981	525	287	276	219
MAX	1863	5569	2511	2355	3519	4090	2888	2374	2175	1479	1290	1196
(WY)	1977	1986	1973	1937	1994	1936	1993	1989	1949	1949	1955	1950
MIN	49.3	62.7	95.1	143	212	543	398	233	128	70.5	54.1	52.3
(WY)	1931	1931	1966	1981	1934	1990	1986	1930	1991	1930	1930	1930

01606500 SOUTH BRANCH POTOMAC RIVER NEAR PETERSBURG, WV--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1928 - 1995	
ANNUAL TOTAL	423937		206916			
ANNUAL MEAN	1161		567		725	
HIGHEST ANNUAL MEAN					1313	1994
LOWEST ANNUAL MEAN					365	1969
HIGHEST DAILY MEAN	(e)14000	Feb 10	7610	Jan 16	77000	Nov 5 1985
LOWEST DAILY MEAN	83	Oct 13	64	(a)	43	(b)
ANNUAL SEVEN-DAY MINIMUM	85	Oct 8	66	Sep 10	44	Sep 6 1966
INSTANTANEOUS PEAK FLOW			13400	Jan 15	(c)130000	Nov 5 1985
INSTANTANEOUS PEAK STAGE			10.83	Jan 15	(d)25.40	Nov 5 1985
INSTANTANEOUS LOW FLOW			58	Sep 15	42	(f)
ANNUAL RUNOFF (CFSM)	1.81		.88		1.13	
ANNUAL RUNOFF (INCHES)	24.56		11.99		15.34	
10 PERCENT EXCEEDS	3140		1170		1620	
50 PERCENT EXCEEDS	370		315		372	
90 PERCENT EXCEEDS	102		90		95	

e Estimated.
a Sept. 12, 16.
b Sept. 27-29, 1959, Sept. 11, 12, 1966.
c From rating curve extended above 63,000 ft^3/s on basis of slope-area measurement of peak flow.
d From floodmarks.
f Sept. 28, 29, 1959, Sept. 11, 12, 1966.



01606500 SOUTH BRANCH POTOMAC RIVER NEAR PETERSBURG, WV---Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1969-83, 1994 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS TOTAL (MG/L AS CACO3)
OCT 1994											
19...	1145	87	262	8.0	12.0	737	10.1	97	K15	K67	--
NOV											
16...	1300	110	260	7.8	11.0	743	10.0	93	30	76	130
DEC											
09...	1545	269	183	8.2	6.5	739	12.4	104	K10	K20	--
JAN 1995											
27...	0930	678	172	7.6	1.0	741	13.8	100	K12	K18	--
FEB											
17...	1600	970	151	7.9	3.5	743	12.8	99	K4	42	74

DATE	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	SODIUM PERCENT	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3	CAR-BONATE WATER DIS IT FIELD MG/L AS CO3
OCT 1994										
19...	--	--	--	--	--	--	--	100	122	0
NOV										
16...	22	42	5.2	1.8	0.1	3	1.1	104	127	0
DEC										
09...	--	--	--	--	--	--	--	75	91	0
JAN 1995										
27...	--	--	--	--	--	--	--	67	82	0
FEB										
17...	17	25	2.8	1.8	0.1	5	0.80	57	69	0

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS NO3)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)
OCT 1994										
19...	--	--	--	--	--	--	--	--	<0.010	--
NOV										
16...	19	2.2	<0.10	2.7	138	136	1	--	<0.010	--
DEC										
09...	--	--	--	--	--	--	<1	--	<0.010	--
JAN 1995										
27...	--	--	--	--	--	--	--	--	<0.010	--
FEB										
17...	9.8	2.8	<0.10	3.8	88	84	5	3.1	0.010	0.690

DATE	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	ARSENIC DIS-SOLVED (UG/L AS AS)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	ZINC, DIS-SOLVED (UG/L AS ZN)
OCT 1994										
19...	0.070	0.070	0.070	<0.015	0.010	--	--	--	--	--
NOV										
16...	--	--	<0.050	<0.015	<0.010	<1	<10	10	3	<3
DEC										
09...	0.230	0.230	0.230	<0.015	<0.010	--	--	--	--	--
JAN 1995										
27...	0.790	0.790	0.790	<0.015	<0.010	--	--	--	--	--
FEB										
17...	0.690	0.700	0.700	<0.015	<0.010	<1	<10	7	3	<3

K: Results based on colony count outside the accepted range (non-ideal colony).

01608000 SOUTH FORK SOUTH BRANCH POTOMAC RIVER NEAR MOOREFIELD, WV

LOCATION.--Lat 39°00'44", long 78°57'23", Hardy County, Hydrologic Unit 02070001, on right bank 0.2 mi downstream from Stony Creek, 3.5 mi south of Moorefield, and at mile 6.0.

DRAINAGE AREA.--283 mi^2.

WATER-DISCHARGE RECORDS

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).

GAGE.--Water-stage recorder. 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.--Water-discharge records fair except those for estimated discharges (ice effect, sluggish intakes), which are poor. The flow from 92.7 mi^2 upstream from station is partially controlled, but not diverted, by several floodwater detention reservoirs with a total combined detention capacity of 19,870 acre-ft.

PEAK DISCHARGE FOR CURRENT YEAR.--Peak discharge, 6,260 ft^3/s, Jan. 16 gage height, 7.32 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	24	32	35	125	151	110	180	101	1220	57	21
2	22	24	30	34	128	157	108	236	94	843	49	20
3	22	23	28	35	142	153	105	462	90	481	43	e19
4	21	23	29	36	155	146	103	509	84	321	37	e18
5	21	23	39	e33	e150	139	100	448	80	238	30	e18
6	22	23	44	e30	e115	132	94	377	73	212	627	e17
7	22	21	59	358	e90	127	90	312	68	200	772	e17
8	22	20	51	561	e95	127	85	268	63	182	361	e16
9	22	21	47	395	e105	142	83	233	57	144	208	e19
10	23	24	49	289	e110	140	86	217	57	122	151	21
11	23	23	64	226	e100	144	91	226	61	105	125	19
12	23	21	82	197	e97	245	95	205	89	89	110	17
13	21	20	86	187	e93	344	154	186	109	78	95	16
14	21	21	73	194	e87	350	156	569	108	67	82	15
15	21	20	66	2040	e80	320	143	1870	96	58	74	e16
16	21	24	60	4400	83	287	129	974	82	53	62	e18
17	21	31	55	2120	84	256	125	629	71	64	55	24
18	20	30	51	1300	95	223	138	e530	61	85	48	23
19	20	32	49	887	111	192	141	479	54	80	42	22
20	20	30	44	1100	142	169	141	407	49	67	38	23
21	20	36	42	1460	193	157	141	336	44	61	33	23
22	19	39	41	903	220	161	140	283	40	63	e32	22
23	20	34	39	604	208	155	134	233	276	54	e30	20
24	23	33	39	444	193	144	150	193	577	57	e29	19
25	23	32	40	339	176	131	191	166	503	60	e28	19
26	23	29	38	272	158	120	224	152	389	76	e27	21
27	23	30	36	222	148	114	228	158	356	74	e26	22
28	23	35	34	193	142	117	216	142	440	71	e25	22
29	22	32	33	179	---	118	198	132	1170	86	e24	21
30	22	31	32	156	---	114	187	120	1050	76	e23	21
31	21	---	33	139	---	112	---	111	---	67	e22	---
TOTAL	668	809	1445	19368	3625	5387	4086	11343	6392	5454	3365	589
MEAN	21.5	27.0	46.6	625	129	174	136	366	213	176	109	19.6
MAX	23	39	86	4400	220	350	228	1870	1170	1220	772	24
MIN	19	20	28	30	80	112	83	111	40	53	22	15
CFSM	.08	.10	.16	2.21	.46	.61	.48	1.29	.75	.62	.38	.07
IN.	.09	.11	.19	2.55	.48	.71	.54	1.49	.84	.72	.44	.08

e Estimated

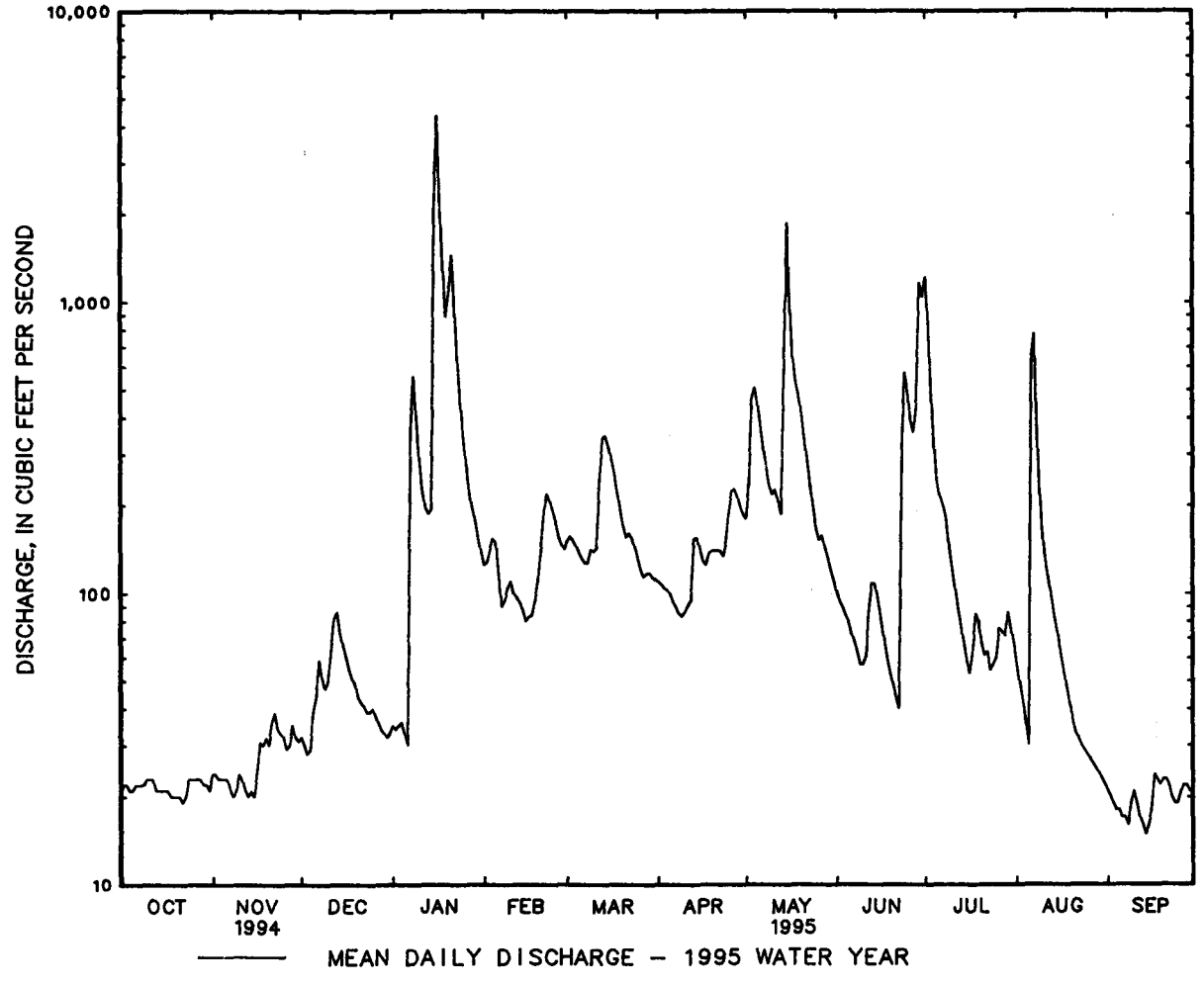
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 1935, 1938 - 1995, BY WATER YEAR (WY)

MEAN	132	174	208	252	324	483	410	324	165	85.1	105	75.0
MAX	776	2951	879	716	902	1327	1787	946	1071	510	801	497
(WY)	1977	1986	1974	1991	1994	1993	1987	1988	1949	1949	1955	1945
MIN	12.8	17.1	17.4	21.3	25.2	72.2	91.7	51.2	28.1	13.7	10.4	10.2
(WY)	1992	1932	1966	1981	1934	1981	1981	1930	1977	1966	1965	1968

01608000 SOUTH FORK SOUTH BRANCH POTOMAC RIVER NEAR MOOREFIELD, WV--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1928 - 1935, 1938 - 1995	
ANNUAL TOTAL	124747		62531			
ANNUAL MEAN	342		171		227	
HIGHEST ANNUAL MEAN					418	1949
LOWEST ANNUAL MEAN					85.9	1934
HIGHEST DAILY MEAN	3830	May 8	4400	Jan 16	28000	Nov 5 1985
LOWEST DAILY MEAN	19	Oct 22	15	Sep 14	4.4	Sep 10 1966
ANNUAL SEVEN-DAY MINIMUM	20	Oct 17	17	Sep 10	5.3	Sep 5 1966
INSTANTANEOUS PEAK FLOW			6260	Jan 16	(a)110000	Nov 5 1985
INSTANTANEOUS PEAK STAGE			7.32	Jan 16	(b)19.99	Nov 5 1985
INSTANTANEOUS LOW FLOW			(c)	(c)	4.4	(d)
ANNUAL RUNOFF (CFSM)	1.21		.61		.80	
ANNUAL RUNOFF (INCHES)	16.40		8.22		10.91	
10 PERCENT EXCEEDS	894		357		499	
50 PERCENT EXCEEDS	88		83		94	
90 PERCENT EXCEEDS	23		21		21	

a From rating curve extended above 39,000 ft^3/s on basis of slope-area measurement of peak flow.
b From floodmarks.
c Not determined.
d Sept. 10, 11, 1965, Sept. 9-11, 1966.



01608000 SOUTH FORK SOUTH BRANCH POTOMAC RIVER NEAR MOOREFIELD, WV--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1969 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	TEMPERATURE AIR (DEG C)	BAROMETRIC PRESSURE (MM OF HG)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	COLIFORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARDNESS TOTAL (MG/L AS CACO3)
OCT 1994												
19...	1700	21	239	8.0	14.0	--	739	10.4	104	120	250	--
NOV												
02...	1430	23	234	7.8	13.0	14.5	742	10.9	106	--	--	120
17...	1145	31	236	7.7	10.0	--	745	10.7	97	200	460	110
DEC												
08...	1430	48	218	7.9	9.5	--	747	11.7	105	K12	K67	--
JAN 1995												
04...	1115	35	206	7.5	1.5	-4.0	744	13.1	96	--	--	100
26...	1100	278	124	7.1	3.5	--	744	12.2	94	K8	38	--
FEB												
17...	1345	84	170	7.7	5.5	--	748	12.4	100	K2	K6	83
MAR												
02...	1615	161	145	7.8	7.0	4.5	748	11.5	97	--	--	67
22...	1545	170	140	7.4	13.0	--	730	10.0	99	K5	120	--
APR												
11...	1645	96	156	7.2	13.0	--	745	10.4	101	K590	950	--
MAY												
09...	1215	224	132	7.4	15.5	25.0	740	9.1	94	--	--	59
15...	1145	1860	91	7.1	16.0	22.5	737	9.2	96	--	--	41
18...	0815	512	120	6.8	15.5	--	733	8.6	90	200	1400	--
JUN												
14...	0900	111	193	7.3	19.0	--	738	8.8	98	83	2000	--
JUL												
12...	0830	92	169	7.2	22.5	--	742	7.9	94	K65	1100	--
AUG												
04...	1200	38	208	7.6	27.0	31.0	743	8.3	107	--	--	96
09...	0845	216	145	6.8	20.0	--	743	7.5	85	250	2200	--
11...	1230	124	177	7.1	23.5	30.5	740	8.0	97	--	--	80
22...	1200	36	217	7.6	26.0	28.0	742	7.8	99	--	--	99
30...	0930	24	224	7.8	23.0	23.0	740	8.3	100	K120	2000	--

DATE	HARDNESS NONCARB DISSOLVFLD. AS CACO3 (MG/L)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	SODIUM PERCENT	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WAT DIS TOT IT FIELD MG/L AS CACO3	BICARBONATE WATER DIS IT FIELD MG/L AS HCO3	CARBONATE WATER DIS IT FIELD MG/L AS CO3	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)
OCT 1994												
19...	--	--	--	--	--	--	--	85	104	0	--	--
NOV												
02...	26	36	6.1	2.5	0.1	4	1.5	89	109	--	--	2.5
17...	24	35	5.9	2.3	0.1	4	1.5	88	107	0	20	2.3
DEC												
08...	--	--	--	--	--	--	--	80	98	0	--	--
JAN 1995												
04...	22	31	5.4	2.3	0.1	5	1.1	78	95	--	--	2.5
26...	--	--	--	--	--	--	--	40	49	0	--	--
FEB												
17...	25	26	4.4	2.3	0.1	6	1.0	58	71	0	16	2.9
MAR												
02...	16	21	3.6	2.0	0.1	6	1.1	52	63	--	--	3.4
22...	--	--	--	--	--	--	--	47	57	0	--	--
APR												
11...	--	--	--	--	--	--	--	52	63	0	--	--
MAY												
09...	15	18	3.5	2.1	0.1	7	1.1	44	54	--	--	1.9
15...	12	12	2.6	1.6	0.1	8	1.3	29	35	--	--	1.2
18...	--	--	--	--	--	--	--	37	45	0	--	--
JUN												
14...	--	--	--	--	--	--	--	68	83	0	--	--
JUL												
12...	--	--	--	--	--	--	--	63	77	0	--	--
AUG												
04...	17	30	5.1	2.7	0.1	6	1.9	79	96	--	--	2.6
09...	--	--	--	--	--	--	--	51	62	0	--	--
11...	16	25	4.3	2.5	0.1	6	1.6	64	78	--	--	2.4
22...	18	31	5.3	2.7	0.1	5	1.7	81	99	--	--	3.0
30...	--	--	--	--	--	--	--	86	105	0	--	--

K: Results based on colony count outside the accepted range (non-ideal colony).

POTOMAC RIVER BASIN

01608000 SOUTH FORK SOUTH BRANCH POTOMAC RIVER NEAR MOOREFIELD, WV--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	RESIDUE TOTAL AT 105 DEG. C, SUSPENDED (MG/L)	NITROGEN, NITRATE DISSOLVED (MG/L AS NO3)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NITRATE DISSOLVED (MG/L AS N)	NITROGEN, NITRATE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)
OCT 1994												
19...	--	--	--	--	--	--	<0.010	--	0.500	0.500	0.500	<0.015
NOV												
02...	--	--	135	--	--	--	<0.010	--	0.420	0.420	0.420	<0.015
17...	<0.10	5.1	130	127	<1	--	<0.010	--	0.410	0.410	0.410	<0.015
DEC												
08...	--	--	--	--	1	--	<0.010	--	0.300	0.300	0.300	<0.015
JAN 1995												
04...	--	--	124	--	--	--	<0.010	--	0.460	0.460	0.460	<0.015
26...	--	--	--	--	--	--	<0.010	--	1.10	1.10	1.10	<0.015
FEB												
17...	<0.10	4.4	110	97	<1	4.8	0.020	1.08	1.08	1.10	1.10	<0.015
MAR												
02...	--	--	89	--	--	--	<0.010	--	0.480	0.480	0.480	<0.015
22...	--	--	--	--	--	2.1	0.010	0.480	0.480	0.490	0.490	<0.015
APR												
11...	--	--	--	--	--	--	<0.010	--	0.440	0.440	0.440	<0.015
MAY												
09...	--	--	80	--	--	--	<0.010	--	0.250	0.250	0.250	<0.015
15...	--	--	64	--	--	--	<0.010	--	0.250	0.250	0.250	0.020
18...	--	--	--	--	--	--	<0.010	--	0.390	0.390	0.390	<0.015
JUN												
14...	--	--	--	--	--	--	<0.010	--	0.300	0.300	0.300	<0.015
JUL												
12...	--	--	--	--	--	--	<0.010	--	0.410	0.410	0.410	0.020
AUG												
04...	--	--	119	--	--	--	<0.010	--	0.250	0.250	0.250	0.020
09...	--	--	--	--	--	--	<0.010	--	0.430	0.430	0.430	<0.015
11...	--	--	104	--	--	--	<0.010	--	0.520	0.520	0.520	<0.015
22...	--	--	123	--	--	--	<0.010	--	0.490	0.490	0.490	0.030
30...	--	--	--	--	--	--	<0.010	--	0.420	0.420	0.420	<0.015

DATE	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	ARSENIC DISSOLVED (UG/L AS AS)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)	ZINC, DISSOLVED (UG/L AS ZN)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C)
OCT 1994												
19...	--	--	--	--	0.010	--	--	--	--	--	--	--
NOV												
02...	<0.20	<0.20	<0.010	<0.010	<0.010	--	--	6	2	--	1.2	0.10
17...	--	--	--	--	<0.010	<1	<10	8	1	<3	--	--
DEC												
08...	--	--	--	--	<0.010	--	--	--	--	--	--	--
JAN 1995												
04...	<0.20	<0.20	<0.010	<0.010	<0.010	--	--	7	<1	--	0.70	0.10
26...	--	--	--	--	<0.010	--	--	--	--	--	--	--
FEB												
17...	--	--	--	--	<0.010	<1	<10	4	2	<3	--	--
MAR												
02...	<0.20	<0.20	<0.010	<0.010	<0.010	--	--	11	<1	--	1.1	0.10
22...	--	<0.20	--	<0.010	<0.010	--	--	--	--	--	--	--
APR												
11...	--	<0.20	--	<0.010	<0.010	--	--	--	--	--	--	--
MAY												
09...	<0.20	<0.20	<0.010	<0.010	<0.010	--	--	16	2	--	1.2	0.10
15...	0.30	<0.20	0.030	<0.010	<0.010	--	--	100	4	--	3.1	0.80
18...	--	<0.20	--	<0.010	<0.010	--	--	--	--	--	--	--
JUN												
14...	--	<0.20	--	0.010	<0.010	--	--	--	--	--	--	--
JUL												
12...	--	<0.20	--	0.010	<0.010	--	--	--	--	--	--	--
AUG												
04...	<0.20	<0.20	0.020	<0.010	<0.010	--	--	31	4	--	1.4	0.10
09...	--	<0.20	--	<0.010	<0.010	--	--	--	--	--	--	--
11...	<0.20	<0.20	<0.010	<0.010	<0.010	--	--	21	3	--	1.6	0.10
22...	<0.20	<0.20	<0.010	<0.010	<0.010	--	--	18	4	--	1.4	0.10
30...	--	<0.20	--	<0.010	<0.010	--	--	--	--	--	--	--

POTOMAC RIVER BASIN

01608000 SOUTH FORK SOUTH BRANCH POTOMAC RIVER NEAR MOOREFIELD, WV--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	2,6-DI-ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L)	ETHAL-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L)	TER-BACIL WATER FLTRD 0.7 U GF, REC (UG/L)	TRI-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L)	ACETO-CHLOR, WATER FLTRD REC (UG/L)	ALA-CHLOR, WATER, DISS, REC, (UG/L)	ALPHA BHC DIS-SOLVED (UG/L)	ATRA-ZINE, WATER, DISS, REC (UG/L)	BEN-FLUR-ALIN WAT FLD 0.7 U GF, REC (UG/L)	BUTYL-ATE, WATER, DISS, REC (UG/L)	CAR-BARYL WATER FLTRD 0.7 U GF, REC (UG/L)
AUG 1995												
04...	<0.003	<0.004	<0.002	<0.007	<0.002	<0.002	<0.002	<0.002	0.010	<0.002	<0.002	<0.003
09...	--	--	--	--	--	--	--	--	--	--	--	--
11...	<0.003	<0.004	<0.002	<0.007	<0.002	<0.002	<0.002	<0.002	0.006	<0.002	<0.002	<0.003
22...	<0.003	<0.004	<0.002	<0.007	<0.002	<0.002	<0.002	<0.002	0.009	<0.002	<0.002	<0.003
30...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	CARBO-FURAN WATER FLTRD 0.7 U GF, REC (UG/L)	CHLOR-PYRIFOS DIS-SOLVED (UG/L)	CYANA-ZINE, WATER, DISS, REC (UG/L)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L)	DEETHYL ATRA-ZINE, WATER, DISS, REC (UG/L)	DI-AZINON, DIS-SOLVED (UG/L)	DI-ELDRIN DIS-SOLVED (UG/L)	DISUL-FOTON WATER FLTRD 0.7 U GF, REC (UG/L)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L)	ETHO-PROP WATER FLTRD 0.7 U GF, REC (UG/L)	FONOFOS WATER DISS REC (UG/L)	LINDANE DIS-SOLVED (UG/L)
AUG 1995												
04...	<0.003	<0.004	<0.004	<0.002	E0.007	<0.002	<0.001	<0.017	<0.002	<0.003	<0.003	<0.004
09...	--	--	--	--	--	--	--	--	--	--	--	--
11...	<0.003	<0.004	<0.004	<0.002	<0.002	<0.002	<0.001	<0.017	<0.002	<0.003	<0.003	<0.004
22...	<0.003	<0.004	<0.004	<0.002	E0.005	<0.002	<0.001	<0.017	<0.002	<0.003	<0.003	<0.004
30...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	LIN-URON WATER FLTRD 0.7 U GF, REC (UG/L)	MALA-THION, DIS-SOLVED (UG/L)	METHYL AZIN-PHOS WAT FLT 0.7 U GF, REC (UG/L)	METHYL PARA-THION WAT FLT 0.7 U GF, REC (UG/L)	METO-LACHLOR WATER DISSOLV (UG/L)	METRI-BUZIN SENCOR WATER DISSOLV (UG/L)	MOL-INATE WATER FLTRD 0.7 U GF, REC (UG/L)	NAPROP-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L)	P,P' DDE DISSOLV (UG/L)	PARA-THION, DIS-SOLVED (UG/L)	PEB-ULATE WATER FILTRD 0.7 U GF, REC (UG/L)	PENDI-METH-ALIN WAT FLT 0.7 U GF, REC (UG/L)
AUG 1995												
04...	<0.002	<0.005	<0.001	<0.006	<0.002	<0.004	<0.004	<0.003	<0.006	<0.004	<0.004	<0.004
09...	--	--	--	--	--	--	--	--	--	--	--	--
11...	<0.002	<0.005	<0.001	<0.006	<0.002	<0.004	<0.004	<0.003	<0.006	<0.004	<0.004	<0.004
22...	<0.002	<0.005	<0.001	<0.006	<0.002	<0.004	<0.004	<0.003	<0.006	<0.004	<0.004	<0.004
30...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	PER-METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L)	PRO-METON, WATER, DISS, REC (UG/L)	PRON-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L)	PROP-CHLOR, WATER, DISS, REC (UG/L)	PRO-PANIL WATER FLTRD 0.7 U GF, REC (UG/L)	PRO-PARGITE WATER FLTRD 0.7 U GF, REC (UG/L)	SI-MAZINE, WATER, DISS, REC (UG/L)	TEBU-THIURON WATER FLTRD 0.7 U GF, REC (UG/L)	TER-BUFOS WATER FLTRD 0.7 U GF, REC (UG/L)	THIO-BENCARB WATER FLTRD 0.7 U GF, REC (UG/L)	TRIAL-LATE WATER FLTRD 0.7 U GF, REC (UG/L)
AUG 1995											
04...	<0.005	<0.018	<0.003	<0.007	<0.004	<0.013	0.006	<0.010	<0.013	<0.002	<0.001
09...	--	--	--	--	--	--	--	--	--	--	--
11...	<0.005	<0.018	<0.003	<0.007	<0.004	<0.013	<0.005	<0.010	<0.013	<0.002	<0.001
22...	<0.005	<0.018	<0.003	<0.007	<0.004	<0.013	<0.005	<0.010	<0.013	<0.002	<0.001
30...	--	--	--	--	--	--	--	--	--	--	--

E: Estimated.

01608000 SOUTH FORK SOUTH BRANCH POTOMAC RIVER NEAR MOOREFIELD, WV--Continued

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
JAN 1995				
04...	1115	35	<1	--
MAR				
02...	1615	161	<1	--
MAY				
09...	1215	224	1	0.60
15...	1145	1860	25	126
AUG				
04...	1200	38	2	0.21
11...	1230	129	1	0.35
22...	1200	E32	<1	--

01608500 SOUTH BRANCH POTOMAC RIVER NEAR SPRINGFIELD, WV

LOCATION.--Lat 39°26'49", long 78°39'16", Hampshire County, Hydrologic Unit 02070001, on left bank at highway bridge, 2.0 mi east of Springfield, and at mile 13.4.

DRAINAGE AREA.--1,471 mi^2.

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).

GAGE.--Water-stage recorder. Datum of gage is 562.02 ft above sea level. June 1984 to February 1986, 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 estimated daily discharges (ice effect), which are poor. National Weather Service gage-height telemeter and U.S. Army Corps of Engineers satellite telementer at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in November 1877 reached a stage of about 34 ft, from floodmarks, discharge, 140,000 ft^3/s.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 10,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 16	1330	*23,300	*14.94	Aug. 7	0530	11,600	10.08
May 15	1315	12,300	10.45				

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	167	177	419	352	910	1420	830	1050	735	3180	282	161
2	176	184	362	442	886	1680	785	1080	664	3370	257	156
3	167	200	321	520	967	1680	744	2540	635	2130	243	150
4	160	195	296	e475	1020	1540	707	3070	718	1530	214	143
5	157	212	416	e315	1000	1390	663	2590	683	1260	199	139
6	156	213	738	e340	804	1250	639	2240	606	1060	686	134
7	155	200	827	e635	562	1170	612	1880	545	1090	7430	132
8	155	190	688	3820	603	1100	580	1630	509	931	2620	129
9	153	179	566	2340	679	1080	560	1440	476	827	1510	126
10	153	196	521	1670	714	1110	549	1290	449	676	1090	128
11	152	198	915	1340	726	1100	585	1550	430	585	866	125
12	149	205	1170	1160	629	1170	732	1440	443	521	700	125
13	149	195	980	1170	580	1390	790	1250	552	470	595	126
14	151	194	797	1320	538	1580	962	1330	606	423	522	129
15	151	192	684	2630	535	1620	952	9390	624	381	595	128
16	152	198	616	19000	542	1560	889	6460	569	353	578	125
17	153	219	579	10700	571	1470	829	3920	453	333	449	147
18	154	253	564	5800	975	1350	793	3180	374	609	393	158
19	152	260	563	3750	1270	1240	841	4170	338	576	346	171
20	158	282	559	3670	1340	1130	889	4270	310	504	307	174
21	159	298	522	6520	1450	1040	886	3140	291	406	279	181
22	158	394	484	4490	1600	969	873	2360	274	339	257	180
23	162	379	460	3130	1610	961	843	1850	279	349	238	187
24	170	399	445	2370	1510	1050	817	1530	862	322	222	185
25	171	336	442	1910	1510	1080	1000	1320	1340	297	207	169
26	170	289	423	1630	1550	1070	1220	1170	2570	286	196	164
27	173	270	397	1430	1480	1000	1250	1040	1710	287	185	160
28	174	419	371	1280	1390	931	1220	965	2760	330	181	157
29	171	585	352	1200	---	902	1160	1010	2270	415	179	159
30	168	482	337	1100	---	904	1090	948	2640	383	175	157
31	167	---	328	994	---	870	---	828	---	327	168	---
TOTAL	4963	7993	17142	87503	27951	37807	25290	71931	25715	24550	22169	4505
MEAN	160	266	553	2823	998	1220	843	2320	857	792	715	150
MAX	176	585	1170	19000	1610	1680	1250	9390	2760	3370	7430	187
MIN	149	177	296	315	535	870	549	828	274	286	168	125
CFSM	.11	.18	.38	1.92	.68	.83	.57	1.58	.58	.54	.49	.10
IN.	.13	.20	.43	2.21	.71	.96	.64	1.82	.65	.62	.56	.11

e Estimated

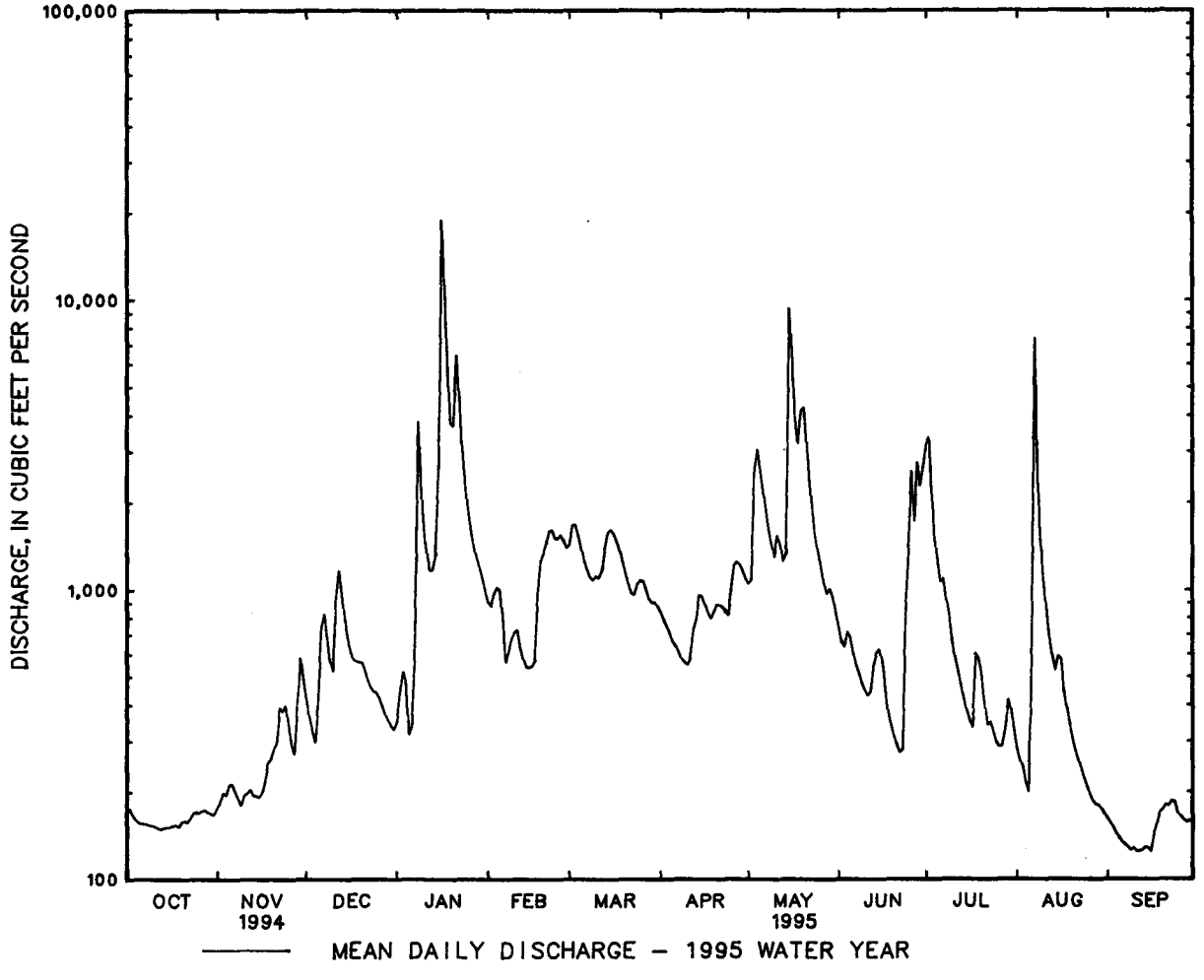
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1899 - 1906, 1928 - 1995, BY WATER YEAR (WY)

MEAN	629	838	1232	1570	2014	2975	2386	1786	1011	523	514	389
MAX	4629	12850	5000	4595	6150	10490	6421	4079	5231	2638	3923	1980
(WY)	1977	1986	1973	1937	1994	1936	1987	1989	1949	1949	1955	1950
MIN	79.4	82.2	147	271	362	791	829	366	225	105	73.5	76.6
(WY)	1931	1905	1966	1981	1934	1981	1976	1977	1991	1930	1930	1930

01608500 SOUTH BRANCH POTOMAC RIVER NEAR SPRINGFIELD, WV--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1899 - 1906, 1928 - 1995	
ANNUAL TOTAL	744329		357519			
ANNUAL MEAN	2039		980		1318	
HIGHEST ANNUAL MEAN					2232	1973
LOWEST ANNUAL MEAN					566	1969
HIGHEST DAILY MEAN	27300	Feb 10	19000	Jan 16	145000	Nov 5 1985
LOWEST DAILY MEAN	149	(a)	125	(b)	52	(c)
ANNUAL SEVEN-DAY MINIMUM	151	Oct 10	127	Sep 10	54	Sep 7 1966
INSTANTANEOUS PEAK FLOW			23300	Jan 16	(d)240000	Nov 5 1985
INSTANTANEOUS PEAK STAGE			14.94	Jan 16	(f)44.22	Nov 5 1985
INSTANTANEOUS LOW FLOW			122	Sep 16	29	(g)
ANNUAL RUNOFF (CFSM)	1.39		.67		.90	
ANNUAL RUNOFF (INCHES)	18.82		9.04		12.17	
10 PERCENT EXCEEDS	5050		1770		2980	
50 PERCENT EXCEEDS	712		580		635	
90 PERCENT EXCEEDS	179		159		153	

a Oct. 12, 13.
b Sept. 11, 12, 16.
c Sept. 11, 12, 1966.
d From rating curve extended above 145,000 ft^3/s on basis of slope-area measurement of peak flow.
f From floodmarks.
g Jan. 28, 1956 (result of freezeup), July 30, 1966 (result of temporary dam).



01608500 SOUTH BRANCH POTOMAC RIVER NEAR SPRINGFIELD, WV--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1960-61, 1963, 1965, 1969, 1976-80, 1993 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TEMPER-ATURE AIR (DEG C)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	HARD-NESS TOTAL (MG/L AS CACO3)	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L)	CALCIUM DIS-SOLVED (MG/L AS CA)
NOV 1994												
03...	1315	190	284	8.1	10.5	13.0	751	10.1	92	130	38	42
JAN 1995												
05...	1130	E315	252	8.0	0.5	-8.0	759	14.0	98	120	38	36
16...	0930	21600	126	7.8	9.5	6.5	746	9.7	87	56	15	18
MAR												
01...	1600	1440	157	8.2	6.5	7.0	751	12.8	106	71	19	23
MAY												
03...	1630	3190	174	7.6	14.5	20.5	748	9.2	92	74	22	23
10...	1330	1270	172	7.6	18.0	21.5	741	9.0	98	81	22	26
15...	1400	12300	140	7.4	16.0	24.0	745	8.5	88	64	18	21
AUG												
11...	1000	877	232	7.6	24.0	28.5	747	7.8	95	100	18	33

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	SODIUM PERCENT	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS NO3)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)
NOV 1994												
03...	7.0	4.9	0.2	7	2.0	96	117	7.1	163	--	<0.010	--
JAN 1995												
05...	6.4	4.4	0.2	7	1.5	78	95	6.3	149	--	<0.010	--
16...	2.6	1.9	0.1	7	2.3	40	49	2.6	88	--	<0.010	--
MAR												
01...	3.3	2.4	0.1	7	1.1	52	63	4.5	91	--	<0.010	--
MAY												
03...	4.0	2.9	0.1	8	1.7	52	63	3.0	109	--	<0.010	--
10...	3.8	2.5	0.1	6	1.2	59	72	2.8	101	--	<0.010	--
15...	2.9	1.9	0.1	6	1.7	46	56	1.8	87	2.7	0.010	0.620
AUG												
11...	4.9	3.2	0.1	6	2.0	84	103	3.8	135	--	<0.010	--

DATE	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)
NOV 1994												
03...	0.620	0.620	0.620	<0.015	<0.20	<0.20	<0.010	<0.010	<0.010	19	3	1.5
JAN 1995												
05...	0.550	0.550	0.550	<0.015	<0.20	<0.20	0.010	<0.010	<0.010	22	3	1.5
16...	0.760	0.760	0.760	0.030	2.1	0.40	0.440	0.040	0.020	350	7	5.4
MAR												
01...	0.600	0.600	0.600	<0.015	<0.20	<0.20	<0.010	<0.010	<0.010	13	3	1.2
MAY												
03...	0.390	0.390	0.390	0.020	0.40	0.20	0.040	<0.010	<0.010	76	6	2.7
10...	0.310	0.310	0.310	0.020	<0.20	<0.20	0.010	<0.010	0.010	27	7	1.5
15...	0.620	0.630	0.630	0.030	1.1	0.30	0.180	0.010	0.010	230	4	4.4
AUG												
11...	0.780	0.780	0.780	0.020	<0.20	<0.20	<0.010	<0.010	<0.010	36	6	3.0

E: Estimated

01608500 SOUTH BRANCH POTOMAC RIVER NEAR SPRINGFIELD, WV--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)	2,6-DI-ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L)	ETHAL-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L)	TER-BACIL WATER FLTRD 0.7 U GF, REC (UG/L)	TRI-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L)	ACETO-CHLOR, WATER FLTRD REC (UG/L)	ALA-CHLOR, WATER, DISS, REC, (UG/L)	ALPHA BHC DIS-SOLVED (UG/L)	ATRA-ZINE, WATER, DISS, REC (UG/L)	BEN-FLUR-ALIN WAT FLD 0.7 U GF, REC (UG/L)	BUTYL-ATE, WATER, DISS, REC (UG/L)
AUG 1995												
11...	0.20	<0.003	<0.004	<0.002	<0.007	<0.002	<0.002	<0.002	<0.002	0.009	<0.002	<0.002

DATE	CAR-BARYL WATER FLTRD 0.7 U GF, REC (UG/L)	CARBO-FURAN WATER FLTRD 0.7 U GF, REC (UG/L)	CHLOR-PYRIFOS DIS-SOLVED (UG/L)	CYANA-ZINE, WATER, DISS, REC (UG/L)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L)	DEETHYL ATRA-ZINE, WATER, DISS, REC (UG/L)	DI-AZINON, DIS-SOLVED (UG/L)	DI-ELDRIN DIS-SOLVED (UG/L)	DISUL-FOTON WATER FLTRD 0.7 U GF, REC (UG/L)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L)	ETHO-PROP WATER FLTRD 0.7 U GF, REC (UG/L)	FONOFOS WATER DISS REC (UG/L)
AUG 1995												
11...	<0.003	<0.003	<0.004	<0.004	<0.002	E0.004	<0.002	<0.001	<0.017	<0.002	<0.003	<0.003

DATE	LINDANE DIS-SOLVED (UG/L)	LIN-URON WATER FLTRD 0.7 U GF, REC (UG/L)	MALA-THION, DIS-SOLVED (UG/L)	METHYL AZIN-PHOS WAT FLT 0.7 U GF, REC (UG/L)	METHYL PARA-THION WAT FLT 0.7 U GF, REC (UG/L)	METO-LACHLOR WATER DISSOLV (UG/L)	METRI-BUZIN SENCOR WATER DISSOLV (UG/L)	MOL-INATE WATER FLTRD 0.7 U GF, REC (UG/L)	NAPROP-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L)	P,P' DDE DISSOLV (UG/L)	PARA-THION, DIS-SOLVED (UG/L)	PEB-ULATE WATER FILTRD 0.7 U GF, REC (UG/L)
AUG 1995												
11...	<0.004	<0.002	<0.005	<0.001	<0.006	0.006	<0.004	<0.004	<0.003	<0.006	<0.004	<0.004

DATE	PENDI-METH-ALIN WAT FLT 0.7 U GF, REC (UG/L)	PER-METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L)	PRO-METON, WATER, DISS, REC (UG/L)	PRON-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L)	PROP-CHLOR, WATER, DISS, REC (UG/L)	PRO-PANIL WATER FLTRD 0.7 U GF, REC (UG/L)	PRO-PARGITE WATER FLTRD 0.7 U GF, REC (UG/L)	SI-MAZINE, WATER, DISS, REC (UG/L)	TEBU-THIURON WATER FLTRD 0.7 U GF, REC (UG/L)	TER-BUFOS WATER FLTRD 0.7 U GF, REC (UG/L)	THIO-BENCARB WATER FLTRD 0.7 U GF, REC (UG/L)	TRIAL-LATE WATER FLTRD 0.7 U GF, REC (UG/L)
AUG												
11...	<0.004	<0.005	<0.018	<0.003	<0.007	<0.004	<0.013	0.007	<0.010	<0.013	<0.002	<0.001

E: Estimated.

01608500 SOUTH BRANCH POTOMAC RIVER NEAR SPRINGFIELD, WV--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

TRACE ELEMENTS IN ASIATIC CLAM (Corbicula fluminea) TISSUE

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE WATER (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TEMPER-ATURE AIR (DEG C)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED WATER (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	ALUMI-NUM, BIOTA, TISSUE, DRY WGT REC (UG/G)	ANTI-MONY, BIOTA, TISSUE, DRY WGT REC (UG/G)
JUL 1995 12...	1345	563	206	8.3	28.0	30.0	750	8.4	109	41	<0.4

DATE	ARSENIC BIOTA, TISSUE, DRY WGT REC (UG/G)	BARIUM, BIOTA, TISSUE, DRY WGT REC (UG/G)	BERYL-LIUM-, BIOTA, TISSUE, DRY WGT REC (UG/G)	BORON, BIOTA, TISSUE, DRY WGT REC (UG/G)	CADMIUM BIOTA, TISSUE, DRY WGT REC (UG/G)	CHROM-IUM-, BIOTA, TISSUE, DRY WGT REC (UG/G)	COBALT, BIOTA TISSUE, DRY WGT REC (UG/G)	COPPER, BIOTA, TISSUE, DRY WGT REC (UG/G)	IRON, BIOTA, TISSUE, DRY WGT REC (UG/G)	LEAD, BIOTA, TISSUE, DRY WGT REC (UG/G)
JUL 1995 12...	4.3	12	<0.4	2.2	1.5	1.3	1.1	31	390	<0.4

DATE	MANGAN-ESE, BIOTA, TISSUE, DRY WGT REC (UG/G)	MERCURY BIOTA, TISSUE, DRY WGT REC (UG/G)	MOLYB-DENUM, BIOTA, TISSUE, DRY WGT REC (UG/G)	NICKEL, BIOTA, TISSUE, DRY WGT REC (UG/G)	SELEN-IUM, BIOTA, TISSUE, DRY WGT REC (UG/G)	SILVER, BIOTA, TISSUE, DRY WGT REC (UG/G)	STRON-TIUM, BIOTA, TISSUE, DRY WGT REC (UG/G)	URANIUM BIOTA, TISSUE, DRY WGT REC (UG/G)	VANA-DIUM BIO TIS LIVER DRY WFT REC (UG/G)	ZINC, BIOTA, TISSUE, DRY WGT REC (UG/G)
JUL 1995 12...	18	<0.1	0.9	3.4	5.2	<0.4	22	<0.4	<0.4	250

ORGANIC COMPOUNDS IN ASIATIC CLAM (Corbicula fluminea) TISSUE

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE WATER (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TEMPER-ATURE AIR (DEG C)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED WATER (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	LIPIDS, BIOTA, WH ORG WW, REC PERCENT
JUL 1995 12...	1500	556	206	8.3	28.0	30.0	750	8.4	109	1.60

DATE	ALDRIN, BIOTA, WH ORG WW, REC (UG/KG)	ALPHA-BHC, BIOTA, WH ORG WW, REC (UG/KG)	BENZENE HEXA-CHLORO-BIOTA, WH ORG WW, REC (UG/KG)	BETA-BHC, BIOTA, WH ORG WW, REC (UG/KG)	CIS-CHLOR-DANE, BIOTA, WH ORG WW, REC (UG/KG)	CIS-NONA-CHLOR, BIOTA, WH ORG WW, REC (UG/KG)	DCPA, BIOTA, WH ORG WW REC (UG/KG)	DELTA-BHC, BIOTA, WH ORG WW, REC (UG/KG)	DIEL-DRIN, BIOTA, WH ORG WW, REC (UG/KG)	ENDRIN, BIOTA, WH ORG WW, REC (UG/KG)
JUL 1995 12...	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00

DATE	HEPTA-CHLOR EPOXIDE BIOTA, WH ORG WW, REC (UG/KG)	HEPTA-CHLOR, BIOTA, WH ORG WW, REC (UG/KG)	LINDANE BIOTA, WH ORG WW, REC (UG/KG)	METHOXY CHLOR, O,P'-, BIOTA, WH ORG WW, REC (UG/KG)	METHOXY CHLOR, P,P'-, BIOTA, WH ORG WW, REC (UG/KG)	MIREX, BIOTA, WH ORG WW, REC (UG/KG)	O,P'-DDD, BIOTA, WH ORG WW, REC (UG/KG)	O,P'-DDE, BIOTA, WH ORG WW, REC (UG/KG)	O,P'-DDT, BIOTA, WH ORG WW, REC (UG/KG)
JUL 1995 12...	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00

DATE	OXY-CHLOR DANE, BIOTA, WH ORG WW, REC (UG/KG)	P,P'-DDD, BIOTA, WH ORG WW, REC (UG/KG)	P,P'-DDE, BIOTA, WH ORG WW, REC (UG/KG)	P,P'-DDT, BIOTA, WH ORG WW, REC (UG/KG)	PCB, BIOTA, WH ORG WW, REC (UG/KG)	PENTA CHLORO ANISOLE BIOTA, WH ORG WW, REC (UG/KG)	TOXA-PHENE, BIOTA, WH ORG WW, REC (UG/KG)	TRANS-CHLOR-DANE, BIOTA, WH ORG WW, REC (UG/KG)	TRANS-NONA-CHLOR, BIOTA, WH ORG WW, REC (UG/KG)
JUL 1995 12...	<5.00	<5.00	<5.00	<5.00	<50.0	<5.00	<200	<5.00	<5.00

01608500 SOUTH BRANCH POTOMAC RIVER NEAR SPRINGFIELD, WV--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

BOTTOM MATERIAL SEDIMENT

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	CARBON, INORG, SED, BM WS,<2MM DW, REC (G/KG)	CARBON, ORGANIC SED, BM WS,<2MM DW, REC (G/KG)	CARBON, ORG + INORG SED, BM WS,<2MM DW, REC (G/KG)	BENZO (A) PYRENE SED, BM WS,<2MM DW, REC (UG/KG)	INDENO 123-CD PYRENE SED, BM WS,<2MM DW, REC (UG/KG)	2,2'-BI QUINO-LINE, SED, BM WS,<2MM DW, REC (UG/KG)	QUINO-LINE, SED, BM WS,<2MM DW, REC (UG/KG)	PHENAN-THRI-DINE SED, BM WS,<2MM DW, REC (UG/KG)	ISO-QUINO-LINE, SED, BM WS,<2MM DW, REC (UG/KG)	TOLUENE 2,4-DI-NITRO-SED, BM WS,<2MM DW, REC (UG/KG)
JUL 1995 12...	1130	570	<0.100	21.0	21.0	E35	<50	<50	<50	<50	<50	<50

DATE	TOLUENE 2,6-DI-NITRO-SED, BM WS,<2MM DW, REC (UG/KG)	BENZO K FLUOR-ANTHENE SED, BM WS,<2MM DW, REC (UG/KG)	9H-FLU-ORENE, 1METHYL SED, BM WS,<2MM DW, REC (UG/KG)	9H-FLU-ORENE SED, BM WS,<2MM DW, REC (UG/KG)	ISOPHOR ONE SED, BM WS,<2MM DW, REC (UG/KG)	METHANE 2CHLORO ETHOXY SED, BM WS,<2MM DW, REC (UG/KG)	NAPHTH-ALENE, SED, BM WS,<2MM DW, REC (UG/KG)	NAPTHAL ENE, 12 DIMETHL SED, BM WS,<2MM DW, REC (UG/KG)	NAPTHAL ENE, 16 DIMETHL SED, BM WS,<2MM DW, REC (UG/KG)	NAPTHAL ENE,236 TRIMETH SED, BM WS,<2MM DW, REC (UG/KG)	NAPTHAL ENE, 26 DIMETHL SED, BM WS,<2MM DW, REC (UG/KG)	NAPTHAL ENE, 2-CHLORO-SED, BM WS,<2MM DW, REC (UG/KG)
JUL 1995 12...	<50	E26	<50	<50	<50	<50	<50	<50	<50	<50	E31	<50

DATE	BENZO(G HI)PERY LENE SED, BM WS,<2MM DW, REC (UG/KG)	PHENAN THRENE SED, BM WS,<2MM DW, REC (UG/KG)	PHENAN THRENE 1METHYL SED, BM WS,<2MM DW, REC (UG/KG)	4HCYPEN PHENAN THRENE SED, BM WS,<2MM DW, REC (UG/KG)	PHENOL SED, BM WS,<2MM DW, REC (UG/KG)	3,5-XYLENOL SED, BM WS,<2MM DW, REC (UG/KG)	M-CRE-SOL, 4-CHLORO-SED, BM WS,<2MM DW, REC (UG/KG)	PHENOL C8-ALKYL-SED, BM WS,<2MM DW, REC (UG/KG)	PHTHALA TE,BIS2 ETHHEXL SED, BM WS,<2MM DW, REC (UG/KG)	PHTHALA TEBUTYL BENZYL-SED, BM WS,<2MM DW, REC (UG/KG)	TRANS-NONA-CHLOR, SED, BM WS,<2MM DW, REC (UG/KG)	OXY-CHLOR-DANE, SED, BM WS,<2MM DW, REC (UG/KG)
JUL 1995 12...	<50	E26	E7.0	E25	<50	<50	<50	<50	96	<50	<1.00	<1.00

DATE	CIS-NONA-CHLOR, SED, BM WS,<2MM DW, REC (UG/KG)	ALDRIN, SED, BM WS,<2MM DW, REC (UG/KG)	CIS-CHLOR-DANE, SED, BM WS,<2MM DW, REC (UG/KG)	TRANS-CHLOR-DANE, SED, BM WS,<2MM DW, REC (UG/KG)	CHLORO-NEB, SED, BM WS,<2MM DW, REC (UG/KG)	DCPA, SED, BM WS,<2MM DW, REC (UG/KG)	O, P'-DDD, SED, BM WS,<2MM DW, REC (UG/KG)	P, P'-DDD, SED, BM WS,<2MM DW, REC (UG/KG)	O, P'-DDE, SED, BM WS,<2MM DW, REC (UG/KG)	P, P'-DDE, SED, BM WS,<2MM DW, REC (UG/KG)	O, P'-DDT, SED, BM WS,<2MM DW, REC (UG/KG)	P, P'-DDT, SED, BM WS,<2MM DW, REC (UG/KG)
JUL 1995 12...	<1.00	<1.00	<1.00	<1.00	<5.00	<5.00	<1.00	<1.00	<1.00	<1.00	<2.00	<2.00

DATE	DIEL-DRIN, SED, BM WS,<2MM DW, REC (UG/KG)	ENDO-SULFAN I, SED, BM WS,<2MM DW, REC (UG/KG)	ENDRIN, SED, BM WS,<2MM DW, REC (UG/KG)	ALPHA-BHC, SED, BM WS,<2MM DW, REC (UG/KG)	BETA-BHC, SED, BM WS,<2MM DW, REC (UG/KG)	HEPTA-CHLOR, SED, BM WS,<2MM DW, REC (UG/KG)	HEPTA-CHLOR EPOXIDE SED, BM WS,<2MM DW, REC (UG/KG)	BENZENE HEXA-CHLORO-SED, BM WS,<2MM DW, REC (UG/KG)	ISODRIN SED, BM WS,<2MM DW, REC (UG/KG)	LINDANE SED, BM WS,<2MM DW, REC (UG/KG)	METHOXY CHLOR P,P'-, SED, BM WS,<2MM DW, REC (UG/KG)	METHOXY CHLOR, O,P'-, SED, BM WS,<2MM DW, REC (UG/KG)
JUL 1995 12...	<1.00	<1.00	<2.00	<1.00	<1.00	<1.00	<1.00	<50.0	<1.00	<1.00	<5.00	<5.00

E: Estimated.

01608500 SOUTH BRANCH POTOMAC RIVER NEAR SPRINGFIELD, WV--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

BOTTOM MATERIAL SEDIMENT--Continued

DATE	MIREX, SED, BM WS,<2MM DW, REC (UG/KG)	CIS-PER-METHRIN SED, BM WS,<2MM DW, REC (UG/KG)	TRANS-PER-METHRIN SED, BM WS,<2MM DW, REC (UG/KG)	TOXAPHENE SED, BM WS,<2MM DW, REC (UG/KG)	PHTHALATE, DIBUTYL SED, BM WS,<2MM DW, REC (UG/KG)	PHTHALATE, DIOCTYL SED, BM WS,<2MM DW, REC (UG/KG)	PHTHALATE, DIETHYL SED, BM WS,<2MM DW, REC (UG/KG)	PHTHALATE,DIMETHYL SED, BM WS,<2MM DW, REC (UG/KG)	PYRENE, SED, BM WS,<2MM DW, REC (UG/KG)	ACENAPHTHYLENE SED, BM WS,<2MM DW, REC (UG/KG)	ACENAPHTHENE SED, BM WS,<2MM DW, REC (UG/KG)	ACRIDINE SED, BM WS,<2MM DW, REC (UG/KG)
JUL 1995												
12...	<1.00	<5.00	<5.00	<200	E25	<50	E11	<50	E47	E7.0	<50	<50

DATE	DPROPYLAMINE,N NITROSO SED, BM WS,<2MM DW, REC (UG/KG)	DIPHNYLAMINE,N NITROSO SED, BM WS,<2MM DW, REC (UG/KG)	ANTHRACENE SED, BM WS,<2MM DW, REC (UG/KG)	ANTHRACENE,2-METHYL- SED, BM WS,<2MM DW, REC (UG/KG)	BENZ(A)ANTHRACENE SED, BM WS,<2MM DW, REC (UG/KG)	9,10-ANTHRAQUINONE SED, BM WS,<2MM DW, REC (UG/KG)	BENZENE O-DI-CHLORO- SED, BM WS,<2MM DW, REC (UG/KG)	BENZENE M-DI-CHLORO- SED, BM WS,<2MM DW, REC (UG/KG)	BENZENE P-DI-CHLORO- SED, BM WS,<2MM DW, REC (UG/KG)	BENZENE NITRO- SED, BM WS,<2MM DW, REC (UG/KG)	BENZENE PNTCHLR NITRO- SED, BM WS,<2MM DW, REC (UG/KG)
JUL 1995											
12...	<50	<50	E7.0	<50	E31	<50	<50	<50	<50	<50	<50

DATE	CHRYSENE SED, BM WS,<2MM DW, REC (UG/KG)	P-CRESOL SED, BM WS,<2MM DW, REC (UG/KG)	THIOPHENE,DI-BENZO- SED, BM WS,<2MM DW, REC (UG/KG)	4-BROMOPHNPHNL ETHER SED, BM WS,<2MM DW, REC (UG/KG)	4CHLOROPHNPHNLETHER SED, BM WS,<2MM DW, REC (UG/KG)	PCB, SED, BM WS,<2MM DW, REC (UG/KG)	PENTACHLORO-ANISOLE SED, BM WS,<2MM DW, REC (UG/KG)	DIBENZ(AH),ANTHRACEN SED, BM WS,<2MM DW, REC (UG/KG)	FLUORANTHENE BED MAT WS <2MM DRY WGT REC (UG/KG)	BENZOCLNNOLINE BED MAT WS <2MM DRY WGT REC (UG/KG)	MOVE VALUES TO PCODE 49948
JUL 1995											
12...	E29	<50	<50	<50	<50	<50	<50	<50	E62	<50	<50

SUSPENDED SEDIMENT DISCHARGE

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
NOV 1994				
03...	1315	190	4	2.1
JAN 1995				
05...	1130	E315	2	1.7
16...	0930	21600	455	26500
MAR				
01...	1600	1450	2	7.8
MAY				
03...	1630	3250	38	333
10...	1330	1270	4	14
15...	1400	12100	179	5850
AUG				
11...	1000	877	9	21

E: Estimated.

01610000 POTOMAC RIVER AT PAW PAW, WV

LOCATION.--Lat 39°32'20", long 78°27'24", 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.--3,109 mi^2.

PERIOD OF RECORD.--October 1938 to current year.

GAGE.--Water-stage recorder. Datum of gage is 487.88 ft above sea level. Prior to Mar. 25, 1939, nonrecording gage at bridge 250 ft downstream at same datum.

REMARKS.--Records good except those for estimated daily discharges (ice effect), which are fair. Low flow affected by Stony River Reservoir prior to July 1981, since December 1950 by Savage River Reservoir (see station 01597500), and since July 1981 by Jennings Randolph Lake. National Weather Service gage-height telemeter at station. U.S. Army Corps of Engineers satellite 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, 54.0 ft on Mar. 18, 1936, discharge, 240,000 ft^3/s, from rating curve extended above 85,000 ft^3/s on basis of slope-area measurement of peak flow at site 5.0 mi upstream at Okonoko, W. Va.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 20,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 16	1300	*34,900	*20.60	No other peak greater than base discharge.			

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	673	564	1470	1370	2290	3740	1750	2210	1970	12400	880	764
2	706	611	1250	1820	2230	4410	1670	2350	1820	9200	823	728
3	711	608	1120	1870	2340	4130	1590	4670	4820	6280	807	727
4	668	612	1030	1800	2330	3920	1490	5520	4120	4730	755	721
5	648	591	1980	1470	e2150	3740	1440	5020	3150	3770	753	717
6	636	604	3530	e1350	e1650	3590	1390	4560	2510	3110	1360	702
7	636	584	2700	e1700	e1400	3490	1350	3950	2120	3180	9010	693
8	630	563	2180	4680	e1350	3390	1310	3400	1900	2530	5620	689
9	631	561	1790	4700	e1350	3670	1370	3060	1790	2150	3340	683
10	631	623	1710	3730	e1350	3640	1590	2970	1630	1860	2400	680
11	619	654	3460	3120	e1300	3470	1730	3830	1600	1700	2040	667
12	621	1040	3870	2910	e1300	3940	1970	3740	1640	1540	1880	646
13	613	1290	3100	3090	e1300	4380	2020	3180	2120	1380	1720	611
14	615	619	2560	3370	e1300	4410	2250	4290	1900	1280	1600	549
15	616	583	2170	5420	e1350	4230	2100	15300	1730	1180	1440	506
16	613	610	2000	29700	e1400	3750	1960	12700	1560	1460	1490	502
17	611	744	1920	19700	1680	3310	1850	8950	1390	1530	1250	643
18	616	881	1930	12100	2550	3010	1810	7620	1210	3260	1130	708
19	616	833	1940	9300	2880	2720	1880	10000	1120	2090	933	629
20	631	792	1880	9640	2990	2510	1900	9160	1040	1550	933	613
21	625	826	1820	13100	3380	2320	1820	7430	954	1300	888	674
22	619	1190	1790	10300	3620	2180	1790	6080	905	1150	799	1080
23	622	1210	1710	8150	3380	2180	1720	5150	924	1120	777	737
24	621	1020	1680	6680	3240	2350	1810	4200	1230	1050	742	1010
25	623	959	1690	5520	3520	2220	2370	3580	2200	1020	720	1300
26	622	862	1650	4520	3480	2060	2740	3130	3530	997	695	676
27	622	810	1560	3780	3270	1930	2670	2610	5960	951	694	606
28	625	1580	1480	3410	3180	1880	2530	2590	13500	1010	739	587
29	561	2420	1380	3100	---	1880	2370	3390	8910	1130	748	575
30	536	1840	1220	2780	---	1870	2230	2710	8990	1110	801	567
31	534	---	1170	2510	---	2240	---	2250	---	965	789	---
TOTAL	19351	26684	60740	186690	63560	96560	56470	159600	88243	77983	48556	20990
MEAN	624	889	1959	6022	2270	3115	1882	5148	2941	2516	1566	700
MAX	711	2420	3870	29700	3620	4410	2740	15300	13500	12400	9010	1300
MIN	534	561	1030	1350	1300	1870	1310	2210	905	951	694	502
CFSM	.20	.29	.63	1.94	.73	1.00	.61	1.66	.95	.81	.50	.23
IN.	.23	.32	.73	2.23	.76	1.16	.68	1.91	1.06	.93	.58	.25

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 1995, BY WATER YEAR (WY)

MEAN	1538	1960	3293	3872	5261	7443	6055	4444	2531	1351	1190	978
MAX	9709	17180	12300	9099	12910	17440	15620	10450	7612	5071	6458	5012
(WY)	1977	1986	1973	1991	1994	1994	1993	1988	1972	1949	1955	1945
MIN	261	327	388	679	1116	2043	1882	1074	544	303	278	252
(WY)	1952	1966	1966	1981	1954	1990	1995	1941	1965	1966	1944	1959

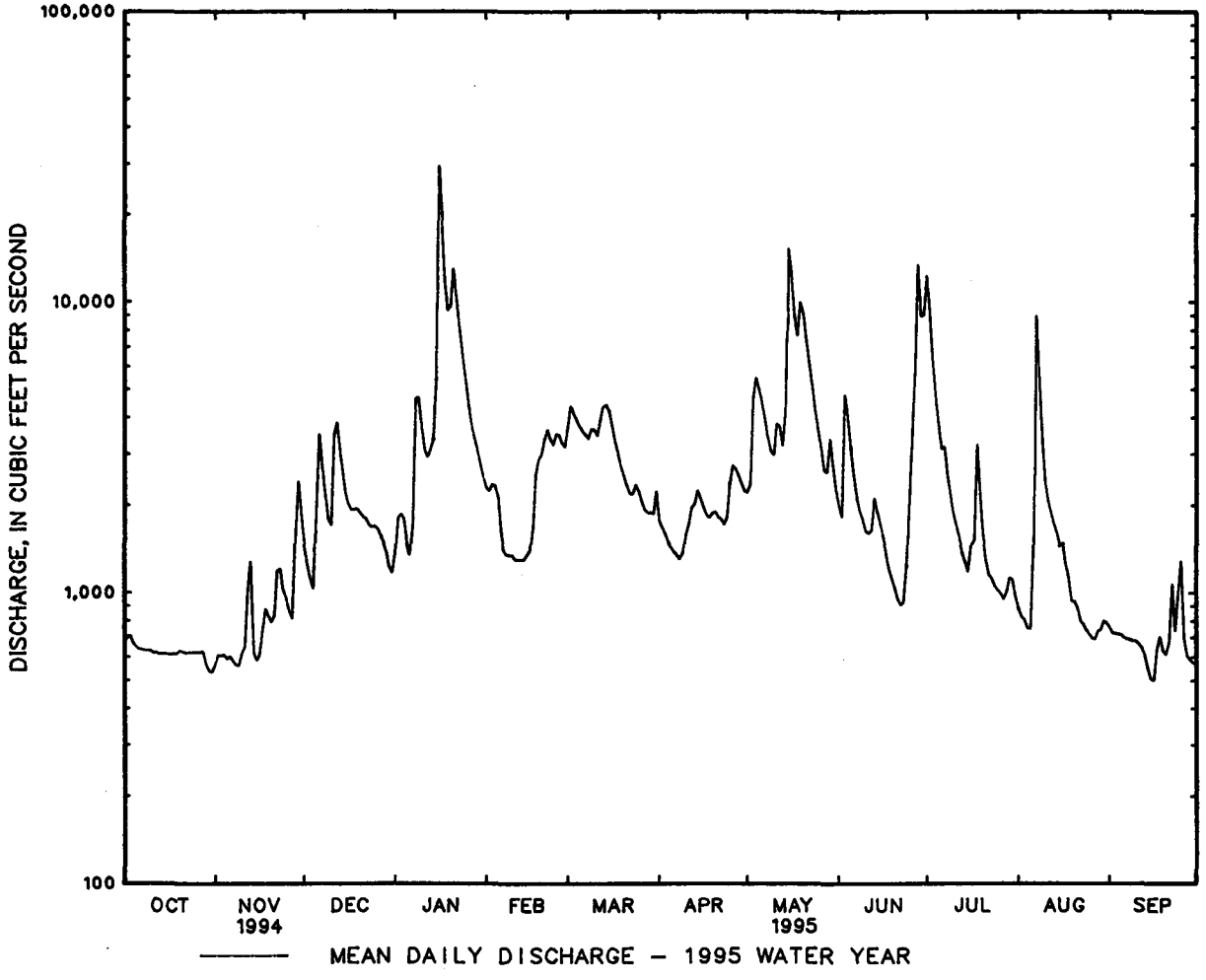
01610000 POTOMAC RIVER AT PAW PAW, WV--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1939 - 1995	
ANNUAL TOTAL	1775188		905427			
ANNUAL MEAN	4864		2481		3317	
HIGHEST ANNUAL MEAN					5264	1994
LOWEST ANNUAL MEAN					1499	1969
HIGHEST DAILY MEAN	39800	Feb 10	29700	Jan 16	125000	Nov 6 1985
LOWEST DAILY MEAN	534	Oct 31	502	Sep 16	172	(a)
ANNUAL SEVEN-DAY MINIMUM	575	Oct 29	575	Oct 29	179	Sep 7 1966
INSTANTANEOUS PEAK FLOW			34900	Jan 16	(b)235000	Nov 5 1985
INSTANTANEOUS PEAK STAGE			20.60	Jan 16	53.58	Nov 5 1985
INSTANTANEOUS LOW FLOW			470	Sep 16	164	(c)
ANNUAL RUNOFF (CFSM)	1.56		.80		1.07	
ANNUAL RUNOFF (INCHES)	21.24		10.83		14.49	
10 PERCENT EXCEEDS	14100		4600		7520	
50 PERCENT EXCEEDS	1880		1710		1770	
90 PERCENT EXCEEDS	631		622		438	

a Sept. 10, 12, 13, 1966.

b From rating curve extended above 85,000 ft^3/s on basis of slope-area measurement of peak flow at site 5.0 mi upstream at Okonoko, WV.

c Sept. 10, 11, 1966.



01611500 CACAPON RIVER NEAR GREAT CACAPON, WV

LOCATION.--Lat 39°34'43", long 78°18'34", Morgan County, Hydrologic Unit 02070003, on left bank at Rock Ford 3.0 mi southwest of Great Cacapon, and at mile 6.5.

DRAINAGE AREA.--677 mi^2.

PERIOD OF RECORD.--December 1922 to September 1995 (Discontinued).

REVISED RECORDS.--WSP 800: 1924(M). WSP 921: Drainage area. WSP 951: 1936-37. WSP 1552: 1925-26(M), 1928 1929(M), 1932.

GAGE.--Water-stage recorder. Datum of gage is 456.78 ft above sea level (U.S. Army Corps of Engineers bench mark). Prior to Nov. 10, 1933, nonrecording gage at same site and datum. National Weather Service gage-height telemeter at the station.

REMARKS.--Records fair 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 OUTSIDE PERIOD OF RECORD.--Flood in May 1889 reached a stage of about 24.7 ft, from floodmarks, discharge 57,500 ft^3/s.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,900 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Jan. 16	1010	*11,700	*11.57	No other peak greater than base discharge.			

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	90	90	341	241	426	395	276	365	290	1790	100	63
2	101	97	273	363	432	409	265	413	250	1430	92	61
3	96	108	237	442	494	379	255	738	230	1170	83	59
4	93	107	219	e350	516	355	246	1060	245	823	78	59
5	90	111	266	e260	477	339	235	936	244	585	82	57
6	87	107	487	e300	e340	338	226	822	224	495	126	56
7	86	101	540	406	e270	355	221	703	198	447	1040	56
8	86	95	446	1220	e290	375	216	592	185	365	1040	58
9	85	92	360	997	e320	393	218	515	191	291	603	56
10	82	99	319	748	e340	483	221	471	173	239	409	56
11	80	99	442	596	e350	514	220	497	183	209	267	55
12	79	101	732	516	e300	681	235	586	176	187	229	54
13	77	103	612	494	e275	1150	347	548	283	170	189	55
14	77	103	476	498	e260	1120	710	554	285	155	202	55
15	78	103	404	609	e250	961	725	1800	239	140	183	55
16	80	105	360	8160	e260	829	596	1900	199	133	156	55
17	79	119	335	3870	287	724	508	1340	169	173	135	64
18	77	140	324	2110	325	629	460	1100	151	326	118	71
19	77	178	321	1510	377	551	437	1150	138	231	106	73
20	84	221	320	1600	422	497	411	1050	127	206	97	77
21	83	217	300	2460	496	464	377	846	120	183	90	74
22	80	308	280	1780	552	439	353	689	131	140	85	69
23	79	437	265	1330	510	424	331	577	151	122	79	67
24	80	329	259	1050	467	406	332	476	137	120	77	65
25	85	247	264	870	450	372	350	406	151	119	74	63
26	84	212	281	730	418	339	413	371	170	127	70	63
27	83	196	269	622	385	312	410	443	259	105	68	63
28	86	230	253	544	378	297	396	380	1470	102	65	64
29	84	513	240	529	---	293	384	382	2410	114	65	64
30	83	441	232	488	---	296	372	429	2390	100	64	65
31	84	---	225	468	---	290	---	350	---	97	63	---
TOTAL	2595	5409	10682	36161	10667	15409	10746	22489	11569	10894	6135	1852
MEAN	83.7	180	345	1166	381	497	358	725	386	351	198	61.7
MAX	101	513	732	8160	552	1150	725	1900	2410	1790	1040	77
MIN	77	90	219	241	250	290	216	350	120	97	63	54
CFSM	.12	.27	.51	1.72	.56	.73	.53	1.07	.57	.52	.29	.09
IN.	.14	.30	.59	1.99	.59	.85	.59	1.24	.64	.60	.34	.10

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1923 - 1995, BY WATER YEAR (WY)

MEAN	328	354	513	641	877	1285	1129	873	432	197	235	177
MAX	2976	2577	2121	1683	2261	5708	2976	3565	3525	936	2791	1636
(WY)	1943	1986	1973	1991	1994	1936	1987	1924	1972	1972	1955	1975
MIN	44.8	51.1	56.5	69.6	89.1	247	242	157	77.0	56.4	39.8	39.4
(WY)	1931	1966	1966	1956	1934	1990	1947	1969	1969	1930	1966	1932

01611500 CACAPON RIVER NEAR GREAT CACAPON, WV--Continued

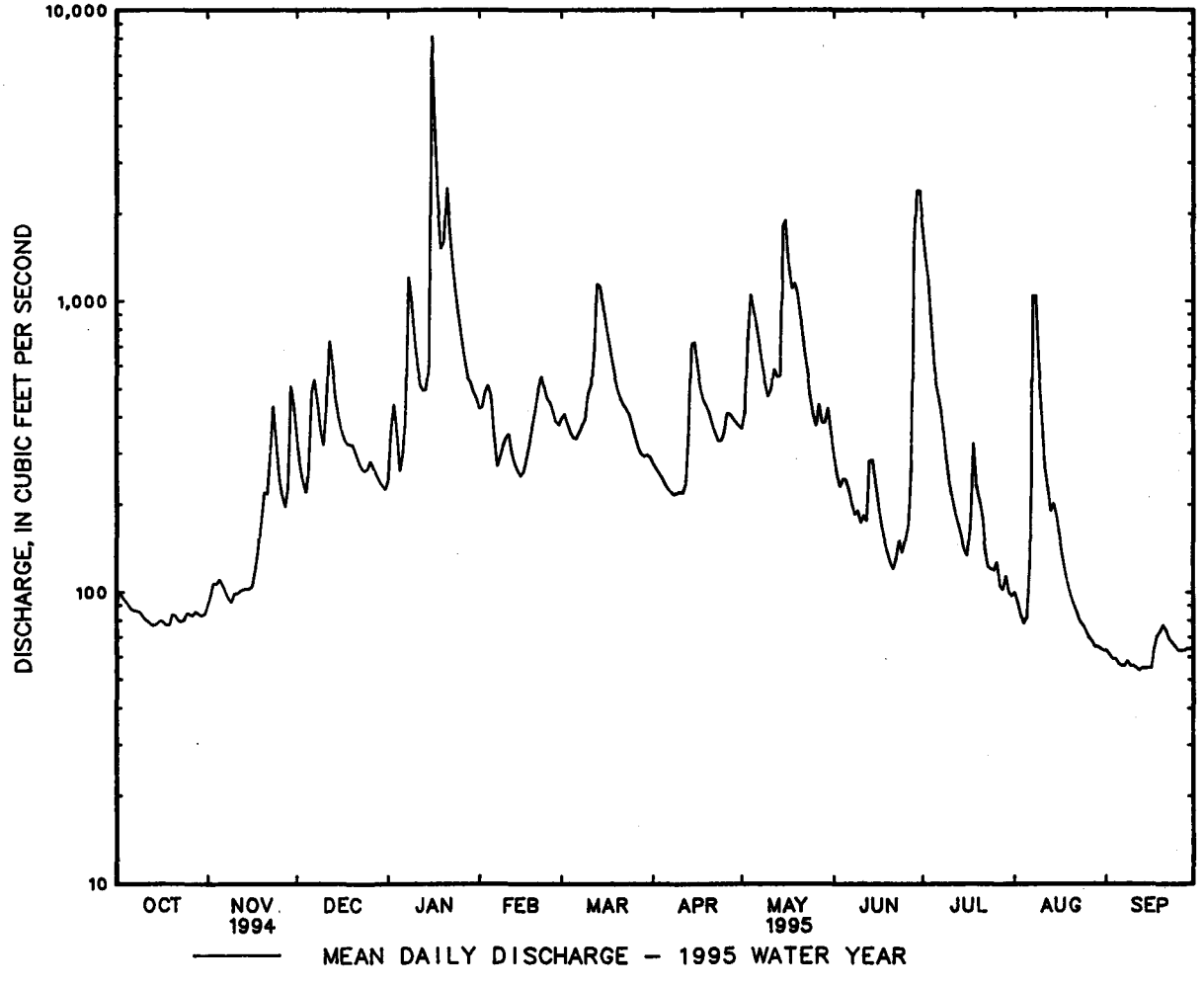
SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1923 - 1995	
ANNUAL TOTAL	329944		144608			
ANNUAL MEAN	904		396		589	
HIGHEST ANNUAL MEAN					1135	1972
LOWEST ANNUAL MEAN					180	1969
HIGHEST DAILY MEAN	8830	Mar 29	8160	Jan 16	67900	Mar 18 1936
LOWEST DAILY MEAN	77	(a)	54	Sep 12	26	Sep 12 1966
ANNUAL SEVEN-DAY MINIMUM	78	Oct 13	55	Sep 10	28	Sep 7 1966
INSTANTANEOUS PEAK FLOW			11700	Jan 16	(b)87600	Mar 18 1936
INSTANTANEOUS PEAK STAGE			11.57	Jan 16	30.10	Mar 18 1936
INSTANTANEOUS LOW FLOW			54	(c)	26	(d)
ANNUAL RUNOFF (CFSM)	1.34		.59		.87	
ANNUAL RUNOFF (INCHES)	18.13		7.95		11.82	
10 PERCENT EXCEEDS	2580		742		1330	
50 PERCENT EXCEEDS	280		266		241	
90 PERCENT EXCEEDS	91		76		67	

a Oct. 13, 14, 18, 19.

b From rating curve extended above 52,000 ft^3/s.

c Sept. 12, 13.

d Sept. 11-13, 1966.



01613000 POTOMAC RIVER AT HANCOCK, MD

LOCATION.--Lat 39°41'49", long 78°10'39", 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.--4,073 mi^2.

PERIOD OF RECORD.--October 1932 to current year. Gage-height records collected at same site since June 1925 are contained in reports of National Weather Service.

REVISED RECORDS.--WSP 781: 1933(M). WSP 801: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 383.68 ft above sea level. Oct. 1, 1932, to Jan. 5, 1935, Mar. 18, 1936, to Jan. 20, 1937, nonrecording gage, on former highway bridge just upstream at same datum.

REMARKS.--Records good except those for estimated daily discharges (ice effect), which are fair. Slight regulation at low flow from power plants upstream. Low flow affected slightly by Stony River Reservoir prior to July 1981, since December 1950 by Savage River Reservoir (see station 01597500), and since July 1981 by Jennings Randolph Lake. National Weather Service gage-height telemeter at station. U.S. Army Corps of Engineers satellite 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 prior to 1932, about 40 ft in May 1889, discharge, about 220,000 ft^3/s.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 23,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 16	1800	*41,100	*18.03	No other peak greater than base discharge.			

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	744	611	2150	1570	2950	3690	2330	2660	2490	13700	1030	811
2	764	631	1730	2120	2820	4510	2010	2740	2230	11700	941	783
3	757	672	1470	2650	2850	4600	1920	3570	3700	8470	882	743
4	751	680	1310	2500	2990	4230	1810	6420	5110	6240	853	747
5	727	687	1870	e2150	2880	4150	1690	5990	3990	4820	817	739
6	705	680	4150	e1800	e2600	3940	1640	5450	3120	4140	1010	730
7	684	669	4090	e2000	e2000	3920	1580	4830	2660	3760	6020	720
8	682	651	3290	3900	e1900	3810	1540	4180	2270	3530	8940	715
9	678	622	2650	6540	e1800	3920	1520	3700	2110	2780	4820	716
10	678	688	2270	4930	e1700	4130	1660	3460	1930	2410	3310	706
11	669	694	2920	4090	e1700	4140	1870	3600	1850	2260	2660	695
12	660	733	4990	3590	e1700	4400	2070	4510	1800	1980	2360	687
13	660	1190	4350	3570	e1700	5470	2380	3920	2080	1730	2070	684
14	651	1200	3600	3760	e1700	5670	2830	3760	2420	1550	1950	640
15	651	703	3040	4590	e1800	5380	3100	11300	2110	1410	1760	576
16	651	685	2660	28400	e1900	4950	2790	16600	1890	1550	1630	530
17	653	746	2510	27700	e2000	4310	2550	10800	1670	2060	1560	592
18	651	928	2400	15900	e2300	3900	2410	8940	1460	3930	1330	678
19	651	1070	2450	11500	e3000	3540	2340	9620	1290	3470	1170	760
20	661	1040	2420	11600	e3400	3250	2400	10600	1190	2290	994	686
21	674	1070	2310	16300	3560	3060	2330	8680	1110	1830	985	673
22	668	1270	2240	13600	3980	2830	2220	7130	1020	1490	927	732
23	660	1770	2160	10300	3990	2700	2150	6010	1070	1310	840	1120
24	659	1540	2090	8370	3710	2750	2130	5000	1110	1270	814	781
25	655	1280	2070	6950	3690	2770	2390	4130	1700	1190	782	1120
26	660	1140	2090	5750	3920	2570	3030	3690	2550	1170	751	1280
27	660	1030	2000	4740	3720	2380	3180	3310	6230	1120	731	731
28	658	1420	1870	4170	3560	2250	3050	2930	13100	1060	730	646
29	666	2810	1780	3880	---	2200	2900	3350	12700	1120	771	629
30	611	2900	1630	3510	---	2210	2760	3640	11600	1240	776	616
31	575	---	1470	3260	---	2340	---	2910	---	1150	821	---
TOTAL	20874	31810	78030	225690	75820	113970	68580	177430	99560	97730	55035	22266
MEAN	673	1060	2517	7280	2708	3676	2286	5724	3319	3153	1775	742
MAX	764	2900	4990	28400	3990	5670	3180	16600	13100	13700	8940	1280
MIN	575	611	1310	1570	1700	2200	1520	2660	1020	1060	730	530
CFSM	.17	.26	.62	1.79	.66	.90	.56	1.41	.81	.77	.44	.18
IN.	.19	.29	.71	2.06	.69	1.04	.63	1.62	.91	.89	.50	.20

e Estimated

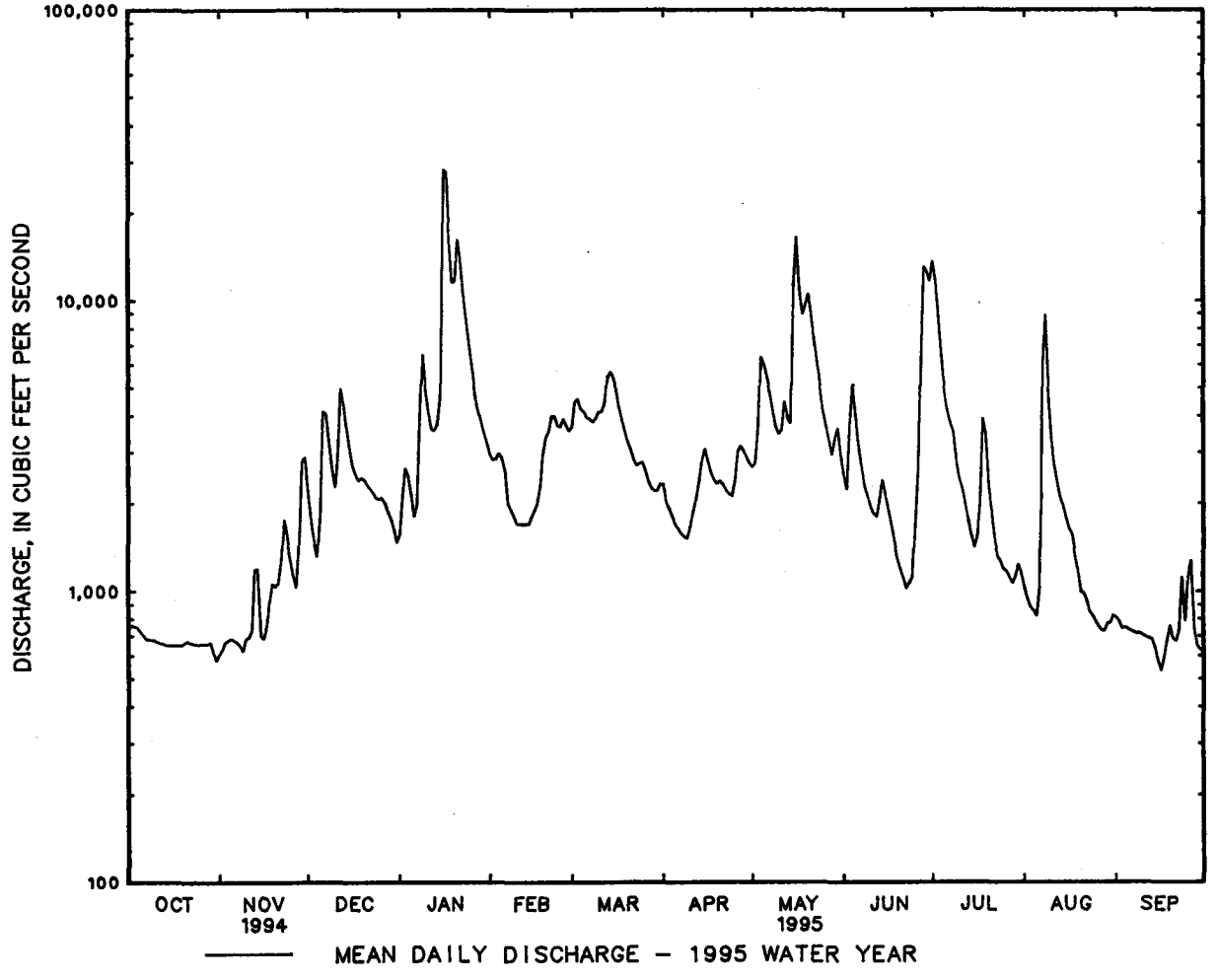
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1933 - 1995, BY WATER YEAR (WY)

MEAN	2036	2418	3985	5003	6512	9376	7730	5500	3065	1584	1512	1246
MAX	13270	20090	15160	15450	16720	32280	19170	13260	13390	6677	9479	6756
(WY)	1977	1986	1973	1937	1971	1936	1993	1988	1972	1949	1955	1945
MIN	309	399	463	751	1041	2311	2286	1344	622	357	342	329
(WY)	1942	1966	1966	1956	1934	1990	1995	1941	1969	1966	1944	1946

01613000 POTOMAC RIVER AT HANCOCK, MD--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1933 - 1995	
ANNUAL TOTAL	2105913		1066795			
ANNUAL MEAN	5770		2923		4152	
HIGHEST ANNUAL MEAN					6319	1973
LOWEST ANNUAL MEAN					1770	1969
HIGHEST DAILY MEAN	43100	Mar 29	28400	Jan 16	261000	Mar 18 1936
LOWEST DAILY MEAN	575	Oct 31	530	Sep 16	184	Oct 3 1932
ANNUAL SEVEN-DAY MINIMUM	630	Oct 27	627	Sep 12	215	Sep 7 1966
INSTANTANEOUS PEAK FLOW			41100	Jan 16	(a)340000	Mar 18 1936
INSTANTANEOUS PEAK STAGE			18.03	Jan 16	47.60	Mar 18 1936
INSTANTANEOUS LOW FLOW			512	Sep 16	180	Oct 4 1932
ANNUAL RUNOFF (CFSM)	1.42		.72		1.02	
ANNUAL RUNOFF (INCHES)	19.23		9.74		13.85	
10 PERCENT EXCEEDS	17900		5410		9470	
50 PERCENT EXCEEDS	2240		2110		2140	
90 PERCENT EXCEEDS	692		678		533	

a From rating curve extended above 120,000 ft^3/s on basis of slope-area measurement of peak flow.



01614500 CONOCOCHEAGUE CREEK AT FAIRVIEW, MD

LOCATION.--Lat 39°42'57", long 77°49'28", Washington County, Hydrologic Unit 02070004, on right bank 0.7 mi upstream from highway bridge in Fairview, 2.0 mi upstream from Rockdale Run, 6.5 mi northwest of Hagerstown, and 19.1 mi upstream from mouth.

DRAINAGE AREA.--494 mi^2.

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WSP 756: Drainage area. WSP 1432: 1929(M), 1930, 1931-32(M), 1935(M).

GAGE.--Water-stage recorder. Datum of gage is 391.85 ft above sea level. 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 fair. Low flow partly regulated by small powerplants near Mercersburg, Pennsylvania. National Weather Service gage-height telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known prior to 1928, about 16.5 ft, present datum, sometime in 1889, from information by local residents, discharge, about 22,000 ft^3/s.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,300 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 16	0600	*4,620	*7.79	No other peak greater than base discharge.			

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	213	162	789	599	635	591	293	251	223	736	202	111
2	246	312	663	833	608	530	284	303	213	914	196	106
3	220	245	581	722	565	468	278	409	493	714	196	101
4	207	194	524	620	553	434	270	342	366	565	216	100
5	196	171	2030	e480	508	413	257	304	297	2500	197	101
6	185	164	2320	e490	e400	441	251	288	258	1240	423	100
7	179	154	1440	660	e430	492	247	265	240	1690	373	98
8	177	150	1100	711	e500	479	242	249	245	1020	270	96
9	175	148	909	572	e420	521	265	239	255	773	229	101
10	176	187	874	509	e400	525	356	240	224	635	214	106
11	170	219	1490	464	418	511	365	247	224	1390	203	98
12	164	197	1170	454	387	675	312	253	304	838	203	95
13	160	180	934	479	e340	800	444	239	402	627	192	96
14	159	170	821	525	e350	757	501	277	317	531	180	98
15	156	164	763	1000	e340	687	414	444	249	461	180	94
16	153	182	694	3960	376	632	372	350	228	554	175	90
17	150	450	693	2230	428	588	344	306	206	504	166	108
18	149	442	682	1590	426	537	333	344	190	558	158	132
19	149	343	626	1320	408	500	320	339	181	424	147	119
20	150	288	570	2680	422	475	306	306	175	365	141	103
21	150	538	527	3450	467	469	294	275	175	330	136	100
22	148	1450	500	2180	444	460	295	253	184	314	132	103
23	151	855	479	1670	406	429	275	239	171	301	138	108
24	154	619	462	1400	409	402	285	231	200	290	129	102
25	147	515	504	1190	387	372	290	224	348	340	124	104
26	145	446	494	1030	362	349	266	227	1160	299	112	107
27	141	401	435	920	351	335	249	227	1940	266	116	107
28	141	1350	411	843	464	326	239	222	1330	251	117	103
29	144	1540	399	766	---	327	231	318	991	246	118	98
30	137	1020	374	710	---	320	228	293	886	224	118	93
31	136	---	350	667	---	305	---	245	---	214	115	---
TOTAL	5128	13256	24608	35724	12204	15150	9106	8749	12675	20114	5616	3078
MEAN	165	442	794	1152	436	489	304	282	422	649	181	103
MAX	246	1540	2320	3960	635	800	501	444	1940	2500	423	132
MIN	136	148	350	454	340	305	228	222	171	214	112	90
CFSM	.33	.89	1.61	2.33	.88	.99	.61	.57	.86	1.31	.37	.21
IN.	.39	1.00	1.85	2.69	.92	1.14	.69	.66	.95	1.51	.42	.23

e Estimated

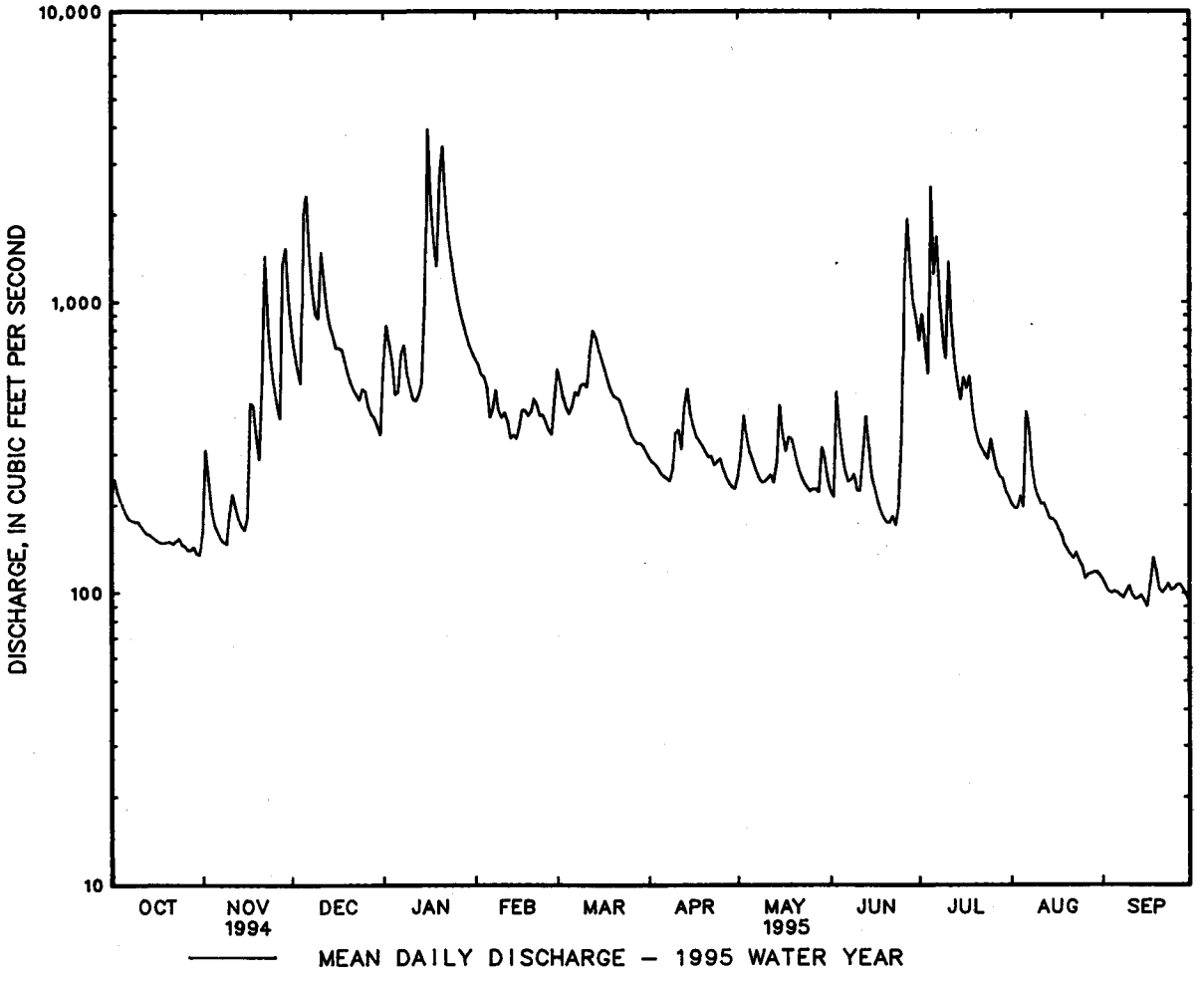
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 1995, BY WATER YEAR (WY)

MEAN	326	434	618	653	829	1185	1064	737	496	326	230	242
MAX	2177	1453	1904	1685	2446	3725	2991	1736	3278	1358	921	1828
(WY)	1977	1933	1973	1937	1984	1994	1993	1989	1972	1928	1942	1975
MIN	42.3	45.4	61.2	88.8	151	274	304	218	120	62.2	48.0	54.6
(WY)	1931	1931	1931	1931	1931	1990	1995	1941	1965	1966	1966	1930

01614500 CONOCOCHEAGUE CREEK AT FAIRVIEW, MD--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1928 - 1995	
ANNUAL TOTAL	324989		165408			
ANNUAL MEAN	890		453		590	
HIGHEST ANNUAL MEAN					1078	1972
LOWEST ANNUAL MEAN					301	1954
HIGHEST DAILY MEAN	7040	Mar 28	3960	Jan 16	26700	Jun 23 1972
LOWEST DAILY MEAN	136	Oct 31	90	Sep 16	25	Nov 28 1930
ANNUAL SEVEN-DAY MINIMUM	142	Oct 25	97	Sep 10	28	Sep 7 1966
INSTANTANEOUS PEAK FLOW			4620	Jan 16	(a)32400	Jun 23 1972
INSTANTANEOUS PEAK STAGE			7.79	Jan 16	(b)24.50	Jun 23 1972
INSTANTANEOUS LOW FLOW			88	Sep 16	21	(c)
ANNUAL RUNOFF (CFSM)	1.80		.92		1.19	
ANNUAL RUNOFF (INCHES)	24.47		12.46		16.23	
10 PERCENT EXCEEDS	2290		879		1300	
50 PERCENT EXCEEDS	411		317		330	
90 PERCENT EXCEEDS	176		127		102	

a From rating curve extended above 15,000 ft^3/s on basis of contracted-opening and flow-over-road measurement of peak flow.
b From floodmark.
c Aug. 8, Sept. 12, 1966.



01614500 CONOCOCHEAGUE CREEK AT FAIRVIEW, MD--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1967-83, 1992 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: November 1966 to September 1980.
SUSPENDED SEDIMENT DISCHARGE: October 1966 to September 1980.

REMARKS.--Water temperatures were measured in field at time of sampling.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum daily, 30.0°C, July 17, 1969; minimum daily, 0.0°C on many days during winter periods.
SEDIMENT CONCENTRATION: Maximum daily mean, 1,050 mg/L, Oct. 25, 1971; minimum daily mean, 1 mg/L, on many days.
SEDIMENT LOAD: Maximum daily, 73,000 tons, June 23, 1972; minimum daily, 0.17 ton, Nov. 24, 26, 27, 1966.

WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TEMPER-ATURE AIR (DEG C)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	HARD-NESS TOTAL (MG/L AS CACO3)
NOV 1994										
14...	1515	182	409	8.6	10.0	19.0	759	15.8	141	190
DEC										
20...	1215	539	355	8.0	6.0	5.0	763	11.8	95	--
JAN 1995										
11...	1130	463	355	8.0	2.0	-1.5	762	12.9	93	170
20...	1445	3670	224	7.5	6.5	3.5	734	--	--	98
20...	1500	3720	224	7.5	6.5	3.5	734	--	--	--
FEB										
22...	1300	440	352	8.4	4.0	4.0	755	14.9	115	170
22...	1330	440	352	8.4	4.0	4.0	755	14.9	115	--
MAR										
16...	1300	629	305	8.9	12.0	21.5	753	17.3	163	--
16...	1310	629	305	8.9	12.0	21.5	753	17.3	163	--
APR										
10...	1145	377	371	7.8	12.0	5.5	759	8.4	78	170
10...	1200	381	371	7.8	12.0	5.5	759	8.4	78	--
MAY										
08...	1400	258	345	7.6	18.0	19.0	756	8.8	94	150
08...	1500	248	345	7.6	18.0	19.0	756	8.8	94	--
JUN										
05...	1100	298	318	7.6	20.5	24.5	753	8.2	92	--
05...	1115	294	318	7.6	20.5	24.5	753	8.2	92	--
20...	1145	175	397	8.1	24.0	--	749	9.1	110	--
27...	1130	3100	250	7.2	20.5	21.0	755	6.5	73	100
JUL										
13...	1230	624	388	7.5	21.5	28.5	755	8.0	92	--
AUG										
14...	1345	178	461	8.3	27.5	31.5	750	10.4	134	--

01614500 CONOCOCHEAGUE CREEK AT FAIRVIEW, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3	CAR-BONATE WATER DIS IT FIELD MG/L AS CO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
NOV 1994									
14...	56	12	9.7	3.3	165	179	11	19	16
DEC									
20...	--	--	--	--	133	162	--	--	--
JAN 1995									
11...	51	11	9.2	2.2	130	159	--	17	15
20...	29	6.3	4.7	3.0	75	92	--	13	8.3
20...	--	--	--	--	75	92	--	--	--
FEB									
22...	50	11	8.3	2.1	151	151	1	17	15
22...	--	--	--	--	151	151	1	--	--
MAR									
16...	--	--	--	--	107	109	--	--	--
16...	--	--	--	--	107	109	11	--	--
APR									
10...	50	11	8.1	2.4	139	170	--	17	14
10...	--	--	--	--	139	170	--	--	--
MAY									
08...	46	9.7	8.3	2.3	122	149	--	15	14
08...	--	--	--	--	122	149	--	--	--
JUN									
05...	--	--	--	--	111	135	--	--	--
05...	--	--	--	--	111	135	--	--	--
20...	--	--	--	--	--	--	--	--	--
27...	30	6.4	5.4	5.4	77	94	--	15	9.4
JUL									
13...	--	--	--	--	--	--	--	--	--
AUG									
14...	--	--	--	--	--	--	--	--	--

DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS NO3)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)
NOV 1994									
14...	0.10	1.4	237	--	<0.010	3.30	3.30	<0.015	0.30
DEC									
20...	--	--	--	18	0.040	4.10	4.10	0.100	0.30
JAN 1995									
11...	<0.10	5.9	208	17	0.040	3.90	3.90	0.070	0.30
20...	<0.10	7.5	138	11	0.020	2.40	2.40	0.120	1.9
20...	--	--	--	10	0.020	2.30	2.30	0.130	1.5
FEB									
22...	0.10	4.6	209	17	0.030	3.80	3.80	0.030	0.20
22...	--	--	--	16	0.030	3.70	3.70	0.020	0.30
MAR									
16...	--	--	--	--	--	--	--	--	--
16...	--	--	--	12	0.020	2.70	2.70	<0.015	0.30
APR									
10...	0.10	0.52	209	13	0.060	3.10	3.10	0.040	0.40
10...	--	--	--	13	0.060	3.00	3.00	0.050	0.40
MAY									
08...	0.10	4.9	202	13	0.040	2.90	2.90	0.050	0.40
08...	--	--	--	12	0.040	2.80	2.80	0.060	0.40
JUN									
05...	--	--	--	13	0.040	2.90	2.90	0.050	0.30
05...	--	--	--	12	0.040	2.80	2.80	0.040	0.40
20...	--	--	--	--	--	--	--	--	--
27...	0.10	8.3	160	14	0.050	3.20	3.20	0.140	3.8
JUL									
13...	--	--	--	19	0.020	4.30	4.30	0.030	0.40
AUG									
14...	--	--	--	18	0.020	4.10	4.10	<0.015	0.40

01614500 CONOCOCHEAGUE CREEK AT FAIRVIEW, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C)
NOV 1994									
14...	<0.20	0.110	0.110	0.100	37	2	--	2.5	0.20
DEC									
20...	<0.20	0.050	0.040	0.050	--	--	--	1.5	0.30
JAN 1995									
11...	0.20	0.080	0.050	0.040	36	8	--	1.5	0.20
20...	0.30	0.430	0.090	0.110	200	6	--	3.5	7.9
20...	0.50	0.430	0.100	0.110	--	--	--	--	--
FEB									
22...	<0.20	0.070	0.040	0.040	48	7	--	1.7	0.20
22...	<0.20	0.080	0.040	0.040	--	--	--	--	--
MAR									
16...	--	--	--	--	--	--	--	--	--
16...	0.20	0.050	0.030	0.030	--	--	--	--	--
APR									
10...	0.40	0.110	0.080	0.090	46	9	--	2.5	0.60
10...	0.30	0.100	0.080	0.080	--	--	--	--	--
MAY									
08...	0.20	0.190	0.160	0.160	55	16	--	2.2	0.60
08...	0.30	0.190	0.150	0.150	--	--	--	--	--
JUN									
05...	0.20	0.150	0.130	0.140	--	--	3.9	--	--
05...	0.20	0.140	0.130	0.130	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--
27...	0.90	0.940	0.130	0.110	320	5	--	6.7	>10
JUL									
13...	0.30	0.090	0.060	0.070	--	--	4.0	--	--
AUG									
14...	<0.20	0.160	0.120	0.130	--	--	2.8	--	--

01614500 CONOCOCHEAGUE CREEK AT FAIRVIEW, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TEMPER-ATURE AIR (DEG C)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS NO3)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)
SEP 1995											
13...	1330	91	503	8.4	20.5	27.0	753	10.5	118	22	0.010
19...	1100	120	506	8.1	17.5	18.5	757	9.5	100	22	0.030
19...	1200	120	506	8.2	18.0	19.5	758	10.1	107	22	0.030
19...	1300	118	505	8.3	19.0	21.0	758	10.3	112	22	0.030
19...	1400	116	502	8.3	20.0	22.0	757	10.7	119	22	0.020
19...	1415	122	502	8.3	20.0	22.0	757	10.7	119	--	--
19...	1500	114	497	8.4	20.0	22.5	756	10.8	120	22	0.020
19...	1600	114	497	8.4	20.5	23.0	756	10.7	120	22	0.020
19...	1700	112	492	8.5	20.0	21.5	756	10.4	116	22	0.020
19...	1800	112	489	8.4	19.5	19.5	756	9.7	107	22	0.020
19...	1900	112	487	8.4	19.0	18.5	756	9.2	100	22	0.020
19...	2000	111	488	8.4	18.5	16.0	756	8.8	94	22	0.020
19...	2100	111	488	8.3	18.5	14.5	757	8.5	91	22	0.020
19...	2200	111	488	8.3	18.0	14.5	756	8.3	88	22	0.020
19...	2300	111	480	8.2	18.0	14.5	757	8.1	86	22	0.020
20...	0000	109	475	8.2	18.0	14.5	756	7.8	83	21	0.020
20...	0100	109	477	8.2	18.0	15.0	755	7.6	82	21	0.020
20...	0200	107	477	8.1	18.0	15.0	755	7.4	79	21	0.020
20...	0300	107	475	8.1	18.0	15.0	755	7.3	78	21	0.030
20...	0400	105	471	8.1	18.0	14.5	755	7.1	76	21	0.020
20...	0500	105	474	8.0	18.0	14.5	755	7.0	75	20	0.020
20...	0600	105	476	8.0	17.5	14.5	755	6.8	72	21	0.020
20...	0700	103	475	8.0	17.5	16.5	755	6.9	72	21	0.020
20...	0800	103	474	8.0	17.5	18.5	756	7.0	74	21	0.020
20...	0900	103	474	8.0	18.0	19.0	755	7.5	80	21	0.020
20...	1000	103	475	8.0	18.0	19.0	755	7.7	82	21	0.020
20...	1100	103	476	8.0	18.0	20.0	755	8.0	85	21	0.020
20...	1200	103	476	8.0	18.0	20.5	755	8.3	88	21	0.020
20...	1300	103	477	8.1	18.5	21.0	755	8.7	94	21	0.020
20...	1400	103	478	8.2	18.5	22.0	754	9.3	100	21	0.020
20...	1500	102	477	8.2	19.0	22.0	754	9.5	104	21	0.020
20...	1600	102	482	8.3	19.0	21.5	754	9.5	103	22	0.020
20...	1700	102	479	8.3	19.0	21.5	754	9.6	105	21	0.020
20...	1800	102	481	8.3	19.0	20.5	754	9.2	101	22	0.020
20...	1900	100	482	8.3	19.0	19.5	755	8.9	97	22	0.020
20...	2000	100	484	8.3	19.0	19.0	755	8.4	92	22	0.020
20...	2100	100	483	8.3	18.5	18.5	755	8.2	89	21	0.020
20...	2200	100	485	8.2	18.5	18.5	755	7.9	86	22	0.020
20...	2300	100	487	8.1	18.5	18.0	755	7.5	81	21	0.020
21...	0000	100	490	8.1	18.5	18.0	754	7.4	80	21	0.010
21...	0100	100	490	8.1	18.5	18.0	754	7.1	77	22	0.020
21...	0200	100	493	8.0	18.5	18.0	754	7.0	76	21	0.010
21...	0300	100	495	8.0	18.5	17.5	754	7.0	75	21	0.020
21...	0400	100	496	8.0	18.5	17.5	754	6.8	73	21	0.020
21...	0500	100	497	8.0	18.5	17.0	754	6.7	73	21	0.020
21...	0600	100	497	7.9	18.5	17.5	754	6.6	71	21	0.020
21...	0700	100	498	7.9	18.5	17.5	754	6.6	72	21	0.020
21...	0800	98	497	7.9	18.5	19.5	755	6.8	73	21	0.020
21...	0900	98	495	7.9	18.5	21.0	755	7.3	79	21	0.020
21...	1000	98	495	8.0	19.0	23.0	755	8.0	87	21	0.020
21...	1100	98	491	8.0	19.5	24.0	755	8.7	96	21	0.020

01614500 CONOCOCHEAGUE CREEK AT FAIRVIEW, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	2,6-DIETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L)	ETHALFLURALIN WAT FLT 0.7 U GF, REC (UG/L)
SEP 1995											
13...	4.90	4.90	<0.015	0.30	0.20	0.310	0.300	0.270	3.5	--	--
19...	5.10	5.10	<0.015	0.40	0.30	0.340	0.330	0.310	--	--	--
19...	5.10	5.10	<0.015	0.30	0.20	0.330	0.320	0.310	--	--	--
19...	5.10	5.10	<0.015	0.40	0.30	0.340	0.330	0.320	--	--	--
19...	5.10	5.10	<0.015	0.40	0.30	0.320	0.340	0.320	--	--	--
19...	--	--	--	--	--	--	--	--	--	<0.003	<0.004
19...	5.10	5.10	0.030	0.40	0.30	0.350	0.340	0.320	--	--	--
19...	5.10	5.10	<0.015	0.40	0.30	0.330	0.320	0.310	--	--	--
19...	4.90	4.90	0.020	0.40	0.30	0.330	0.330	0.290	--	--	--
19...	5.10	5.10	0.020	0.40	0.30	0.330	0.320	0.300	--	--	--
19...	5.10	5.10	<0.015	0.30	0.30	0.310	0.320	0.300	--	--	--
19...	5.10	5.10	<0.015	0.30	0.30	0.300	0.300	0.290	--	--	--
19...	5.00	5.00	0.020	0.40	0.20	0.310	0.290	0.290	--	--	--
19...	5.00	5.00	<0.015	0.30	0.20	0.300	0.320	0.280	--	--	--
19...	4.90	4.90	<0.015	0.30	0.20	0.320	0.270	0.270	--	--	--
20...	4.80	4.80	<0.015	0.30	0.20	0.290	0.270	0.270	--	--	--
20...	4.80	4.80	<0.015	0.40	0.30	0.270	0.270	0.270	--	--	--
20...	4.80	4.80	<0.015	0.60	0.30	0.290	0.260	0.270	--	--	--
20...	4.70	4.70	0.020	0.30	0.30	0.280	0.250	0.270	--	--	--
20...	4.70	4.70	<0.015	0.30	0.20	0.280	0.280	0.260	--	--	--
20...	4.60	4.60	<0.015	0.30	0.30	0.280	0.250	0.260	--	--	--
20...	4.70	4.70	<0.015	0.30	0.20	0.270	0.280	0.260	--	--	--
20...	4.70	4.70	<0.015	0.30	0.20	0.280	0.270	0.260	--	--	--
20...	4.70	4.70	<0.015	0.30	<0.20	0.270	0.270	0.260	--	--	--
20...	4.70	4.70	0.020	0.30	0.20	0.270	0.250	0.260	--	--	--
20...	4.70	4.70	<0.015	0.30	0.20	0.270	0.250	0.260	--	--	--
20...	4.70	4.70	0.020	0.30	0.20	0.260	0.260	0.260	--	--	--
20...	4.70	4.70	0.020	0.30	0.30	0.270	0.270	0.270	--	--	--
20...	4.80	4.80	0.020	0.30	0.30	0.270	0.270	0.270	--	--	--
20...	4.80	4.80	0.020	0.30	0.30	0.260	0.280	0.270	--	--	--
20...	4.80	4.80	0.020	0.30	0.30	0.270	0.280	0.270	--	--	--
20...	4.90	4.90	0.020	0.30	0.30	0.270	0.290	0.270	--	--	--
20...	4.80	4.80	0.020	0.30	0.30	0.290	0.270	0.270	--	--	--
20...	4.90	4.90	0.020	0.30	0.30	0.270	0.270	0.270	--	--	--
20...	4.90	4.90	0.020	0.30	0.30	0.260	0.280	0.260	--	--	--
20...	4.90	4.90	0.020	0.30	0.20	0.280	0.270	0.260	--	--	--
20...	4.80	4.80	<0.015	0.30	0.20	0.260	0.260	0.250	--	--	--
20...	4.90	4.90	0.020	0.30	0.30	0.270	0.250	0.230	--	--	--
20...	4.80	4.80	0.030	0.30	0.30	0.260	0.260	0.270	--	--	--
21...	4.80	4.80	0.020	0.30	<0.20	0.260	0.250	0.250	--	--	--
21...	4.90	4.90	0.020	0.30	0.20	0.270	0.240	0.240	--	--	--
21...	4.80	4.80	0.070	0.30	0.20	0.270	0.260	0.250	--	--	--
21...	4.80	4.80	<0.015	0.30	0.20	0.280	0.260	0.250	--	--	--
21...	4.80	4.80	0.020	0.30	0.20	0.280	0.260	0.260	--	--	--
21...	4.80	4.80	0.020	0.30	0.20	0.270	0.270	0.250	--	--	--
21...	4.80	4.80	0.020	0.30	0.20	0.270	0.260	0.250	--	--	--
21...	4.80	4.80	0.020	0.30	0.30	0.280	0.260	0.250	--	--	--
21...	4.80	4.80	0.020	0.30	0.20	0.270	0.260	0.250	--	--	--
21...	4.70	4.70	0.020	0.30	0.20	0.250	0.240	0.250	--	--	--
21...	4.70	4.70	<0.015	0.30	0.20	0.260	0.250	0.240	--	--	--
21...	4.70	4.70	<0.015	0.40	0.20	0.270	0.250	0.250	--	--	--

01614500 CONOCOCHEAGUE CREEK AT FAIRVIEW, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L)	TER-BACIL WATER FLTRD 0.7 U GF, REC (UG/L)	TRI-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L)	ACETO-CHLOR, WATER FLTRD REC (UG/L)	ALA-CHLOR, WATER, DISS, REC, (UG/L)	ALPHA BHC DIS-SOLVED (UG/L)	ATRA-ZINE, WATER, DISS, REC (UG/L)	BEN-FLUR-ALIN WAT FLD 0.7 U GF, REC (UG/L)	BUTYL-ATE, WATER, DISS, REC (UG/L)	CAR-BARYL WATER FLTRD 0.7 U GF, REC (UG/L)	CARBO-FURAN WATER FLTRD 0.7 U GF, REC (UG/L)
SEP 1995 19... TIME 1500	<0.002	<0.007	<0.002	<0.002	<0.002	<0.002	0.270	<0.002	<0.002	<0.003	<0.003

DATE	CHLOR-PYRIFOS DIS-SOLVED (UG/L)	CYANA-ZINE, WATER, DISS, REC (UG/L)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L)	DEETHYL ATRA-ZINE, WATER, DISS, REC (UG/L)	DI-AZINON, DIS-SOLVED (UG/L)	DI-ELDRIN DIS-SOLVED (UG/L)	DISUL-FOTON WATER FLTRD 0.7 U GF, REC (UG/L)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L)	ETHO-PROP WATER FLTRD 0.7 U GF, REC (UG/L)	FONOFOS WATER DISS REC (UG/L)	LINDANE DIS-SOLVED (UG/L)
SEP 1995 19... TIME 1500	<0.004	0.005	<0.002	E0.120	0.006	<0.001	<0.017	<0.002	<0.003	<0.003	<0.004

DATE	LIN-URON WATER FLTRD 0.7 U GF, REC (UG/L)	MALA-THION, DIS-SOLVED (UG/L)	METHYL AZIN-PHOS WAT FLT 0.7 U GF, REC (UG/L)	METHYL PARA-THION WAT FLT 0.7 U GF, REC (UG/L)	METRI-BUZIN SENCOR WATER DISSOLV (UG/L)	MOL-INATE WATER FLTRD 0.7 U GF, REC (UG/L)	NAPROP-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L)	P,P' DDE DISSOLV (UG/L)	PARA-THION, DIS-SOLVED (UG/L)	PEB-ULATE WATER FILTRD 0.7 U GF, REC (UG/L)	PENDI-METH-ALIN WAT FLT 0.7 U GF, REC (UG/L)
SEP 1995 19... TIME 1500	<0.002	<0.005	<0.001	<0.006	<0.004	<0.004	<0.003	<0.006	<0.004	<0.004	<0.004

DATE	PER-METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L)	PRO-METON, WATER, DISS, REC (UG/L)	PRON-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L)	PROP-CHLOR, WATER, DISS, REC (UG/L)	PRO-PANIL WATER FLTRD 0.7 U GF, REC (UG/L)	PRO-PARGITE WATER FLTRD 0.7 U GF, REC (UG/L)	SI-MAZINE, WATER, DISS, REC (UG/L)	TEBU-THIURON WATER FLTRD 0.7 U GF, REC (UG/L)	TER-BUFOS WATER FLTRD 0.7 U GF, REC (UG/L)	THIO-BENCARB WATER FLTRD 0.7 U GF, REC (UG/L)	TRIAL-LATE WATER FLTRD 0.7 U GF, REC (UG/L)
SEP 1995 19... TIME 1500	<0.005	0.036	<0.003	<0.007	<0.004	<0.013	0.045	E0.008	<0.013	<0.002	<0.001

SUSPENDED SEDIMENT DISCHARGE

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
NOV 1994				
14...	1515	182	1	0.49
JAN 1995				
11...	1130	463	8	10
FEB				
22...	1300	440	4	4.8
22...	1330	440	14	17
MAR				
16...	1300	629	4	6.8
16...	1310	629	13	22
APR				
10...	1145	377	7	7.1
10...	1200	381	10	10
MAY				
08...	1400	258	14	9.8
08...	1500	248	29	19
JUN				
05...	1100	298	15	12
05...	1115	294	23	18
27...	1130	3100	698	5840
JUL				
13...	1230	624	35	59
AUG				
14...	1345	178	3	1.4

E: Estimated.

01616500 OPEQUON CREEK NEAR MARTINSBURG, WV

LOCATION.--Lat 39°25'25", long 77°56'20", Berkeley County, Hydrologic Unit 02070004, on right bank 300 ft upstream from Evans Run, 2.3 mi upstream from Tuscarora Creek, 3.0 mi southeast of Martinsburg, and at mile 11.1.

DRAINAGE AREA.--272 mi^2.

PERIOD OF RECORD.--May 1905 to July 1906, July 1947 to current year.

REVISED RECORDS.--WSP 1702: 1959.

GAGE.--Water-stage recorder. Datum of gage is 354.89 ft above sea level. Prior to July 1906, nonrecording gage at approximately the same site at different datum. July 23, 1947 to July 22, 1948, nonrecording gage at present site and datum. National Weather Service gage-height telemeter at the station.

REMARKS.--Records good except those above 1,000 ft^3/s, which are fair, and those for estimated daily discharges (ice effect), which are poor. Several measurements of water temperature were made during the year. 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 about 17.5 ft, from information by local residents.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,900 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Jan. 16	1000	*3,450	*10.81	No other peak greater than base discharge.			

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	90	89	145	162	e200	192	148	116	119	248	77	50
2	107	99	129	172	221	181	144	133	112	297	74	49
3	95	81	118	151	226	171	140	181	145	202	70	49
4	94	81	112	142	225	163	137	151	329	159	69	48
5	87	78	342	123	214	161	134	139	191	144	99	49
6	88	76	367	137	185	173	134	128	145	138	346	47
7	87	75	244	353	e180	194	137	120	126	325	639	46
8	86	73	192	385	e170	189	132	112	112	190	194	45
9	85	72	163	268	e160	236	134	109	119	140	138	47
10	82	76	204	224	e155	276	133	110	110	137	117	46
11	80	80	631	200	e155	293	140	128	148	310	105	46
12	79	74	365	200	e160	512	149	130	267	170	98	45
13	80	72	257	209	154	542	283	114	200	134	91	45
14	82	70	217	204	158	411	222	144	151	119	86	46
15	83	71	202	501	156	332	178	326	124	110	82	44
16	81	84	183	2270	164	286	160	191	111	111	77	45
17	80	147	180	683	172	258	150	155	103	140	78	72
18	82	127	179	449	179	232	144	170	96	282	73	81
19	82	124	178	364	180	218	142	215	95	170	68	58
20	82	106	169	1050	183	208	134	167	91	128	64	52
21	78	128	156	872	191	204	128	138	87	114	62	50
22	79	204	149	512	179	195	126	123	84	108	62	51
23	82	141	146	398	170	186	121	113	92	105	60	51
24	95	109	143	344	174	179	126	108	153	101	56	49
25	84	96	147	e280	164	171	128	115	113	100	55	51
26	80	85	137	e250	157	165	120	356	109	92	54	56
27	79	86	128	e220	156	161	115	206	402	91	56	57
28	79	341	124	e205	175	161	113	151	827	89	56	54
29	78	274	124	e200	---	159	107	182	300	88	56	51
30	78	183	118	e195	---	156	110	153	398	85	53	49
31	78	---	115	e190	---	153	---	133	---	80	51	---
TOTAL	2602	3402	6064	11913	4963	7118	4269	4817	5459	4707	3266	1529
MEAN	83.9	113	196	384	177	230	142	155	182	152	105	51.0
MAX	107	341	631	2270	226	542	283	356	827	325	639	81
MIN	78	70	112	123	154	153	107	108	84	80	51	44
CFSM	.31	.42	.72	1.41	.65	.84	.52	.57	.67	.56	.39	.19
IN.	.36	.47	.83	1.63	.68	.97	.58	.66	.75	.64	.45	.21

e Estimated

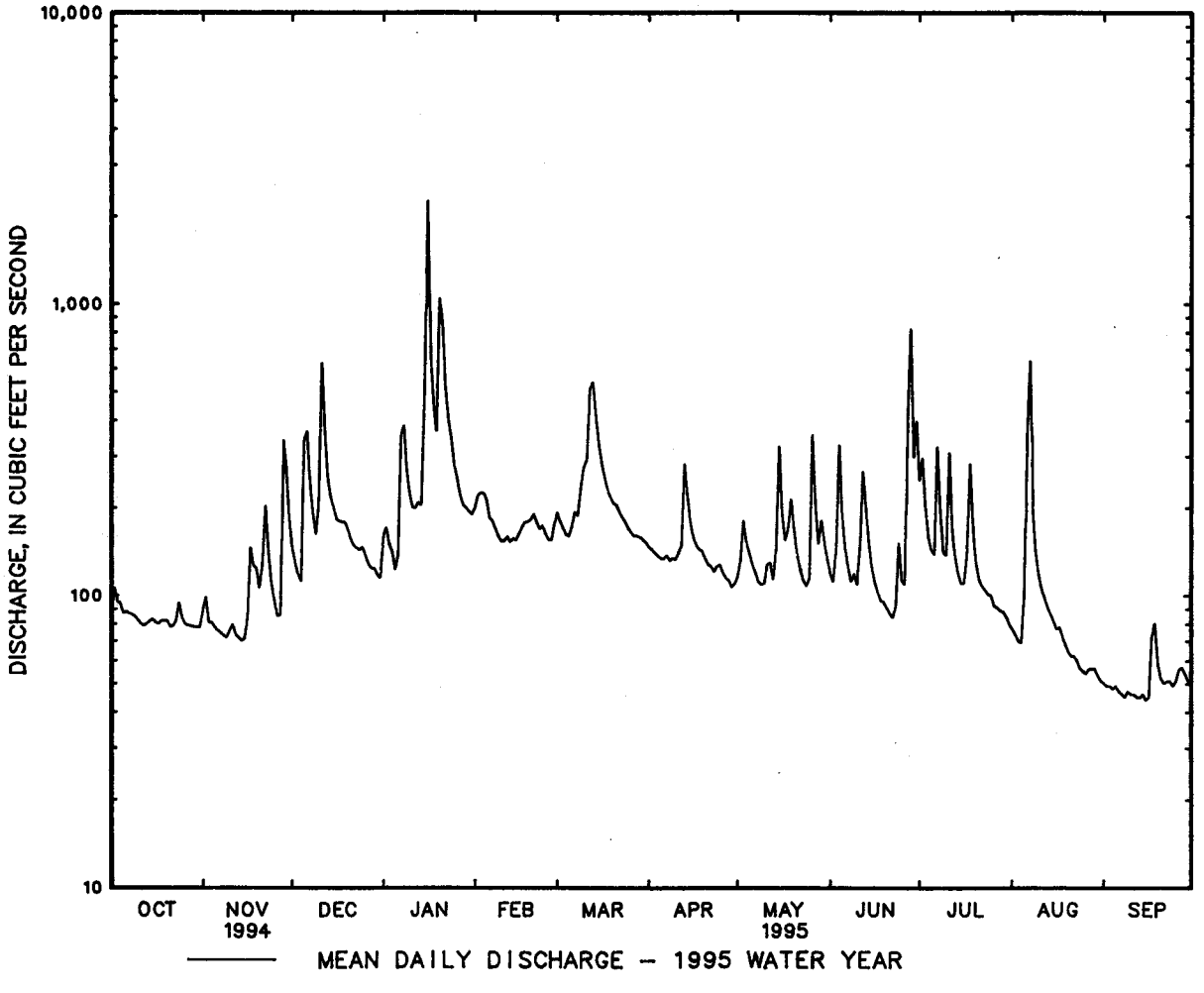
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1947 - 1995, BY WATER YEAR (WY)

MEAN	142	160	236	262	336	438	379	276	211	136	127	113
MAX	788	504	821	700	1022	1461	1199	1091	1190	456	543	911
(WY)	1977	1971	1973	1979	1984	1993	1984	1988	1972	1972	1978	1975
MIN	30.5	35.1	33.7	39.6	76.6	119	97.8	86.0	65.4	49.4	36.6	35.2
(WY)	1948	1966	1966	1966	1954	1959	1954	1969	1969	1966	1966	1947

01616500 OPEQUON CREEK NEAR MARTINSBURG, WV--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1947 - 1995	
ANNUAL TOTAL	132696		60109			
ANNUAL MEAN	364		165		234	
HIGHEST ANNUAL MEAN					464	1984
LOWEST ANNUAL MEAN					85.7	1954
HIGHEST DAILY MEAN	3750	Mar 11	2270	Jan 16	8890	Jun 22 1972
LOWEST DAILY MEAN	70	Nov 14	44	Sep 15	26	Oct 25 1947
ANNUAL SEVEN-DAY MINIMUM	74	Nov 9	45	Sep 10	27	Sep 7 1966
INSTANTANEOUS PEAK FLOW			3450	Jan 16	(a)19000	Jun 22 1972
INSTANTANEOUS PEAK STAGE			10.81	Jan 16	(b)17.45	Jun 22 1972
INSTANTANEOUS LOW FLOW			41	Sep 16	25	Oct 25 1947
ANNUAL RUNOFF (CFSM)	1.34		.61		.86	
ANNUAL RUNOFF (INCHES)	18.15		8.22		11.71	
10 PERCENT EXCEEDS	835		282		454	
50 PERCENT EXCEEDS	162		134		137	
90 PERCENT EXCEEDS	82		59		56	

a From rating curve extended above 7,100 ft^3/s.
b Observed.



01617800 MARSH RUN AT GRIMES, MD

LOCATION.--Lat 39°30'53", long 77°46'38", Washington County, Hydrologic Unit 02070004, on right bank 220 ft upstream from bridge on Sprecher Road, 0.1 mi downstream from unnamed tributary, 0.5 mi southwest of Grimes, 1.5 mi upstream from mouth, and 2.2 mi southwest of Fairplay.

DRAINAGE AREA.--18.9 mi^2.

PERIOD OF RECORD.--October 1963 to current year.

GAGE.--Water-stage recorder. Datum of gage is 354.72 ft above sea level.

REMARKS.--Records good except those for estimated daily discharges (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.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 60 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 20	1215	*42	1.71	No peak greater than base discharge.			
Feb. 6	1015	(a)	*1.96				

(a) Backwater from ice

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.2	6.9	8.9	10	15	12	8.2	6.8	4.9	3.6	1.8	.97
2	12	8.4	8.7	12	15	11	8.2	7.6	4.3	3.6	1.7	.98
3	9.1	7.5	8.4	12	14	11	8.0	6.9	4.0	3.6	1.7	.98
4	8.7	7.1	8.4	12	15	10	8.0	5.6	4.0	3.6	1.6	.98
5	8.4	7.0	12	11	15	9.5	8.0	6.3	3.8	3.6	1.5	.98
6	8.4	6.7	16	9.8	e15	10	8.0	7.0	3.9	3.7	3.7	.92
7	8.4	6.7	14	17	e14	10	7.9	6.9	3.8	3.8	2.3	.86
8	8.2	6.5	12	14	13	10	7.9	6.7	3.8	3.3	2.0	.86
9	8.0	6.3	11	13	12	12	8.0	6.7	4.3	3.2	2.0	.92
10	8.0	6.6	11	12	12	11	8.0	6.7	4.6	3.2	2.0	.92
11	8.0	6.7	17	12	13	11	7.9	7.1	4.6	3.0	1.8	.92
12	8.0	6.6	15	12	13	14	12	5.6	5.2	2.8	1.7	.93
13	8.0	6.3	14	11	11	14	14	4.3	5.7	2.7	1.7	.95
14	8.0	6.2	14	8.1	8.4	14	9.0	6.7	5.6	1.9	1.6	.98
15	7.7	6.0	14	12	9.0	14	8.5	7.1	4.8	1.8	1.5	.98
16	7.7	6.2	13	19	12	12	8.3	7.2	2.8	1.9	1.5	.99
17	7.7	7.2	13	14	12	11	8.0	7.3	4.1	2.1	1.4	1.2
18	7.7	7.3	13	13	11	11	8.0	7.3	4.8	2.7	1.4	1.0
19	7.5	7.1	13	12	11	11	7.9	6.9	4.4	2.9	1.2	1.1
20	7.3	7.0	12	30	13	10	7.7	5.8	4.3	2.8	1.4	1.1
21	7.2	7.3	12	26	15	10	7.7	5.1	4.1	2.8	1.4	1.1
22	7.0	9.6	11	21	14	10	7.0	4.8	2.9	2.8	1.1	1.2
23	7.1	8.5	11	20	14	8.6	6.9	4.5	2.9	2.7	.99	1.1
24	7.3	8.2	11	20	11	7.9	7.1	4.3	3.1	2.5	.98	1.2
25	7.2	8.0	11	19	8.2	8.7	6.9	5.3	3.5	2.5	.98	1.3
26	7.0	7.8	11	18	9.3	9.7	6.7	6.6	4.2	2.5	.98	1.3
27	7.0	7.7	9.9	17	11	9.5	6.6	5.3	6.1	2.5	.98	1.2
28	6.7	10	9.6	17	14	9.5	6.5	5.7	5.4	5.0	.98	1.2
29	6.7	12	9.5	16	---	9.4	6.3	6.8	5.0	3.4	.98	1.2
30	6.7	9.7	9.3	16	---	8.9	6.6	5.6	4.2	2.1	.98	1.1
31	6.7	---	9.0	15	---	7.7	---	5.2	---	1.9	.97	---
TOTAL	242.6	225.1	362.7	470.9	349.9	328.4	239.8	191.7	129.1	90.5	46.82	31.42
MEAN	7.83	7.50	11.7	15.2	12.5	10.6	7.99	6.18	4.30	2.92	1.51	1.05
MAX	12	12	17	30	15	14	14	7.6	6.1	5.0	3.7	1.3
MIN	6.7	6.0	8.4	8.1	8.2	7.7	6.3	4.3	2.8	1.8	.97	.86
CFSM	.41	.40	.62	.80	.66	.56	.42	.33	.23	.15	.08	.06
IN.	.48	.44	.71	.93	.69	.65	.47	.38	.25	.18	.09	.06

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1995, BY WATER YEAR (WY)

MEAN	7.90	7.55	10.5	12.1	14.7	18.8	19.4	16.2	13.5	9.74	7.30	6.31
MAX	39.5	27.0	29.7	30.1	32.2	48.6	49.8	36.2	48.2	32.4	18.0	31.8
(WY)	1977	1976	1973	1979	1973	1994	1984	1972	1972	1972	1972	1975
MIN	.83	1.71	1.60	2.24	4.14	5.08	4.45	3.65	2.74	2.13	1.51	1.05
(WY)	1987	1992	1989	1981	1989	1990	1969	1969	1969	1991	1995	1995

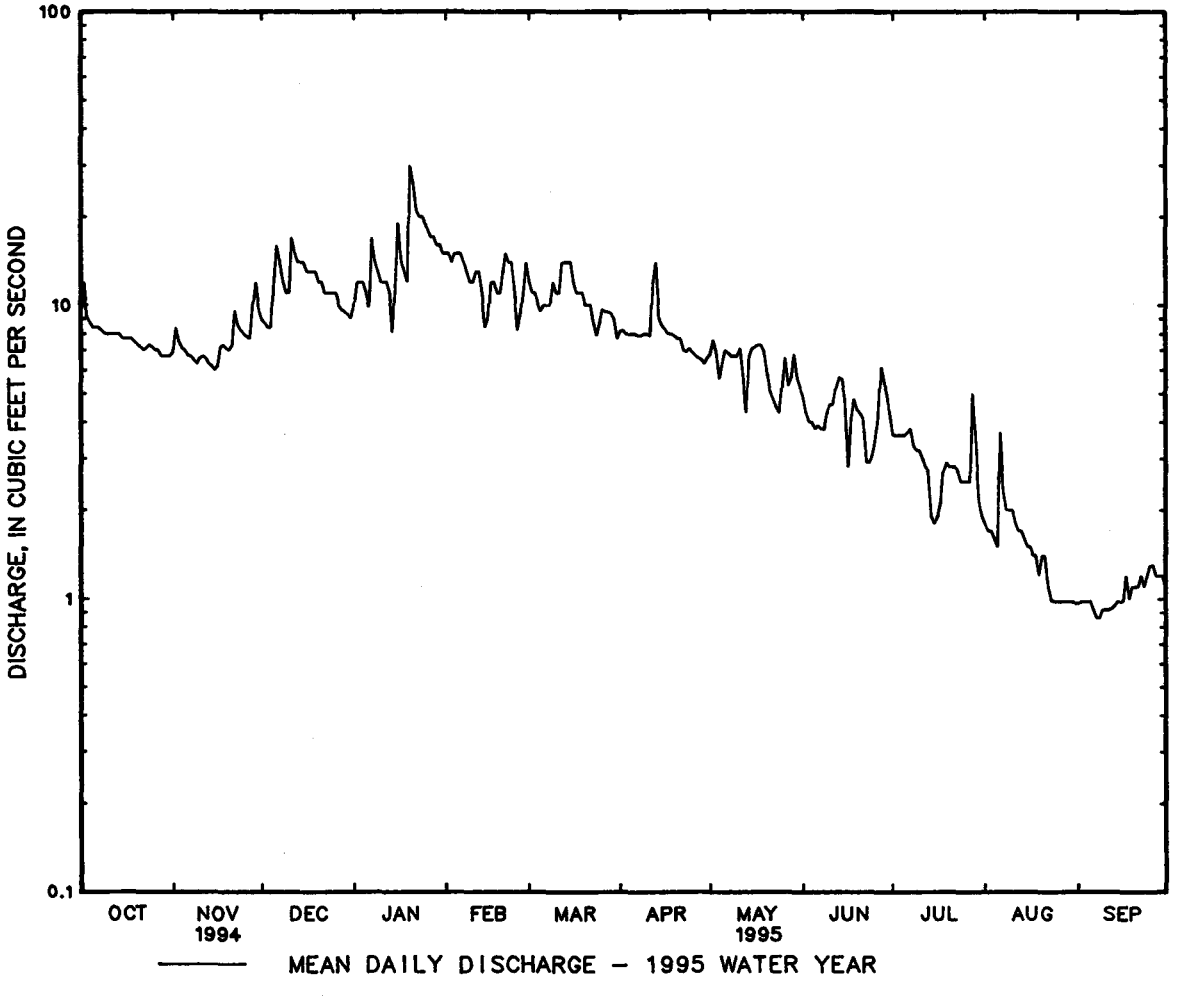
01617800 MARSH RUN AT GRIMES, MD--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1964 - 1995	
ANNUAL TOTAL	6212.6		2708.94			
ANNUAL MEAN	17.0		7.42		12.0	
HIGHEST ANNUAL MEAN					23.9	1972
LOWEST ANNUAL MEAN					4.31	1969
HIGHEST DAILY MEAN	86	Mar 29	30	Jan 20	223	Jun 23 1972
LOWEST DAILY MEAN	6.0	Nov 15	.86	(a)	.00	Oct 1 1977
ANNUAL SEVEN-DAY MINIMUM	6.4	Nov 10	.90	Sep 6	.60	Oct 21 1986
INSTANTANEOUS PEAK FLOW			63	Feb 6	(b)459	Feb 12 1985
INSTANTANEOUS PEAK STAGE			1.96	Feb 6	4.45	Feb 12 1985
INSTANTANEOUS LOW FLOW			.78	Sep 8	(c) .00	Oct 1 1977
ANNUAL RUNOFF (CFSM)	.90		.39		.63	
ANNUAL RUNOFF (INCHES)	12.23		5.33		8.61	
10 PERCENT EXCEEDS	36		14		24	
50 PERCENT EXCEEDS	11		7.2		9.0	
90 PERCENT EXCEEDS	7.3		1.2		3.0	

a Sept. 7, 8.

b From rating curve extended above 220 ft^3/s.

c Result of regulation caused by construction work upstream from station.



01619320 ALBERT POWELL FISH HATCHERY SPRING AT BEAVER CREEK, MD

LOCATION.--Lat 39°35'22", long 77°38'19", Washington County, Hydrologic Unit 02070004, on left bank at spring outlet, 0.2 mi upstream from Beaver Creek, and 0.4 mi north of the town of Beaver Creek.

PERIOD OF RECORD.--April 1987 to current year.

GAGE.--Water-stage recorder and steel weir plate. Datum of gage is 505 ft above sea level, from topographic map.

REMARKS.--Records good. Several measurements of water temperature were made during the year.

PEAK DISCHARGE FOR CURRENT YEAR.--Peak discharge, 9.5 ft^3/s, Jan. 15, gage height, 1.46 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.8	7.1	7.6	7.5	9.0	8.2	8.2	8.1	8.0	7.5	7.0	6.4
2	8.0	7.2	7.6	7.6	8.9	8.1	8.1	8.2	7.9	7.5	7.0	6.5
3	8.0	7.2	7.5	7.7	8.8	8.1	8.0	8.2	7.7	7.5	7.1	6.4
4	8.0	7.2	7.2	7.6	8.7	8.0	8.0	8.2	7.7	7.5	7.2	6.2
5	7.8	7.2	7.9	7.7	8.5	8.0	8.0	8.1	7.7	7.5	7.0	6.2
6	7.7	7.2	8.1	7.7	8.5	8.0	8.0	8.0	7.7	7.5	7.2	6.2
7	7.7	7.0	8.0	7.7	8.5	8.0	8.0	7.7	7.7	7.5	7.2	6.2
8	7.7	7.0	7.8	7.7	8.4	8.0	8.0	7.7	7.5	7.4	7.0	6.2
9	7.7	7.0	7.8	7.7	8.8	8.0	8.0	7.7	7.5	7.2	6.7	6.2
10	7.8	7.0	7.9	7.7	8.6	8.0	8.0	7.7	7.5	7.2	6.7	6.2
11	8.0	7.0	8.5	7.7	8.4	8.0	8.0	7.8	7.5	7.2	6.7	6.2
12	8.0	7.0	8.2	7.6	8.2	8.2	8.0	8.0	7.5	7.2	6.7	6.0
13	8.0	7.0	8.0	7.6	8.3	8.2	8.1	8.0	7.5	7.2	6.7	6.0
14	8.0	7.0	8.2	7.7	8.6	8.2	8.1	8.1	7.5	7.4	6.7	6.0
15	7.9	7.1	8.1	8.3	8.4	8.4	8.0	8.2	7.5	7.5	6.7	6.0
16	7.7	7.2	8.0	9.3	8.2	8.5	8.0	8.2	7.5	7.5	6.7	6.0
17	7.7	7.2	8.0	8.8	8.3	8.5	8.0	8.2	7.5	7.3	6.7	6.0
18	7.9	7.2	8.0	8.7	8.4	8.5	8.1	8.2	7.5	7.0	6.7	6.0
19	8.0	7.2	8.0	8.5	8.5	8.5	8.2	8.2	7.5	7.0	6.7	6.0
20	8.0	7.2	8.0	9.4	8.4	8.2	8.2	8.2	7.5	7.0	6.7	6.0
21	7.8	e7.0	7.9	9.7	8.6	8.4	8.2	8.2	7.5	7.0	6.6	6.0
22	7.7	e7.4	7.7	9.6	8.5	8.3	8.2	8.2	7.5	7.0	6.5	6.1
23	7.5	e7.2	7.7	9.5	8.5	8.2	8.2	8.0	7.5	7.0	6.5	6.0
24	7.3	e7.2	7.7	9.5	8.4	8.2	8.2	8.0	7.5	7.0	6.5	6.0
25	7.2	e7.0	7.7	9.3	8.2	8.2	8.2	8.0	7.7	7.0	6.5	6.0
26	7.2	e7.0	7.7	9.0	8.2	8.2	8.3	8.2	7.7	7.0	6.5	6.0
27	7.2	e7.8	7.5	9.0	8.2	8.2	8.2	8.2	7.7	7.0	6.5	6.0
28	7.2	e7.6	7.6	9.0	8.2	8.2	8.2	8.0	7.7	7.1	e6.5	6.0
29	7.2	e7.5	7.6	9.0	---	8.2	8.2	8.0	7.7	7.2	e6.2	6.0
30	7.1	7.4	7.5	9.0	---	8.2	8.2	8.0	7.7	7.0	e6.2	6.0
31	7.0	---	7.5	9.2	---	8.2	---	8.0	---	7.0	6.2	---
TOTAL	237.8	215.3	242.5	262.0	237.2	254.1	243.1	249.5	228.1	223.9	207.8	183.0
MEAN	7.67	7.18	7.82	8.45	8.47	8.20	8.10	8.05	7.60	7.22	6.70	6.10
MAX	8.0	7.8	8.5	9.7	9.0	8.5	8.3	8.2	8.0	7.5	7.2	6.5
MIN	7.0	7.0	7.2	7.5	8.2	8.0	8.0	7.7	7.5	7.0	6.2	6.0

e Estimated

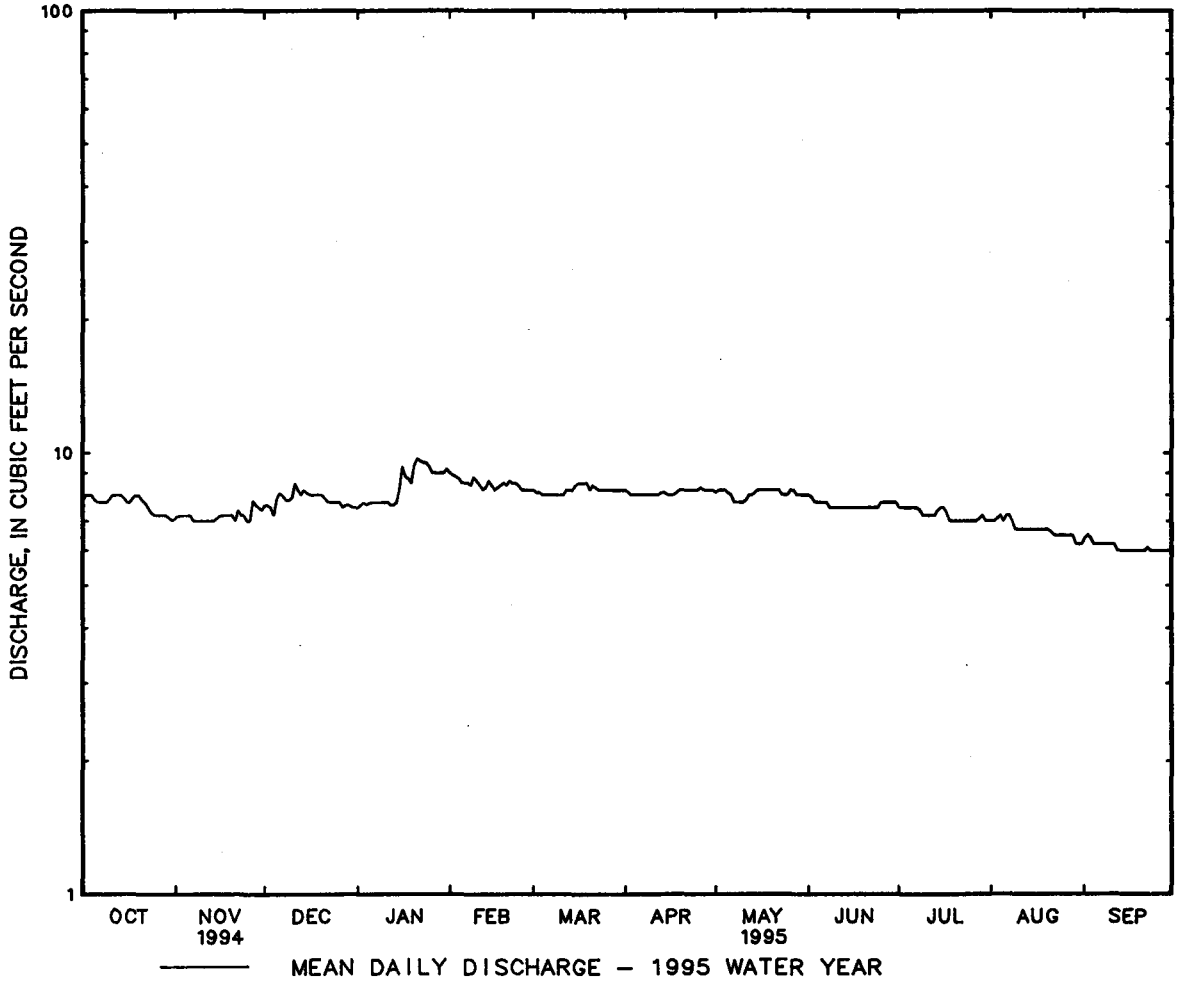
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 1995, BY WATER YEAR (WY)

MEAN	6.75	6.38	7.58	7.94	8.01	9.11	9.12	9.14	8.50	7.67	7.04	6.65
MAX	7.67	7.18	11.5	10.8	10.8	14.1	13.4	11.9	10.3	8.76	8.22	7.67
(WY)	1995	1995	1993	1993	1994	1994	1993	1993	1993	1994	1994	1992
MIN	5.64	5.32	5.30	5.63	5.54	6.40	6.14	7.17	7.53	6.83	6.22	6.08
(WY)	1989	1988	1989	1989	1989	1988	1988	1990	1990	1991	1991	1988

01619320 ALBERT POWELL FISH HATCHERY SPRING AT BEAVER CREEK, MD--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1987 - 1995	
ANNUAL TOTAL	3439.6		2784.3			
ANNUAL MEAN	9.42		7.63		7.59	
HIGHEST ANNUAL MEAN					9.61	1994
LOWEST ANNUAL MEAN					6.51	1988
HIGHEST DAILY MEAN	15	Mar 10	9.7	Jan 21	17	Apr 22 1992
LOWEST DAILY MEAN	7.0	(a)	6.0	(b)	5.0	(c)
ANNUAL SEVEN-DAY MINIMUM	7.0	Nov 7	6.0	Sep 12	5.1	Dec 13 1988
INSTANTANEOUS PEAK FLOW			9.5	Jan 15	20	Apr 22 1992
INSTANTANEOUS PEAK STAGE			1.46	Jan 15	1.72	Apr 22 1992
INSTANTANEOUS LOW FLOW			6.0	(d)	4.9	(c)
10 PERCENT EXCEEDS	13		8.4		10	
50 PERCENT EXCEEDS	8.7		7.7		7.5	
90 PERCENT EXCEEDS	7.4		6.5		5.8	

a Oct. 31, Nov. 7-14, 21, 25, 26.
b Sept. 12-21, 23-30.
c Dec. 18, 19, 1988.
d Sept. 11-30.



01619500 ANTIETAM CREEK NEAR SHARPSBURG, MD

LOCATION.--Lat 39°27'01", long 77°43'52", Washington County, Hydrologic Unit 02070004, on left bank 400 ft downstream from Burnside Bridge, 1.0 mi southeast of Sharpsburg, and 4.0 mi upstream from mouth.

DRAINAGE AREA.--281 mi^2.

PERIOD OF RECORD.--June 1897 to September 1905, August 1928 to current year. Monthly discharge only for some periods, published in WSP 1302.

REVISED RECORDS.--WSP 192: 1897-1905. WSP 726: Drainage area. WSP 1432: 1929-31(M), 1933, 1935(M), 1937(M), 1949(M), 1952(M).

GAGE.--Water-stage recorder. Concrete control since Mar. 29, 1934. Datum of gage is 311.05 ft above sea level. 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. 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.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 20	2230	*1,100	*4.55	No peak greater than base discharge.			

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	173	150	268	337	365	295	234	200	194	207	119	87
2	233	211	248	339	353	269	230	228	188	242	114	85
3	193	166	235	301	339	259	228	265	209	206	111	82
4	176	146	226	279	341	253	223	220	202	189	111	83
5	171	141	384	267	326	250	215	210	186	188	111	85
6	167	139	577	e260	e280	259	214	206	177	207	205	84
7	165	135	427	379	e290	264	213	197	177	256	218	84
8	162	134	380	359	303	263	210	191	183	203	151	83
9	161	133	349	311	284	297	212	189	172	181	133	94
10	163	152	357	294	281	284	223	189	166	172	128	85
11	159	162	537	286	279	276	217	206	170	205	128	82
12	156	145	446	279	271	321	219	197	206	224	130	82
13	154	138	389	277	255	352	345	184	208	177	121	83
14	152	134	374	283	256	351	280	228	180	168	116	84
15	150	134	365	382	259	346	244	260	163	163	118	82
16	147	149	347	747	278	338	233	211	155	168	113	81
17	146	234	349	603	278	327	227	206	151	165	111	116
18	146	207	340	535	264	314	226	230	147	185	108	120
19	146	170	320	494	258	304	221	241	144	159	103	100
20	146	161	297	767	258	299	216	222	141	148	101	90
21	146	208	284	835	263	298	212	203	140	143	99	87
22	143	392	277	658	260	291	210	200	149	142	100	90
23	148	262	275	584	251	277	203	189	141	139	98	97
24	153	219	271	540	248	270	214	183	146	142	98	92
25	144	205	274	502	241	263	211	268	251	150	96	93
26	140	198	257	467	236	255	200	284	331	145	91	103
27	139	194	250	442	239	253	193	225	241	133	90	99
28	137	337	246	434	274	249	191	207	249	135	91	92
29	136	385	238	411	---	244	189	248	238	159	92	87
30	134	291	230	389	---	241	190	221	223	130	91	84
31	134	---	228	377	---	238	---	201	---	123	88	---
TOTAL	4820	5832	10045	13418	7830	8800	6643	6709	5628	5354	3584	2696
MEAN	155	194	324	433	280	284	221	216	188	173	116	89.9
MAX	233	392	577	835	365	352	345	284	331	256	218	120
MIN	134	133	226	260	236	238	189	183	140	123	88	81
(†)	-15.0	-13.9	-13.9	-14.4	-14.7	-14.8	-14.8	-15.2	-16.3	-17.0	-17.7	-17.4
MEAN≠	140	180	310	419	265	269	206	201	172	156	98.3	72.5
CFSM≠	0.50	0.64	1.10	1.49	0.94	0.96	0.73	0.72	0.61	0.56	0.35	0.26
IN≠	0.58	0.71	1.27	1.72	0.98	1.11	0.81	0.83	0.68	0.65	0.40	0.29

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 1995, BY WATER YEAR (WY)

MEAN	171	187	251	288	349	459	466	372	285	210	171	163
MAX	916	589	776	799	938	1299	1201	779	1278	586	474	1090
(WY)	1977	1976	1951	1949	1984	1994	1993	1952	1972	1949	1984	1975
MIN	65.5	65.6	61.5	57.3	72.5	101	163	139	109	86.7	65.0	69.4
(WY)	1964	1966	1966	1966	1931	1931	1969	1931	1966	1954	1966	1963

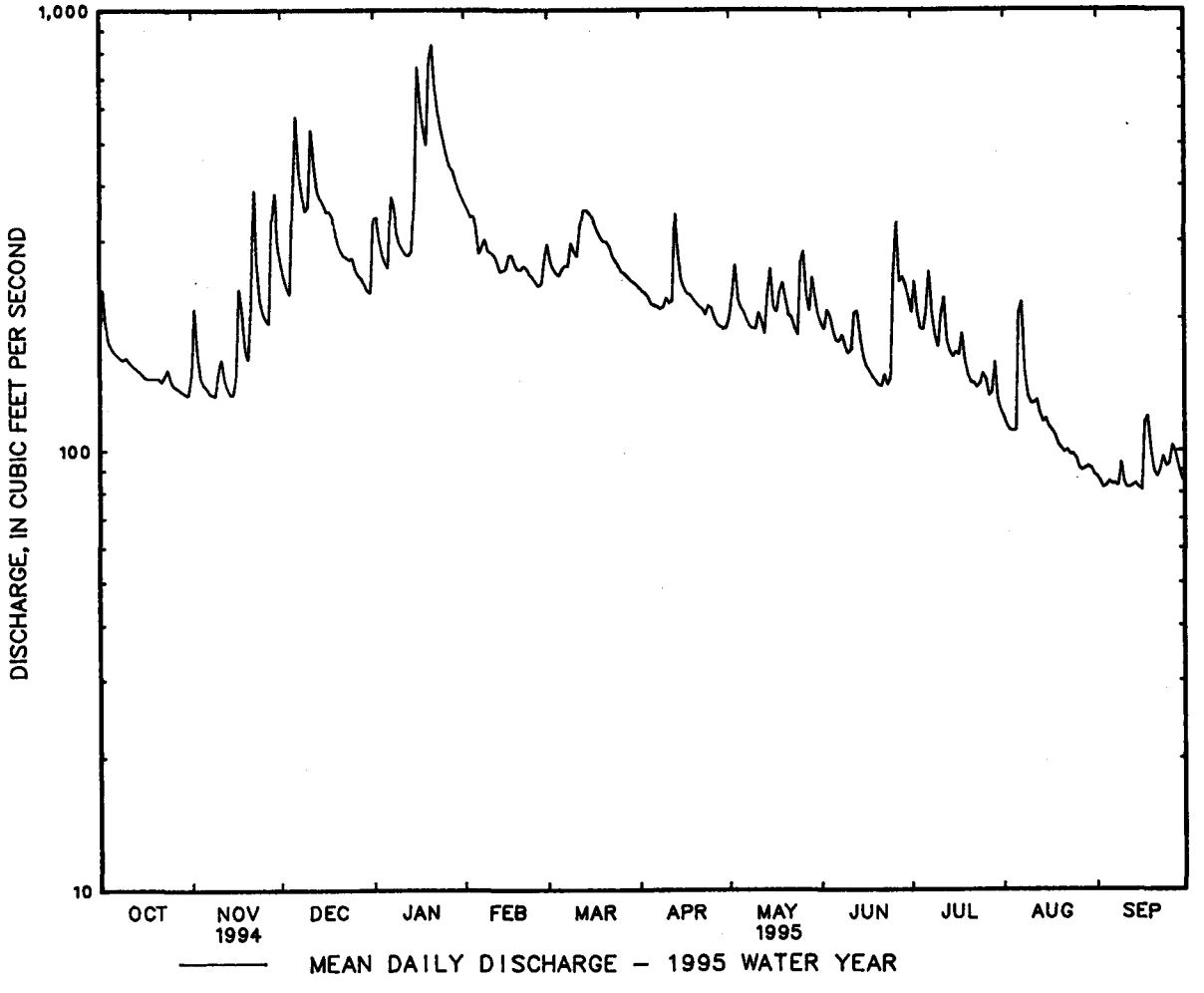
† Pumpage in cubic feet per second, from Potomac River for municipal supply of Hagerstown.
≠ Adjusted for pumpage.

01619500 ANTIETAM CREEK NEAR SHARPSBURG, MD--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1931 - 1995	
ANNUAL TOTAL	157012		81359			
ANNUAL MEAN	430		223		281	
ANNUAL MEAN≠	414		208		272	
HIGHEST ANNUAL MEAN					510	1972
LOWEST ANNUAL MEAN					124	1966
HIGHEST DAILY MEAN	2550	Mar 29	835	Jan 21	8970	Sep 26 1975
LOWEST DAILY MEAN	133	Nov 9	81	Sep 16	37	Jan 30 1966
ANNUAL SEVEN-DAY MINIMUM	138	Oct 25	83	Sep 10	49	Jan 26 1966
INSTANTANEOUS PEAK FLOW			1100	Jan 20	(a)12600	Jul 20 1956
INSTANTANEOUS PEAK STAGE			4.55	Jan 20	16.73	Jul 20 1956
INSTANTANEOUS LOW FLOW			74	Aug 27	(b)9.4	Nov 22 1957
ANNUAL RUNOFF (CFSM)	1.53		0.79		1.00	
ANNUAL RUNOFF (CFSM)≠	1.47		0.74		0.97	
ANNUAL RUNOFF (INCHES)	20.79		10.77		13.57	
ANNUAL RUNOFF (INCHES)≠	20.03		10.02		13.15	
10 PERCENT EXCEEDS	978		349		539	
50 PERCENT EXCEEDS	277		207		204	
90 PERCENT EXCEEDS	156		100		98	

≠ Adjusted for inflow since January 1930.

a From rating curve extended above 7,300 ft^3/s on basis of contracted-opening measurement of peak flow.
b Result of regulation caused by construction work upstream from station.



01636500 SHENANDOAH RIVER AT MILLVILLE, WV

LOCATION.--Lat 39°16'55", long 77°47'22", 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 5.0.

DRAINAGE AREA.--3,040 mi^2.

WATER-DISCHARGE RECORDS

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).

GAGE.--Water-stage recorder. Datum of gage is 293.00 ft above sea level. Apr. 15, 1895, to Mar. 31, 1909, nonrecording gage at site 0.8 mi downstream at datum 0.32 ft higher.

REMARKS.--Water-discharge records good except those for estimated daily discharges (ice effect), which are poor. Regulation by hydroelectric plants, particularly that of Potomac Light and Power Company, 0.5 mi upstream from station. National Weather Service gage-height telemeter and U.S. Army Corps of Engineers satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of 1870 reached practically same stage as flood of Mar. 18, 1936, 26.36 ft, discharge, 151,000 ft^3/s.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 15,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 17	0430	*35,100	*12.56	June 30	0730	26,900	11.00
June 28	2330	17,500	8.87				

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	906	771	1010	1000	2410	2020	1650	1490	1730	19500	1540	836
2	907	843	1030	1000	2270	2030	1590	1590	1710	16100	1370	812
3	861	856	1000	1010	2270	2060	1550	1890	1470	12600	1230	774
4	823	794	963	1030	2240	1990	1500	2200	1470	8970	1170	729
5	812	829	1030	980	2310	1930	1480	2520	1580	6710	1160	716
6	806	846	1140	890	2190	1930	1400	2690	1430	5210	1660	699
7	799	754	1220	1180	2040	1920	1390	2570	1270	4820	6340	686
8	801	768	1270	2300	e1850	1920	1370	2430	1210	4750	5660	730
9	781	739	1390	2590	e1700	2130	1350	2220	1170	4240	3720	701
10	778	788	1340	2980	e1750	2490	1340	2090	1110	3600	2730	680
11	758	777	1390	2500	e1700	3290	1320	2190	1210	3800	2280	648
12	752	788	1450	2240	e1670	3680	1370	3220	1600	2820	1950	633
13	760	766	1390	2040	e1580	4240	1550	2760	2940	2470	1780	861
14	766	738	1370	1910	e1500	4340	1890	2380	2600	2190	1650	711
15	768	776	1350	1900	e1450	3940	1830	3030	2900	1960	1610	572
16	784	844	1260	15100	e1580	3600	1730	5370	2240	1820	1490	520
17	724	847	1200	28600	e1650	3310	1640	5670	1690	1760	1420	744
18	776	900	1190	14400	1770	3090	1580	4560	1570	1700	1340	832
19	784	1010	1190	9770	1900	2810	1540	4060	1390	1720	1300	866
20	768	991	1150	7870	2100	2570	1450	3880	1150	1540	1180	867
21	789	1010	1120	7740	2190	2430	1540	3480	1270	1620	1060	1010
22	748	1130	1090	8620	2260	2330	1430	3010	1120	1560	1020	925
23	809	1180	1010	7010	2320	2200	1380	2560	1050	1580	1000	851
24	838	1070	1030	5670	2320	2130	1380	2230	1210	1750	956	726
25	849	1120	1050	4730	2220	2010	1410	2050	2800	1660	944	787
26	807	1090	1050	4060	2090	1930	1430	1950	5040	1620	909	838
27	813	1050	1030	3510	2020	1870	1490	1970	8270	1660	859	844
28	817	1070	1090	3150	2010	1820	1520	2000	12200	1840	854	822
29	779	1040	1020	2860	---	1770	1480	1970	18600	1970	842	876
30	745	1090	990	2700	---	1750	1460	1960	23900	2080	854	883
31	756	---	990	2520	---	1670	---	1850	---	1850	828	---
TOTAL	24664	27275	35803	153860	55360	77200	45040	83840	108900	127470	52706	23179
MEAN	796	909	1155	4963	1977	2490	1501	2705	3630	4112	1700	773
MAX	907	1180	1450	28600	2410	4340	1890	5670	23900	19500	6340	1010
MIN	724	738	963	890	1450	1670	1320	1490	1050	1540	828	520
CFSM	.26	.30	.38	1.63	.65	.82	.49	.89	1.19	1.35	.56	.25
IN.	.30	.33	.44	1.88	.68	.94	.55	1.03	1.33	1.56	.64	.28

e Estimated

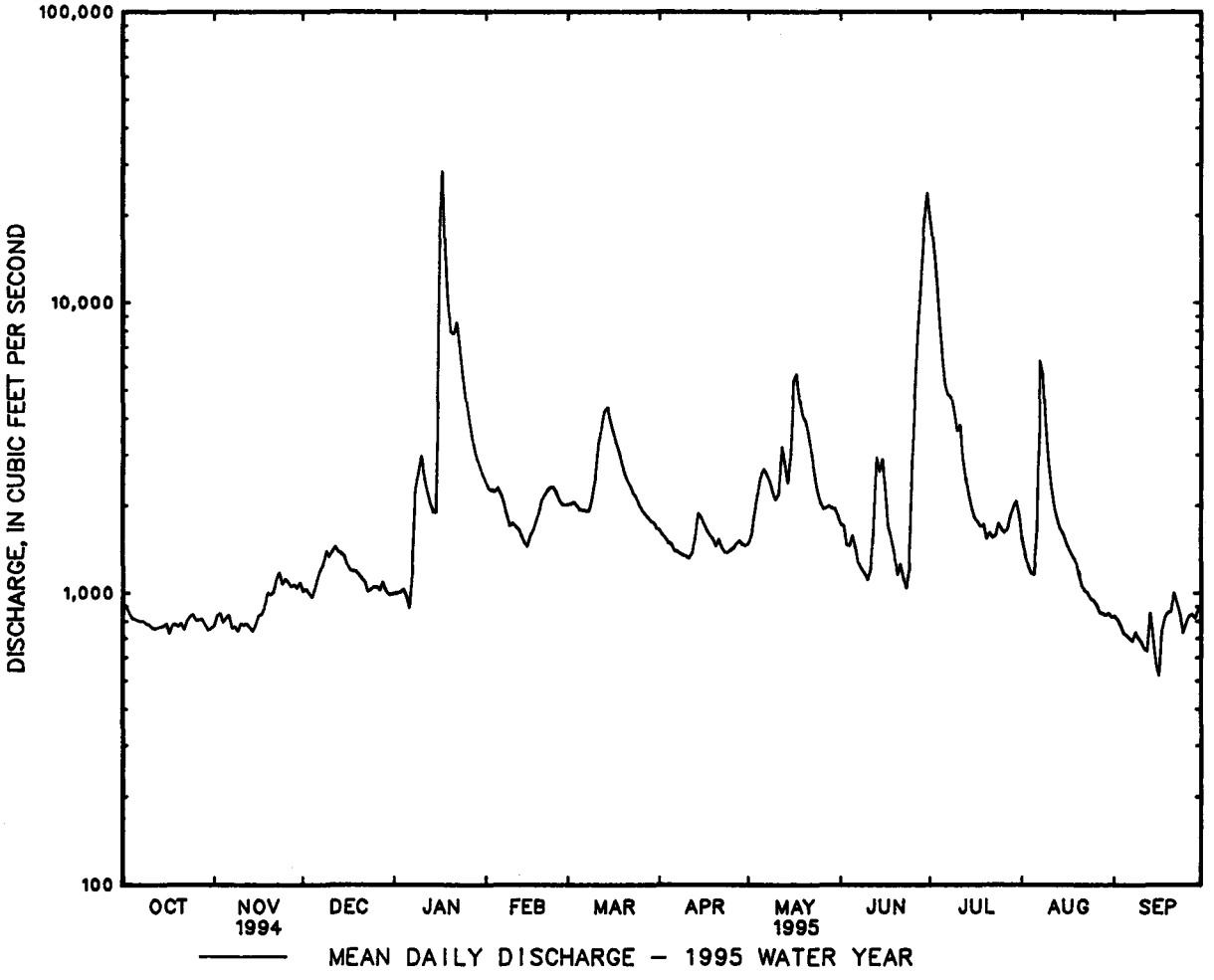
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1895 - 1909, 1928 - 1995, BY WATER YEAR (WY)

MEAN	1936	1811	2451	3081	3802	5002	4398	3356	2377	1459	1634	1311
MAX	16250	13350	8164	7925	13100	17540	12840	8700	10380	4809	10390	6701
(WY)	1943	1986	1973	1991	1897	1936	1901	1901	1972	1972	1955	1945
MIN	343	388	410	503	542	929	992	1001	660	402	388	411
(WY)	1931	1932	1966	1966	1931	1931	1981	1969	1977	1966	1930	1963

01636500 SHENANDOAH RIVER AT MILLVILLE, WV--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1895 - 1909, 1928 - 1995	
ANNUAL TOTAL	1466460		815297			
ANNUAL MEAN	4018		2234		2712	
HIGHEST ANNUAL MEAN					4838	1973
LOWEST ANNUAL MEAN					1111	1981
HIGHEST DAILY MEAN	37100	Mar 30	28600	Jan 17	192000	Oct 16 1942
LOWEST DAILY MEAN	724	Oct 17	520	Sep 16	194	Jul 24 1930
ANNUAL SEVEN-DAY MINIMUM	759	Oct 11	661	Sep 10	240	Sep 7 1966
INSTANTANEOUS PEAK FLOW			35100	Jan 17	230000	Oct 16 1942
INSTANTANEOUS PEAK STAGE			12.56	Jan 17	(a)32.40	Oct 16 1942
INSTANTANEOUS LOW FLOW			291	Sep 16	59	Oct 4 1930
ANNUAL RUNOFF (CFSM)	1.32		.73		.89	
ANNUAL RUNOFF (INCHES)	17.94		9.98		12.12	
10 PERCENT EXCEEDS	9300		3750		5490	
50 PERCENT EXCEEDS	1660		1500		1600	
90 PERCENT EXCEEDS	821		780		610	

a From floodmarks.



01636500 SHENANDOAH RIVER AT MILLVILLE, WV--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1960-63, 1965, 1969-71, 1979 to current year.

INSTRUMENTATION.--Water-quality monitor October 1980 to September 1983.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1980 to September 1983.
WATER TEMPERATURES: October 1980 to September 1983.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE (water years 1981-82): Maximum, 778 microsiemens, Dec. 29, 1980; minimum, 212 microsiemens, Jan. 17,1982.
WATER TEMPERATURE: Maximum, 30.0°C, July 20, 21, 1981; minimum, 0.0°C on many days during winter periods.

WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	TEMPERATURE AIR (DEG C)	BAROMETRIC PRESSURE (MM OF HG)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	HARDNESS TOTAL (MG/L AS CACO3)
NOV 1994										
07...	1230	730	383	8.3	14.5	15.0	763	10.5	103	170
JAN 1995										
17...	1340	28900	140	7.7	10.0	7.0	756	9.9	88	58
MAR										
16...	1045	3590	210	7.9	10.5	12.0	757	10.8	97	100
MAY										
09...	1000	E2240	256	8.2	16.5	19.0	755	5.0	52	110
JUN										
29...	1045	16000	149	7.4	20.0	22.5	756	7.6	84	66

DATE	HARDNESS NONCARB DISSOLV FLD. AS CACO3 (MG/L)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	SODIUM PERCENT	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WAT DIS TOT IT FIELD MG/L AS CACO3	BICARBONATE WATER DIS IT FIELD MG/L AS HCO3	CARBONATE WATER DIS IT FIELD MG/L AS CO3
NOV 1994										
07...	12	42	16	13	0.4	14	3.3	158	181	6
JAN 1995										
17...	12	17	3.7	2.6	0.1	8	2.7	46	56	--
MAR										
16...	20	29	7.3	5.8	0.2	11	1.8	82	100	--
MAY										
09...	18	29	8.6	6.4	0.3	11	2.1	90	109	--
JUN										
29...	9	19	4.4	3.2	0.2	9	2.1	57	69	--

DATE	CHLORIDE, DISSOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRATE DISSOLVED (MG/L AS NO3)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NITRATE DISSOLVED (MG/L AS N)	NITROGEN, NITRATE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)
NOV 1994									
07...	16	213	--	<0.010	--	0.910	0.910	0.910	<0.015
JAN 1995									
17...	4.7	94	3.8	0.020	0.860	0.860	0.880	0.880	0.050
MAR									
16...	8.4	134	--	<0.010	--	0.860	0.860	0.860	0.020
MAY									
09...	8.5	146	3.5	0.010	0.780	0.780	0.790	0.790	0.030
JUN									
29...	4.1	88	2.9	0.020	0.650	0.650	0.670	0.670	0.050

E: Estimated.

01636500 SHENANDOAH RIVER AT MILLVILLE, WV--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C)
NOV 1994									
07...	0.20	0.20	0.030	<0.010	0.010	14	3	2.7	0.10
JAN 1995									
17...	1.3	0.40	0.430	0.080	0.070	350	5	5.2	8.7
MAR									
16...	0.30	<0.20	0.040	0.020	0.030	35	4	2.5	0.30
MAY									
09...	0.20	0.30	0.100	0.100	0.100	34	7	2.4	0.40
JUN									
29...	0.80	<0.20	0.320	0.070	0.070	150	2	3.8	2.4

SUSPENDED SEDIMENT DISCHARGE

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
MAY 1995				
09...	1000	2090	4	23
JUN				
29...	1045	16100	242	10500

01637500 CATOCTIN CREEK NEAR MIDDLETOWN, MD

LOCATION.--Lat 39°25'35", long 77°33'25", Frederick County, Hydrologic Unit 02070008, on right bank 300 ft downstream from bridge on State Highway 17, 1.3 mi south of Middletown, 2.2 mi downstream from Little Catoctin Creek, and 14.8 mi upstream from mouth.

DRAINAGE AREA.--66.9 mi^2.

PERIOD OF RECORD.--August 1947 to current year.

REVISED RECORDS.--WSP 1432: 1947-48. WDR MD-DE-77-1: 1960(M), 1965(M), 1970(M), 1972(P), 1975(P).

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 385 ft above sea level, from topographic map.

REMARKS.--Records good except those for estimated daily discharges (ice effect, missing record), 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 1,200 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 20	UNKNOWN	*673	*3.57	No peak greater than base discharge.			

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.4	34	47	79	68	92	46	33	39	22	3.3	.79
2	31	54	41	69	65	75	44	58	36	38	2.6	.68
3	22	23	38	54	59	69	42	61	36	21	2.1	.71
4	14	16	35	46	62	65	41	40	34	18	1.9	.88
5	11	14	171	30	48	62	39	38	29	23	1.9	.66
6	10	14	115	45	42	70	37	34	26	27	38	.53
7	9.7	13	84	143	e41	72	37	30	26	40	28	.57
8	9.1	12	68	98	e40	73	36	26	27	24	12	.69
9	9.0	12	59	74	e39	107	38	25	23	13	8.0	.68
10	10	14	86	66	e38	92	42	28	23	11	6.7	.67
11	11	16	173	e60	e37	98	36	52	27	10	7.5	.71
12	9.1	14	99	e55	e36	142	41	39	28	10	13	.85
13	8.1	13	84	e65	35	177	98	31	30	8.9	7.5	1.0
14	7.9	12	75	e60	37	159	52	56	22	7.7	5.2	1.3
15	7.8	12	68	e200	37	140	43	67	18	6.9	4.1	1.5
16	7.4	21	61	e260	53	127	39	44	16	13	3.6	1.6
17	7.1	60	65	e160	60	113	38	45	15	19	3.1	4.2
18	7.2	35	60	e130	55	100	38	59	14	16	2.6	4.8
19	7.0	28	53	e110	56	92	37	70	13	10	2.1	4.0
20	7.5	22	47	e300	59	86	34	51	13	7.2	1.7	2.4
21	7.6	60	44	e200	62	90	34	42	12	5.8	1.6	1.9
22	8.2	88	42	e150	51	82	38	38	14	5.6	1.5	1.9
23	13	45	41	e130	49	74	39	34	13	5.3	1.2	1.9
24	15	35	40	e120	51	68	44	33	20	5.3	1.1	1.9
25	13	31	44	e110	45	61	43	52	24	5.4	.99	3.8
26	10	28	39	e100	45	57	36	95	33	5.2	.92	4.6
27	9.3	28	35	94	45	55	28	51	31	4.5	.85	4.5
28	9.1	126	33	89	95	53	28	45	39	3.7	.90	3.5
29	10	82	32	81	---	52	27	70	27	8.6	1.0	2.5
30	8.6	58	30	77	---	51	28	59	23	8.1	.92	1.9
31	9.3	---	29	72	---	49	---	45	---	4.5	.88	---
TOTAL	327.4	1020	1938	3327	1410	2703	1203	1451	731	407.7	166.76	57.62
MEAN	10.6	34.0	62.5	107	50.4	87.2	40.1	46.8	24.4	13.2	5.38	1.92
MAX	31	126	173	300	95	177	98	95	39	40	38	4.8
MIN	7.0	12	29	30	35	49	27	25	12	3.7	.85	.53
CFSM	.16	.51	.93	1.60	.75	1.30	.60	.70	.36	.20	.08	.03
IN.	.18	.57	1.08	1.85	.78	1.50	.67	.81	.41	.23	.09	.03

e Estimated

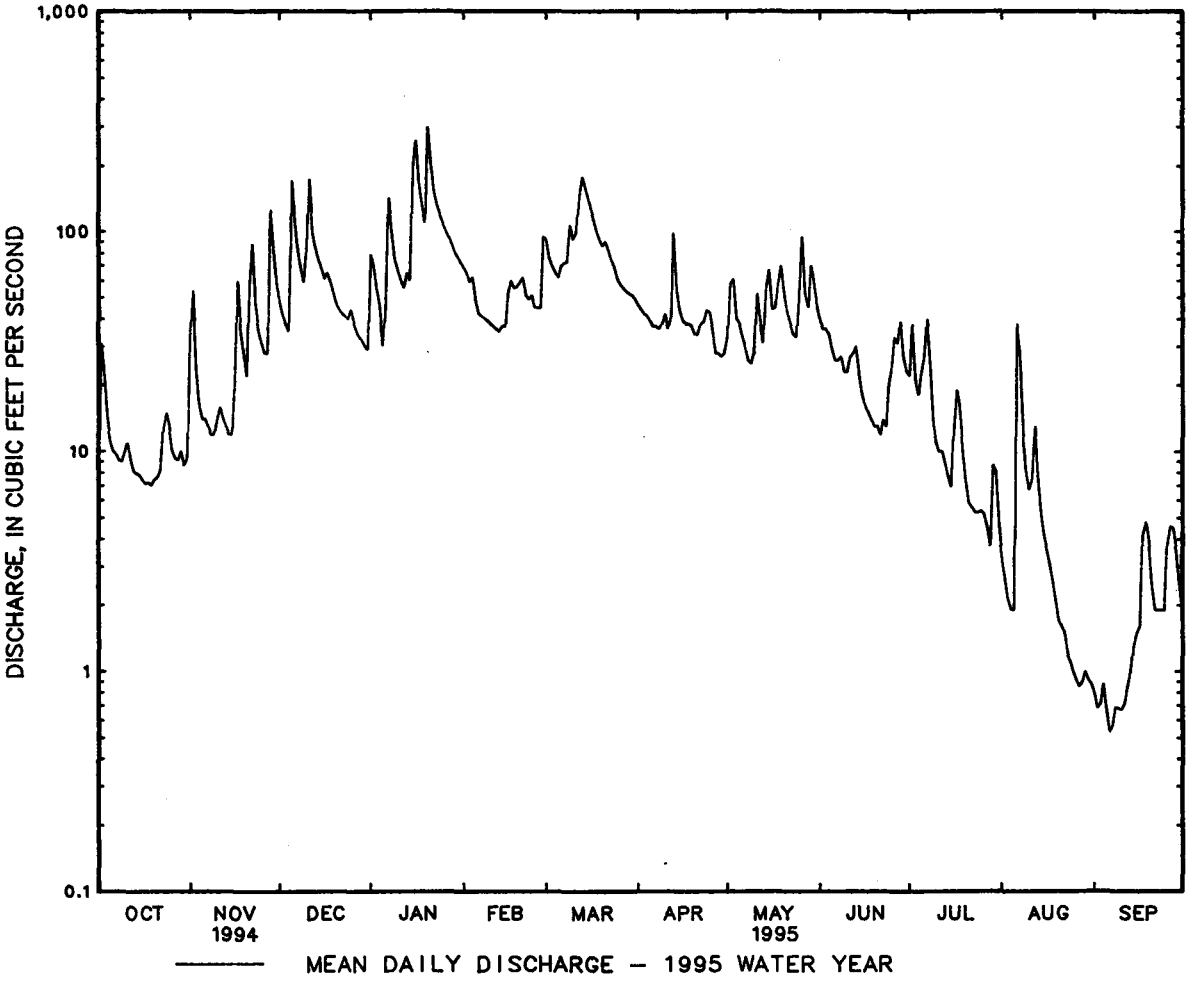
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1947 - 1995, BY WATER YEAR (WY)

MEAN	34.3	47.7	84.5	97.3	121	153	141	99.4	56.5	31.7	20.4	23.4
MAX	399	162	318	278	357	407	360	391	439	214	208	284
(WY)	1977	1986	1993	1979	1984	1994	1993	1988	1972	1949	1955	1975
MIN	2.62	3.61	3.80	4.25	28.7	46.3	40.1	29.2	13.5	4.86	2.04	1.68
(WY)	1964	1966	1966	1966	1954	1969	1995	1963	1954	1966	1966	1965

01637500 CATOCTIN CREEK NEAR MIDDLETOWN, MD--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1947 - 1995	
ANNUAL TOTAL	36093.7		14742.48			
ANNUAL MEAN	98.9		40.4		75.6	
HIGHEST ANNUAL MEAN					154	1972
LOWEST ANNUAL MEAN					29.7	1954
HIGHEST DAILY MEAN	852	Mar 29	(e)300	Jan 20	4880	Oct 9 1976
LOWEST DAILY MEAN	4.7	Aug 11	.53	Sep 6	.00	(a)
ANNUAL SEVEN-DAY MINIMUM	5.1	Aug 9	.64	Sep 5	.00	Aug 27 1966
INSTANTANEOUS PEAK FLOW			673	Jan 20	(b)12000	Oct 9 1976
INSTANTANEOUS PEAK STAGE			3.57	Jan 20	14.13	Oct 9 1976
INSTANTANEOUS LOW FLOW			.43	Sep 6	.00	(a)
ANNUAL RUNOFF (CFSM)	1.48		.60		1.13	
ANNUAL RUNOFF (INCHES)	20.07		8.20		15.36	
10 PERCENT EXCEEDS	293		89		172	
50 PERCENT EXCEEDS	42		34		38	
90 PERCENT EXCEEDS	8.4		2.1		5.7	

e Estimated.
a Aug. 27 to Sept. 12, 1966.
b From rating curve extended above 2,600 ft^3/s on basis of slope-area measurement of peak flow.



01638500 POTOMAC RIVER AT POINT OF ROCKS, MD

LOCATION.--Lat 39°16'25", long 77°32'35", Frederick County, Hydrologic Unit 02070008, on left bank at downstream side of bridge on U.S. Highway 15 at Point of Rocks, 0.3 mi downstream from Catoctin Creek (Virginia), 6 mi upstream from Monocacy River, and at mile 159.5.

DRAINAGE AREA.--9,651 mi^2.

PERIOD OF RECORD.--February 1895 to current year.

REVISED RECORDS.--WSP 192: 1895-1905. WSP 1432: 1899, 1901-2, 1904-5, 1912, 1914(M), 1915, 1917(M), 1918, 1919(M), 1920, 1921-23(M), 1924, 1925-28(M), 1930(M).

GAGE.--Water-stage recorder. Datum of gage is 200.63 ft above sea level. Prior to Oct. 28, 1929, nonrecording gage at same site. Prior to Sept. 2, 1902, at datum about 0.45 ft higher.

REMARKS.--Records good except those for estimated daily discharges (ice effect), which are fair. Low flow affected slightly from 1913 to July 1981 by Stony River Reservoir; since December 1950 by Savage River Reservoir (see station 01597500); and since July 1981 by Jennings Randolph Lake. Low flow affected extensively at times by run-of-the-river hydroelectric plants. National Weather Service gage-height telemeter at station. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 2, 1889, reached a stage of 40.2 ft, from floodmarks, discharge, about 460,000 ft^3/s from rating curve extended as explained in footnotes.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 35,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 17	0930	*87,200	*15.90	June 30	0500	40,100	9.35
Jan. 21	1600	37,000	8.85				

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2630	2000	7180	4180	7600	7050	4860	4950	5600	32600	3550	1770
2	2570	2270	5770	4650	7100	7310	4920	5070	5070	31600	3120	1810
3	2530	2350	4950	5550	6820	8030	4500	5540	4580	27000	2720	1630
4	2420	2320	4440	6020	6840	8010	4410	6950	6270	19700	2580	1830
5	2430	2350	4850	5800	6850	7510	4210	10100	8230	14800	2430	1590
6	2590	2290	8980	4680	e6000	7410	3990	9770	6640	13400	3360	1700
7	2190	2080	11800	5140	e5000	7300	3880	9050	5460	11600	7620	1570
8	2230	2190	9750	6790	e5000	7470	3820	8180	4680	11900	13400	1690
9	2130	2070	8030	9270	e4900	7850	3790	7300	4370	9690	14100	1670
10	2110	2160	7080	12000	e4800	8140	3690	6670	3970	7880	8880	1540
11	2060	2160	7630	10000	e4800	9170	3860	6450	3870	8520	6680	1560
12	2130	2230	9610	8530	e4800	10000	4270	7330	4260	7490	5540	1530
13	2150	2290	10500	7710	e4800	12000	4940	8030	5190	6260	5050	1560
14	2120	2290	9120	7510	4750	13800	5520	7390	5480	5330	4570	1810
15	1900	2870	7940	8230	4580	13200	6130	7890	5910	4720	4290	1560
16	1820	2650	7050	24900	4630	12000	6170	20900	5200	4320	4090	1370
17	1960	2610	6440	76600	4680	10900	5670	23000	4390	4550	3750	1640
18	2070	2920	6140	47500	5100	9700	5280	17200	3920	5480	3600	1740
19	2230	3380	5940	30900	5280	8760	5060	14900	3440	7520	3370	1810
20	2130	3400	5770	26900	6340	8030	4800	16000	3110	6740	3110	1810
21	1800	3420	5560	34900	6940	7520	4780	15700	2790	5310	2570	1980
22	1870	4130	5320	34700	7290	7120	4680	13100	2880	4500	2410	1960
23	2030	6250	5110	27000	7450	6690	4410	10900	2690	4090	2250	1810
24	2360	5390	4960	21200	7480	6320	4390	9210	2600	3910	2140	1770
25	2200	4690	4910	17300	7020	6030	4460	8030	3500	3780	1970	2140
26	2280	4150	4940	14500	6800	5910	4500	7390	6250	3730	1930	1960
27	1860	3820	4910	12200	6890	5640	5000	6750	11900	3620	1860	2620
28	2020	4260	4780	10500	6920	5340	5320	6160	26300	3690	1810	2330
29	1900	6490	4520	9450	---	5110	5150	6010	34400	3930	1790	1840
30	1760	8250	4360	8750	---	5020	5040	6160	37000	3900	1770	1670
31	2120	---	4200	8110	---	4840	---	6570	---	3810	1810	---
TOTAL	66600	99730	202540	511470	167460	249180	141500	298650	229950	285370	128120	53270
MEAN	2148	3324	6534	16500	5981	8038	4717	9634	7665	9205	4133	1776
MAX	2630	8250	11800	76600	7600	13800	6170	23000	37000	32600	14100	2620
MIN	1760	2000	4200	4180	4580	4840	3690	4950	2600	3620	1770	1370
CFSM	.22	.34	.68	1.71	.62	.83	.49	1.00	.79	.95	.43	.18
IN.	.26	.38	.78	1.97	.65	.96	.55	1.15	.89	1.10	.49	.21

e Estimated

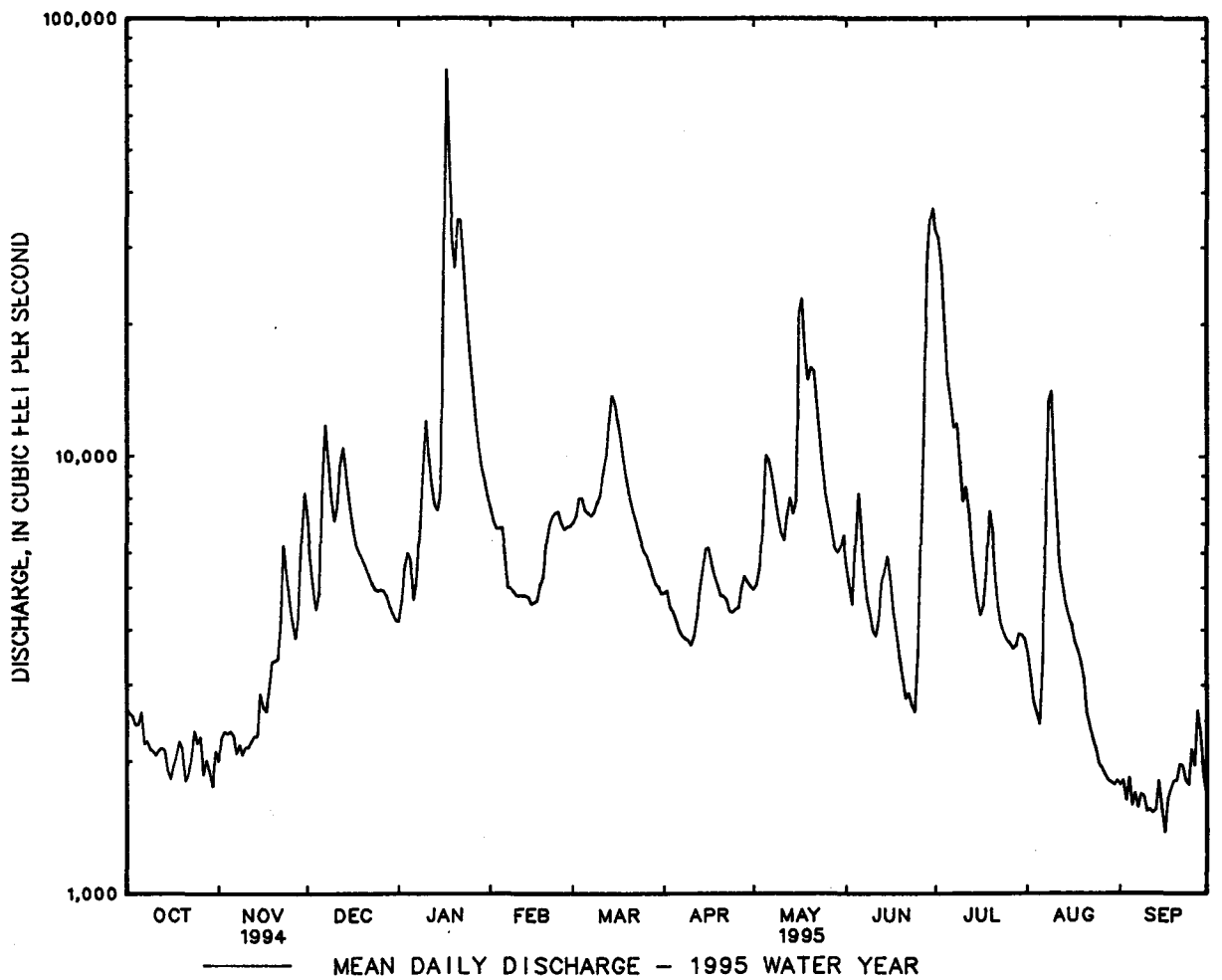
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1895 - 1995, BY WATER YEAR (WY)

MEAN	5008	5495	8477	11190	14240	19650	16570	12290	7934	4536	4208	3467
MAX	37030	39000	32610	31350	42640	68360	43840	41970	40400	16000	23580	17820
(WY)	1943	1986	1973	1937	1897	1936	1993	1924	1972	1949	1955	1975
MIN	706	840	1253	1703	2661	5400	4368	3276	1932	1056	771	834
(WY)	1931	1931	1966	1981	1934	1931	1915	1930	1969	1966	1930	1930

01638500 POTOMAC RIVER AT POINT OF ROCKS, MD--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1895 - 1995	
ANNUAL TOTAL	4985070		2433840			
ANNUAL MEAN	13660		6668		9408	
HIGHEST ANNUAL MEAN					15840	1972
LOWEST ANNUAL MEAN					4366	1969
HIGHEST DAILY MEAN	110000	Mar 30	76600	Jan 17	434000	Mar 19 1936
LOWEST DAILY MEAN	1760	Oct 30	1370	Sep 16	540	Sep 10 1914
ANNUAL SEVEN-DAY MINIMUM	1980	Oct 16	1560	Sep 10	593	Sep 6 1966
INSTANTANEOUS PEAK FLOW			87200	Jan 17	(a)480000	Mar 19 1936
INSTANTANEOUS PEAK STAGE			15.90	Jan 17	41.03	Mar 19 1936
INSTANTANEOUS LOW FLOW			1270	Sep 16	530	(b)
ANNUAL RUNOFF (CFSM)	1.42		.69		.97	
ANNUAL RUNOFF (INCHES)	19.22		9.38		13.25	
10 PERCENT EXCEEDS	38800		11900		20400	
50 PERCENT EXCEEDS	5760		4950		5380	
90 PERCENT EXCEEDS	2340		1920		1670	

a From rating curve extended above 300,000 ft^3/s, on the basis of adjustment of figure of peak flow at station near Washington for inflow and storage, and slope-area measurement of peak flow.
b September 11, 12, 1966.



01639000 MONOCACY RIVER AT BRIDGEPORT, MD

LOCATION.--Lat 39°40'43", long 77°14'06", Frederick County, Hydrologic Unit 02070009, on right bank 60 ft downstream from bridge on State Highway 140 at Bridgeport, 0.9 mi upstream from Cattail Branch, 3.4 mi northwest of Taneytown, 4.8 mi downstream from confluence of Rock and Marsh Creeks at Pennsylvania-Maryland State line, and 52 mi upstream from mouth.

DRAINAGE AREA.--173 mi^2.

WATER-DISCHARGE RECORDS

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 sea level (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.--Water-discharge records good except those for estimated daily discharges (ice effect), which are fair. Occasional regulation at low flow from unknown source upstream from station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Aug. 24, 1933, reached a stage of about 25 ft, present site and datum, from floodmarks, discharge, about 23,000 ft^3/s. Stage exceeded that of June 1889, from information by local residents.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,800 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 16	0015	6,390	11.70	June 26	0200	6,770	12.05
Jan. 20	1400	*11,000	*15.54				

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	146	185	550	109	483	55	47	43	465	15	5.4
2	31	425	143	425	108	250	52	76	34	592	13	5.1
3	38	97	121	189	99	182	52	179	32	190	12	4.3
4	28	62	109	133	91	153	48	81	36	113	14	4.0
5	23	48	2130	e98	86	140	45	66	30	109	14	3.6
6	21	42	778	97	e84	145	40	60	25	793	77	3.6
7	19	41	378	e450	e80	177	40	51	23	1140	184	3.6
8	18	37	239	409	e78	216	40	45	20	250	55	4.1
9	19	32	174	198	72	741	42	39	25	135	33	60
10	19	42	298	155	74	369	59	39	21	95	25	40
11	21	99	1450	130	79	285	57	80	20	136	23	17
12	19	57	354	125	e76	317	50	72	27	104	22	10
13	17	43	258	175	e60	214	244	52	49	65	27	8.8
14	16	38	188	249	e56	176	124	50	37	52	20	6.7
15	16	67	170	1540	e55	149	82	123	26	44	16	4.7
16	16	194	145	2550	81	133	67	76	21	39	13	4.5
17	15	847	157	565	158	119	59	56	17	60	12	13
18	15	254	169	386	172	104	54	71	15	65	12	43
19	15	181	134	332	175	96	53	78	15	55	11	26
20	14	136	110	6640	204	90	51	65	14	33	9.5	15
21	14	1060	100	1250	256	89	46	49	12	27	8.1	12
22	18	1180	93	576	175	91	48	39	16	24	7.7	9.4
23	22	288	91	398	135	82	45	33	20	23	6.4	9.8
24	33	173	89	322	176	76	44	29	51	23	5.4	11
25	29	140	100	241	142	68	52	29	748	40	5.5	12
26	21	119	91	194	114	63	46	282	2290	39	5.1	16
27	18	108	77	164	105	60	40	93	1050	26	4.8	19
28	16	1950	72	153	632	59	37	55	369	21	4.6	17
29	16	611	70	131	---	64	36	108	234	22	5.1	13
30	15	278	64	120	---	62	35	102	178	21	5.5	10
31	15	---	53	112	---	60	---	59	---	18	4.8	---
TOTAL	629	8795	8590	19057	3732	5313	1743	2284	5498	4819	670.5	411.6
MEAN	20.3	293	277	615	133	171	58.1	73.7	183	155	21.6	13.7
MAX	38	1950	2130	6640	632	741	244	282	2290	1140	184	60
MIN	14	32	53	97	55	59	35	29	12	18	4.6	3.6
CFSM	.12	1.69	1.60	3.55	.77	.99	.34	.43	1.06	.90	.13	.08
IN.	.14	1.89	1.85	4.10	.80	1.14	.37	.49	1.18	1.04	.14	.09

e Estimated

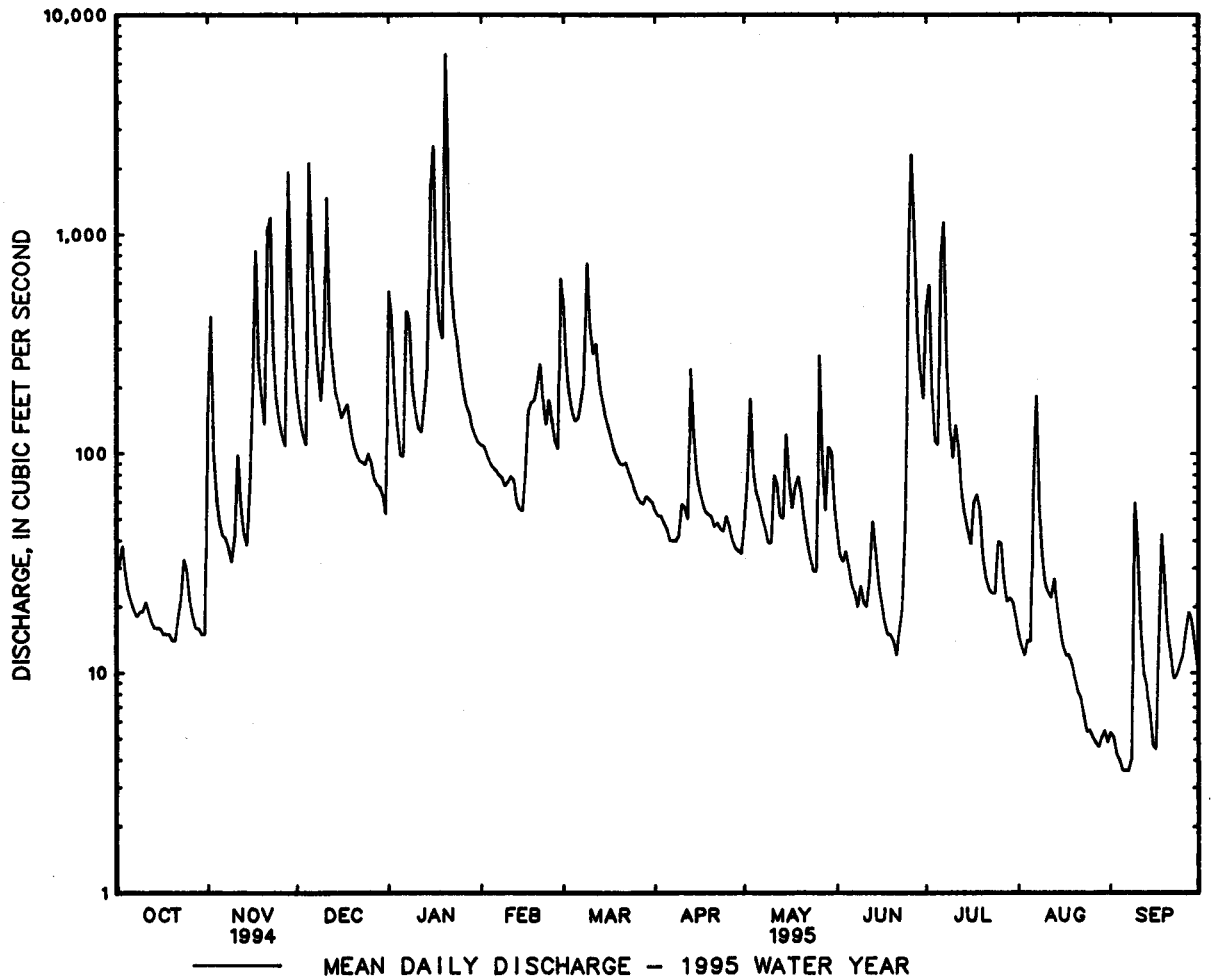
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1942 - 1995, BY WATER YEAR (WY)

MEAN	90.4	177	268	283	377	457	301	211	123	80.6	58.7	78.2
MAX	906	513	697	784	1029	1606	1029	964	1065	598	613	1027
(WY)	1977	1986	1984	1979	1961	1994	1983	1989	1972	1949	1942	1975
MIN	3.24	10.4	13.7	13.8	51.0	94.7	58.1	41.2	10.5	2.68	2.40	2.34
(WY)	1964	1954	1966	1981	1980	1949	1995	1969	1966	1966	1944	1943

01639000 MONOCACY RIVER AT BRIDGEPORT, MD--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1942 - 1995	
ANNUAL TOTAL	109734.4		61542.1			
ANNUAL MEAN	301		169		207	
HIGHEST ANNUAL MEAN					372	1972
LOWEST ANNUAL MEAN					76.8	1954
HIGHEST DAILY MEAN	4030	Mar 22	6640	Jan 20	16700	Jun 22 1972
LOWEST DAILY MEAN	6.9	Aug 13	3.6	(a)	.00	(b)
ANNUAL SEVEN-DAY MINIMUM	8.7	Aug 8	4.0	Sep 2	.04	Jul 22 1966
INSTANTANEOUS PEAK FLOW			11000	Jan 20	(c)21300	Jun 22 1972
INSTANTANEOUS PEAK STAGE			15.54	Jan 20	24.05	Jun 22 1972
INSTANTANEOUS LOW FLOW			3.2	Sep 8	.00	(d)
ANNUAL RUNOFF (CFSM)	1.74		.97		1.20	
ANNUAL RUNOFF (INCHES)	23.60		13.23		16.26	
10 PERCENT EXCEEDS	836		326		439	
50 PERCENT EXCEEDS	72		59		64	
90 PERCENT EXCEEDS	15		13		8.2	

a Sept. 6-7.
b July 25-28, 1966.
c From rating curve extended above 7,000 ft^3/s on basis of slope-conveyance study.
d July 24-29, 1966.



01639000 MONOCACY RIVER AT BRIDGEPORT, MD--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1948-51, 1969-72, 1974-79, 1982-83, 1990 to current year.
PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: October 1989 to September 1993.
SUSPENDED-SEDIMENT DISCHARGE: October 1989 to September 1993.

INSTRUMENTATION.--Pumping sampler for nutrients and sediment since Nov. 29, 1989.

REMARKS.--Prior to October 1993, water temperatures were measured daily in field by local observer at time of sampling.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SEDIMENT CONCENTRATION: Maximum daily mean, 565 mg/L, Oct. 20, 1989, July 25, 1992; minimum daily mean, 1 mg/L, on many days.
SEDIMENT LOAD: Maximum daily, 7,230 tons, Jan. 30, 1990; minimum daily, 0.03 ton, July 28, 29, 1993.

EXTREMES FOR CURRENT YEAR.--
SEDIMENT CONCENTRATION: Maximum daily mean, 440 mg/L, Nov. 3; minimum daily mean, 1 mg/L, Nov. 8, Jan. 20.
SEDIMENT LOAD: Maximum daily, 6,290 tons, Nov. 23; minimum daily, 0.03 ton, July 28, 29.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	ENDING DATE	ENDING TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	TEMPERATURE AIR (DEG C)	BAROMETRIC PRESSURE (MM OF HG)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	HARDNESS TOTAL (MG/L AS CACO3)
NOV 1994												
01...	1330	--	--	26	396	7.4	13.0	10.0	736	8.2	81	130
NOV												
16-17	2325	941117	0950	1240	--	--	--	--	--	--	--	--
NOV												
21-21	1655	941121	2120	2590	--	--	--	--	--	--	--	--
21...	2000	--	--	3410	177	7.1	10.0	13.0	749	9.7	87	61
NOV												
21-21	2130	941121	2350	4000	--	--	--	--	--	--	--	--
NOV												
21-22	2355	941122	0900	2160	--	--	--	--	--	--	--	--
NOV												
28-28	1045	941128	1600	2710	--	--	--	--	--	--	--	--
NOV												
28-28	1745	941128	2230	2050	--	--	--	--	--	--	--	--
DEC												
10-11	2235	941211	0125	1640	--	--	--	--	--	--	--	--
DEC												
11-11	0315	941211	0455	419	--	--	--	--	--	--	--	--
DEC												
11-11	0650	941211	1310	1570	--	--	--	--	--	--	--	--
JAN 1995												
10...	1200	--	--	142	206	7.6	0.5	-1.0	763	14.3	99	73
16...	1115	--	--	1560	144	7.0	10.5	8.0	751	11.0	100	52
FEB												
16...	1200	--	--	73	277	7.6	1.0	6.0	754	13.0	92	95
MAR												
15...	1200	--	--	147	233	7.8	10.0	18.0	757	10.4	93	83
APR												
18...	1100	--	--	53	247	8.6	11.5	16.0	755	10.6	98	95
MAY												
10...	1115	--	--	39	253	7.5	16.5	20.0	749	6.5	68	93
26...	1115	--	--	364	236	7.3	21.0	33.0	756	5.4	61	74
JUN												
21...	1135	--	--	11	306	7.6	27.0	--	752	6.3	80	--
JUN												
25-26	2115	950626	0030	4240	--	--	--	--	--	--	--	--
JUN												
26-26	0030	950626	0250	6620	--	--	--	--	--	--	--	--
JUN												
26-26	0250	950626	0620	5110	--	--	--	--	--	--	--	--
27...	0500	--	--	1660	--	--	--	--	--	--	--	--
27...	0805	--	--	1450	--	--	--	--	--	--	--	--
27...	1130	--	--	1030	--	--	--	--	--	--	--	--
JUL												
01...	2340	--	--	1420	--	--	--	--	--	--	--	--
06...	2045	--	--	3320	--	--	--	--	--	--	--	--
06...	2200	--	--	4140	--	--	--	--	--	--	--	--
06...	2310	--	--	4340	--	--	--	--	--	--	--	--
07...	0025	--	--	3900	--	--	--	--	--	--	--	--
07...	0200	--	--	2860	--	--	--	--	--	--	--	--
07...	0400	--	--	1940	--	--	--	--	--	--	--	--
07...	0620	--	--	1340	--	--	--	--	--	--	--	--
07...	1415	--	--	632	207	7.2	22.5	27.0	753	7.6	89	74

01639000 MONOCACY RIVER AT BRIDGEPORT, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3	BICAR-BONATE WATER WH FET FIELD MG/L AS HCO3	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3	CAR-BONATE WATER DIS IT FIELD MG/L AS CO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)
NOV 1994												
01...	37	9.9	26	4.7	98	--	120	--	38	38	<0.10	3.9
NOV												
16-17	--	--	--	--	--	--	--	--	--	--	--	--
NOV												
21-21	--	--	--	--	--	--	--	--	--	--	--	--
21...	16	5.2	6.5	5.7	39	--	47	--	16	14	0.10	7.7
NOV												
21-21	--	--	--	--	--	--	--	--	--	--	--	--
NOV												
21-22	--	--	--	--	--	--	--	--	--	--	--	--
NOV												
28-28	--	--	--	--	--	--	--	--	--	--	--	--
NOV												
28-28	--	--	--	--	--	--	--	--	--	--	--	--
DEC												
10-11	--	--	--	--	--	--	--	--	--	--	--	--
DEC												
11-11	--	--	--	--	--	--	--	--	--	--	--	--
DEC												
11-11	--	--	--	--	--	--	--	--	--	--	--	--
JAN 1995												
10...	19	6.1	9.7	2.6	42	--	51	--	21	17	<0.10	9.4
16...	14	4.2	4.6	3.5	30	--	36	--	14	8.9	<0.10	9.9
FEB												
16...	26	7.4	13	2.4	64	--	78	--	26	21	<0.10	12
MAR												
15...	22	6.8	10	2.3	49	--	60	--	23	17	<0.10	5.6
APR												
18...	26	7.3	12	2.6	68	--	63	10	24	18	<0.10	3.2
MAY												
10...	25	7.4	13	2.8	71	--	87	--	20	19	<0.10	5.5
26...	20	5.9	12	4.2	57	70	--	--	20	19	0.10	8.4
JUN												
21...	--	--	--	--	--	--	--	--	--	--	--	--
JUN												
25-26	--	--	--	--	--	--	--	--	--	--	--	--
JUN												
26-26	--	--	--	--	--	--	--	--	--	--	--	--
JUN												
26-26	--	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--	--
JUL												
01...	--	--	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--	--
07...	20	5.8	7.1	5.9	52	--	58	--	--	13	--	--

01639000 MONOCACY RIVER AT BRIDGEPORT, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS NO3)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)
NOV 1994												
01...	243	--	<0.010	0.140	0.140	<0.015	0.50	0.30	0.090	0.020	0.020	75
NOV												
16-17	--	5.3	0.010	1.20	1.20	0.110	1.0	0.80	0.310	0.180	0.160	--
NOV												
21-21	--	4.7	0.030	1.10	1.10	<0.015	1.0	1.1	0.230	0.140	0.060	--
21...	120	5.3	0.010	1.20	1.20	0.120	1.7	0.70	0.760	0.230	0.200	380
NOV												
21-21	--	4.8	0.020	1.10	1.10	<0.015	0.70	0.60	0.190	0.130	0.110	--
NOV												
21-22	--	4.3	0.020	0.990	0.990	<0.015	0.70	0.70	0.240	0.140	0.090	--
NOV												
28-28	--	6.2	0.010	1.40	1.40	0.040	1.1	0.60	0.370	0.160	0.160	--
NOV												
28-28	--	6.2	0.010	1.40	1.40	0.020	0.80	0.50	0.270	0.190	0.160	--
DEC												
10-11	--	--	<0.010	1.20	1.20	0.030	1.1	0.50	0.310	0.100	0.090	--
DEC												
11-11	--	4.8	0.010	1.10	1.10	0.060	1.0	0.60	0.260	0.100	0.100	--
DEC												
11-11	--	--	<0.010	1.00	1.00	0.030	0.60	0.60	0.170	0.120	0.110	--
JAN 1995												
10...	130	7.5	0.010	1.70	1.70	0.020	0.30	0.30	0.070	0.050	0.050	140
16...	98	4.8	0.010	1.10	1.10	0.040	0.80	0.70	0.190	0.130	0.100	520
FEB												
16...	165	--	<0.010	2.10	2.10	0.020	<0.20	<0.20	0.030	<0.010	0.030	36
MAR												
15...	137	--	<0.010	1.20	1.20	<0.015	0.40	0.30	0.040	0.020	0.020	73
APR												
18...	148	--	<0.010	0.130	0.130	<0.015	0.40	0.40	0.020	0.030	<0.010	82
MAY												
10...	150	0.53	0.010	0.130	0.130	0.050	0.40	0.30	0.060	0.040	0.040	100
26...	139	5.9	0.070	1.40	1.40	0.190	0.80	0.70	0.220	0.150	0.140	330
JUN												
21...	--	--	--	--	--	--	--	--	--	--	--	--
JUN												
25-26	--	5.2	0.030	1.20	1.20	0.100	1.1	0.70	0.220	0.110	0.080	--
JUN												
26-26	--	6.5	0.030	1.50	1.50	0.110	1.0	0.80	0.190	0.120	0.090	--
JUN												
26-26	--	4.7	0.030	1.10	1.10	0.110	1.1	0.60	0.240	0.090	0.060	--
27...	--	9.2	0.030	2.10	2.10	<0.015	1.4	0.90	0.300	0.140	0.080	--
27...	--	7.8	0.030	1.80	1.80	<0.015	1.2	0.80	0.230	0.120	0.080	--
27...	--	7.9	0.020	1.80	1.80	<0.015	0.90	0.80	0.170	0.110	0.070	--
JUL												
01...	--	7.0	0.020	1.60	1.60	0.050	0.70	0.60	0.130	0.100	0.100	--
06...	--	9.1	0.040	2.10	2.10	0.480	2.8	1.4	1.20	0.610	0.640	--
06...	--	8.7	0.040	2.00	2.00	0.310	1.7	<0.20	0.820	0.670	0.630	--
06...	--	7.8	0.030	1.80	1.80	0.300	1.5	<0.20	0.740	0.380	0.320	--
07...	--	8.7	0.040	2.00	2.00	0.330	1.6	1.2	0.570	0.400	0.390	--
07...	--	7.8	0.040	1.80	1.80	0.280	1.3	<0.20	0.570	0.370	0.380	--
07...	--	7.8	0.030	1.80	1.80	0.260	1.7	1.3	0.600	0.370	0.380	--
07...	--	8.2	0.040	1.90	1.90	0.470	1.8	1.6	0.490	0.330	0.330	--
07...	144	9.6	0.040	2.20	2.20	0.270	1.2	0.50	0.320	0.280	0.260	330

01639000 MONOCACY RIVER AT BRIDGEPORT, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	MANGANESE, DISSOLVED (UG/L AS MN)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C)	2,4,5-T DISSOLVED (UG/L)	2,4-D, DISSOLVED (UG/L)	2,4-DB WATER, FLTRD, GF 0.7U REC (UG/L)	2,6-DIETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L)	ETHALFLURALIN WAT FLT 0.7 U GF, REC (UG/L)	METHOMYL, WATER, FLTRD, GF 0.7U REC (UG/L)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L)	TERBACIL WATER FLTRD 0.7 U GF, REC (UG/L)
NOV 1994											
01...	46	4.8	0.40	<0.050	<0.050	<0.050	<0.006	<0.013	<0.050	<0.011	<0.030
NOV											
16-17	--	--	--	--	--	--	--	--	--	--	--
NOV											
21-21	--	--	--	--	--	--	--	--	--	--	--
21...	46	7.6	>8.8	<0.050	<0.050	<0.050	<0.006	<0.013	<0.050	<0.011	E0.028
NOV											
21-21	--	--	--	--	--	--	--	--	--	--	--
NOV											
21-22	--	--	--	--	--	--	--	--	--	--	--
NOV											
28-28	--	--	--	--	--	--	--	--	--	--	--
NOV											
28-28	--	--	--	--	--	--	--	--	--	--	--
DEC											
10-11	--	--	--	--	--	--	--	--	--	--	--
DEC											
11-11	--	--	--	--	--	--	--	--	--	--	--
DEC											
11-11	--	--	--	--	--	--	--	--	--	--	--
JAN 1995											
10...	11	4.2	0.20	<0.050	<0.050	<0.050	<0.006	<0.013	<0.050	<0.011	<0.030
16...	12	8.8	1.6	<0.050	<0.050	<0.050	<0.006	<0.013	<0.050	<0.011	E0.017
FEB											
16...	5	2.4	0.10	<0.050	<0.050	<0.050	<0.006	<0.013	<0.050	<0.011	<0.030
MAR											
15...	9	3.8	0.30	<0.050	<0.050	<0.050	<0.006	<0.013	<0.050	<0.011	<0.030
APR											
18...	15	4.9	0.30	<0.010	<0.060	<0.016	<0.006	<0.013	<0.017	<0.011	<0.030
MAY											
10...	29	4.3	0.50	<0.010	<0.060	<0.016	<0.006	<0.013	<0.017	<0.011	<0.030
26...	15	20	4.6	<0.010	0.090	<0.013	<0.006	<0.013	<0.017	<0.011	<0.030
JUN											
21...	--	--	--	--	--	--	--	--	--	--	--
JUN											
25-26	--	--	--	--	--	--	--	--	--	--	--
JUN											
26-26	--	--	--	--	--	--	--	--	--	--	--
JUN											
26-26	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--
JUL											
01...	--	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--
07...	14	11	1.7	<0.010	<0.060	<0.016	<0.003	<0.004	<0.034	<0.002	<0.007

E: Estimated.

01639000 MONOCACY RIVER AT BRIDGEPORT, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TRI-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L)	3HYDRXY CARBO-FURAN WAT,FLT GF 0.7U REC (UG/L)	ACETO-CHLOR, WATER FLTRD REC (UG/L)	ACIFL-UORFEN WATER, FLTRD, GF 0.7U REC (UG/L)	ALA-CHLOR, WATER, DISS, REC, (UG/L)	ALDI-CARB SULFONE WAT,FLT GF 0.7U REC (UG/L)	ALDICA-RB SUL-FOXIDE, WAT,FLT GF 0.7U REC (UG/L)	ALDI-CARB, WATER, FLTRD, GF 0.7U REC (UG/L)	ALPHA BHC DIS-SOLVED (UG/L)	ATRA-ZINE, WATER, DISS, REC (UG/L)	BEN-FLUR-ALIN WAT FLD 0.7 U GF, REC (UG/L)
NOV 1994											
01...	<0.012	<0.050	<0.000	<0.050	<0.009	<0.050	<0.050	<0.050	<0.007	0.025	<0.013
NOV											
16-17	--	--	--	--	--	--	--	--	--	--	--
NOV											
21-21	--	--	--	--	--	--	--	--	--	--	--
21...	<0.012	<0.050	<0.000	<0.050	<0.009	<0.050	<0.050	<0.050	<0.007	0.089	<0.013
NOV											
21-21	--	--	--	--	--	--	--	--	--	--	--
NOV											
21-22	--	--	--	--	--	--	--	--	--	--	--
NOV											
28-28	--	--	--	--	--	--	--	--	--	--	--
NOV											
28-28	--	--	--	--	--	--	--	--	--	--	--
DEC											
10-11	--	--	--	--	--	--	--	--	--	--	--
DEC											
11-11	--	--	--	--	--	--	--	--	--	--	--
DEC											
11-11	--	--	--	--	--	--	--	--	--	--	--
JAN 1995											
10...	<0.012	<0.050	<0.000	<0.050	<0.009	<0.050	<0.050	<0.050	<0.007	0.037	<0.013
16...	<0.012	<0.050	<0.000	<0.050	<0.009	<0.050	<0.050	<0.050	<0.007	0.051	<0.013
FEB											
16...	<0.012	<0.050	<0.009	<0.050	<0.009	<0.050	<0.050	<0.050	<0.007	<0.017	<0.013
MAR											
15...	<0.012	<0.050	<0.009	<0.050	<0.009	<0.050	<0.050	<0.050	<0.007	0.036	<0.013
APR											
18...	<0.012	<0.014	<0.009	<0.014	<0.009	<0.016	<0.021	<0.016	<0.007	0.040	<0.013
MAY											
10...	<0.012	<0.014	E0.003	<0.014	E0.004	<0.016	<0.021	<0.016	<0.007	0.079	<0.013
26...	<0.012	<0.014	0.220	<0.008	0.100	<0.016	<0.021	<0.016	<0.007	8.00	<0.013
JUN											
21...	--	--	--	--	--	--	--	--	--	--	--
JUN											
25-26	--	--	--	--	--	--	--	--	--	--	--
JUN											
26-26	--	--	--	--	--	--	--	--	--	--	--
JUN											
26-26	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--
JUL											
01...	--	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--
07...	<0.002	<0.028	<0.002	<0.014	0.029	<0.032	<0.042	<0.032	<0.002	2.00	<0.002

E: Estimated.

POTOMAC RIVER BASIN

01639000 MONOCACY RIVER AT BRIDGEPORT, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	BENTAZON, WATER, FLTRD, GF 0.7U REC (UG/L)	BROMACIL, WATER, DISS, REC (UG/L)	BROMOXYNIL WATER, FLTRD, GF 0.7U REC (UG/L)	BUTYLATE, WATER, DISS, REC (UG/L)	CARBARYL WATER FLTRD 0.7 U GF, REC (UG/L)	CARBARYL, WATER, FLTRD, GF 0.7U REC (UG/L)	CARBOFURAN WATER FLTRD 0.7 U GF, REC (UG/L)	CARBOFURAN, WATER, FLTRD, GF 0.7U REC (UG/L)	CHLORAMBEN, WATER, FLTRD, GF 0.7U REC (UG/L)	CHLOROTHALONIL, WAT,FLT GF 0.7U REC (UG/L)	CHLORPYRIFOS DISSOLVED (UG/L)
NOV 1994											
01...	<0.050	<0.050	<0.050	<0.008	<0.046	<0.050	<0.013	<0.050	<0.050	<0.050	<0.005
NOV											
16-17	--	--	--	--	--	--	--	--	--	--	--
NOV											
21-21	--	--	--	--	--	--	--	--	--	--	--
21...	<0.050	<0.050	<0.050	<0.008	<0.046	<0.050	<0.013	<0.050	<0.050	<0.050	<0.005
NOV											
21-21	--	--	--	--	--	--	--	--	--	--	--
NOV											
21-22	--	--	--	--	--	--	--	--	--	--	--
NOV											
28-28	--	--	--	--	--	--	--	--	--	--	--
NOV											
28-28	--	--	--	--	--	--	--	--	--	--	--
DEC											
10-11	--	--	--	--	--	--	--	--	--	--	--
DEC											
11-11	--	--	--	--	--	--	--	--	--	--	--
DEC											
11-11	--	--	--	--	--	--	--	--	--	--	--
JAN 1995											
10...	<0.050	<0.050	<0.050	<0.008	E0.019	<0.050	<0.013	<0.050	<0.050	<0.050	<0.005
16...	<0.050	<0.050	<0.050	<0.008	E0.016	<0.050	<0.013	<0.050	<0.050	<0.050	<0.005
FEB											
16...	<0.050	<0.050	<0.050	<0.008	<0.046	<0.050	<0.013	<0.050	<0.050	<0.050	<0.005
MAR											
15...	<0.050	<0.050	<0.050	<0.008	<0.046	<0.050	<0.013	<0.050	<0.050	<0.050	0.007
APR											
18...	<0.015	<0.011	<0.015	<0.008	<0.046	<0.008	<0.013	<0.028	<0.011	<0.007	E0.004
MAY											
10...	<0.015	<0.011	<0.015	<0.008	<0.046	<0.008	<0.013	<0.028	<0.011	<0.007	0.008
26...	<0.014	<0.011	<0.012	<0.008	E0.089	<0.008	<0.013	<0.028	<0.011	<0.007	0.031
JUN											
21...	--	--	--	--	--	--	--	--	--	--	--
JUN											
25-26	--	--	--	--	--	--	--	--	--	--	--
JUN											
26-26	--	--	--	--	--	--	--	--	--	--	--
JUN											
26-26	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--
JUL											
01...	--	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--
07...	<0.015	<0.022	<0.015	<0.002	E0.120	<0.016	<0.003	<0.056	<0.022	<0.014	<0.004

E: Estimated.

01639000 MONOCACY RIVER AT BRIDGEPORT, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	CLOPYR-ALID, WATER, FLTRD, GF 0.7U REC (UG/L)	CYANA-ZINE, WATER, DISS, REC (UG/L)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L)	DEETHYL ATRA-ZINE, WATER, DISS, REC (UG/L)	DI-AZINON, DIS-SOLVED (UG/L)	DICAMBA WATER, FLTRD, GF 0.7U REC (UG/L)	DICHLO-BENIL, WATER, FLTRD, GF 0.7U REC (UG/L)	DICHLOR PROP, WATER, FLTRD, GF 0.7U REC (UG/L)	DI-ELDRIN DIS-SOLVED (UG/L)	DINOSEB WATER, FLTRD, GF 0.7U REC (UG/L)	DISUL-FOTON WATER FLTRD 0.7 U GF, REC (UG/L)
NOV 1994											
01...	<0.050	<0.013	<0.004	E0.011	<0.008	<0.050	<0.050	<0.050	<0.008	<0.050	<0.060
NOV											
16-17	--	--	--	--	--	--	--	--	--	--	--
NOV											
21-21	--	--	--	--	--	--	--	--	--	--	--
21...	<0.050	<0.013	<0.004	E0.040	<0.008	<0.050	<0.050	<0.050	<0.008	<0.050	<0.060
NOV											
21-21	--	--	--	--	--	--	--	--	--	--	--
NOV											
21-22	--	--	--	--	--	--	--	--	--	--	--
NOV											
28-28	--	--	--	--	--	--	--	--	--	--	--
NOV											
28-28	--	--	--	--	--	--	--	--	--	--	--
DEC											
10-11	--	--	--	--	--	--	--	--	--	--	--
DEC											
11-11	--	--	--	--	--	--	--	--	--	--	--
DEC											
11-11	--	--	--	--	--	--	--	--	--	--	--
JAN 1995											
10...	<0.050	<0.013	<0.004	E0.037	<0.008	<0.050	<0.050	<0.050	<0.008	<0.050	<0.060
16...	<0.050	<0.013	<0.004	E0.036	<0.008	<0.050	<0.050	<0.050	<0.008	<0.050	<0.060
FEB											
16...	<0.050	<0.013	<0.004	E0.022	<0.008	<0.050	<0.050	<0.050	<0.008	<0.050	<0.060
MAR											
15...	<0.050	<0.013	<0.004	E0.041	0.010	<0.050	<0.050	<0.050	<0.008	<0.050	<0.060
APR											
18...	<0.064	<0.013	<0.004	E0.015	<0.008	<0.018	<0.020	<0.032	<0.008	<0.010	<0.060
MAY											
10...	<0.064	E0.012	<0.004	E0.018	<0.008	<0.018	<0.020	<0.032	<0.008	<0.010	<0.060
26...	<0.018	0.140	0.007	E0.230	<0.008	<0.011	<0.020	<0.032	<0.008	<0.010	<0.060
JUN											
21...	--	--	--	--	--	--	--	--	--	--	--
JUN											
25-26	--	--	--	--	--	--	--	--	--	--	--
JUN											
26-26	--	--	--	--	--	--	--	--	--	--	--
JUN											
26-26	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--
JUL											
01...	--	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--
07...	<0.064	0.085	<0.002	E0.400	<0.002	<0.018	<0.040	<0.032	<0.001	<0.010	<0.017

E: Estimated.

01639000 MONOCACY RIVER AT BRIDGEPORT, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	DIURON, WATER, FLTRD, GF 0.7U REC (UG/L)	DNOC WAT,FLT GF 0.7U REC (UG/L)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L)	ESFEN-VAL-ERATE, WAT,FLT GF 0.7U REC (UG/L)	ETHO-PROP WATER FLTRD 0.7 U GF, REC (UG/L)	FEN-URON, WATER, FLTRD, GF 0.7U REC (UG/L)	FLUO-METURON WATER, FLTRD, GF 0.7U REC (UG/L)	FONOFOS WATER DISS REC (UG/L)	LINDANE DIS-SOLVED (UG/L)	LIN-URON WATER FLTRD 0.7 U GF, REC (UG/L)	LINURON WATER, FLTRD, GF 0.7U REC (UG/L)
NOV 1994											
01...	<0.050	<0.050	<0.005	<0.050	<0.012	<0.050	<0.050	<0.008	<0.011	<0.039	<0.050
NOV											
16-17	--	--	--	--	--	--	--	--	--	--	--
NOV											
21-21	--	--	--	--	--	--	--	--	--	--	--
21...	<0.050	<0.050	<0.005	<0.050	<0.012	<0.050	<0.050	<0.008	<0.011	<0.039	<0.050
NOV											
21-21	--	--	--	--	--	--	--	--	--	--	--
NOV											
21-22	--	--	--	--	--	--	--	--	--	--	--
NOV											
28-28	--	--	--	--	--	--	--	--	--	--	--
NOV											
28-28	--	--	--	--	--	--	--	--	--	--	--
DEC											
10-11	--	--	--	--	--	--	--	--	--	--	--
DEC											
11-11	--	--	--	--	--	--	--	--	--	--	--
DEC											
11-11	--	--	--	--	--	--	--	--	--	--	--
JAN 1995											
10...	<0.050	<0.050	<0.005	<0.050	<0.012	<0.050	<0.050	<0.008	<0.011	<0.039	<0.050
16...	<0.050	<0.050	<0.005	<0.050	<0.012	<0.050	<0.050	<0.008	<0.011	<0.039	<0.050
FEB											
16...	<0.050	<0.050	<0.005	<0.050	<0.012	<0.050	<0.050	<0.008	<0.011	<0.039	<0.050
MAR											
15...	<0.050	<0.050	<0.005	<0.050	<0.012	<0.050	<0.050	<0.008	<0.011	<0.039	<0.050
APR											
18...	<0.020	<0.006	<0.005	<0.019	<0.012	<0.013	<0.010	<0.008	<0.011	<0.039	<0.006
MAY											
10...	<0.020	<0.006	<0.005	<0.019	<0.012	<0.013	<0.010	<0.008	<0.011	<0.039	<0.006
26...	0.210	<0.006	0.008	<0.019	<0.012	<0.013	<0.010	<0.008	<0.011	0.350	0.740
JUN											
21...	--	--	--	--	--	--	--	--	--	--	--
JUN											
25-26	--	--	--	--	--	--	--	--	--	--	--
JUN											
26-26	--	--	--	--	--	--	--	--	--	--	--
JUN											
26-26	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--
JUL											
01...	--	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--
07...	E0.130	<0.006	<0.002	<0.038	<0.003	<0.026	<0.020	<0.003	<0.004	0.170	E0.020

E: Estimated.

01639000 MONOCACY RIVER AT BRIDGEPORT, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	MALA-THION, DIS-SOLVED (UG/L)	MCPA, WATER, FLTRD, GF 0.7U REC (UG/L)	MCPB, WATER, FLTRD, GF 0.7U REC (UG/L)	METHIO-CARB, WATER, FLTRD, GF 0.7U REC (UG/L)	METHYL AZIN-PHOS WAT FLT 0.7 U GF, REC (UG/L)	METHYL PARA-THION WAT FLT 0.7 U GF, REC (UG/L)	METRI-BUZIN SENCOR WATER DISSOLV (UG/L)	MOL-INATE WATER FLTRD 0.7 U GF, REC (UG/L)	NAPROP-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L)	NEB-URON, WATER, FLTRD, GF 0.7U REC (UG/L)	NORFLUR AZON, WATER, FLTRD, GF 0.7U REC (UG/L)
NOV 1994											
01...	<0.010	<0.050	<0.050	<0.050	<0.038	<0.035	<0.012	<0.007	<0.010	<0.050	<0.050
NOV											
16-17	--	--	--	--	--	--	--	--	--	--	--
NOV											
21-21	--	--	--	--	--	--	--	--	--	--	--
21...	<0.014	<0.050	<0.050	<0.050	<0.038	<0.035	<0.012	<0.007	<0.010	<0.050	<0.050
NOV											
21-21	--	--	--	--	--	--	--	--	--	--	--
NOV											
21-22	--	--	--	--	--	--	--	--	--	--	--
NOV											
28-28	--	--	--	--	--	--	--	--	--	--	--
NOV											
28-28	--	--	--	--	--	--	--	--	--	--	--
DEC											
10-11	--	--	--	--	--	--	--	--	--	--	--
DEC											
11-11	--	--	--	--	--	--	--	--	--	--	--
DEC											
11-11	--	--	--	--	--	--	--	--	--	--	--
JAN 1995											
10...	<0.014	<0.050	<0.050	<0.050	<0.038	<0.035	<0.012	<0.007	<0.010	<0.050	<0.050
16...	<0.014	<0.050	<0.050	<0.050	<0.038	<0.035	<0.012	<0.007	<0.010	<0.050	<0.050
FEB											
16...	<0.014	<0.050	<0.050	<0.050	<0.038	<0.035	E0.008	<0.007	<0.010	<0.050	<0.050
MAR											
15...	<0.014	<0.050	<0.050	<0.050	<0.038	<0.035	<0.012	<0.007	<0.010	<0.050	<0.050
APR											
18...	<0.014	<0.024	<0.017	<0.026	<0.038	<0.035	<0.012	<0.007	<0.010	<0.015	<0.024
MAY											
10...	<0.014	<0.024	<0.017	<0.026	<0.038	<0.035	<0.012	<0.007	<0.010	<0.015	<0.024
26...	<0.014	<0.014	<0.010	<0.026	<0.038	<0.035	0.050	<0.007	<0.010	<0.015	<0.024
JUN											
21...	--	--	--	--	--	--	--	--	--	--	--
JUN											
25-26	--	--	--	--	--	--	--	--	--	--	--
JUN											
26-26	--	--	--	--	--	--	--	--	--	--	--
JUN											
26-26	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--
JUL											
01...	--	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--
07...	<0.005	<0.024	<0.017	<0.052	<0.001	<0.006	0.047	<0.004	<0.003	<0.030	<0.048

E: Estimated.

01639000 MONOCACY RIVER AT BRIDGEPORT, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	ORY-ZALIN, WATER, FLTRD, GF 0.7U REC (UG/L)	OXAMYL, WATER, FLTRD, GF 0.7U REC (UG/L)	P,P' DDE DISSOLV (UG/L)	PARA-THION, DIS-SOLVED (UG/L)	PEB-ULATE WATER FILTRD 0.7 U GF, REC (UG/L)	PENDI-METH-ALIN WAT FLT 0.7 U GF, REC (UG/L)	PER-METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L)	PIC-LORAM, WATER, FLTRD, GF 0.7U REC (UG/L)	PRO-METON, WATER, DISS, REC (UG/L)	PRON-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L)	PROP-CHLOR, WATER, DISS, REC (UG/L)
NOV 1994											
01...	<0.050	<0.050	<0.010	<0.022	<0.009	<0.018	<0.016	<0.050	0.011	<0.009	<0.015
NOV											
16-17	--	--	--	--	--	--	--	--	--	--	--
NOV											
21-21	--	--	--	--	--	--	--	--	--	--	--
21...	<0.050	<0.050	<0.010	<0.022	<0.009	<0.018	<0.016	<0.050	<0.008	<0.009	<0.015
NOV											
21-21	--	--	--	--	--	--	--	--	--	--	--
NOV											
21-22	--	--	--	--	--	--	--	--	--	--	--
NOV											
28-28	--	--	--	--	--	--	--	--	--	--	--
NOV											
28-28	--	--	--	--	--	--	--	--	--	--	--
DEC											
10-11	--	--	--	--	--	--	--	--	--	--	--
DEC											
11-11	--	--	--	--	--	--	--	--	--	--	--
DEC											
11-11	--	--	--	--	--	--	--	--	--	--	--
JAN 1995											
10...	<0.050	<0.050	<0.010	<0.022	<0.009	<0.018	<0.016	<0.050	0.011	<0.009	<0.015
16...	<0.050	<0.050	E0.002	<0.022	<0.009	<0.018	<0.016	<0.050	<0.008	<0.009	<0.015
FEB											
16...	<0.050	<0.050	<0.010	<0.022	<0.009	<0.018	<0.016	<0.050	<0.008	<0.009	<0.015
MAR											
15...	<0.050	<0.050	<0.010	<0.022	<0.009	<0.018	<0.016	<0.050	<0.012	<0.009	<0.015
APR											
18...	<0.019	<0.018	<0.010	<0.022	<0.009	<0.018	<0.016	<0.031	0.023	<0.009	<0.015
MAY											
10...	<0.019	<0.018	<0.010	<0.022	<0.009	<0.018	<0.016	<0.031	0.041	<0.009	<0.015
26...	<0.019	<0.018	<0.010	<0.022	<0.009	0.037	<0.016	<0.004	0.073	<0.009	0.046
JUN											
21...	--	--	--	--	--	--	--	--	--	--	--
JUN											
25-26	--	--	--	--	--	--	--	--	--	--	--
JUN											
26-26	--	--	--	--	--	--	--	--	--	--	--
JUN											
26-26	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--
JUL											
01...	--	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--
07...	<0.038	<0.036	<0.006	<0.004	<0.004	<0.004	<0.005	<0.031	0.041	<0.003	<0.007

01639000 MONOCACY RIVER AT BRIDGEPORT, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	PRO-PANIL WATER FLTRD 0.7 U GF, REC (UG/L)	PRO-PARGITE WATER FLTRD 0.7 U GF, REC (UG/L)	PRO-PHAM, WATER, FLTRD, GF 0.7U REC (UG/L)	PRO-POXUR, WATER, FLTRD, GF 0.7U REC (UG/L)	SILVEX, DIS-SOLVED (UG/L)	SI-MAZINE, WATER, DISS, REC (UG/L)	TEBU-THIURON WATER FLTRD 0.7 U GF, REC (UG/L)	TER-BUFOS WATER FLTRD 0.7 U GF, REC (UG/L)	THIO-BENCARB WATER FLTRD 0.7 U GF, REC (UG/L)	TRIAL-LATE WATER FLTRD 0.7 U GF, REC (UG/L)	TRI-CLOPYR, WATER, FLTRD, GF 0.7U REC (UG/L)
NOV 1994											
01...	<0.016	<0.006	<0.050	<0.050	<0.050	0.035	<0.015	<0.012	<0.008	<0.008	<0.050
NOV											
16-17	--	--	--	--	--	--	--	--	--	--	--
NOV											
21-21	--	--	--	--	--	--	--	--	--	--	--
21...	<0.016	<0.006	<0.050	<0.050	<0.050	0.037	0.015	<0.012	<0.008	<0.008	<0.050
NOV											
21-21	--	--	--	--	--	--	--	--	--	--	--
NOV											
21-22	--	--	--	--	--	--	--	--	--	--	--
NOV											
28-28	--	--	--	--	--	--	--	--	--	--	--
NOV											
28-28	--	--	--	--	--	--	--	--	--	--	--
DEC											
10-11	--	--	--	--	--	--	--	--	--	--	--
DEC											
11-11	--	--	--	--	--	--	--	--	--	--	--
DEC											
11-11	--	--	--	--	--	--	--	--	--	--	--
JAN 1995											
10...	<0.016	<0.006	<0.050	<0.050	<0.050	0.073	E0.011	<0.012	<0.008	<0.008	<0.050
16...	<0.016	<0.006	<0.050	<0.050	<0.050	0.270	E0.013	<0.012	<0.008	<0.008	<0.050
FEB											
16...	<0.016	<0.006	<0.050	<0.050	<0.050	0.041	<0.015	<0.012	<0.008	<0.008	<0.050
MAR											
15...	<0.016	<0.006	<0.050	<0.050	<0.050	0.029	<0.015	<0.012	<0.008	<0.008	<0.050
APR											
18...	<0.016	<0.006	<0.011	<0.008	<0.021	0.250	<0.015	<0.012	<0.008	<0.008	0.070
MAY											
10...	<0.016	<0.006	<0.011	<0.008	<0.021	0.180	0.017	<0.012	<0.008	<0.008	<0.067
26...	<0.016	<0.006	<0.011	<0.008	<0.021	0.080	0.056	<0.012	<0.008	<0.008	<0.010
JUN											
21...	--	--	--	--	--	--	--	--	--	--	--
JUN											
25-26	--	--	--	--	--	--	--	--	--	--	--
JUN											
26-26	--	--	--	--	--	--	--	--	--	--	--
JUN											
26-26	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--
JUL											
01...	--	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--
07...	<0.004	<0.013	<0.022	<0.016	<0.021	0.360	<0.010	<0.013	<0.002	<0.001	<0.067

E: Estimated.

01639000 MONOCACY RIVER AT BRIDGEPORT, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS NO3)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)
SEP 1995											
19...	0900	27	458	7.1	17.5	11.3	1.7	0.020	0.400	0.400	0.030
19...	1000	27	459	7.4	17.5	11.5	1.8	0.010	0.420	0.420	0.030
19...	1100	26	461	7.4	18.0	12.1	1.9	0.020	0.440	0.440	0.030
19...	1200	25	463	7.5	18.5	12.6	1.9	0.020	0.460	0.460	0.040
19...	1300	24	465	7.5	19.0	13.2	2.0	0.010	0.470	0.470	0.040
19...	1400	23	464	7.6	19.0	14.0	2.1	0.010	0.490	0.490	0.040
19...	1500	22	465	7.7	19.5	14.8	2.2	0.010	0.500	0.500	0.040
19...	1600	22	465	7.7	19.5	15.1	2.2	0.010	0.510	0.510	0.040
19...	1700	22	466	7.7	19.5	15.2	2.3	0.010	0.520	0.520	0.040
19...	1800	21	469	7.7	19.5	15.1	2.3	0.020	0.540	0.540	0.050
19...	1900	20	469	7.7	19.5	14.8	2.5	0.010	0.570	0.570	0.060
19...	2000	20	470	7.6	19.5	14.4	2.6	0.010	0.590	0.590	0.050
19...	2100	19	472	7.6	19.5	14.1	2.6	0.010	0.600	0.600	0.050
19...	2200	19	474	7.6	19.5	13.6	2.7	0.010	0.630	0.630	0.040
19...	2300	19	474	7.5	19.5	13.3	2.8	0.010	0.650	0.650	0.040
19...	2400	19	474	7.5	19.5	12.9	2.9	0.010	0.670	0.670	0.040
20...	0100	18	474	7.5	19.5	12.4	3.1	0.020	0.710	0.710	0.050
20...	0200	18	473	7.4	19.5	12.1	3.2	0.010	0.740	0.740	0.040
20...	0300	18	475	7.4	19.5	11.6	3.4	0.010	0.780	0.780	0.060
20...	0400	17	476	7.4	19.0	11.3	3.5	0.020	0.820	0.820	0.060
20...	0500	16	477	7.4	19.0	10.9	3.7	0.010	0.840	0.840	0.060
20...	0600	16	477	7.3	19.0	10.6	3.8	0.010	0.870	0.870	0.050
20...	0700	16	478	7.3	19.0	10.3	3.9	0.020	0.910	0.910	0.100
20...	0800	15	479	7.3	19.0	7.9	4.1	0.020	0.950	0.950	0.060
20...	0900	15	479	7.4	19.0	7.7	4.3	0.020	1.00	1.00	0.060
20...	1000	15	480	7.4	19.0	7.7	4.4	0.010	1.00	1.00	0.060
20...	1100	15	482	7.4	19.0	7.7	4.8	0.020	1.10	1.10	0.050
20...	1200	14	483	7.4	19.0	7.8	4.8	0.020	1.10	1.10	0.060
20...	1300	14	483	7.4	19.5	8.0	5.2	0.020	1.20	1.20	0.050
20...	1400	14	485	7.4	19.5	8.1	5.2	0.020	1.20	1.20	0.050
20...	1401	14	485	7.4	19.5	8.1	--	--	--	--	--
20...	1500	14	488	7.4	19.5	8.5	5.7	0.020	1.30	1.30	0.050
20...	1600	14	490	7.4	20.0	8.6	5.7	0.020	1.30	1.30	0.050
20...	1700	14	492	7.4	20.0	8.7	6.1	0.020	1.40	1.40	0.050
20...	1800	13	493	7.5	20.0	8.8	6.6	0.020	1.50	1.50	0.050
20...	1900	13	495	7.3	20.0	8.9	6.6	0.020	1.50	1.50	0.050
20...	2000	13	498	7.4	20.0	9.1	6.5	0.030	1.50	1.50	0.050
20...	2100	13	500	7.4	20.0	9.1	7.0	0.020	1.60	1.60	0.050
20...	2200	13	502	7.4	20.0	9.2	7.4	0.030	1.70	1.70	0.050
20...	2300	13	506	7.4	20.0	9.0	7.8	0.030	1.80	1.80	0.050
20...	2400	13	509	7.4	20.0	9.0	8.3	0.030	1.90	1.90	0.050
21...	0100	13	513	7.4	19.5	8.7	8.3	0.020	1.90	1.90	0.060
21...	0200	13	517	7.3	19.5	8.5	8.7	0.030	2.00	2.00	0.050
21...	0300	13	519	7.3	19.5	8.3	9.2	0.030	2.10	2.10	0.060
21...	0400	13	525	7.3	19.5	8.1	10	0.040	2.30	2.30	0.050
21...	0500	12	528	7.3	19.5	7.9	10	0.030	2.30	2.30	0.060
21...	0600	12	530	7.3	19.5	7.7	10	0.030	2.30	2.30	0.060
21...	0700	12	532	7.3	19.5	7.5	10	0.030	2.30	2.30	0.070
21...	0800	12	533	7.3	19.5	7.3	10	0.030	2.40	2.40	0.060

01639000 MONOCACY RIVER AT BRIDGEPORT, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	2,6-DIETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L)	ETHALFLURALIN WAT FLT 0.7 U GF, REC (UG/L)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L)	TERBACIL WATER FLTRD 0.7 U GF, REC (UG/L)	TRIFLURALIN WAT FLT 0.7 U GF, REC (UG/L)	ACETOCHLOR, WATER FLTRD REC (UG/L)
SEP 1995											
19...	0.60	0.40	0.120	0.090	0.090	--	--	--	--	--	--
19...	0.50	0.40	0.100	0.100	0.090	--	--	--	--	--	--
19...	0.50	0.40	0.100	0.100	0.090	--	--	--	--	--	--
19...	0.50	0.50	0.100	0.090	0.090	--	--	--	--	--	--
19...	0.50	0.50	0.100	0.090	0.090	--	--	--	--	--	--
19...	0.40	0.60	0.100	0.090	0.090	--	--	--	--	--	--
19...	0.50	0.40	0.100	0.090	0.080	--	--	--	--	--	--
19...	0.40	0.60	0.130	0.110	0.090	--	--	--	--	--	--
19...	0.50	0.60	0.120	0.110	0.090	--	--	--	--	--	--
19...	0.40	0.60	0.110	0.100	0.100	--	--	--	--	--	--
19...	0.50	0.70	0.110	0.100	0.090	--	--	--	--	--	--
19...	0.40	0.60	0.110	0.110	0.100	--	--	--	--	--	--
19...	0.50	0.60	0.100	0.100	0.100	--	--	--	--	--	--
19...	0.50	0.40	0.110	0.090	0.100	--	--	--	--	--	--
19...	0.50	0.40	0.120	0.090	0.100	--	--	--	--	--	--
19...	0.50	0.40	0.120	0.100	0.100	--	--	--	--	--	--
20...	0.50	0.60	0.110	0.100	0.100	--	--	--	--	--	--
20...	0.50	0.40	0.130	0.100	0.100	--	--	--	--	--	--
20...	0.50	0.60	0.100	0.100	0.100	--	--	--	--	--	--
20...	0.80	0.50	0.110	0.110	0.100	--	--	--	--	--	--
20...	0.50	0.60	0.110	0.100	0.110	--	--	--	--	--	--
20...	0.50	0.40	0.140	0.110	0.110	--	--	--	--	--	--
20...	0.50	0.50	0.120	0.100	0.110	--	--	--	--	--	--
20...	0.50	0.50	0.120	0.120	0.110	--	--	--	--	--	--
20...	0.50	0.50	0.130	0.100	0.060	--	--	--	--	--	--
20...	0.60	0.50	0.130	0.110	0.080	--	--	--	--	--	--
20...	0.60	0.40	0.130	0.120	0.080	--	--	--	--	--	--
20...	0.60	0.50	0.130	0.120	0.090	--	--	--	--	--	--
20...	0.60	0.50	0.140	0.110	0.120	--	--	--	--	--	--
20...	0.60	0.50	0.130	0.120	0.080	<0.003	<0.004	<0.002	<0.007	<0.002	<0.002
20...	--	--	--	--	--	--	--	--	--	--	--
20...	0.60	0.50	0.140	0.140	0.120	--	--	--	--	--	--
20...	0.60	0.40	0.140	0.120	0.120	--	--	--	--	--	--
20...	0.60	0.50	0.150	0.130	0.130	--	--	--	--	--	--
20...	0.60	0.50	0.160	0.130	0.130	--	--	--	--	--	--
20...	0.60	0.50	0.140	0.130	0.130	--	--	--	--	--	--
20...	0.60	0.50	0.160	0.130	0.130	--	--	--	--	--	--
20...	0.70	0.50	0.150	0.130	0.130	--	--	--	--	--	--
20...	0.70	0.50	0.150	0.140	0.140	--	--	--	--	--	--
20...	0.60	0.60	0.150	0.150	0.140	--	--	--	--	--	--
20...	0.60	0.50	0.160	0.150	0.140	--	--	--	--	--	--
21...	0.60	0.70	0.170	0.150	0.130	--	--	--	--	--	--
21...	0.60	0.60	0.170	0.150	0.150	--	--	--	--	--	--
21...	0.60	0.60	0.170	0.140	0.150	--	--	--	--	--	--
21...	0.60	0.50	0.170	0.150	0.150	--	--	--	--	--	--
21...	0.60	0.50	0.180	0.160	0.150	--	--	--	--	--	--
21...	0.60	0.50	0.180	0.150	0.150	--	--	--	--	--	--
21...	0.60	0.70	0.170	0.140	0.150	--	--	--	--	--	--
21...	0.60	0.60	0.170	0.160	0.150	--	--	--	--	--	--

01639000 MONOCACY RIVER AT BRIDGEPORT, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	ALACHLOR, WATER, DISS, REC, (UG/L)	ALPHA BHC DISSOLVED (UG/L)	ATRAZINE, WATER, DISS, REC (UG/L)	BENFLURALIN WAT FLD 0.7 U GF, REC (UG/L)	BUTYLATE, WATER, DISS, REC (UG/L)	CARBARYL WATER FLTRD 0.7 U GF, REC (UG/L)	CARBOFURAN WATER FLTRD 0.7 U GF, REC (UG/L)	CHLORPYRIFOS DISSOLVED (UG/L)	CYANAZINE, WATER, DISS, REC (UG/L)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L)
SEP 1995 20... TIME 1400	<0.002	<0.002	0.048	<0.002	<0.002	E0.010	<0.003	<0.004	<0.004	<0.002

DATE	DEETHYL ATRAZINE, WATER, DISS, REC (UG/L)	DIAZINON, DISSOLVED (UG/L)	DIELDRIN DISSOLVED (UG/L)	DISULFOTON WATER FLTRD 0.7 U GF, REC (UG/L)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L)	ETHOPROP WATER FLTRD 0.7 U GF, REC (UG/L)	FONOFOS WATER DISS REC (UG/L)	LINDANE DISSOLVED (UG/L)	LINURON WATER FLTRD 0.7 U GF, REC (UG/L)	MALATHION, DISSOLVED (UG/L)
SEP 1995 20... TIME 1400	E0.008	0.016	<0.001	<0.017	E0.004	<0.003	<0.003	<0.004	<0.002	<0.005

DATE	METHYL AZINPHOS WAT FLT 0.7 U GF, REC (UG/L)	METHYL PARATHION WAT FLT 0.7 U GF, REC (UG/L)	METRIBUZIN SENCOR WATER DISSOLV (UG/L)	MOLINATE WATER FLTRD 0.7 U GF, REC (UG/L)	NAPROPAMIDE WATER FLTRD 0.7 U GF, REC (UG/L)	P,P' DDE DISSOLV (UG/L)	PARATHION, DISSOLVED (UG/L)	PEBULATE WATER FILTRD 0.7 U GF, REC (UG/L)	PENDIMETHALIN WAT FLT 0.7 U GF, REC (UG/L)	PERMETHRIN CIS WAT FLT 0.7 U GF, REC (UG/L)
SEP 1995 20... TIME 1400	<0.001	<0.006	<0.004	<0.004	<0.003	<0.006	<0.004	<0.004	<0.004	<0.005

DATE	PROMETON, WATER, DISS, REC (UG/L)	PRONAMIDE WATER FLTRD 0.7 U GF, REC (UG/L)	PROPCHLOR, WATER, DISS, REC (UG/L)	PROPANIL WATER FLTRD 0.7 U GF, REC (UG/L)	PROPARGITE WATER FLTRD 0.7 U GF, REC (UG/L)	SIMAZINE, WATER, DISS, REC (UG/L)	TEBUTHIURON WATER FLTRD 0.7 U GF, REC (UG/L)	TERBUFOS WATER FLTRD 0.7 U GF, REC (UG/L)	THIOBENCARB WATER FLTRD 0.7 U GF, REC (UG/L)	TRIALLATE WATER FLTRD 0.7 U GF, REC (UG/L)
SEP 1995 20... TIME 1400	0.047	<0.003	<0.007	<0.004	<0.013	0.016	0.029	<0.013	<0.002	<0.001

SUSPENDED SEDIMENT DISCHARGE

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
APR 1995				
18...	1100	53	24	3.4
MAY				
10...	1115	39	9	0.95
26...	1115	364	252	248
JUL				
07...	1415	632	51	87

E: Estimated.

01639140 PINEY CREEK NEAR TANEYTOWN, MD

LOCATION.--Lat 39°39'38", long 77°13'16", Carroll County, Hydrologic Unit 02070009, on left bank at downstream side of bridge on Roop Road, 2.4 mi west of Taneytown, and 4.2 mi upstream from mouth.
DRAINAGE AREA.--31.3 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1990 to current year.

GAGE.--Water-stage recorder. Datum of gage is 383.22 ft above sea level.

REMARKS.--Water-discharge records good except those for estimated daily discharges (ice effect), which are fair.
PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec. 5	1030	682	4.10	June 26	1530	727	4.23
Jan. 15	1915	514	3.59	July 1	1645	1,980	6.95
Jan. 20	0830	*2,000	*6.98	July 6	1930	1,390	5.95

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.1	84	33	87	26	70	10	9.4	7.3	359	3.2	.41
2	6.2	47	27	49	26	47	10	18	6.3	83	2.8	.29
3	5.6	13	22	27	22	38	9.8	17	12	34	2.7	.33
4	4.1	9.9	20	19	e18	33	9.4	9.5	8.9	23	2.4	.34
5	3.7	8.7	299	e15	e16	29	9.0	8.7	6.6	18	1.7	.44
6	3.5	8.2	102	21	e15	29	8.6	7.8	5.2	260	21	.43
7	3.4	8.6	63	117	e14	29	8.4	6.5	5.2	139	21	.38
8	3.3	7.8	44	52	e14	49	8.1	5.5	4.8	47	8.1	.52
9	3.6	7.4	34	33	e14	103	8.7	4.9	4.1	28	5.6	8.2
10	4.4	10	127	26	e14	58	12	5.8	3.8	20	4.6	5.7
11	5.3	12	184	21	e13	55	9.3	25	4.5	66	4.2	2.1
12	4.5	8.4	64	22	e12	55	11	12	5.1	20	3.7	.99
13	4.2	7.5	47	33	e11	42	54	8.7	5.1	15	3.2	.61
14	e3.8	7.1	42	43	e11	36	19	13	4.7	12	2.7	.57
15	e3.3	7.0	36	186	e13	31	13	19	3.9	11	2.2	.57
16	e3.3	49	30	137	18	28	11	10	3.2	9.8	1.8	.56
17	e3.1	86	37	66	32	25	10	9.4	2.6	16	1.8	9.4
18	e3.1	31	33	49	36	22	9.8	12	2.3	30	1.7	10
19	e3.1	22	25	43	33	20	9.6	14	1.4	11	1.3	3.8
20	e2.9	15	19	952	39	18	9.0	11	1.3	8.1	1.0	2.1
21	e2.9	146	17	148	45	18	8.4	8.5	1.6	9.1	.96	1.4
22	e3.5	89	16	88	31	18	8.5	7.1	1.4	9.1	.72	1.2
23	9.0	39	16	67	27	16	7.7	6.0	2.2	7.9	.63	1.8
24	16	28	15	57	45	14	8.2	5.5	17	7.3	.61	2.1
25	7.9	23	18	48	28	13	8.3	6.5	14	6.1	.56	2.7
26	6.1	18	14	41	24	12	7.2	17	166	5.3	.49	3.5
27	e4.5	23	11	37	23	11	6.5	9.6	58	4.5	.44	4.1
28	e3.3	252	11	35	147	11	6.2	7.6	26	12	.54	2.5
29	e3.3	78	11	32	---	11	5.3	12	18	14	.52	1.7
30	e3.1	46	9.7	29	---	11	6.2	14	14	6.3	.49	1.2
31	e3.1	---	10	28	---	11	---	9.2	---	4.4	.41	---
TOTAL	141.2	1191.6	1436.7	2608	767	963	322.2	330.2	416.5	1295.9	103.07	69.94
MEAN	4.55	39.7	46.3	84.1	27.4	31.1	10.7	10.7	13.9	41.8	3.32	2.33
MAX	16	252	299	952	147	103	54	25	166	359	21	10
MIN	2.9	7.0	9.7	15	11	11	5.3	4.9	1.3	4.4	.41	.29
CFSM	.15	1.27	1.48	2.69	.88	.99	.34	.34	.44	1.34	.11	.07
IN.	.17	1.42	1.71	3.10	.91	1.14	.38	.39	.50	1.54	.12	.08

e Estimated

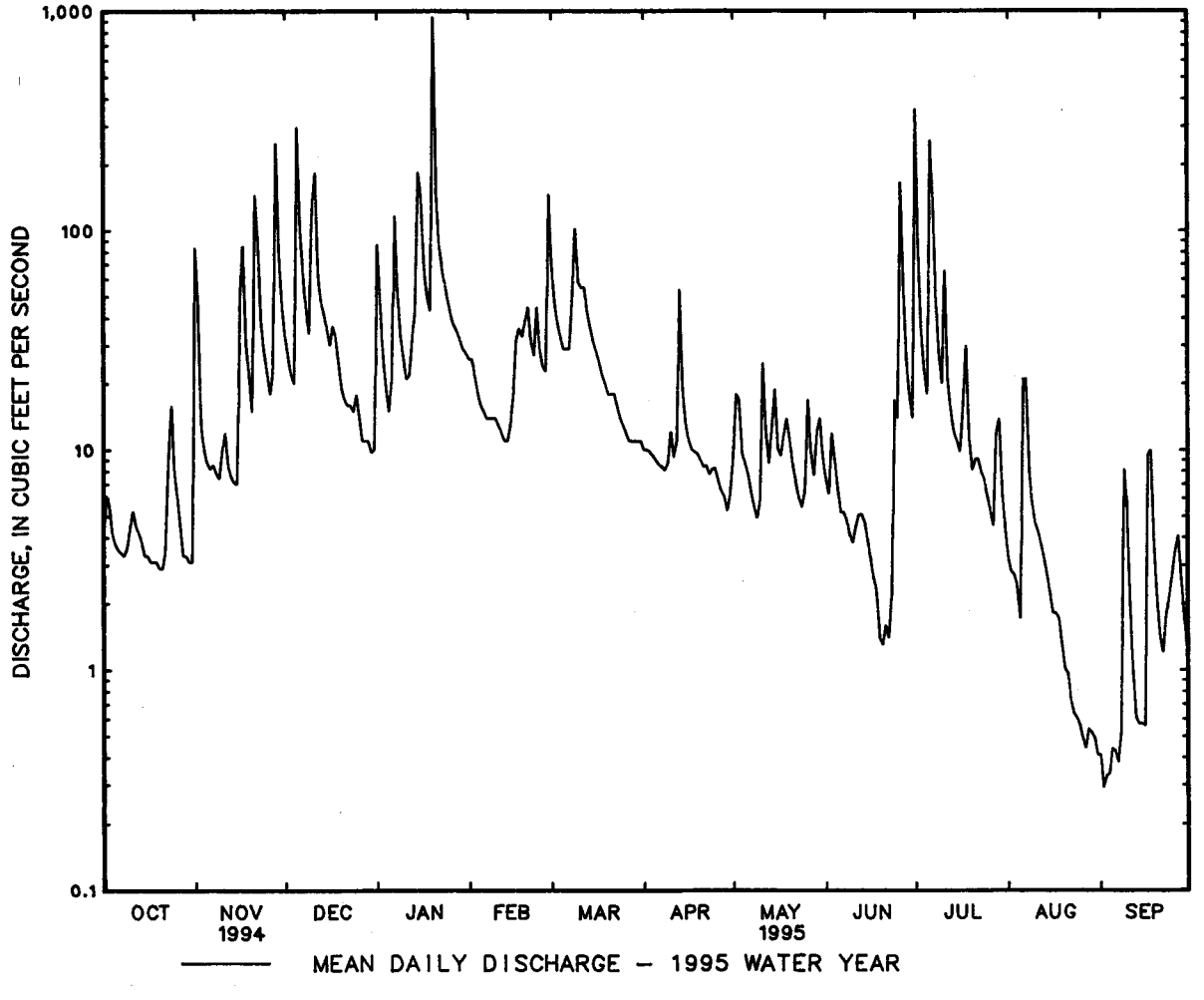
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 1995, BY WATER YEAR (WY)

MEAN	17.5	40.4	73.2	60.2	41.2	126	60.7	21.4	11.7	14.3	8.13	8.11
MAX	57.8	63.3	117	91.1	93.0	237	183	59.1	21.4	41.8	17.3	16.1
(WY)	1991	1993	1994	1991	1994	1993	1993	1990	1990	1995	1994	1993
MIN	3.27	7.84	45.9	18.8	27.1	31.1	10.7	9.45	1.98	.57	1.09	2.33
(WY)	1992	1992	1992	1992	1991	1995	1995	1991	1991	1991	1991	1995

01639140 PINEY CREEK NEAR TANEYTOWN, MD--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1990 - 1995	
ANNUAL TOTAL	17242.4		9645.31			
ANNUAL MEAN	47.2		26.4		39.5	
HIGHEST ANNUAL MEAN					59.2	1993
LOWEST ANNUAL MEAN					24.3	1992
HIGHEST DAILY MEAN	575	Mar 10	952	Jan 20	1730	Dec 5 1993
LOWEST DAILY MEAN	1.2	Jul 13	.29	Sep 2	.00	(a)
ANNUAL SEVEN-DAY MINIMUM	1.6	Aug 8	.37	Sep 1	.03	Aug 2 1991
INSTANTANEOUS PEAK FLOW			2000	Jan 20	2940	Dec 5 1993
INSTANTANEOUS PEAK STAGE			6.98	Jan 20	8.20	Dec 5 1993
INSTANTANEOUS LOW FLOW			.15	(b)	.00	(c)
ANNUAL RUNOFF (CFSM)	1.51		.84		1.26	
ANNUAL RUNOFF (INCHES)	20.49		11.46		17.14	
10 PERCENT EXCEEDS	142		53		80	
50 PERCENT EXCEEDS	13		11		13	
90 PERCENT EXCEEDS	2.4		1.8		2.0	

a Aug. 4, 5, Sept. 2, 3, 1991.
b Sept. 2, 3.
c Aug. 3-9, 17, Sept. 1-4, 1991



01639140 PINEY CREEK NEAR TANEYTOWN, MD--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1991, 1994 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TEMPER-ATURE AIR (DEG C)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3
AUG 1995												
17...	1045	1.5	454	7.3	25.0	27.0	150	41	11	31	7.5	110

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS NO3)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
AUG 1995											
17...	24	46	0.10	12	261	6.6	0.020	1.50	1.50	28	78

01639500 BIG PIPE CREEK AT BRUCEVILLE, MD

LOCATION.--Lat 39°36'45", long 77°14'10", Carroll County, Hydrologic Unit 02070009, on left bank 300 ft downstream from bridge on State Highway 194, 800 ft downstream from Bruceville, 3.5 mi upstream from Detour and confluence with Little Pipe Creek.

DRAINAGE AREA.--102 mi^2.

WATER-DISCHARGE RECORDS

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 sea level.

REMARKS.--Water-discharge records good except those for estimated daily discharges (ice effect), which are fair. Occasional diversion for irrigation upstream from station.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 20	0730	*3,370	*8.45	No other peak greater than base discharge.			

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	40	118	93	170	83	191	66	67	44	242	25	13
2	49	175	82	122	82	140	64	82	42	102	23	12
3	42	68	76	90	75	121	63	81	44	52	23	11
4	37	54	72	82	81	111	62	59	44	42	20	12
5	36	50	688	e75	75	104	59	58	40	48	23	12
6	35	47	252	e90	e71	105	59	53	38	181	94	12
7	35	50	154	401	e68	101	59	49	40	374	69	12
8	33	42	120	166	e66	161	57	47	37	121	39	11
9	33	41	102	117	e66	352	60	45	33	69	33	322
10	34	47	261	102	e68	187	72	49	35	56	31	37
11	32	50	467	92	e70	168	61	74	36	245	29	24
12	32	45	169	97	65	160	67	59	38	76	27	22
13	32	44	133	111	55	138	192	51	40	55	27	19
14	32	42	122	117	56	127	90	62	36	47	23	18
15	32	40	111	354	62	118	75	77	34	43	23	19
16	32	97	100	352	89	112	68	55	33	40	21	16
17	31	212	110	173	e95	106	65	53	28	57	20	80
18	30	94	101	143	e90	97	64	65	28	113	19	55
19	30	77	89	131	e90	93	64	78	26	49	19	31
20	31	65	81	1680	90	91	61	62	26	38	18	26
21	32	172	76	354	95	93	60	52	24	36	17	26
22	31	192	74	220	79	90	60	48	26	36	16	25
23	65	96	73	172	75	84	55	44	26	34	15	32
24	89	79	73	148	109	81	61	42	64	33	14	27
25	44	72	79	131	81	75	60	44	62	36	13	28
26	38	66	70	116	75	73	54	78	78	30	12	46
27	36	64	65	106	74	72	52	55	71	29	14	39
28	34	474	63	103	351	73	49	48	50	38	14	30
29	35	167	62	93	---	73	46	66	42	64	15	26
30	34	113	58	89	---	73	49	56	39	33	15	25
31	34	---	e55	85	---	70	---	48	---	27	14	---
TOTAL	1160	2953	4131	6282	2436	3640	1974	1807	1204	2446	765	1068
MEAN	37.4	98.4	133	203	87.0	117	65.8	58.3	40.1	78.9	24.7	35.6
MAX	89	474	688	1680	351	352	192	82	78	374	94	322
MIN	30	40	55	75	55	70	46	42	24	27	12	11
CFSM	.37	.97	1.31	1.99	.85	1.15	.65	.57	.39	.77	.24	.35
IN.	.42	1.08	1.51	2.29	.89	1.33	.72	.66	.44	.89	.28	.39

e Estimated

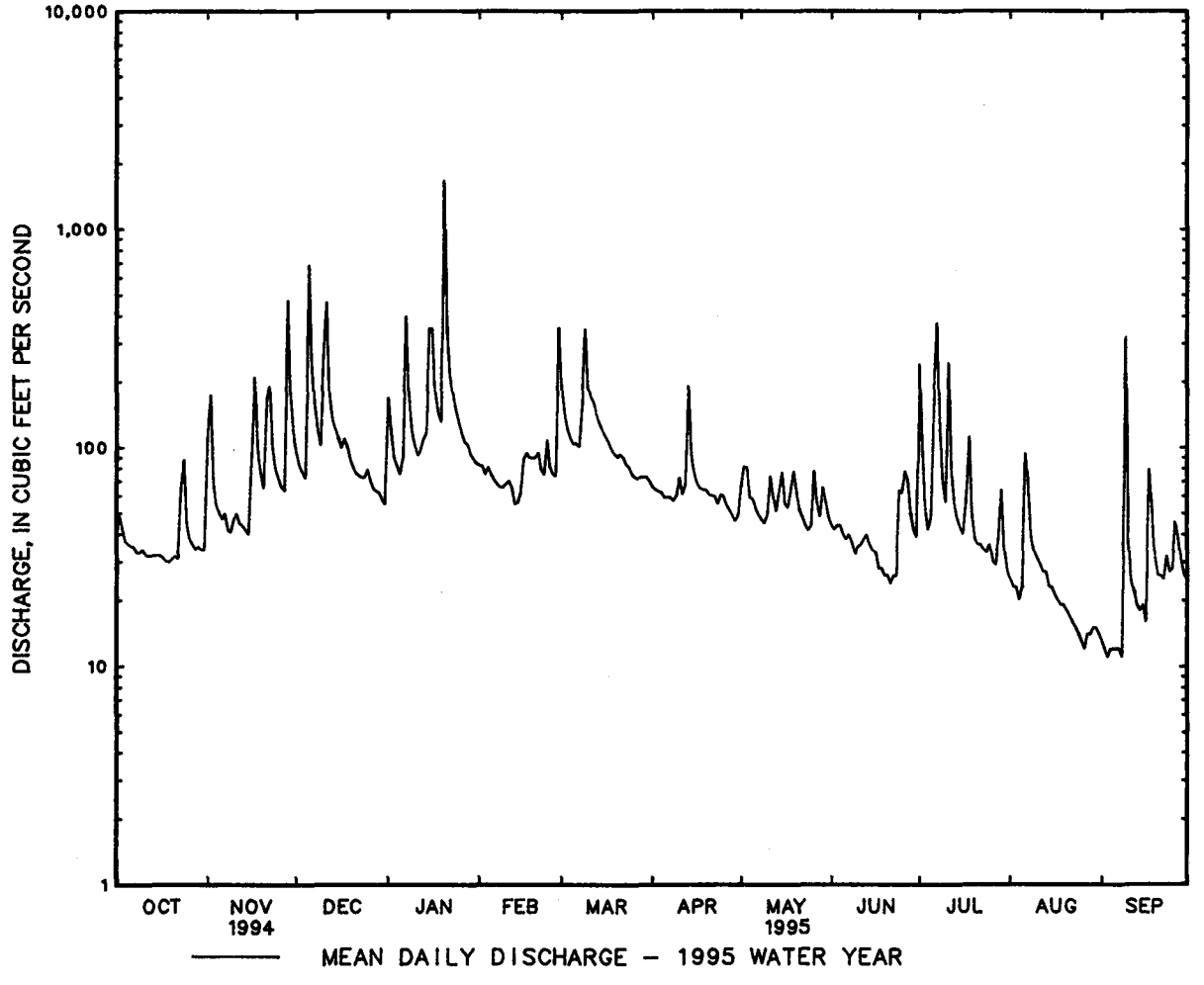
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1948 - 1995, BY WATER YEAR (WY)

MEAN	59.0	84.2	123	144	175	195	165	120	98.4	70.1	53.8	63.1
MAX	390	289	356	401	387	613	514	383	891	295	212	729
(WY)	1980	1948	1973	1979	1979	1994	1993	1989	1972	1949	1955	1975
MIN	14.9	16.7	18.9	22.5	58.1	71.4	61.3	38.6	19.8	10.4	4.39	13.0
(WY)	1964	1966	1966	1966	1954	1981	1965	1965	1966	1966	1966	1963

01639500 BIG PIPE CREEK AT BRUCEVILLE, MD--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1948 - 1995	
ANNUAL TOTAL	60918		29866			
ANNUAL MEAN	167		81.8		112	
HIGHEST ANNUAL MEAN					227	1972
LOWEST ANNUAL MEAN					50.8	1966
HIGHEST DAILY MEAN	1600	Mar 10	1680	Jan 20	14400	Jun 22 1972
LOWEST DAILY MEAN	25	(a)	11	(b)	1.0	Sep 12 1966
ANNUAL SEVEN-DAY MINIMUM	27	Aug 8	12	Sep 2	1.4	Sep 7 1966
INSTANTANEOUS PEAK FLOW			3370	Jan 20	(c)28000	Sep 26 1975
INSTANTANEOUS PEAK STAGE			8.45	Jan 20	18.98	Sep 26 1975
INSTANTANEOUS LOW FLOW			11	(d)	1.0	Sep 12 1966
ANNUAL RUNOFF (CFSM)	1.64		.80		1.10	
ANNUAL RUNOFF (INCHES)	22.22		10.89		14.94	
10 PERCENT EXCEEDS	423		145		211	
50 PERCENT EXCEEDS	79		60		65	
90 PERCENT EXCEEDS	32		24		24	

a Aug. 10, 11.
b Sept. 3, 8.
c From rating curve extended above 3,900 ft^3/s on the basis of contracted-opening measurement at gage height of 17.86 ft.
d Sept. 3, 8, 16.



01639500 BIG PIPE CREEK AT BRUCEVILLE, MD--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1961, 1982-83, 1994 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TEMPER-ATURE AIR (DEG C)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3
AUG 1995												
17...	1130	18	248	7.2	27.5	26.0	100	31	6.0	6.5	2.8	71

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS NO3)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
AUG 1995											
17...	8.4	17	<0.10	6.3	146	11	0.020	2.40	2.40	23	35

01640980 BEAR BRANCH NEAR THURMONT, MD

LOCATION.--Lat 39°37'15", long 77°26'24", Frederick County, Hydrologic Unit 02070009, on right bank 250 ft upstream from culvert under Maryland Route 77, 350 ft upstream from Hunting Creek, and 1.5 mi west of Thurmont.
DRAINAGE AREA.--0.38 mi^2.

PERIOD OF RECORD.--June 1990 to current year.

GAGE.--Water-stage recorder. Datum of gage is 763.85 ft above sea level.

REMARKS.--Records fair except those for estimated daily discharges (missing record), which are poor. Several measurements of water temperature were made during the year. Water-quality data for some prior years have been collected at this location.

PEAK DISCHARGES FOR CURRENT PERIOD.--Peak discharges greater than base discharge of 5 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 15	1700	*4.2	*4.01	No peak greater than base discharge.			

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.11	.31	.31	.33	.57	.42	.44	.33	.53	.32	.17	e.10
2	.11	.22	.31	.31	.52	.44	.42	.38	.48	.28	.17	e.09
3	.11	.19	.31	.30	.49	.48	.42	.35	.47	.26	.16	e.08
4	.11	.18	.33	.29	e.47	.50	.42	.35	.44	.25	.16	e.07
5	.10	.18	.97	.29	e.45	.50	.42	.35	.41	.24	.17	e.06
6	.10	.18	.83	.30	e.44	.50	.42	.35	.40	.25	.25	e.06
7	.10	.17	.82	.39	e.43	.50	.42	.34	.38	.24	.17	e.06
8	.10	.17	.82	.42	e.42	.53	.42	.33	.38	.25	.16	e.07
9	.10	.16	.82	.42	e.41	.52	.43	.33	.36	.25	.16	e.07
10	.10	.15	.93	.44	.40	.50	.41	.35	.35	.26	.15	e.07
11	.10	.14	.93	.46	.38	.53	.38	.37	.34	.27	.16	e.07
12	.10	.14	.89	.46	.38	.57	.43	.35	.35	.26	.17	e.07
13	.10	.12	.89	.49	.38	.60	.40	.33	.33	.26	.16	.07
14	.10	.12	.89	.51	.36	.66	.38	.39	.35	.26	.17	.07
15	.10	.11	.85	1.7	.35	.74	.35	.36	.30	.26	.16	.07
16	.10	.14	.82	2.7	.35	.76	.35	.36	.28	.26	.15	.07
17	.10	.15	.82	2.0	.32	.75	.35	.43	.26	.24	.14	.16
18	.10	.14	.81	1.6	.35	.65	.37	.51	.26	.24	.14	.09
19	.10	.14	.75	1.4	.35	.63	.36	.48	.23	.24	.15	.08
20	.10	.14	.65	2.8	.35	.60	.35	.46	.22	.24	.14	.08
21	.10	.29	.64	2.8	.35	.61	.36	.47	.24	.24	.14	.08
22	.10	.24	.52	2.3	.35	.60	.35	.46	.22	.24	.12	.09
23	.11	.22	.50	1.8	.35	.55	.35	.44	.24	.23	.13	.09
24	.11	.22	.42	1.5	.35	.52	.38	.43	.42	.22	.13	.08
25	.11	.22	.42	1.2	.35	.50	.36	.54	.41	.24	.12	.12
26	.12	.24	.34	1.0	.35	.49	.34	.47	.33	.23	.13	.10
27	.12	.27	.30	.96	.33	.46	.32	.43	.34	.19	.12	.10
28	.12	.42	.29	.84	.42	.46	.32	.51	.32	.22	.12	.10
29	.12	.30	.29	.75	---	.46	.33	.52	.33	.19	.13	.10
30	.12	.29	.29	.68	---	.46	.35	.50	.31	.18	.11	.10
31	.13	---	.29	.62	---	.46	---	.52	---	.17	e.11	---
TOTAL	3.30	5.96	19.05	32.06	11.02	16.95	11.40	12.79	10.28	7.48	4.62	2.52
MEAN	.11	.20	.61	1.03	.39	.55	.38	.41	.34	.24	.15	.084
MAX	.13	.42	.97	2.8	.57	.76	.44	.54	.53	.32	.25	.16
MIN	.10	.11	.29	.29	.32	.42	.32	.33	.22	.17	.11	.06
CFSM	.28	.52	1.62	2.72	1.04	1.44	1.00	1.09	.90	.63	.39	.22
IN.	.32	.58	1.86	3.14	1.08	1.66	1.12	1.25	1.01	.73	.45	.25

e Estimated

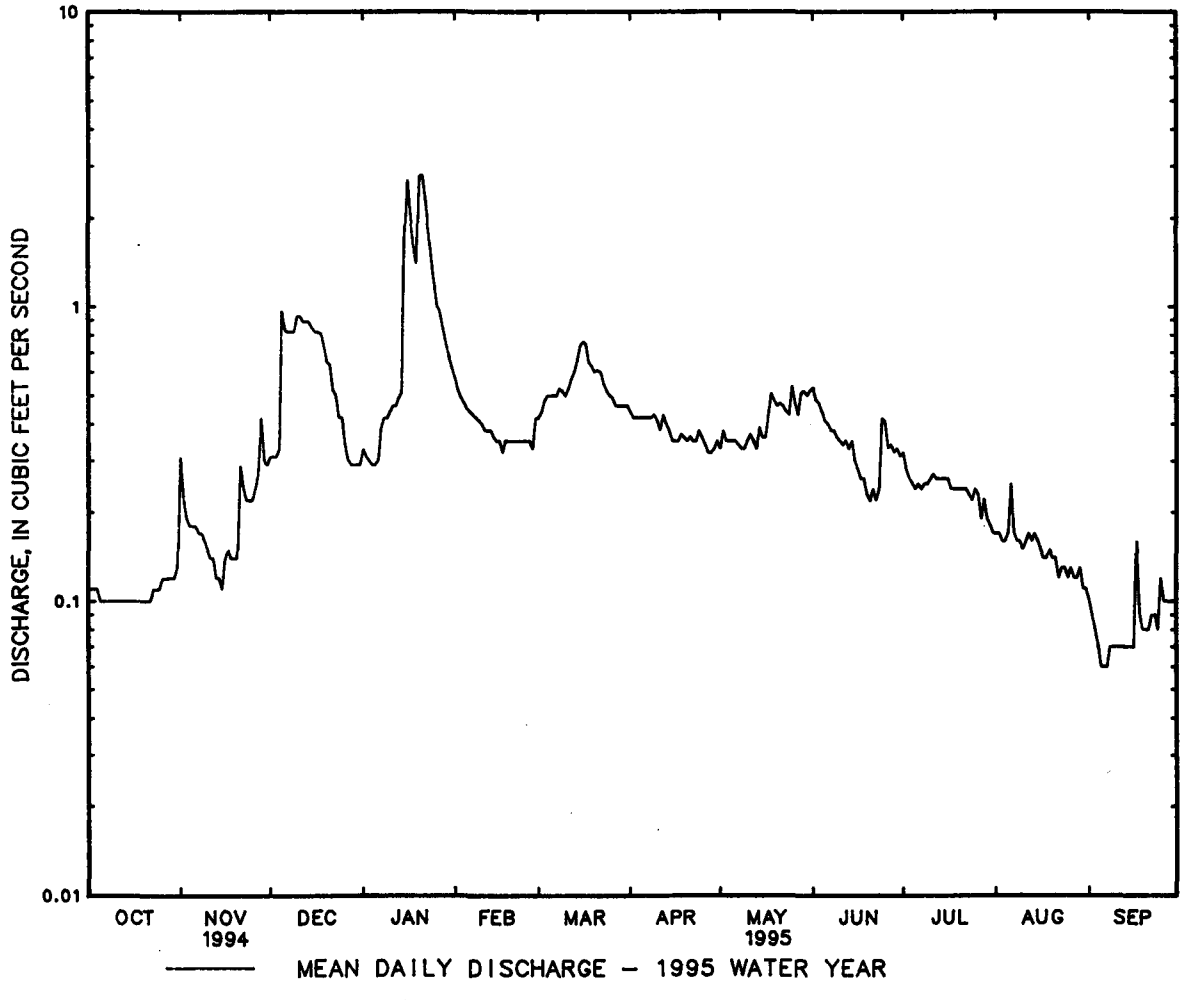
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 1995, BY WATER YEAR (WY)

MEAN	.26	.55	.91	.80	.58	1.83	1.30	.57	.37	.21	.15	.13
MAX	.86	1.26	1.74	1.65	1.11	3.40	2.14	.70	.65	.34	.24	.22
(WY)	1991	1993	1993	1991	1994	1993	1993	1992	1992	1992	1992	1990
MIN	.043	.066	.14	.15	.24	.55	.38	.41	.18	.096	.052	.057
(WY)	1992	1992	1992	1992	1992	1995	1995	1995	1991	1991	1991	1991

01640980 BEAR BRANCH NEAR THURMONT, MD--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1990 - 1995	
ANNUAL TOTAL	244.10		137.43			
ANNUAL MEAN	.67		.38		.63	
HIGHEST ANNUAL MEAN					.95	1993
LOWEST ANNUAL MEAN					.38	1995
HIGHEST DAILY MEAN	6.9	Mar 25	2.8	Jan 20	18	Mar 28 1993
LOWEST DAILY MEAN	.10	(a)	(e).06	(b)	.04	many days
ANNUAL SEVEN-DAY MINIMUM	.10	Aug 4	.07	Sep 4	.04	Aug 23 1991
INSTANTANEOUS PEAK FLOW			4.2	Jan 15	39	Nov 28 1993
INSTANTANEOUS PEAK STAGE			4.01	Jan 15	4.40	Nov 28 1993
INSTANTANEOUS LOW FLOW			.07	(c)	.04	many days
ANNUAL RUNOFF (CFSM)	1.76		.99		1.67	
ANNUAL RUNOFF (INCHES)	23.90		13.45		22.64	
10 PERCENT EXCEEDS	1.8		.65		1.4	
50 PERCENT EXCEEDS	.29		.33		.33	
90 PERCENT EXCEEDS	.10		.10		.08	

a Aug. 4-14, 16, Sept. 15-21.
e Estimated.
b Sept. 5-7.
c May have been lower during period of missing record from Aug. 31 to Sept. 12.



01641510 FISHING CREEK TRIBUTARY NEAR LEWISTOWN, MD

LOCATION.--Lat 39°32'09", long 77°26'48", Frederick County, Hydrologic Unit 02070009, on right bank 800 ft upstream from entrance to Lewistown State Fish Hatchery, 1.2 mi west of U.S. Route 15, 1.7 mi west of Lewistown, and 0.6 mi upstream from Fishing Creek.

DRAINAGE AREA.--0.40 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1987 to current year.

GAGE.--Water-stage recorder. Datum of gage is 542.30 ft above sea level.

REMARKS.--No estimated daily discharges. Records good except those below 0.30 ft^3/s, which are poor.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 10 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 20	0545	*2.8	*2.69	No peak greater than base discharge.			

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.10	.22	.09	.18	.45	.32	.36	.34	.26	.31	.09	.05
2	.11	.08	.09	.12	.43	.30	.34	.41	.25	.19	.09	.05
3	.08	.07	.09	.12	.41	.30	.34	.28	.26	.16	.09	.05
4	.07	.07	.08	.11	.39	.30	.33	.27	.25	.15	.09	.05
5	.06	.07	.34	.11	.37	.30	.32	.26	.23	.15	.17	.05
6	.05	.07	.13	.13	.35	.32	.32	.24	.24	.15	.25	.05
7	.05	.07	.12	.29	.34	.34	.32	.24	.23	.15	.12	.05
8	.06	.07	.10	.17	.34	.40	.30	.24	.23	.14	.09	.05
9	.06	.07	.10	.15	.32	.43	.31	.24	.21	.13	.09	.05
10	.07	.10	.20	.14	.32	.39	.30	.26	.22	.13	.09	.05
11	.06	.09	.20	.14	.30	.43	.28	.35	.22	.13	.09	.05
12	.06	.09	.13	.14	.28	.41	.40	.27	.20	.13	.09	.05
13	.06	.09	.13	.14	.27	.39	.36	.26	.20	.12	.07	.05
14	.06	.09	.13	.14	.27	.39	.30	.49	.19	.12	.07	.05
15	.05	.09	.13	.61	.27	.39	.28	.35	.18	.12	.07	.05
16	.05	.18	.13	.42	.32	.39	.27	.30	.17	.17	.06	.05
17	.06	.11	.14	.30	.30	.39	.27	.35	.17	.11	.06	.23
18	.05	.09	.13	.30	.27	.39	.27	.36	.17	.12	.05	.08
19	.05	.08	.13	.32	.27	.39	.27	.35	.16	.12	.05	.07
20	.05	.07	.12	1.3	.27	.39	.27	.33	.16	.12	.06	.08
21	.06	.23	.12	.80	.27	.45	.26	.32	.15	.11	.06	.07
22	.06	.10	.12	.73	.28	.46	.26	.31	.15	.11	.06	.08
23	.09	.09	.12	.72	.28	.46	.26	.30	.20	.11	.06	.07
24	.07	.09	.12	.72	.30	.45	.27	.29	.30	.11	.06	.06
25	.07	.09	.12	.71	.30	.44	.27	.31	.36	.11	.05	.12
26	.07	.09	.12	.64	.32	.44	.27	.32	.34	.10	.05	.08
27	.07	.14	.12	.60	.33	.43	.27	.28	.24	.10	.05	.07
28	.07	.25	.12	.59	.47	.38	.26	.33	.22	.12	.06	.05
29	.07	.11	.12	.54	---	.36	.25	.34	.19	.11	.06	.05
30	.07	.10	.12	.49	---	.36	.29	.30	.17	.09	.06	.05
31	.07	---	.13	.47	---	.36	---	.27	---	.09	.06	---
TOTAL	2.03	3.16	4.04	12.34	9.09	11.95	8.87	9.56	6.52	4.08	2.47	1.96
MEAN	.065	.11	.13	.40	.32	.39	.30	.31	.22	.13	.080	.065
MAX	.11	.25	.34	1.3	.47	.46	.40	.49	.36	.31	.25	.23
MIN	.05	.07	.08	.11	.27	.30	.25	.24	.15	.09	.05	.05
CFSM	.16	.26	.33	1.00	.81	.96	.74	.77	.54	.33	.20	.16
IN.	.19	.29	.38	1.15	.85	1.11	.82	.89	.61	.38	.23	.18

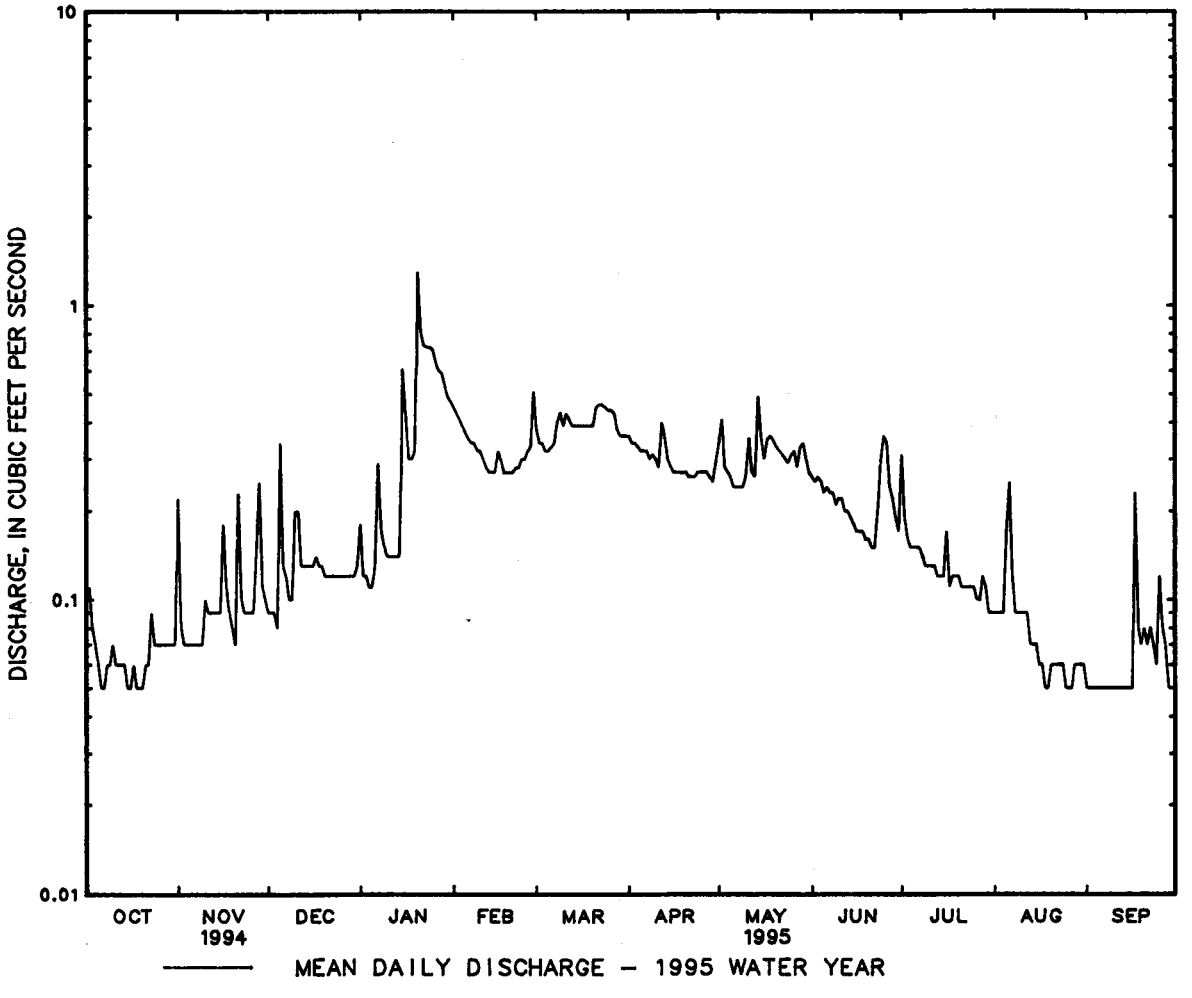
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 1995, BY WATER YEAR (WY)

MEAN	.16	.31	.58	.55	.56	1.16	1.12	1.14	.48	.27	.18	.14
MAX	.29	.95	2.06	1.39	.95	3.05	3.00	2.47	.76	.62	.50	.34
(WY)	1991	1993	1993	1991	1994	1993	1993	1988	1992	1992	1992	1992
MIN	.065	.11	.12	.21	.26	.39	.30	.31	.22	.13	.080	.065
(WY)	1995	1995	1989	1992	1992	1995	1995	1995	1995	1994	1995	1995

01641510 FISHING CREEK TRIBUTARY NEAR LEWISTOWN, MD--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1988 - 1995	
ANNUAL TOTAL	211.79		76.07			
ANNUAL MEAN	.58		.21		.55	
HIGHEST ANNUAL MEAN					1.04	1993
LOWEST ANNUAL MEAN					.21	1995
HIGHEST DAILY MEAN	4.3	Mar 30	1.3	Jan 20	11	May 19 1988
LOWEST DAILY MEAN	.05	(a)	.05	(b)	.05	(c)
ANNUAL SEVEN-DAY MINIMUM	.05	Oct 14	.05	Sep 1	.05	Sep 1 1995
INSTANTANEOUS PEAK FLOW			2.8	Jan 20	33	May 18 1988
INSTANTANEOUS PEAK STAGE			2.69	Jan 20	3.25	Jul 25 1992
INSTANTANEOUS LOW FLOW			.04	(d)	.03	(f)
ANNUAL RUNOFF (CFSM)	1.45		.52		1.39	
ANNUAL RUNOFF (INCHES)	19.70		7.07		18.83	
10 PERCENT EXCEEDS	1.8		.39		1.1	
50 PERCENT EXCEEDS	.19		.15		.31	
90 PERCENT EXCEEDS	.07		.06		.09	

a Oct. 6, 7, 15, 16, 18-20.
b Oct. 6, 7, 15, 16, 18-20, Aug. 18, 19, 25-27, Sept. 1-16, 28-30.
c Oct. 1, 2, 1991, Oct. 6, 7, 15, 16, 18-20, 1994, Aug. 18, 19, 25-27, Sept. 1-16, 28-30, 1995.
d Sept. 5-7, 14, 15.
f Aug. 15, 1988, Aug. 29-31, Sept. 1-3, 14, 15, 1993.



01643000 MONOCACY RIVER AT JUG BRIDGE NEAR FREDERICK, MD

LOCATION.--Lat 39°24'13", long 77°21'58", Frederick County, Hydrologic Unit 02070009, on right bank 500 ft downstream from Interstate 70 highway bridge, 0.4 mi downstream from Linganore Creek, 2.0 mi east of Frederick, and 16.9 mi upstream from mouth.

DRAINAGE AREA.--817 mi^2.

PERIOD OF RECORD.--October 1929 to current year. Monthly discharge only for October, November 1929, published in WSP 1302.

REVISED RECORDS.--WSP 711: 1930.

GAGE.--Water-stage recorder. Nonrecording gage at site 0.2 mile downstream. Datum of gage is 231.92 ft above sea level.

REMARKS.--Records good except those for estimated daily discharges (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. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in June 1889 reached a stage of 30 ft, from floodmarks, discharge, 56,000 ft^3/s.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 8,800 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 16	1000	10,500	11.96	Jan. 21	0500	*18,100	*16.18

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	259	318	915	757	786	2230	457	351	408	654	155	75
2	373	1170	747	1540	766	1330	434	442	367	2170	142	73
3	331	688	658	961	724	1050	427	624	347	939	130	70
4	279	406	602	683	688	908	417	539	340	582	127	67
5	246	331	2720	e460	e640	831	396	428	320	474	128	68
6	224	304	4420	e450	e700	814	386	396	292	504	283	68
7	214	282	1650	1790	e800	864	379	364	283	3420	511	67
8	205	263	1230	2000	e660	907	374	338	274	1510	429	67
9	200	250	950	1120	e530	2190	385	323	252	730	248	76
10	197	266	1040	899	e500	1760	408	328	246	535	196	275
11	196	280	4150	778	e500	1330	430	428	265	565	177	145
12	192	353	1950	731	e470	1390	436	522	270	713	168	100
13	190	292	1290	785	e410	1230	833	407	274	447	155	87
14	188	264	1100	891	e400	1080	884	452	277	363	148	79
15	186	254	971	1940	e430	982	567	639	271	319	139	75
16	183	347	870	8310	562	908	481	573	231	292	128	73
17	178	1500	850	2700	722	846	438	469	209	297	122	121
18	177	1100	892	1830	807	773	425	490	189	359	113	167
19	177	689	794	1540	789	709	416	571	178	411	103	162
20	179	562	697	8630	843	672	400	535	172	287	105	132
21	177	622	634	11600	933	667	387	443	165	239	99	110
22	175	3260	594	2830	862	668	387	386	169	227	93	110
23	293	1210	573	2070	704	628	375	351	180	213	87	103
24	358	775	555	1710	749	591	374	326	543	202	83	104
25	303	623	565	1480	799	548	385	338	1080	214	80	117
26	245	557	563	1280	644	514	372	877	2950	227	81	116
27	219	515	507	1130	630	493	344	764	2390	227	77	135
28	202	2830	477	1030	1550	481	329	489	1500	196	71	128
29	194	3000	460	961	---	484	313	542	938	225	75	115
30	191	1260	440	870	---	485	317	662	720	227	78	104
31	192	---	414	827	---	476	---	500	---	175	76	---
TOTAL	6923	24571	34278	64583	19598	28839	12956	14897	16100	17943	4607	3189
MEAN	223	819	1106	2083	700	930	432	481	537	579	149	106
MAX	373	3260	4420	11600	1550	2230	884	877	2950	3420	511	275
MIN	175	250	414	450	400	476	313	323	165	175	71	67
CFSM	.27	1.00	1.35	2.55	.86	1.14	.53	.59	.66	.71	.18	.13
IN.	.32	1.12	1.56	2.94	.89	1.31	.59	.68	.73	.82	.21	.15

e Estimated

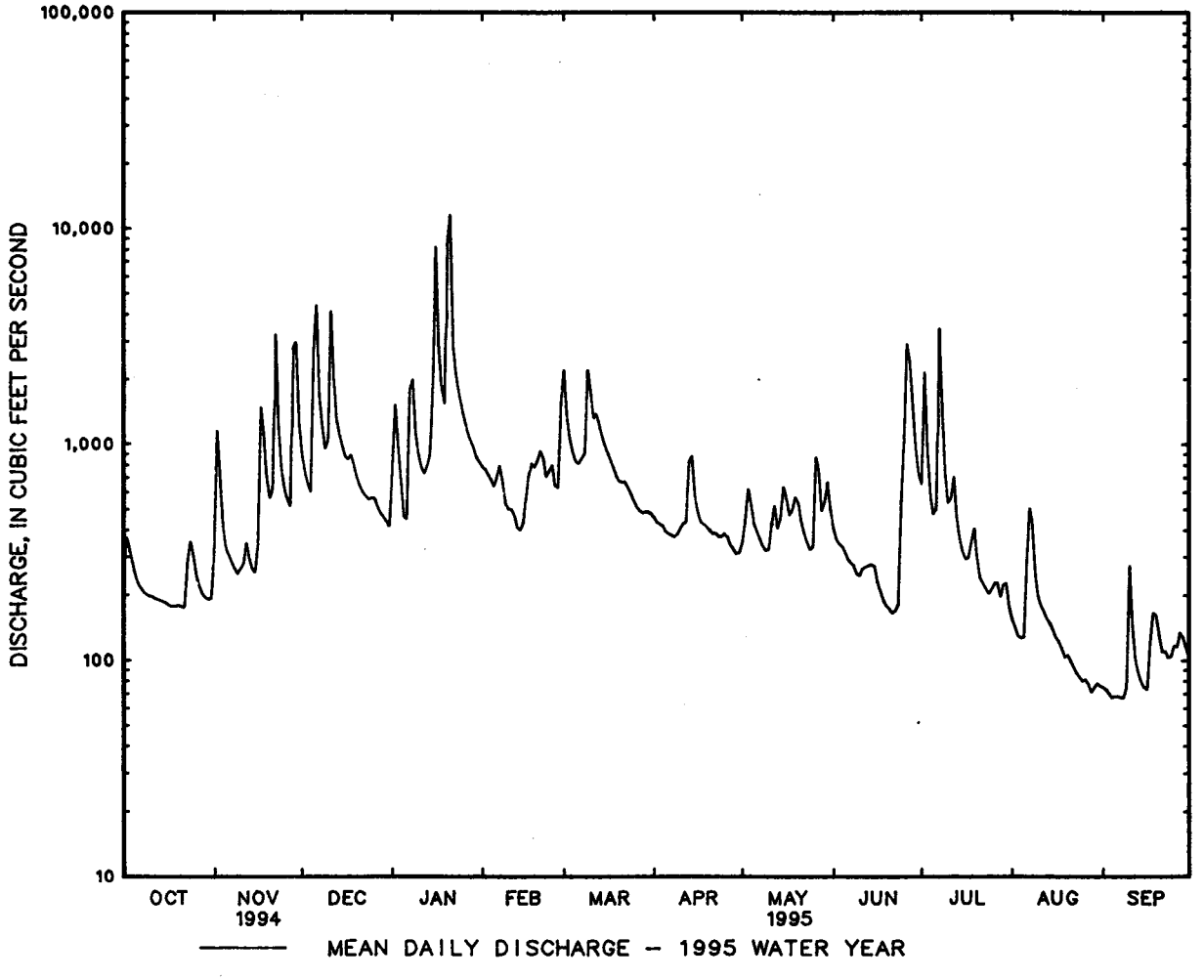
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1930 - 1995, BY WATER YEAR (WY)

MEAN	502	712	1027	1171	1454	1818	1537	1017	698	445	406	470
MAX	3943	2504	3007	3664	4062	5851	4533	3773	6826	2571	3233	5165
(WY)	1977	1933	1973	1979	1984	1993	1983	1989	1972	1949	1933	1975
MIN	46.8	65.1	108	123	175	589	432	296	158	64.5	36.4	59.9
(WY)	1931	1931	1966	1981	1931	1981	1995	1963	1966	1966	1966	1963

01643000 MONOCACY RIVER AT JUG BRIDGE NEAR FREDERICK, MD--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1930 - 1995	
ANNUAL TOTAL	444728		248484			
ANNUAL MEAN	1218		681		935	
HIGHEST ANNUAL MEAN					1834	1972
LOWEST ANNUAL MEAN					345	1931
HIGHEST DAILY MEAN	12000	Mar 28	11600	Jan 21	74000	Jun 23 1972
LOWEST DAILY MEAN	159	Aug 11	67	(a)	19	(b)
ANNUAL SEVEN-DAY MINIMUM	170	Sep 9	69	Sep 2	19	Sep 7 1966
INSTANTANEOUS PEAK FLOW			18100	Jan 21	81600	Jun 23 1972
INSTANTANEOUS PEAK STAGE			16.18	Jan 21	(c)35.90	Jun 23 1972
INSTANTANEOUS LOW FLOW			64	Sep 9	17	(d)
ANNUAL RUNOFF (CFSM)	1.49		.83		1.14	
ANNUAL RUNOFF (INCHES)	20.25		11.31		15.55	
10 PERCENT EXCEEDS	3190		1310		1970	
50 PERCENT EXCEEDS	565		429		470	
90 PERCENT EXCEEDS	196		119		123	

a Sept. 4, 7, 8.
b Sept. 7-13, 1966.
c From floodmark.
d Sept. 11 and 13, 1966.



01643020 MONOCACY RIVER AT REICH'S FORD BRIDGE NEAR FREDERICK, MD

LOCATION.--Lat 39°23'16", long 77°22'40", Frederick County, Hydrologic Unit 02070009, at Reich's Ford Bridge, 1.1 mi downstream from U.S. Highway 40, 1.2 mi downstream from gaging station, 2 mi southeast of Frederick, and 15.0 mi upstream from mouth.
PERIOD OF RECORD.--Water years 1961 to current year.
PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: October 1960 to March 1993.
SUSPENDED-SEDIMENT DISCHARGE: October 1960 to March 1993.
REMARKS.--Water temperatures are measured daily in field by local observer at time of sampling. Water-discharge records for Monocacy River at Jug bridge near Frederick (station 01643000) are used for computation of sediment loads. Prior to 1970, published as Monocacy River at Jug Bridge near Frederick (station 01643000).
EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE (water years 1961-72, 1975, 1977, 1980-87, 1989): Maximum daily, 32.0°C, July 21, 1980; minimum daily, 0.0°C on many days during winter periods.
SEDIMENT CONCENTRATION (water years 1961-1992): Maximum daily mean, 2,000 mg/L, July 10, 1970; minimum daily mean, 1 mg/L on many days in water years 1961-67, 1970, 1972, 1982, 1985, 1989.
SEDIMENT LOAD (water years 1961-1992): Maximum daily, 134,000 tons, June 22, 1972; minimum daily, 0.25 ton, Oct. 14, 1988.
EXTREMES FOR CURRENT PERIOD.--
SEDIMENT CONCENTRATION: Maximum daily mean, 504 mg/L, Nov. 23; minimum daily mean, 1 mg/L, Oct. 21-23, Feb. 7-11.
SEDIMENT LOAD: Maximum daily, 16,500 tons, Nov. 23; minimum daily, 0.58 ton, Oct. 23.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TEMPER-ATURE AIR (DEG C)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
OCT 1994												
31...	1200	189	397	7.7	12.0	18.0	756	10.8	101	150	46	8.1
NOV												
29...	1115	2910	188	7.3	5.5	12.0	760	11.2	89	68	19	5.1
JAN 1995												
11...	1145	778	265	8.0	2.0	-0.5	765	12.9	93	93	27	6.1
APR												
05...	1045	395	279	8.7	8.0	12.5	752	12.4	107	110	33	6.7

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS NO3)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)
OCT 1994												
31...	18	4.6	108	132	21	33	<0.10	4.0	232	15	0.010	3.40
NOV												
29...	6.3	4.5	41	50	16	13	<0.10	8.0	131	7.9	0.010	1.80
JAN 1995												
11...	10	2.8	66	81	18	21	<0.10	7.7	157	13	0.020	2.90
APR												
05...	12	2.3	76	93	16	23	0.10	1.3	158	12	0.040	2.80

DATE	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)
OCT 1994											
31...	3.40	0.020	0.30	0.40	0.230	0.210	0.220	38	30	3.3	--
NOV											
29...	1.80	0.090	0.90	0.60	0.290	0.190	0.170	270	19	7.0	1.9
JAN 1995											
11...	2.90	0.080	0.30	0.30	0.080	0.080	0.080	85	16	2.8	0.40
APR											
05...	2.80	0.020	0.30	0.30	0.120	0.110	0.100	43	23	2.2	0.40

01643020 MONOCACY RIVER AT REICH'S FORD BRIDGE NEAR FREDERICK, MD--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

ORGANIC COMPOUNDS IN WHOLE FISH TISSUE, FISH TYPE--Shorthead Redhorse (Moxostoma macrolepidotum)

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	LIPIDS, BIOTA, WH ORG WW, REC PERCENT	ALDRIN, BIOTA, WH ORG WW, REC (UG/KG)	ALPHA-BHC, BIOTA, WH ORG WW, REC (UG/KG)	BENZENE HEXACHLORO- BIOTA, WH ORG WW, REC (UG/KG)	BETA-BHC, BIOTA, WH ORG WW, REC (UG/KG)	CIS-CHLORDANE, BIOTA, WH ORG WW, REC (UG/KG)	CIS-NONACHLOR, BIOTA, WH ORG WW, REC (UG/KG)	DCPA, BIOTA, WW REC (UG/KG)	DELTA-BHC, BIOTA, WH ORG WW, REC (UG/KG)
SEP 1995 12...	1135	100	16.8	<5.00	<60.0	<5.00	<6.80	28.0	7.50	<5.00	<12.0

DATE	DIELDRIN, BIOTA, WH ORG WW, REC (UG/KG)	ENDRIN, BIOTA, WH ORG WW, REC (UG/KG)	HEPTACHLOR EPOXIDE BIOTA, WH ORG WW, REC (UG/KG)	HEPTACHLOR, BIOTA, WH ORG WW, REC (UG/KG)	LINDANE BIOTA, WH ORG WW, REC (UG/KG)	METHOXY CHLOR, O,P'-, BIOTA, WH ORG WW, REC (UG/KG)	METHOXY CHLOR, P,P'-, BIOTA, WH ORG WW, REC (UG/KG)	MIREX, BIOTA, WH ORG WW, REC (UG/KG)	O,P'-DDD, BIOTA, WH ORG WW, REC (UG/KG)	O,P'-DDE, BIOTA, WH ORG WW, REC (UG/KG)
SEP 1995 12...	24.0	<5.00	7.70	12.0	<5.00	<10.0	<10.0	<5.00	<5.00	6.90

DATE	O,P'-DDT, BIOTA, WH ORG WW, REC (UG/KG)	OXYCHLORDANE, BIOTA, WH ORG WW, REC (UG/KG)	P,P'-DDD, BIOTA, WH ORG WW, REC (UG/KG)	P,P'-DDE, BIOTA, WH ORG WW, REC (UG/KG)	P,P'-DDT, BIOTA, WH ORG WW, REC (UG/KG)	PCB, BIOTA, WH ORG WW, REC (UG/KG)	PENTACHLORO ANISOLE BIOTA, WH ORG WW, REC (UG/KG)	TOXAPHENE, BIOTA, WH ORG WW, REC (UG/KG)	TRANS-CHLORDANE, BIOTA, WH ORG WW, REC (UG/KG)	TRANS-NONACHLOR, BIOTA, WH ORG WW, REC (UG/KG)
SEP 1995 12...	<10.0	26.0	E18.0	200	E30.0	390	13.0	<330	13.0	34.0

TRACE ELEMENTS IN FISH LIVER TISSUES, FISH TYPE--Shorthead Redhorse (Moxostoma macrolepidotum)

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	ALUMINUM, BIOTA, TISSUE, DRY WGT REC (UG/G)	ANTIMONY, BIOTA, TISSUE, DRY WGT REC (UG/G)	ARSENIC BIOTA, TISSUE, DRY WGT REC (UG/G)	BARIUM, BIOTA, TISSUE, DRY WGT REC (UG/G)	BERYLLIUM-, BIOTA, TISSUE, DRY WGT REC (UG/G)	BORON, BIOTA, TISSUE, DRY WGT REC (UG/G)	CADMIUM BIOTA, TISSUE, DRY WGT REC (UG/G)	CHROMIUM-, BIOTA, TISSUE, DRY WGT REC (UG/G)	COBALT, BIOTA TISSUE, DRY WGT REC (UG/G)	COPPER, BIOTA, TISSUE, DRY WGT REC (UG/G)
SEP 1995 12...	1230	100	4.7	<0.3	<0.3	<0.1	<0.3	1.0	1.5	0.7	0.4	9.8

DATE	IRON, BIOTA, TISSUE, DRY WGT REC (UG/G)	LEAD, BIOTA, TISSUE, DRY WGT REC (UG/G)	MANGANESE, BIOTA, TISSUE, DRY WGT REC (UG/G)	MERCURY BIOTA, TISSUE, DRY WGT REC (UG/G)	MOLYBDENUM, BIOTA, TISSUE, DRY WGT REC (UG/G)	NICKEL, BIOTA, TISSUE, DRY WGT REC (UG/G)	SELENIUM, BIOTA, TISSUE, DRY WGT REC (UG/G)	SILVER, BIOTA, TISSUE, DRY WGT REC (UG/G)	STRONTIUM, BIOTA, TISSUE, DRY WGT REC (UG/G)	URANIUM BIOTA, TISSUE, DRY WGT REC (UG/G)	VANADIUM BIO TIS LIVER DRY WFT REC (UG/G)	ZINC, BIOTA, TISSUE, DRY WGT REC (UG/G)
SEP 1995 12...	710	<0.3	6.4	0.4	1.9	0.5	6.8	0.3	0.5	<0.3	1.2	54

01643020 MONOCACY RIVER AT REICH'S FORD BRIDGE NEAR FREDERICK, MD--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

BOTTOM MATERIAL SEDIMENT

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	CARBON, INORG, SED, BM WS,<2MM DW, REC (G/KG)	CARBON, ORGANIC SED, BM WS,<2MM DW, REC (G/KG)	CARBON, ORG + INORG SED, BM WS,<2MM DW, REC (G/KG)	BENZO (A) PYRENE SED, BM WS,<2MM DW, REC (UG/KG)	INDENO 123-CD PYRENE SED, BM WS,<2MM DW, REC (UG/KG)	2,2'-BI QUINO-LINE, SED, BM WS,<2MM DW, REC (UG/KG)	QUINO-LINE, SED, BM WS,<2MM DW, REC (UG/KG)	PHENAN-THRI-DINE SED, BM WS,<2MM DW, REC (UG/KG)	ISO-QUINO-LINE, SED, BM WS,<2MM DW, REC (UG/KG)	TOLUENE 2,4-DI-NITRO- SED, BM WS,<2MM DW, REC (UG/KG)
AUG 1995 01...	1000	146	<0.100	22.0	22.0	150	140	<50	<50	<50	E22	<50

DATE	TOLUENE 2,6-DI-NITRO- SED, BM WS,<2MM DW, REC (UG/KG)	BENZO K FLUOR-ANTHENE SED, BM WS,<2MM DW, REC (UG/KG)	9H-FLU-ORENE, 1METHYL SED, BM WS,<2MM DW, REC (UG/KG)	9H-FLU-ORENE SED, BM WS,<2MM DW, REC (UG/KG)	ISOPHOR ONE SED, BM WS,<2MM DW, REC (UG/KG)	METHANE 2CHLORO ETHOXY SED, BM WS,<2MM DW, REC (UG/KG)	NAPHTH-ALENE, SED, BM WS,<2MM DW, REC (UG/KG)	NAPTHAL ENE, 12 DIMETHL SED, BM WS,<2MM DW, REC (UG/KG)	NAPTHAL ENE, 16 DIMETHL SED, BM WS,<2MM DW, REC (UG/KG)	NAPTHAL ENE,236 TRIMETH SED, BM WS,<2MM DW, REC (UG/KG)	NAPTHAL ENE, 26 DIMETHL SED, BM WS,<2MM DW, REC (UG/KG)	NAPTHAL ENE, 2-CHLORO- SED, BM WS,<2MM DW, REC (UG/KG)
AUG 1995 01...	<50	130	E23	E13	<50	<50	<50	<50	E9.0	<50	E36	<50

DATE	BENZO(GHI)PERYLENE SED, BM WS,<2MM DW, REC (UG/KG)	PHENAN THRENE SED, BM WS,<2MM DW, REC (UG/KG)	PHENAN THRENE 1METHYL SED, BM WS,<2MM DW, REC (UG/KG)	4HCYPEN PHENAN THRENE SED, BM WS,<2MM DW, REC (UG/KG)	PHENOL SED, BM WS,<2MM DW, REC (UG/KG)	3,5-XYLENOL SED, BM WS,<2MM DW, REC (UG/KG)	M-CRE-SOL, 4-CHLORO- SED, BM WS,<2MM DW, REC (UG/KG)	PHENOL C8-ALKYL- SED, BM WS,<2MM DW, REC (UG/KG)	PHTHALATE,BIS2 ETHHEXL SED, BM WS,<2MM DW, REC (UG/KG)	PHTHALATE BUTYL BENZYL- SED, BM WS,<2MM DW, REC (UG/KG)	TRANS-NONA-CHLOR, SED, BM WS,<2MM DW, REC (UG/KG)	OXY-CHLOR-DANE, SED, BM WS,<2MM DW, REC (UG/KG)
AUG 1995 01...	<50	71	E26	E25	E42	<50	<50	<50	E240	61	<1.00	<1.00

DATE	CIS-NONA-CHLOR, SED, BM WS,<2MM DW, REC (UG/KG)	ALDRIN, SED, BM WS,<2MM DW, REC (UG/KG)	CIS-CHLOR-DANE, SED, BM WS,<2MM DW, REC (UG/KG)	TRANS-CHLOR-DANE, SED, BM WS,<2MM DW, REC (UG/KG)	CHLORO-NEB, SED, BM WS,<2MM DW, REC (UG/KG)	DCPA, SED, BM WS,<2MM DW, REC (UG/KG)	O, P'-DDD, SED, BM WS,<2MM DW, REC (UG/KG)	P, P'-DDD, SED, BM WS,<2MM DW, REC (UG/KG)	O, P'-DDE, SED, BM WS,<2MM DW, REC (UG/KG)	P, P'-DDE, SED, BM WS,<2MM DW, REC (UG/KG)	O, P'-DDT, SED, BM WS,<2MM DW, REC (UG/KG)	P, P'-DDT, SED, BM WS,<2MM DW, REC (UG/KG)
AUG 1995 01...	<1.00	<1.00	<1.00	<1.00	<5.00	<5.00	<1.00	<1.00	<1.00	1.30	<2.00	<2.00

DATE	DIEL-DRIN, SED, BM WS,<2MM DW, REC (UG/KG)	ENDO-SULFAN I, SED, BM WS,<2MM DW, REC (UG/KG)	ENDRIN, SED, BM WS,<2MM DW, REC (UG/KG)	ALPHA-BHC, SED, BM WS,<2MM DW, REC (UG/KG)	BETA-BHC, SED, BM WS,<2MM DW, REC (UG/KG)	HEPTA-CHLOR, SED, BM WS,<2MM DW, REC (UG/KG)	HEPTA-CHLOR EPOXIDE SED, BM WS,<2MM DW, REC (UG/KG)	BENZENE HEXA-CHLORO- SED, BM WS,<2MM DW, REC (UG/KG)	ISODRIN SED, BM WS,<2MM DW, REC (UG/KG)	LINDANE SED, BM WS,<2MM DW, REC (UG/KG)	METHOXY CHLOR P,P'-, SED, BM WS,<2MM DW, REC (UG/KG)	METHOXY CHLOR, O,P'-, SED, BM WS,<2MM DW, REC (UG/KG)
AUG 1995 01...	<1.00	<1.00	<2.00	<1.00	<2.00	<1.00	<1.00	<50.0	<1.00	<1.00	<5.00	<5.00

E: Estimated.

01643020 MONOCACY RIVER AT REICH'S FORD BRIDGE NEAR FREDERICK, MD--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

BOTTOM MATERIAL SEDIMENT--Continued

DATE	MIREX, SED, BM WS,<2MM DW, REC (UG/KG)	CIS-PER-METHRIN SED, BM WS,<2MM DW, REC (UG/KG)	TRANS-PER-METHRIN SED, BM WS,<2MM DW, REC (UG/KG)	TOXAPHENE SED, BM WS,<2MM DW, REC (UG/KG)	PHTHALATE, DIBUTYL SED, BM WS,<2MM DW, REC (UG/KG)	PHTHALATE, DIOCTYL SED, BM WS,<2MM DW, REC (UG/KG)	PHTHALATE, DIETHYL SED, BM WS,<2MM DW, REC (UG/KG)	PHTHALATE,DIMETHYL SED, BM WS,<2MM DW, REC (UG/KG)	PYRENE, SED, BM WS,<2MM DW, REC (UG/KG)	ACENAPHTHYLENE SED, BM WS,<2MM DW, REC (UG/KG)	ACENAPHTHENE SED, BM WS,<2MM DW, REC (UG/KG)	ACRIDINE SED, BM WS,<2MM DW, REC (UG/KG)
AUG 1995 01...	<1.00	<5.00	<5.00	<200	67	52	E17	E8.0	180	E26	<50	<50

DATE	DPROPYLAMINE,N NITROSO SED, BM WS,<2MM DW, REC (UG/KG)	DIPHNYLAMINE,N NITROSO SED, BM WS,<2MM DW, REC (UG/KG)	ANTHRACENE SED, BM WS,<2MM DW, REC (UG/KG)	ANTHRACENE,2-METHYL- SED, BM WS,<2MM DW, REC (UG/KG)	BENZ(A)ANTHRACENE SED, BM WS,<2MM DW, REC (UG/KG)	9,10-ANTHRAQUINONE SED, BM WS,<2MM DW, REC (UG/KG)	BENZENE O-DICHLORO- SED, BM WS,<2MM DW, REC (UG/KG)	BENZENE M-DICHLORO- SED, BM WS,<2MM DW, REC (UG/KG)	BENZENE P-DICHLORO- SED, BM WS,<2MM DW, REC (UG/KG)	BENZENE NITRO- SED, BM WS,<2MM DW, REC (UG/KG)	BENZENE PNTCHLR NITRO- SED, BM WS,<2MM DW, REC (UG/KG)
AUG 1995 01...	<50	<50	E36	<50	120	54	<50	<50	<50	<50	<50

DATE	CHRYSENE SED, BM WS,<2MM DW, REC (UG/KG)	P-CRESOL SED, BM WS,<2MM DW, REC (UG/KG)	THIOPHENE,DI-BENZO- SED, BM WS,<2MM DW, REC (UG/KG)	4-BROMOPHNPHNL ETHER SED, BM WS,<2MM DW, REC (UG/KG)	4CHLOROPHNPHNLETHER SED, BM WS,<2MM DW, REC (UG/KG)	PCB, SED, BM WS,<2MM DW, REC (UG/KG)	PENTACHLORO-ANISOLE SED, BM WS,<2MM DW, REC (UG/KG)	DIBENZ(AH),ANTHRACEN SED, BM WS,<2MM DW, REC (UG/KG)	FLUORANTHENE BED MAT WS <2MM DRY WGT REC (UG/KG)	BENZOCLNNOLINE BED MAT WS <2MM DRY WGT REC (UG/KG)	MOVE VALUES TO PCODE 49948
AUG 1995 01...	140	E47	E17	<50	<50	<50	<50	<50	180	<50	<50

E: Estimated.

01643500 BENNETT CREEK AT PARK MILLS, MD

LOCATION.--Lat 39°17'40", long 77°24'30", Frederick County, Hydrologic Unit 02070009, on left bank 75 ft downstream from highway bridge, 0.2 mi south of Park Mills, 1.8 mi upstream from mouth, and 3.7 mi southwest of Urbana.

DRAINAGE AREA.--62.8 mi^2.

WATER-DISCHARGE RECORDS

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 sea level, from topographic maps.

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

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,200 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 15	1845	*1,550	*5.74	July 7	0800	1,520	5.69
Jan. 20	0815	1,430	5.53				

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27	72	40	59	56	82	45	45	32	38	14	7.0
2	45	49	38	48	54	67	43	69	31	38	13	5.9
3	32	33	36	40	52	60	41	54	e30	30	13	5.5
4	29	30	34	e39	57	56	40	44	e32	29	13	5.6
5	29	29	147	e38	e55	54	38	44	e33	29	28	5.6
6	27	33	86	e36	e50	56	37	40	e34	35	115	5.5
7	27	32	63	234	48	54	38	38	33	408	39	5.3
8	26	29	51	97	47	107	37	36	31	66	26	4.9
9	27	29	44	68	45	183	45	35	30	43	23	5.8
10	28	31	120	58	e44	113	44	40	30	38	22	7.0
11	25	29	199	54	e43	105	42	53	33	43	20	5.4
12	25	27	87	57	e41	105	52	41	39	33	19	5.0
13	26	27	71	60	40	91	173	37	35	30	19	7.7
14	26	26	61	57	39	84	70	77	30	28	17	12
15	26	26	56	414	42	78	55	63	28	25	16	6.8
16	25	33	50	235	62	73	51	46	25	24	15	6.4
17	24	37	54	125	61	69	49	52	24	25	14	37
18	24	31	49	98	61	64	46	104	24	45	13	16
19	25	30	44	85	57	59	45	117	24	25	12	11
20	25	29	41	477	59	57	44	77	24	24	11	10
21	25	54	39	163	57	60	43	57	22	22	11	9.6
22	25	56	39	121	50	56	42	50	22	22	10	14
23	64	36	39	101	50	53	39	45	25	22	9.4	19
24	40	33	40	90	50	51	45	42	148	20	8.8	12
25	30	32	43	80	45	49	42	39	46	19	8.0	20
26	28	31	38	72	46	47	39	40	127	19	7.4	24
27	27	34	36	67	47	47	37	37	86	17	7.5	17
28	27	153	35	65	126	46	37	38	50	18	8.9	13
29	27	63	34	63	---	44	36	46	44	17	9.4	11
30	27	47	34	62	---	44	41	37	39	16	8.0	10
31	27	---	36	58	---	44	---	35	---	14	7.0	---
TOTAL	895	1201	1784	3321	1484	2158	1436	1578	1211	1262	557.4	325.0
MEAN	28.9	40.0	57.5	107	53.0	69.6	47.9	50.9	40.4	40.7	18.0	10.8
MAX	64	153	199	477	126	183	173	117	148	408	115	37
MIN	24	26	34	36	39	44	36	35	22	14	7.0	4.9
CFSM	.46	.64	.92	1.71	.84	1.11	.76	.81	.64	.65	.29	.17
IN.	.53	.71	1.06	1.97	.88	1.28	.85	.93	.72	.75	.33	.19

e Estimated

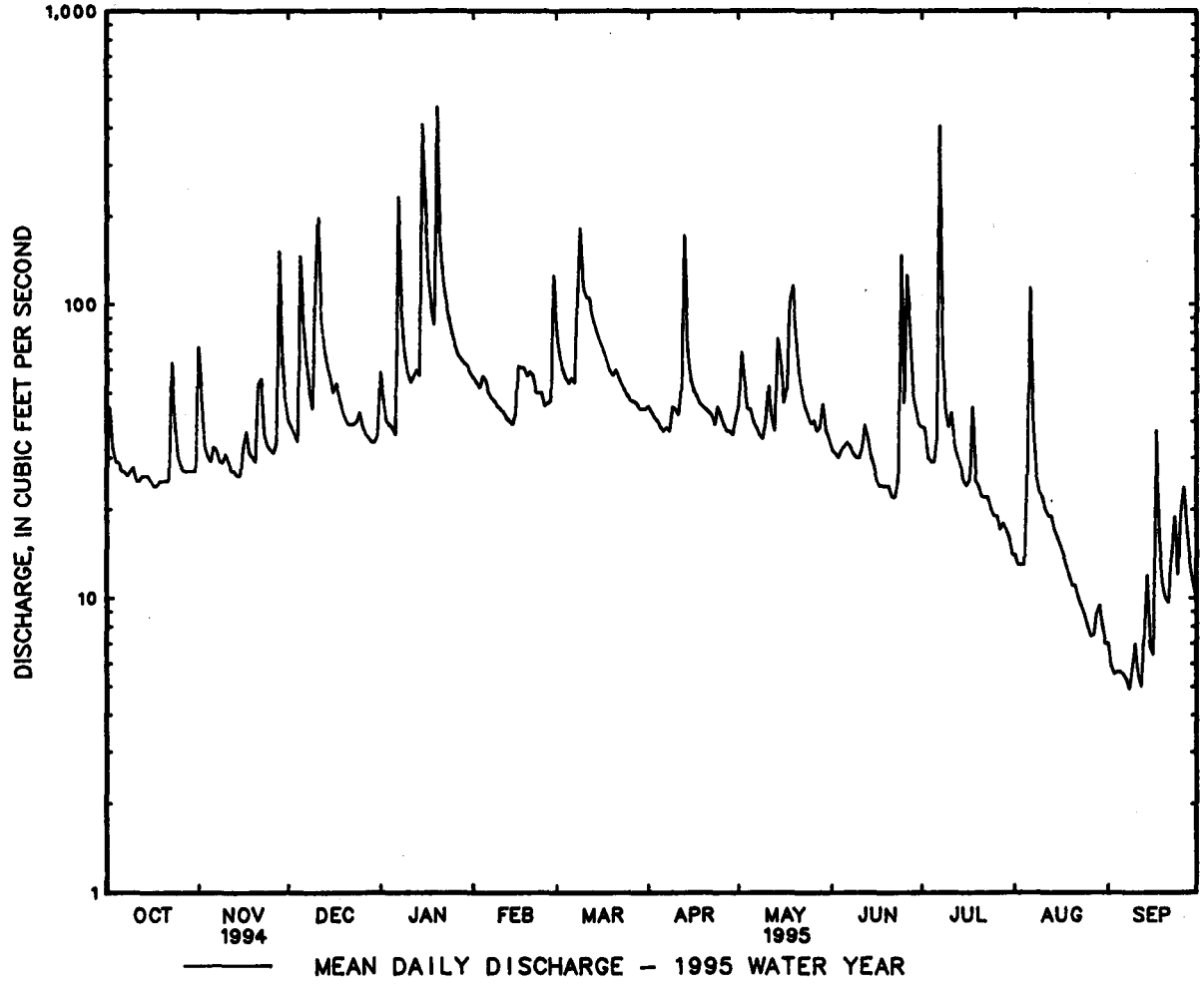
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1948 - 1958, 1966 - 1995, BY WATER YEAR (WY)

MEAN	37.4	46.8	76.2	84.8	98.6	115	106	86.2	64.8	42.4	35.0	38.1
MAX	245	119	228	237	229	369	286	302	498	178	148	211
(WY)	1980	1972	1993	1978	1979	1993	1993	1988	1972	1987	1955	1971
MIN	8.21	12.5	17.3	15.5	38.9	37.6	44.6	25.8	15.3	9.59	5.70	7.38
(WY)	1987	1982	1981	1981	1954	1981	1985	1969	1986	1986	1966	1986

01643500 BENNETT CREEK AT PARK MILLS, MD--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1948 - 1958, 1966 - 1995	
ANNUAL TOTAL	31629		17212.4			
ANNUAL MEAN	86.7		47.2		69.1	
HIGHEST ANNUAL MEAN					141	1972
LOWEST ANNUAL MEAN					32.0	1981
HIGHEST DAILY MEAN	850	Jan 26	477	Jan 20	5500	Jun 22 1972
LOWEST DAILY MEAN	21	Jul 14	4.9	Sep 8	.40	Sep 8 1966
ANNUAL SEVEN-DAY MINIMUM	23	Jul 10	5.5	Sep 3	.91	Sep 3 1966
INSTANTANEOUS PEAK FLOW			1550	Jan 15	(a)32200	Jun 21 1972
INSTANTANEOUS PEAK STAGE			5.74	Jan 15	(b)22.10	Jun 21 1972
INSTANTANEOUS LOW FLOW			4.5	Sep 8	.30	Sep 8 1966
ANNUAL RUNOFF (CFSM)	1.38		.75		1.10	
ANNUAL RUNOFF (INCHES)	18.74		10.20		14.96	
10 PERCENT EXCEEDS	197		79		130	
50 PERCENT EXCEEDS	43		38		42	
90 PERCENT EXCEEDS	26		13		14	

a From rating curve extended above 2,700 ft^3/s on basis of contracted-opening measurements at gage heights of 11.15, 14.33, and 22.1 ft.
b From floodmark.



01643500 BENNETT CREEK AT PARK MILLS, MD--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1968-72, 1982-83, 1994 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TEMPER-ATURE AIR (DEG C)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)
AUG 1995 17...	1300	14	184	7.2	27.0	27.0	68	20	4.5	7.0	2.3

DATE	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
AUG 1995 17...	49	5.0	15	<0.10	6.9	105	<0.010	1.60	1.60	35	20

01645000 SENECA CREEK AT DAWSONVILLE, MD

LOCATION.--Lat 39°07'41", long 77°20'13", Montgomery County, Hydrologic Unit 02070008, on right bank 60 ft downstream from bridge on State Highway 28, 150 ft downstream from mouth of Great Seneca Creek, 0.5 mi east of Dawsonville, and 5.8 mi upstream from mouth.

DRAINAGE AREA.--101 mi^2.

WATER-DISCHARGE RECORDS

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).

GAGE.--Water-stage recorder. Concrete control since Mar. 3, 1934. Datum of gage is 214.02 ft above sea level. 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.--Water-discharge records good except those for estimated daily discharges (ice effect), which are fair. Small diversion at times for irrigation upstream from station. National Weather Service gage-height telemeter at station.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 15	1845	1,830	6.67	Aug. 6	1900	*2,080	*7.03
Jan. 20	1045	1,430	5.89				

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	51	59	66	97	87	134	77	91	55	63	25	19
2	59	70	63	86	86	107	77	139	54	69	24	18
3	57	54	61	74	81	95	73	106	97	52	23	17
4	51	53	60	67	93	91	62	87	125	51	23	17
5	50	53	194	59	86	88	60	85	88	88	28	17
6	49	53	117	e64	e77	88	60	78	72	54	936	18
7	49	53	91	455	e73	87	60	71	69	111	168	17
8	47	49	83	177	72	223	60	57	61	91	88	16
9	48	50	77	123	e71	412	69	55	52	80	59	17
10	56	60	118	100	69	185	74	77	51	78	42	17
11	47	58	280	93	72	147	72	140	59	65	37	14
12	45	52	127	92	73	137	85	79	108	49	34	16
13	45	51	98	89	e109	121	189	64	77	45	31	16
14	46	51	89	90	84	109	102	119	58	41	29	17
15	45	50	83	591	64	108	91	131	53	40	27	16
16	44	58	76	550	87	116	86	95	52	37	26	16
17	44	64	81	197	95	105	85	161	51	38	35	111
18	44	58	77	144	90	98	79	213	51	40	25	42
19	45	54	69	123	87	95	73	246	50	36	24	28
20	46	52	65	847	91	94	67	147	49	32	23	23
21	46	72	63	270	90	97	65	114	48	31	23	22
22	46	90	62	175	84	94	62	91	43	32	23	41
23	81	59	62	143	83	91	58	67	46	32	22	60
24	75	53	68	126	84	90	77	62	179	32	21	30
25	53	53	79	109	77	68	78	60	109	30	20	59
26	50	52	70	102	75	66	66	61	116	28	19	71
27	50	53	65	96	78	66	58	58	137	28	20	48
28	48	182	62	93	223	72	56	58	97	27	20	32
29	48	91	62	93	---	82	54	80	78	27	20	27
30	48	74	58	90	---	81	77	64	58	27	22	25
31	48	---	57	88	---	80	---	58	---	26	19	---
TOTAL	1561	1881	2683	5503	2441	3527	2252	3014	2243	1480	1936	887
MEAN	50.4	62.7	86.5	178	87.2	114	75.1	97.2	74.8	47.7	62.5	29.6
MAX	81	182	280	847	223	412	189	246	179	111	936	111
MIN	44	49	57	59	64	66	54	55	43	26	19	14
CFSM	.50	.62	.86	1.76	.86	1.13	.74	.96	.74	.47	.62	.29
IN.	.57	.69	.99	2.03	.90	1.30	.83	1.11	.83	.55	.71	.33

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1930 - 1995, BY WATER YEAR (WY)

MEAN	65.9	81.7	107	124	146	158	147	126	101	75.5	66.8	74.2
MAX	479	290	287	402	484	511	457	510	747	273	248	566
(WY)	1980	1994	1973	1979	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

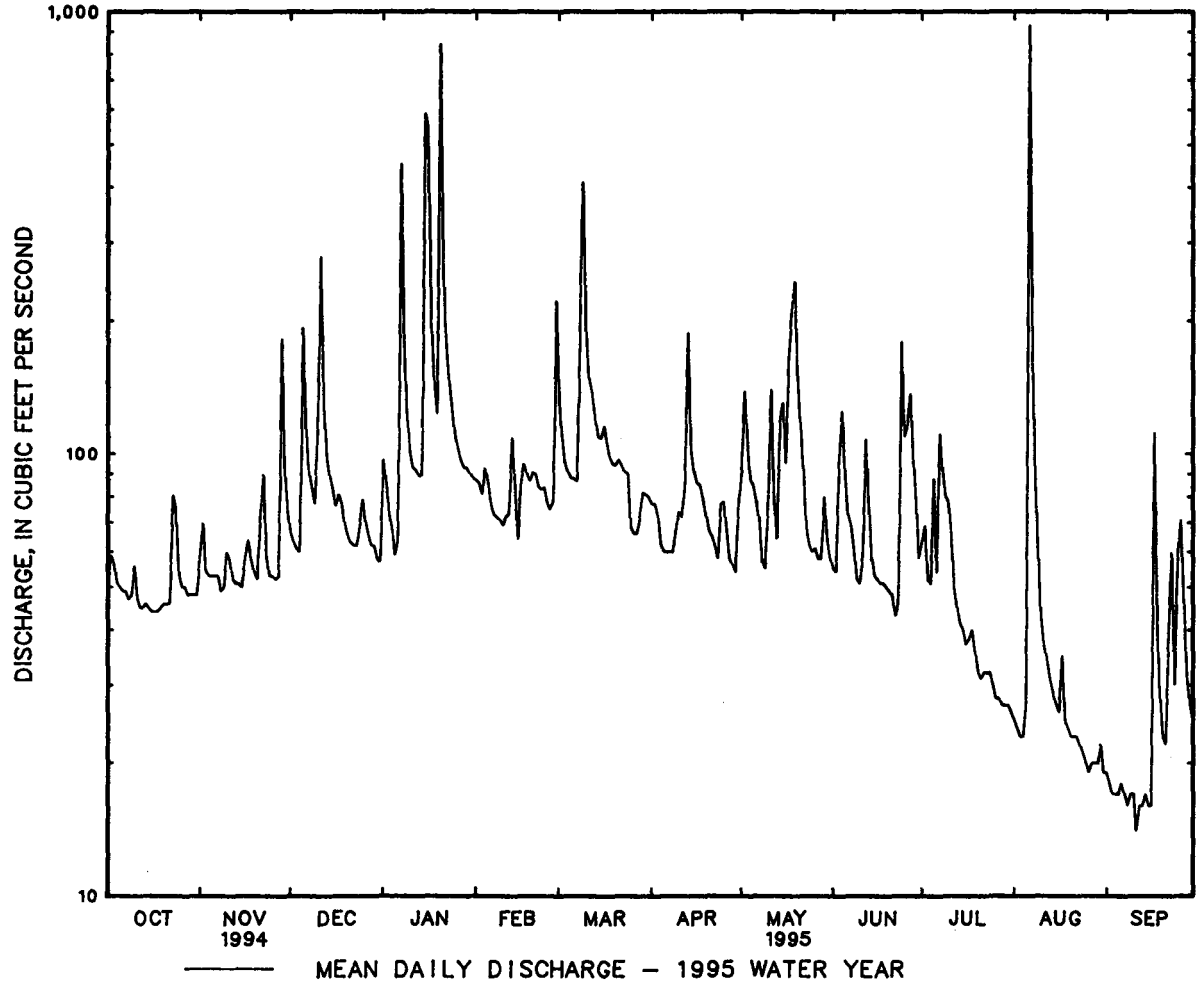
SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1930 - 1995	
ANNUAL TOTAL	55242		29408			
ANNUAL MEAN	151		80.6		106	
HIGHEST ANNUAL MEAN					251	1972
LOWEST ANNUAL MEAN					32.8	1931
HIGHEST DAILY MEAN	1130	Mar 29	936	Aug 6	9900	Jun 22 1972
LOWEST DAILY MEAN	39	Jul 13	14	Sep 11	1.8	(a)
ANNUAL SEVEN-DAY MINIMUM	45	Oct 12	16	Sep 10	2.2	Sep 27 1930
INSTANTANEOUS PEAK FLOW			2080	Aug 6	(b)26100	Jun 22 1972
INSTANTANEOUS PEAK STAGE			7.03	Aug 6	(c)16.40	Jun 22 1972
INSTANTANEOUS LOW FLOW			10	Sep 11	1.7	(d)
ANNUAL RUNOFF (CFSM)	1.50		.80		1.05	
ANNUAL RUNOFF (INCHES)	20.35		10.83		14.24	
10 PERCENT EXCEEDS	319		123		186	
50 PERCENT EXCEEDS	91		64		67	
90 PERCENT EXCEEDS	50		25		26	

a Sept. 29, 1930, Sept. 12, 1966.

b From rating curve extended above 3,000 ft^3/s on basis of contracted-opening and flow over-road measurement at gage height 12.17 ft at gage; and contracted-opening and flow-over-road measurement at gage height 16.32 ft at site 5.0 mi downstream, adjusted for flow from intervening area.

c From high-water mark in gage house.

d Sept. 28, 29, 1930.



01645000 SENECA CREEK AT DAWSONVILLE, MD--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1961, 1964-83, 1994 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TEMPER-ATURE AIR (DEG C)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)
AUG 1995 16...	1345	26	272	7.0	25.0	26.5	78	21	6.2	19	4.6

DATE	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
AUG 1995 16...	41	16	30	0.20	7.7	158	<0.010	3.10	3.10	52	50

01646500 POTOMAC RIVER NEAR WASHINGTON, DC

LOCATION.--Lat 38°56'58", long 77°07'40", Montgomery County, Hydrologic Unit 02070008, on left bank just upstream from Little Falls Dam, 1 mi upstream from District of Columbia boundary line, 1.2 mi upstream from Chain Bridge, 1.8 mi east of Langley, Fairfax County, and at mile 117.4.

DRAINAGE AREA.--11,560 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1930 to current year.
REVISED RECORDS.--WSP 726: Drainage area. WDR MD-DE-75-1: 1973-74(M).
GAGE.--Water-stage recorder and concrete control. Datum of gage is 37.95 ft above sea level. 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. Satellite telemeter at station.
EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 2, 1889, was of approximately the same magnitude as that of March 19, 1936.
PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 45,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 17	1600	*101,000	*8.90	June 30	1500	46,400	6.51
Jan. 21	1915	59,700	7.18				

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3090	2160	9730	4720	10400	10900	5910	5930	7210	40900	3220	1180
2	2820	2310	7910	5070	9850	10800	5890	6250	6090	38700	2960	1160
3	2670	2980	6430	6420	9300	10200	5780	6630	5560	34600	2530	1170
4	2690	3090	5530	6660	9010	10600	5340	7130	5420	25900	2180	1150
5	2520	2640	5870	6620	8650	10000	5170	9480	8180	19100	2070	988
6	2530	2430	10500	5730	e6560	9470	4940	11700	8560	15800	5450	1100
7	2610	2240	15500	7420	e5560	9390	4690	11000	7010	15300	7520	952
8	2280	2110	13500	9500	6390	10100	4550	10000	5700	18100	9880	981
9	2230	2130	10900	10500	6580	14100	4540	8930	4870	13300	16400	1010
10	2270	2150	9450	13000	6120	13500	4450	8160	4460	10700	12400	1100
11	2110	2150	10800	13300	6960	12600	4470	8520	4180	11500	8340	1090
12	2080	2170	13700	11200	6890	13300	4870	8000	4760	10200	6280	1100
13	2060	2240	13000	9950	6340	14500	6920	9020	4900	8390	5180	1070
14	2180	2270	12300	9240	6210	16700	7500	9500	5880	6550	4490	1030
15	2170	2210	10600	10800	5780	17100	7830	9380	5810	5350	3970	1120
16	1960	2600	9290	24500	5910	15800	7930	13200	6090	4510	3650	1180
17	1750	2660	8330	85100	6400	14300	7600	29800	5310	4010	3390	1690
18	1840	3420	7690	69400	6660	12900	6950	23300	4430	4500	2950	1370
19	1980	3870	7350	42400	7010	11700	6490	20700	3850	5620	2750	1350
20	2130	3770	7040	40900	7420	10600	6100	18100	3270	7680	2610	1440
21	2060	3800	6700	53300	8710	9900	5820	19100	2820	6300	2320	1490
22	1860	4130	6300	48200	9230	9180	5760	16600	2560	5040	2000	1540
23	1910	7760	5950	37900	9360	8670	5510	13800	2690	4230	1650	1930
24	2290	7340	5550	29200	9370	8020	5400	11600	3670	3670	1610	1690
25	2510	5990	5610	23800	9240	7550	5370	10100	3280	3490	1490	1600
26	2390	5130	5640	19800	8710	7200	5360	9010	5100	3390	1370	1930
27	2300	4570	5650	16700	8430	7050	5380	8830	13300	3190	1300	1980
28	2020	4760	5410	14600	9620	6770	5770	7940	25900	3210	1230	1940
29	1800	8110	5140	13000	---	6470	6030	7350	37100	3220	1200	2190
30	1990	10700	4880	11900	---	6220	5970	7220	44400	3390	1130	1860
31	1630	---	4700	11100	---	6110	---	7570	---	3350	1160	---
TOTAL	68730	113890	256950	671930	216670	331700	174290	353850	252360	343190	124680	41381
MEAN	2217	3796	8289	21680	7738	10700	5810	11410	8412	11070	4022	1379
MAX	3090	10700	15500	85100	10400	17100	7930	29800	44400	40900	16400	2190
MIN	1630	2110	4700	4720	5560	6110	4450	5930	2560	3190	1130	952
(†)	588	557	560	558	559	541	581	622	654	710	781	712
MEAN≠	2804	4353	8846	22240	8298	11230	6390	12030	9062	11780	4800	2092
CFSM≠	.24	.38	.77	1.92	.72	.97	.55	1.04	.78	1.02	.42	.18
IN.≠	.28	.42	.88	2.22	.75	1.12	.62	1.20	.87	1.18	.48	.20

e Estimated
† Diversions, in cubic feet per second, for municipal supply of Washington, D.C., Washington Suburban Sanitary District, city of Rockville, city of Fairfax (from Goose Creek), Fairfax County, and the Chesapeake and Ohio Canal (insignificant diversion to canal during current water year). Records provided by U.S. Army Corps of Engineers, Washington Suburban Sanitary Commission, city of Rockville, city of Fairfax, and Fairfax County Water Authority.
≠ Adjusted for diversion.

01646500 POTOMAC RIVER NEAR WASHINGTON, DC--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1930 - 1958, BY WATER YEAR (WY) (UNREGULATED)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	6120	6496	9843	13570	16660	21060	19120	13610	7960	5135	5804	4419
MAX	44100	21040	30900	37190	36790	76510	36430	27780	19090	21040	28210	19940
(WY)	1943	1933	1951	1937	1939	1936	1933	1932	1951	1949	1955	1945
MIN	583	700	1536	2527	2982	6505	7202	3953	2867	1284	569	679
(WY)	1931	1931	1944	1956	1934	1931	1947	1930	1930	1930	1930	1930

SUMMARY STATISTICS	WATER YEARS 1930 - 1958	
ANNUAL MEAN	10790	
HIGHEST ANNUAL MEAN	16100	1949
LOWEST ANNUAL MEAN	4525	1930
HIGHEST DAILY MEAN	426000	Mar 19 1936
LOWEST DAILY MEAN	448	Aug 25 1930
ANNUAL SEVEN-DAY MINIMUM	499	Aug 21 1930
INSTANTANEOUS PEAK FLOW	484000	Mar 19 1936
INSTANTANEOUS PEAK STAGE	(a)28.10	Mar 19 1936
INSTANTANEOUS LOW FLOW	430	Aug 24 1930
ANNUAL RUNOFF (CFSM)	.93	
ANNUAL RUNOFF (INCHES)	12.68	
10 PERCENT EXCEEDS	23600	
50 PERCENT EXCEEDS	6440	
90 PERCENT EXCEEDS	1810	

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1959 - 1995, BY WATER YEAR (WY) (REGULATED, UNADJUSTED)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	5924	7316	11190	13020	16890	24890	21020	15240	9122	4747	3777	3839
MAX	36790	42030	35690	35700	39460	67370	57850	40410	46630	17160	11350	25310
(WY)	1977	1986	1973	1991	1984	1994	1993	1989	1972	1972	1984	1975
MIN	908	1097	1038	1682	5703	7403	5810	3921	2216	695	538	791
(WY)	1964	1966	1966	1981	1963	1990	1995	1969	1969	1966	1966	1964

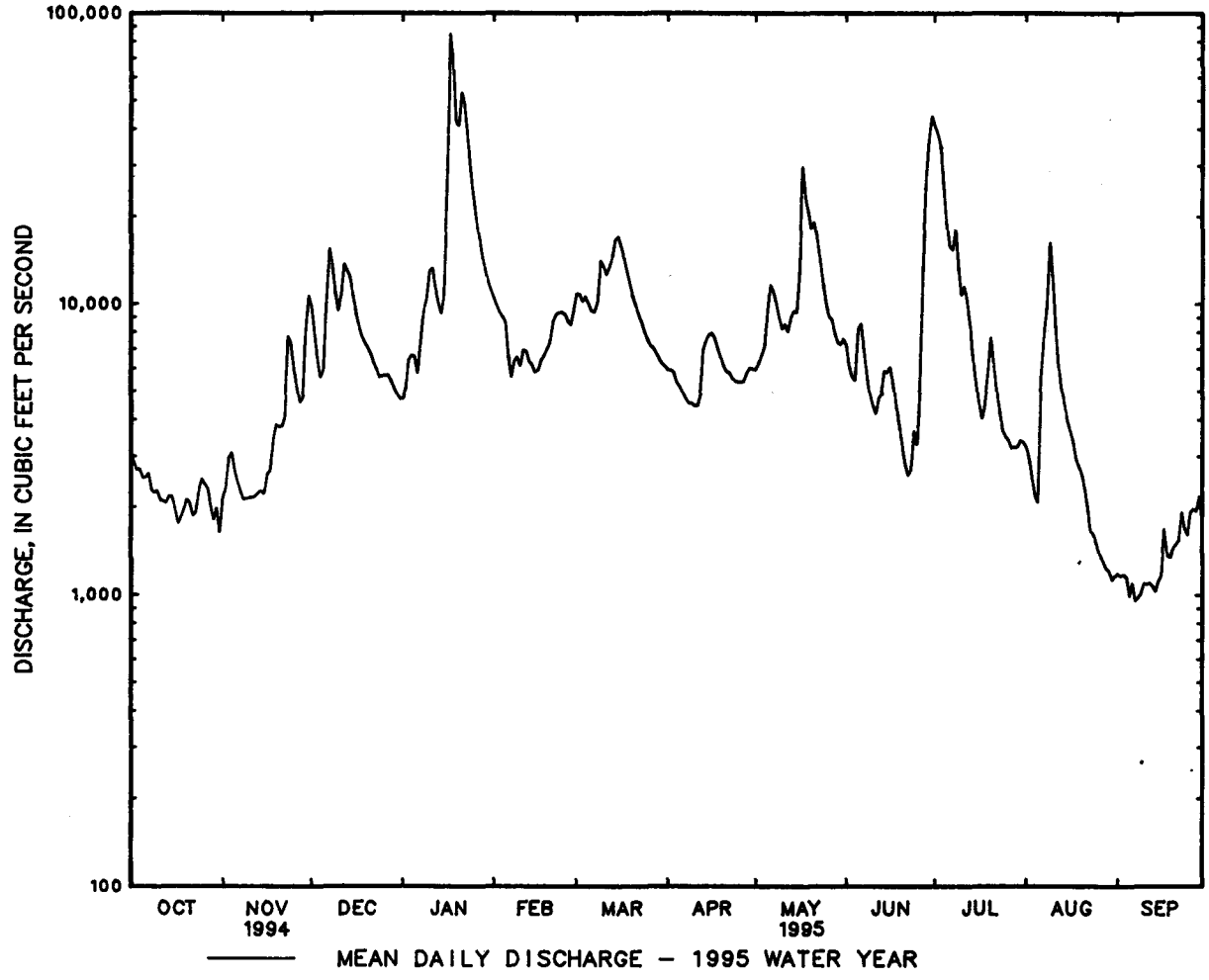
SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1959 - 1995	
ANNUAL TOTAL	6089360		2949621			
ANNUAL MEAN	16680		8081		11390	
ANNUAL MEAN≠	17290		8698		11970	
HIGHEST ANNUAL MEAN					18580	1972
HIGHEST ANNUAL MEAN≠					19030	1972
LOWEST ANNUAL MEAN					4900	1969
LOWEST ANNUAL MEAN≠					5306	1969
HIGHEST DAILY MEAN	140000	Mar 30	85100	Jan 17	334000	Jun 24 1972
LOWEST DAILY MEAN	1630	Oct 31	952	Sep 7	(b)121	Sep 9 1966
LOWEST DAILY MEAN≠	2190	Oct 31	1780	Sep 7	(c)601	Sep 10 1966
ANNUAL SEVEN-DAY MINIMUM	1930	Oct 17	1030	Sep 5	181	Sep 7 1966
INSTANTANEOUS PEAK FLOW			101000	Jan 17	484000	Mar 19 1936
INSTANTANEOUS PEAK STAGE			8.90	Jan 17	28.10	Mar 19 1936
INSTANTANEOUS LOW FLOW			830	(d)	66	Sep 9 1966
ANNUAL RUNOFF (CFSM)	1.44		.70		.98	
ANNUAL RUNOFF (CFSM)≠	1.50		.75		1.03	
ANNUAL RUNOFF (INCHES)	19.60		9.49		13.38	
ANNUAL RUNOFF (INCHES)≠	20.30		10.22		13.96	
10 PERCENT EXCEEDS	48800		14400		25900	
50 PERCENT EXCEEDS	6130		5930		6300	
90 PERCENT EXCEEDS	2270		1820		1600	

a At previous site, 1 mi upstream at same datum.
≠ Adjusted for diversion.

b Minimum daily discharge observed at gaging station, does not include diversion of 489 ft^3/s.

c Includes diversion of 449 ft^3/s for municipal use.
d Sept. 7, 9.

01646500 POTOMAC RIVER NEAR WASHINGTON, DC--Continued



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.

EXTREMES FOR PERIOD OF DAILY RECORD--
SPECIFIC CONDUCTANCE: Maximum, 747 microsiemens, Jan. 11, 1991; minimum, 68 microsiemens, Oct. 23, 1990.
WATER TEMPERATURE (water years 1989-93, 1995): Maximum, 33.5°C, July 11, 1993; minimum, 0.0°C, on many days during winter periods.

EXTREMES FOR CURRENT PERIOD.--
SPECIFIC CONDUCTANCE: Maximum, 517 microsiemens, Feb. 17; minimum, 138 microsiemens, Jan. 20.
WATER TEMPERATURE: Maximum, 32.9°C, Aug. 4; minimum, 0.0°C, on many days during winter periods.

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	359	351	354	391	351	382	326	277	305	362	359	360
2	362	357	360	366	299	343	338	326	334	362	358	360
3	357	350	353	387	365	380	340	323	333	370	357	362
4	352	347	350	397	386	392	323	297	310	366	315	341
5	348	342	346	395	378	389	297	260	278	330	319	325
6	343	339	340	379	372	374	322	268	301	335	326	330
7	346	339	342	387	374	380	316	284	303	473	306	343
8	358	345	351	399	387	393	340	316	329	314	288	300
9	362	356	358	400	397	398	348	340	344	302	285	290
10	362	358	360	403	400	402	354	348	351	312	292	303
11	368	359	364	403	397	400	363	354	358	323	311	318
12	369	366	368	403	399	401	388	363	376	313	282	295
13	371	366	369	405	400	402	411	388	399	301	281	288
14	369	361	364	402	399	400	428	411	421	305	296	300
15	362	354	358	402	399	401	433	427	431	317	238	289
16	356	353	354	404	400	402	434	429	432	257	231	243
17	355	349	352	410	403	407	429	426	427	260	192	231
18	357	352	354	411	408	409	432	426	429	192	163	171
19	362	355	360	421	411	417	432	385	395	167	161	163
20	366	361	363	416	379	398	385	330	346	176	138	159
21	369	366	367	386	375	382	334	319	328	171	164	168
22	374	368	372	387	360	374	328	320	324	191	171	182
23	383	366	375	403	387	394	328	321	324	186	177	180
24	368	344	362	403	332	355	324	319	322	196	186	192
25	378	365	373	417	348	391	326	319	322	206	195	201
26	379	374	377	418	377	402	330	326	328	216	206	212
27	385	379	380	377	344	355	334	329	331	224	216	220
28	385	382	384	345	294	317	363	333	353	233	224	228
29	386	379	381	337	319	330	360	355	357	270	233	244
30	389	380	386	326	275	295	360	357	358	299	270	285
31	393	385	388	---	---	---	360	358	359	313	297	306
MONTH	393	339	363	421	275	382	434	260	352	473	138	264

01646500 POTOMAC RIVER NEAR WASHINGTON, DC--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	323	308	316	302	287	295	313	300	308	332	328	330
2	308	295	300	288	283	285	337	303	320	342	331	336
3	295	288	290	286	281	283	385	316	358	349	341	345
4	303	285	290	285	282	283	398	313	371	357	349	355
5	317	302	308	286	277	282	421	325	361	360	355	357
6	349	301	314	279	272	275	474	414	456	366	360	362
7	355	326	340	280	271	275	419	337	379	373	366	370
8	356	336	347	283	230	273	370	339	355	374	370	372
9	336	321	327	310	224	283	370	323	343	376	372	374
10	321	311	317	310	279	289	368	324	333	373	351	360
11	315	308	311	290	279	283	341	334	336	351	340	345
12	326	314	319	285	275	278	363	337	355	343	337	340
13	333	318	322	285	277	281	376	321	358	337	257	290
14	333	324	327	286	276	281	384	346	364	257	242	247
15	344	327	334	291	282	287	406	384	393	242	235	238
16	455	344	393	289	277	284	415	329	398	241	234	238
17	517	385	450	284	275	279	329	319	322	247	228	243
18	393	349	369	281	272	276	331	318	321	238	200	222
19	352	332	342	282	266	276	341	311	332	218	206	209
20	336	326	330	289	274	283	311	289	298	217	211	214
21	330	322	324	289	274	281	291	286	289	216	183	201
22	324	320	322	294	283	288	314	291	301	226	182	197
23	333	319	324	293	276	282	332	310	321	233	202	219
24	339	294	306	286	278	282	313	297	301	239	233	236
25	320	305	311	285	277	282	299	293	295	240	228	233
26	312	285	301	290	280	285	303	293	296	247	237	243
27	301	285	296	295	280	288	303	295	297	241	231	235
28	344	297	318	291	283	288	304	292	298	238	234	237
29	---	---	---	297	286	290	313	304	308	238	230	234
30	---	---	---	293	288	290	329	313	321	295	233	253
31	---	---	---	301	292	295	---	---	---	302	277	286
MONTH	517	285	327	310	224	283	474	286	336	376	182	281
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	307	271	287	192	165	179	303	289	294	350	333	341
2	300	282	290	213	192	207	313	295	301	350	336	341
3	303	276	290	225	172	204	313	299	306	346	336	340
4	293	269	280	203	169	182	312	297	304	351	339	344
5	290	270	280	235	202	217	320	302	308	354	340	348
6	290	277	286	282	235	260	346	320	338	358	343	350
7	278	259	268	278	174	191	347	341	345	358	353	355
8	263	258	261	252	180	219	341	230	283	377	356	364
9	263	242	249	263	206	247	340	285	316	401	377	389
10	251	241	248	261	214	241	388	340	365	404	399	401
11	253	230	238	288	260	273	411	388	404	401	386	392
12	233	219	227	317	288	303	471	319	412	388	349	364
13	233	224	229	345	317	331	334	297	313	375	352	363
14	236	226	230	361	332	343	377	334	354	389	365	375
15	251	235	244	367	340	350	418	366	392	399	383	390
16	255	250	253	380	367	375	380	309	336	408	398	403
17	254	249	252	380	300	327	334	284	300	414	408	411
18	252	242	247	338	287	303	341	294	321	415	354	390
19	248	243	246	352	338	345	361	335	349	367	349	360
20	252	241	247	357	339	343	380	361	371	385	367	379
21	260	244	254	343	338	340	390	380	387	391	380	386
22	278	252	266	344	322	329	391	307	374	399	388	394
23	285	259	273	327	311	319	311	306	308	400	394	397
24	271	229	254	316	294	303	315	310	312	402	398	399
25	234	219	225	302	278	290	316	312	314	404	395	400
26	222	215	217	298	288	293	320	314	317	401	377	388
27	229	199	221	298	280	287	322	317	319	385	370	381
28	219	197	208	294	276	283	326	319	322	398	384	392
29	281	193	253	286	278	284	331	320	324	405	397	402
30	242	164	179	287	280	284	332	323	328	404	400	402
31	---	---	---	293	281	287	346	328	336	---	---	---
MONTH	307	164	250	380	165	282	471	230	334	415	333	378

01646500 POTOMAC RIVER NEAR WASHINGTON, DC--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	20.9	18.4	19.8	15.4	14.3	14.8	6.4	5.2	5.8	4.4	3.2	3.7
2	20.6	19.7	20.1	14.9	13.6	14.1	6.3	5.2	5.6	4.3	3.4	3.9
3	20.1	19.2	19.7	13.9	13.0	13.4	6.0	5.0	5.5	3.4	2.1	2.6
4	19.2	17.7	18.5	14.3	12.4	13.3	6.5	5.5	5.9	2.8	1.4	2.2
5	18.6	16.9	17.6	14.8	13.4	14.1	8.6	6.5	7.7	1.4	.0	.6
6	17.5	16.5	17.1	15.6	14.1	14.7	8.8	8.2	8.5	.0	.0	.0
7	17.7	16.4	17.0	15.4	14.2	14.7	9.3	8.5	8.9	.8	.0	.3
8	18.6	16.6	17.4	14.9	14.0	14.4	9.0	7.4	8.1	1.4	.5	.9
9	19.1	17.6	18.3	14.8	13.5	14.1	7.5	7.0	7.2	2.0	1.1	1.5
10	19.0	18.0	18.4	14.3	13.6	14.1	7.3	6.9	7.1	1.8	1.4	1.5
11	18.5	17.5	18.0	13.9	12.8	13.2	7.2	6.3	6.8	1.6	1.4	1.5
12	17.8	16.2	16.9	12.8	11.6	12.2	6.3	5.1	5.6	2.3	1.5	1.8
13	16.7	15.6	16.2	12.3	11.4	11.9	5.2	4.7	4.8	3.7	2.0	2.8
14	16.5	15.8	16.1	12.7	11.8	12.2	4.9	4.5	4.7	5.8	3.3	4.6
15	16.4	15.2	15.8	13.2	12.3	12.7	5.0	4.4	4.6	10.6	5.8	8.0
16	16.4	15.3	15.8	13.2	12.3	12.9	5.4	4.6	4.9	10.1	9.3	9.6
17	16.1	14.9	15.6	12.8	12.1	12.3	5.6	4.8	5.2	9.3	8.0	8.7
18	16.0	14.7	15.5	12.9	12.5	12.7	6.3	5.3	5.7	9.0	8.6	8.9
19	16.3	15.2	15.8	13.0	12.2	12.6	6.1	5.4	5.7	8.6	8.1	8.4
20	17.0	15.9	16.4	12.6	11.1	11.8	6.1	5.1	5.6	8.1	7.5	7.9
21	17.6	16.3	16.9	12.0	10.9	11.4	5.8	4.8	5.2	7.5	6.3	7.0
22	17.8	16.4	17.2	12.1	11.2	11.7	5.2	4.4	4.8	6.3	5.6	6.0
23	17.5	16.9	17.2	11.2	8.7	9.9	5.4	4.2	4.7	5.6	4.9	5.2
24	18.0	16.1	17.2	8.7	7.2	8.0	5.3	4.7	5.0	4.9	4.3	4.6
25	17.4	16.2	16.6	7.3	6.6	7.0	5.9	5.1	5.4	4.3	3.5	3.9
26	16.6	15.0	15.7	7.8	6.2	6.9	6.0	5.0	5.5	3.9	2.9	3.3
27	15.0	14.0	14.3	7.0	6.1	6.3	5.6	4.3	4.9	3.2	2.3	2.7
28	14.3	13.3	13.7	7.4	6.2	6.7	5.2	3.9	4.5	3.0	2.3	2.7
29	14.3	12.8	13.5	7.4	6.5	6.9	5.2	4.0	4.6	2.7	1.9	2.3
30	14.0	12.9	13.5	6.6	5.6	6.2	4.9	3.7	4.2	3.0	2.6	2.7
31	14.6	13.6	14.2	---	---	---	4.2	2.9	3.4	3.4	2.4	2.7
MONTH	20.9	12.8	16.6	15.6	5.6	11.6	9.3	2.9	5.7	10.6	.0	4.0
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	3.4	2.6	2.9	5.6	4.9	5.2	12.4	10.2	11.2	16.9	15.3	16.1
2	3.7	2.7	3.2	5.9	4.8	5.3	11.9	10.3	11.1	16.3	14.3	15.2
3	3.4	2.6	3.0	5.7	4.8	5.2	12.8	10.1	11.4	16.6	13.7	15.0
4	2.6	1.3	2.0	5.7	5.2	5.4	13.1	11.1	12.0	16.8	15.0	15.9
5	1.5	.0	1.0	6.0	5.3	5.6	12.3	10.1	11.1	17.2	15.8	16.4
6	.2	.0	.0	7.5	5.7	6.4	12.4	9.5	11.0	17.4	16.0	16.6
7	.2	.0	.0	8.0	6.7	7.4	14.4	10.7	12.4	17.8	16.5	17.0
8	.2	.0	.0	9.9	7.6	8.6	15.7	12.3	14.1	18.5	16.9	17.5
9	.0	.0	.0	8.0	5.7	6.5	17.6	14.2	15.9	18.5	17.0	17.8
10	.0	.0	.0	5.7	4.5	5.0	16.7	15.3	16.1	18.5	17.2	17.8
11	.4	.0	.1	6.1	4.5	5.2	15.7	14.4	14.8	18.7	16.8	17.7
12	.3	.0	.1	7.8	6.0	6.9	15.2	13.7	14.4	19.4	17.9	18.6
13	.2	.0	.1	9.0	7.7	8.4	14.9	13.7	14.4	20.4	18.2	19.1
14	.3	.0	.1	10.3	8.5	9.3	13.7	12.0	13.0	19.5	17.8	18.9
15	.0	.0	.0	10.8	9.2	10.1	13.5	11.3	12.2	20.2	17.7	18.7
16	.2	.0	.1	11.8	10.0	10.9	13.9	11.9	12.8	20.5	18.8	19.5
17	1.6	.1	.7	12.7	11.1	11.9	13.7	12.7	13.2	20.5	19.0	19.5
18	2.6	1.1	1.7	12.5	11.5	12.1	14.2	12.8	13.5	19.0	18.3	18.6
19	3.8	1.8	2.6	12.9	11.8	12.3	17.0	13.6	15.2	19.1	18.3	18.7
20	4.7	3.1	3.9	13.5	12.0	12.6	18.2	15.5	16.9	19.8	17.9	18.8
21	4.4	3.9	4.2	14.0	12.3	13.2	18.3	16.7	17.5	20.2	18.9	19.6
22	4.8	3.3	3.8	13.7	12.5	13.0	19.0	17.0	18.0	20.1	19.0	19.7
23	4.6	3.5	4.1	12.5	11.4	11.9	17.7	16.3	17.0	20.9	19.4	20.2
24	5.2	4.1	4.4	12.6	11.0	11.6	16.3	14.6	15.2	22.3	20.7	21.4
25	5.1	3.9	4.3	12.0	10.3	10.9	16.2	14.0	14.9	23.9	21.9	22.9
26	5.1	4.1	4.7	12.2	10.0	10.9	17.4	14.1	15.7	24.6	22.9	23.8
27	4.5	4.1	4.3	13.3	11.0	12.0	18.5	15.1	16.8	24.4	23.2	23.7
28	5.0	4.3	4.6	12.3	11.8	12.1	19.1	16.7	17.8	23.3	21.5	22.5
29	---	---	---	12.5	10.9	11.6	19.2	16.7	17.9	22.6	20.8	21.5
30	---	---	---	12.5	11.4	11.9	18.2	16.3	17.2	22.4	21.4	21.9
31	---	---	---	12.3	10.9	11.5	---	---	---	23.6	20.6	22.0
MONTH	5.2	.0	2.0	14.0	4.5	9.4	19.2	9.5	14.5	24.6	13.7	19.1

01646500 POTOMAC RIVER NEAR WASHINGTON, DC--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	24.5	22.2	23.4	21.8	20.8	21.3	32.2	29.4	30.8	28.5	27.3	27.9
2	24.8	23.0	23.9	22.2	21.0	21.5	32.0	29.8	31.1	27.9	26.4	27.2
3	25.8	23.7	24.7	22.8	21.1	22.0	32.2	30.1	31.3	28.0	25.9	27.0
4	26.2	23.9	24.9	22.9	21.8	22.3	32.9	30.6	31.5	27.8	25.5	26.4
5	25.8	24.1	24.9	24.0	22.5	23.1	32.4	30.8	31.4	26.8	25.4	26.1
6	24.7	23.7	24.4	24.9	23.7	24.3	31.1	28.2	29.7	27.1	25.4	26.1
7	26.2	23.4	24.6	25.4	24.0	24.7	28.2	26.3	27.2	27.0	25.6	26.5
8	27.5	24.8	26.1	25.4	24.4	25.0	26.3	25.3	25.8	28.0	26.0	26.8
9	27.7	25.9	26.8	25.1	23.7	24.6	26.1	25.7	25.9	27.6	26.0	26.7
10	26.9	25.9	26.3	25.7	24.7	25.2	26.6	25.6	26.1	27.2	25.8	26.3
11	27.4	25.3	26.4	26.6	25.1	25.8	27.7	26.1	26.8	26.3	24.7	25.6
12	26.6	24.3	25.5	27.1	25.5	26.3	28.9	26.5	27.6	25.3	24.2	24.4
13	24.3	23.1	23.6	28.5	26.4	27.4	29.8	27.5	28.6	25.9	23.5	24.6
14	24.7	22.2	23.4	29.9	27.3	28.6	30.4	28.2	29.4	25.7	24.3	25.0
15	25.7	22.9	24.2	31.5	28.8	30.2	31.2	28.8	30.2	26.4	24.2	25.3
16	26.0	23.6	24.9	31.8	29.7	30.9	31.3	29.2	30.4	25.2	23.5	24.2
17	26.6	24.1	25.4	32.0	29.6	31.0	31.3	29.5	30.6	23.5	22.7	22.9
18	27.3	24.3	25.9	32.1	29.6	30.8	31.5	29.6	30.7	22.8	21.7	22.0
19	28.2	24.9	26.7	31.3	29.4	30.4	31.1	29.2	30.3	22.7	21.0	21.8
20	29.0	25.8	27.5	30.4	29.0	29.6	30.3	28.6	29.7	22.2	21.4	21.8
21	29.7	27.0	28.4	30.4	29.0	29.7	29.9	28.0	28.9	23.7	21.6	22.6
22	29.1	27.7	28.5	30.7	29.1	29.9	29.5	28.2	28.9	23.2	22.3	22.8
23	28.4	26.6	27.3	31.4	29.1	30.2	29.3	27.9	28.7	22.3	20.5	21.2
24	26.6	25.3	25.9	31.1	29.3	30.4	29.1	27.4	28.3	20.5	19.1	19.6
25	26.9	24.8	25.9	31.4	29.0	30.4	28.6	27.3	27.9	19.1	18.2	18.4
26	27.8	26.0	26.9	31.6	29.5	30.8	28.2	26.7	27.5	18.2	17.8	17.9
27	26.6	25.1	26.0	31.8	29.8	31.0	28.1	26.9	27.4	19.0	17.5	18.3
28	25.1	23.0	23.8	31.3	29.7	30.7	27.4	26.6	26.8	19.5	18.2	18.8
29	23.0	22.0	22.7	31.1	29.4	30.5	27.8	25.8	26.6	20.3	19.0	19.5
30	22.0	21.2	21.6	31.5	29.4	30.6	28.6	26.0	27.2	20.6	19.2	19.8
31	---	---	---	32.0	29.4	30.9	29.2	26.5	27.8	---	---	---
MONTH	29.7	21.2	25.3	32.1	20.8	27.7	32.9	25.3	28.7	28.5	17.5	23.4

01646580 POTOMAC RIVER AT CHAIN BRIDGE AT WASHINGTON, DC

LOCATION.--Lat 38°55'46", long 77°07'02", Arlington County, Va., Hydrologic Unit 02070010, under right downstream side of bridge on Virginia State Highway 123, and at river mile 115.9.

DRAINAGE AREA.--11,570 mi^2.

PERIOD OF RECORD.--Water years 1973 to current year. Prior to October 1977, published as "at Great Falls."

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: June 1978 to September 1981.
pH: June 1978 to September 1981.
WATER TEMPERATURE: June 1978 to September 1981.
DISSOLVED OXYGEN: June 1978 to September 1981.
SUSPENDED SEDIMENT DISCHARGE: October 1978 to September 1981.

INSTRUMENTATION.--Water-quality monitor June 1978 to September 1981.

REMARKS--Extreme high flows are sampled from the George Mason Memorial Bridge (14th Street) located 6 mi downstream from Chain Bridge. On May 3 and Nov. 17, 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 1979, 1981): Maximum, 598 microsiemens, Sept. 12, 1981; minimum, 116 microsiemens, 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: Maximun 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 1994 TO SEPTEMBER 1995

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	TEMPERATURE AIR (DEG C)	BAROMETRIC PRESSURE (MM OF HG)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	HARDNESS TOTAL (MG/L AS CACO3)
NOV 1994										
09...	1115	2100	397	8.5	14.0	19.0	760	10.6	103	160
17...	1230	2440	414	8.3	11.5	10.0	766	10.5	96	--
JAN 1995										
25...	1000	29500	190	7.7	3.5	2.0	768	13.7	103	84
APR										
06...	1015	4630	254	7.6	10.0	6.0	763	10.9	97	120
MAY										
15...	0900	8740	235	7.5	18.5	14.0	759	8.5	91	100
19...	1515	20200	201	7.7	19.0	18.0	751	--	--	81
JUN										
29...	1430	37200	267	7.6	23.0	24.5	761	8.6	101	110

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WAT DIS TOT IT FIELD MG/L AS CACO3	BICARBONATE WATER WH FET FIELD MG/L AS HCO3	BICARBONATE WATER DIS IT FIELD MG/L AS HCO3	CARBONATE WATER DIS IT FIELD MG/L AS CO3	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)
NOV 1994										
09...	46	12	15	3.7	117	--	135	4	43	21
17...	--	--	--	--	--	--	--	--	--	--
JAN 1995										
25...	25	5.2	4.6	1.8	--	--	--	--	21	7.3
APR										
06...	36	8.0	8.8	1.9	--	--	--	--	27	13
MAY										
15...	29	6.7	6.8	1.8	74	--	90	--	21	9.6
19...	24	5.1	5.6	1.8	51	62	62	--	22	6.7
JUN										
29...	31	7.2	8.4	3.3	67	--	81	--	34	12

01646580 POTOMAC RIVER AT CHAIN BRIDGE AT WASHINGTON, DC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRATE DISSOLVED (MG/L AS NO3)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NITRATE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)
NOV 1994										
09...	0.10	0.98	237	--	1.4	<0.010	--	1.20	1.20	<0.015
17...	--	--	--	--	--	--	--	--	--	--
JAN 1995										
25...	0.10	7.7	121	6.2	1.6	0.010	1.39	1.40	1.40	0.040
APR										
06...	0.10	0.50	169	4.8	--	0.010	1.09	1.10	1.10	<0.015
MAY										
15...	<0.10	5.4	136	3.8	1.3	0.020	0.860	0.880	0.880	0.080
19...	<0.10	7.0	122	3.5	1.4	0.020	0.800	0.820	0.820	0.080
JUN										
29...	<0.10	6.7	158	4.7	1.4	0.030	1.07	1.10	1.10	0.050

DATE	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C)
NOV 1994									
09...	0.20	0.20	0.020	0.020	0.020	32	9	3.2	0.30
17...	--	--	--	--	--	--	--	2.9	0.40
JAN 1995									
25...	0.20	<0.20	0.030	0.010	0.020	58	10	25	0.80
APR									
06...	<0.20	<0.20	<0.010	<0.010	<0.010	42	6	21	0.20
MAY									
15...	0.40	0.30	0.060	0.050	0.060	21	8	--	0.40
19...	0.60	0.30	0.140	0.060	0.050	110	8	3.5	2.1
JUN									
29...	0.30	1.1	0.070	0.280	0.070	150	4	4.8	>4.1

SUSPENDED SEDIMENT DISCHARGE

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV 1994					
17...	1230	2440	7	46	95
JAN 1995					
25...	1000	29500	35	2780	--
MAY					
15...	0900	8740	19	449	--
19...	1515	20200	79	4320	--
JUN					
29...	1430	37200	187	18800	--

01648000 ROCK CREEK AT SHERRILL DRIVE, WASHINGTON, DC

LOCATION.--Lat 38°58'21", long 77°02'25", District of Columbia, Hydrologic Unit 02070010, on left bank 125 ft downstream from Sherrill Drive Bridge in Rock Creek Park in Washington, and 7.5 mi upstream from mouth.

DRAINAGE AREA.--62.2 mi^2.

WATER-DISCHARGE RECORDS

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 sea level.

REMARKS.--No estimated daily discharges. Water-discharge records good. Flow affected by two upstream reservoirs which control flow from about 25 mi^2, Needwood Lake on Rock Creek since Sept. 1966 and Bernard Frank Lake on North Branch Rock Creek since February 1968.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,200 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 20	0615	1,390	6.29	Aug. 6	1630	*1,500	*6.65

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27	231	28	62	36	67	34	44	25	41	11	7.2
2	34	43	26	36	35	51	34	145	32	48	10	6.1
3	22	22	24	29	33	43	34	54	37	23	8.5	5.3
4	21	21	25	27	38	39	32	41	43	190	8.1	5.1
5	19	21	205	25	46	37	30	36	32	90	49	5.2
6	17	21	58	79	39	40	29	31	27	179	690	5.7
7	17	20	42	349	34	37	29	28	25	273	202	5.9
8	17	18	34	102	32	368	30	25	23	114	111	7.6
9	30	19	30	70	32	303	36	25	22	42	68	10
10	38	43	100	51	32	124	43	69	19	48	41	11
11	19	24	110	45	34	91	39	167	77	34	34	7.4
12	25	20	54	40	42	71	89	51	200	28	25	6.8
13	28	19	42	36	30	57	175	38	51	22	18	7.1
14	27	19	33	33	30	50	51	109	33	20	15	7.3
15	22	20	32	208	32	46	41	56	25	17	16	6.2
16	21	19	30	149	76	43	37	40	22	15	14	8.1
17	21	20	39	89	72	42	34	217	19	15	14	248
18	16	21	30	64	51	40	34	195	17	15	13	24
19	13	23	28	51	45	38	32	261	17	15	13	13
20	16	20	26	583	44	37	39	80	16	13	11	11
21	15	99	25	177	44	43	31	56	15	18	10	9.6
22	15	46	24	126	39	38	29	43	15	15	9.5	58
23	111	24	24	98	37	36	27	36	31	14	8.3	39
24	32	21	26	73	36	36	57	32	237	13	8.2	17
25	20	21	62	55	34	34	32	41	54	13	8.4	82
26	17	20	29	45	32	33	30	44	41	12	7.2	70
27	17	38	25	40	38	32	25	28	87	13	7.4	29
28	16	117	24	38	176	34	21	41	51	15	7.4	16
29	15	39	23	41	---	33	22	77	34	13	8.0	15
30	15	31	22	44	---	33	103	60	28	11	7.8	12
31	15	---	26	39	---	33	---	29	---	11	7.0	---
TOTAL	738	1120	1306	2904	1249	2009	1279	2199	1355	1390	1460.8	755.6
MEAN	23.8	37.3	42.1	93.7	44.6	64.8	42.6	70.9	45.2	44.8	47.1	25.2
MAX	111	231	205	583	176	368	175	261	237	273	690	248
MIN	13	18	22	25	30	32	21	25	15	11	7.0	5.1
CFSM	.38	.60	.68	1.51	.72	1.04	.69	1.14	.73	.72	.76	.40
IN.	.44	.67	.78	1.74	.75	1.20	.76	1.32	.81	.83	.87	.45

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1930 - 1995, BY WATER YEAR (WY)

MEAN	40.1	51.4	61.4	71.2	82.6	90.4	84.9	73.9	59.0	49.1	47.8	44.0
MAX	196	165	184	201	210	221	215	232	456	192	174	348
(WY)	1980	1953	1973	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

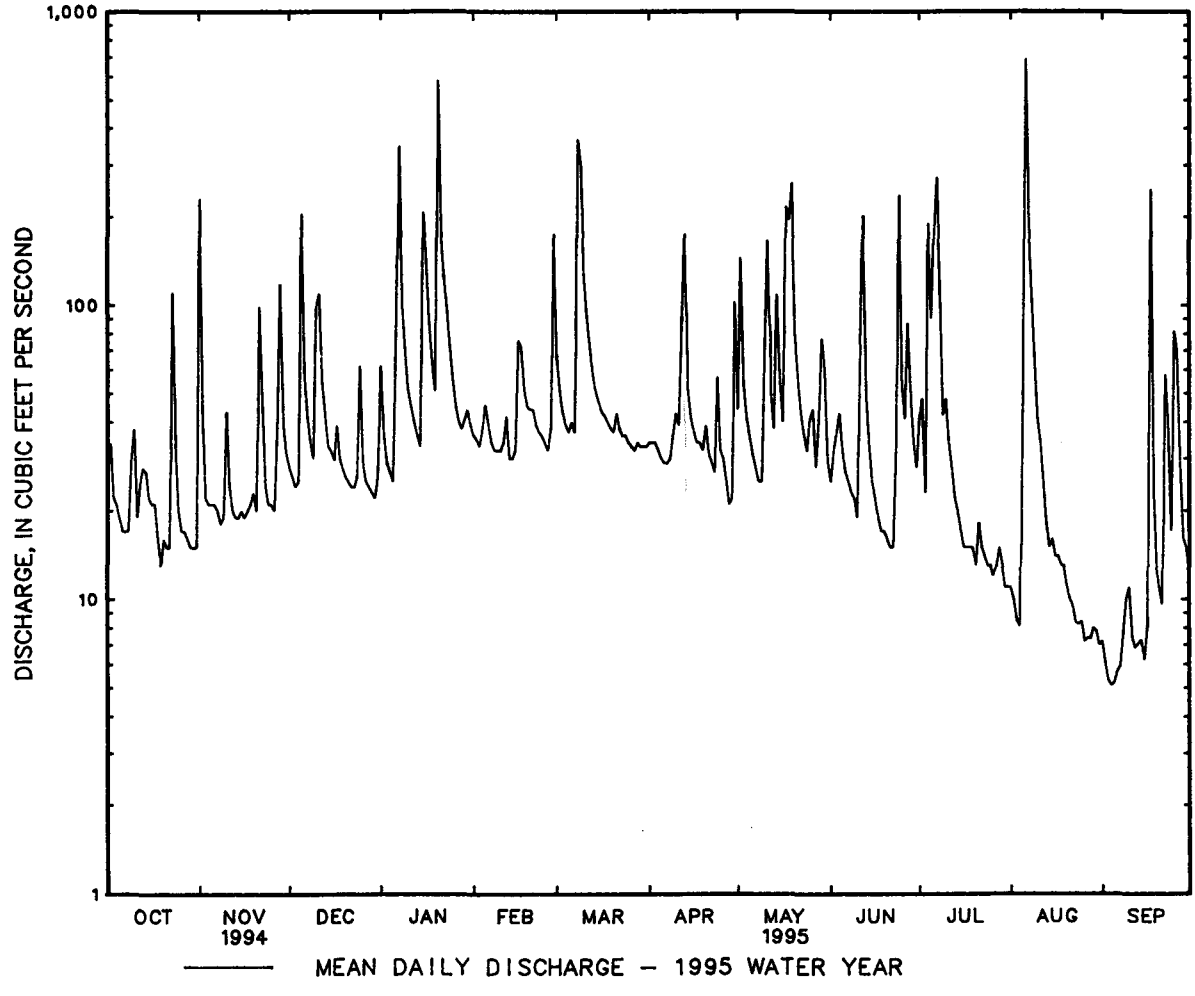
SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1930 - 1995	
ANNUAL TOTAL	28791		17765.4			
ANNUAL MEAN	78.9		48.7		62.9	
HIGHEST ANNUAL MEAN					142	1972
LOWEST ANNUAL MEAN					16.1	1931
HIGHEST DAILY MEAN	598	Feb 23	690	Aug 6	5000	Jun 22 1972
LOWEST DAILY MEAN	12	Jul 13	5.1	Sep 4	.50	(a)
ANNUAL SEVEN-DAY MINIMUM	16	Sep 10	5.8	Sep 1	.50	Oct 1 1930
INSTANTANEOUS PEAK FLOW			1500	Aug 6	(b)12500	Jun 22 1972
INSTANTANEOUS PEAK STAGE			6.65	Aug 6	(c)16.20	Jun 22 1972
INSTANTANEOUS LOW FLOW			4.6	(d)	.50	(a)
ANNUAL RUNOFF (CFSM)	1.27		.78		1.01	
ANNUAL RUNOFF (INCHES)	17.22		10.62		13.73	
10 PERCENT EXCEEDS	177		98		121	
50 PERCENT EXCEEDS	47		32		37	
90 PERCENT EXCEEDS	19		12		13	

a Oct. 1-7, 1930.

b From rating curve extended above 5,640 ft^3/s on basis of contracted-opening measurements at gage heights of 13.19 ft and 16.2 ft.

c From floodmark.

d Sept. 14, 16.



01648000 ROCK CREEK AT SHERRILL DRIVE, WASHINGTON, DC--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1994 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TEMPER-ATURE AIR (DEG C)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)
AUG 1995 17...	1430	14	360	7.1	26.5	26.5	130	35	9.6	16	4.5

DATE	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
AUG 1995 17...	69	26	40	0.30	11	214	<0.010	0.730	0.730	140	50

01649500 NORTHEAST BRANCH ANACOSTIA RIVER AT RIVERDALE, MD

LOCATION.--Lat 38°57'37", long 76°55'34", Prince Georges County, Hydrologic Unit 02070010, on right bank at downstream side of bridge on Riverdale Road, 1.8 mi downstream from Indian Creek, and 1.8 mi upstream from confluence with Northwest Branch.

DRAINAGE AREA.--72.8 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1938 to current year.

REVISED RECORDS.--WDR MD-DE-75-1: 1972(M).

GAGE.--Water-stage recorders, crest-stage gage, and concrete control. Datum of gage is 12.68 ft above sea level (Washington Suburban Sanitary Commission bench mark). Prior to June 12, 1942, nonrecording gage; June 12, 1942 to Mar. 22, 1966, and Apr. 12, 1967 to Sept. 3, 1969, water-stage recorder, all at bridge at datum 14.00 ft above mean sea level. Mar. 23, 1966 to Apr. 11, 1967, nonrecording gage 600 ft downstream from bridge at datum 9.25 ft above mean sea level.

REMARKS.--Water-discharge records good except those for estimated daily discharge (ice effect), which are fair. 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 mean sea level, from floodmarks, discharge, 10,500 ft^3/s, from rating curve extended above 3,000 ft^3/s on basis of velocity-area study.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 20	0615	*3,940	*6.90	May 18	1430	2,070	5.11
Mar. 8	1545	3,260	6.29	July 7	2000	2,810	5.87
Mar. 8	2145	3,530	6.54	Aug. 6	1115	2,770	5.83

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27	107	31	86	38	89	34	73	25	81	9.5	7.7
2	35	57	28	49	35	52	34	168	23	68	9.3	7.1
3	25	30	29	37	31	41	32	72	33	31	8.6	7.0
4	22	25	36	33	48	37	32	42	31	135	8.2	7.5
5	21	24	321	28	e38	35	32	38	23	73	14	7.0
6	21	25	86	133	e34	35	50	30	21	121	623	7.4
7	20	22	51	420	e32	33	32	26	22	409	105	7.2
8	20	21	39	112	e32	1280	31	24	20	144	36	7.1
9	40	21	34	62	e31	941	34	25	19	47	23	7.1
10	39	51	150	48	31	157	45	94	18	46	22	6.8
11	22	31	156	46	38	94	35	180	59	30	17	6.5
12	20	25	62	46	40	74	115	53	172	24	17	6.1
13	20	24	48	40	31	63	169	35	58	22	15	6.2
14	20	23	43	42	31	58	57	122	30	20	13	7.3
15	20	22	37	158	33	54	40	70	22	18	95	6.7
16	19	23	34	120	96	50	34	39	19	17	28	15
17	19	23	46	58	95	47	30	325	19	16	16	280
18	18	27	37	45	67	43	30	439	19	15	13	37
19	18	26	33	45	52	43	36	597	16	14	11	19
20	20	23	30	1330	47	46	31	123	15	13	10	14
21	20	102	29	186	44	56	28	60	14	13	9.7	11
22	18	63	29	84	36	45	28	43	14	13	9.4	119
23	161	34	28	62	34	41	26	36	48	14	8.5	54
24	56	28	30	51	33	38	58	31	301	15	8.4	26
25	30	26	66	45	30	36	32	37	208	13	8.1	84
26	25	25	35	40	29	35	28	36	104	11	8.3	79
27	23	58	30	36	42	34	25	29	46	12	9.3	36
28	23	135	30	35	264	37	23	50	37	16	9.6	21
29	20	49	29	44	---	41	22	75	30	12	9.2	16
30	20	35	29	44	---	38	147	62	31	11	8.3	15
31	19	---	42	48	---	35	---	31	---	9.9	8.1	---
TOTAL	881	1185	1708	3613	1392	3708	1350	3065	1497	1483.9	1190.5	930.7
MEAN	28.4	39.5	55.1	117	49.7	120	45.0	98.9	49.9	47.9	38.4	31.0
MAX	161	135	321	1330	264	1280	169	597	301	409	623	280
MIN	18	21	28	28	29	33	22	24	14	9.9	8.1	6.1
CFSM	.39	.54	.76	1.60	.68	1.64	.62	1.36	.69	.66	.53	.43
IN.	.45	.61	.87	1.85	.71	1.89	.69	1.57	.76	.76	.61	.48

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 1995, BY WATER YEAR (WY)

MEAN	52.3	72.1	92.4	101	113	131	111	94.2	67.8	61.2	65.1	57.8
MAX	234	205	248	325	265	339	322	329	353	335	243	449
(WY)	1943	1973	1984	1979	1972	1994	1983	1989	1972	1945	1955	1975
MIN	9.37	15.9	19.8	25.6	39.3	37.0	32.4	23.9	20.3	9.14	7.94	8.32
(WY)	1942	1942	1966	1955	1947	1981	1985	1941	1965	1966	1962	1941

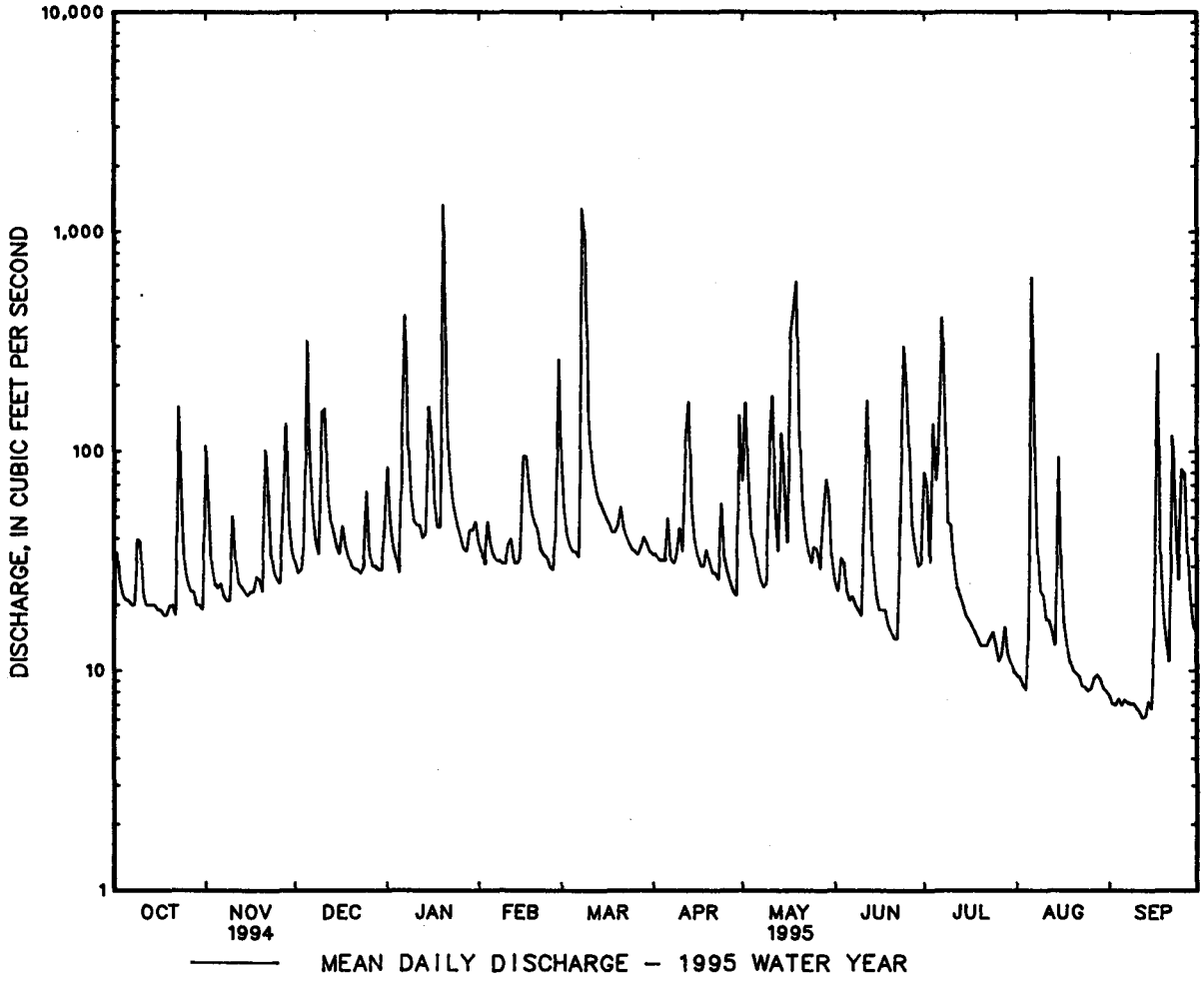
01649500 NORTHEAST BRANCH ANACOSTIA RIVER AT RIVERDALE, MD--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1938 - 1995	
ANNUAL TOTAL	39026		22004.1			
ANNUAL MEAN	107		60.3		84.8	
HIGHEST ANNUAL MEAN					150	1972
LOWEST ANNUAL MEAN					49.3	1981
HIGHEST DAILY MEAN	1780	Mar 28	1330	Jan 20	6830	Sep 26 1975
LOWEST DAILY MEAN	15	(a)	6.1	Sep 12	1.4	Sep 12 1966
ANNUAL SEVEN-DAY MINIMUM	16	Sep 8	6.7	Sep 9	1.7	Sep 7 1966
INSTANTANEOUS PEAK FLOW			3940	Jan 20	(b)12000	Jun 22 1972
INSTANTANEOUS PEAK STAGE			6.90	Jan 20	12.93	Oct 16 1942
INSTANTANEOUS LOW FLOW			5.9	(c)	UNKNOWN	
ANNUAL RUNOFF (CFSM)	1.47		.83		1.16	
ANNUAL RUNOFF (INCHES)	19.94		11.24		15.82	
10 PERCENT EXCEEDS	238		109		163	
50 PERCENT EXCEEDS	52		32		44	
90 PERCENT EXCEEDS	21		12		16	

a Sept. 13, 14, 1994.

b From rating curve extended above 3,800 ft^3/s on basis of the average of contracted-opening and slope-area measurements at gage height 9.52 ft.

c Sept. 11-13.



01649500 NORTHEAST BRANCH ANACOSTIA RIVER AT RIVERDALE, MD--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1963, 1969-74, 1992, 1994 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TEMPER-ATURE AIR (DEG C)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3
AUG 1995												
16...	0730	18	193	6.7	25.0	25.5	54	15	3.9	12	3.8	26

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS NO3)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
AUG 1995											
16...	18	21	0.10	4.3	116	2.6	0.010	0.600	0.600	390	61

01651000 NORTHWEST BRANCH ANACOSTIA RIVER NEAR HYATTSVILLE, MD

LOCATION.--Lat 38°57'09", long 76°58'00", Prince Georges County, Hydrologic Unit 02070010, on right bank at downstream side of bridge on Queens Chapel Road (State Highway 500), 0.8 mi downstream from Sligo Branch, 1.0 mi west of Hyattsville, and 1.6 mi upstream from confluence with Northeast Branch.

DRAINAGE AREA.--49.4 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1938 to current year. Monthly discharge only for July 1938 published in WSP 1302.

REVISED RECORDS.--WSP 971: 1942(M).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 17.10 ft above sea level (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 (Orifice line leak), 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.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,700 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 20	0545	1,830	3.84	July 7	1900	*4,340	*5.63
June 25	1600	2,000	3.99	Aug. 6	0945	1,710	3.73
July 4	1630	2,130	4.10				

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	115	15	55	24	43	23	39	18	46	4.1	2.9
2	20	57	13	29	24	29	22	112	18	36	4.0	2.5
3	13	18	13	20	23	26	22	37	29	15	3.8	2.5
4	11	13	21	19	e37	24	23	23	22	193	3.6	2.5
5	11	13	200	16	e31	23	25	21	16	55	9.3	2.3
6	10	17	45	87	e26	27	25	19	14	64	478	1.8
7	9.8	15	25	274	e25	26	21	18	13	342	54	2.0
8	10	15	20	62	e24	533	21	18	13	71	17	1.7
9	31	17	18	32	e23	282	25	19	12	23	11	3.2
10	26	38	89	26	e23	65	31	77	12	32	10	3.1
11	12	19	91	28	e27	46	23	116	33	19	7.9	2.5
12	10	13	29	29	e28	39	89	31	155	15	6.9	2.1
13	11	12	21	27	e24	35	112	22	41	12	6.4	2.2
14	12	12	22	28	e22	34	31	82	18	12	5.8	3.0
15	11	13	20	121	25	33	22	45	14	11	6.2	2.1
16	11	23	19	94	66	32	21	24	13	9.8	5.8	6.6
17	11	14	29	38	60	34	21	200	12	9.8	5.3	189
18	11	15	21	38	41	31	23	218	11	9.0	5.0	19
19	11	16	18	30	31	29	22	231	10	7.6	4.4	5.8
20	13	14	18	664	33	29	21	57	9.8	6.8	4.0	4.6
21	11	70	18	83	32	36	21	32	9.3	14	3.6	4.3
22	11	44	18	42	25	30	21	26	7.9	9.1	3.5	95
23	105	17	18	32	25	26	19	23	28	7.4	4.3	28
24	31	13	20	29	26	25	46	21	177	6.9	5.4	11
25	14	12	47	29	23	24	21	29	247	6.4	4.5	57
26	12	16	23	26	22	24	18	25	74	5.6	3.8	54
27	12	38	18	24	33	24	18	19	55	6.2	5.1	20
28	12	92	18	24	158	26	19	39	26	7.9	4.0	9.4
29	11	26	17	35	---	25	18	64	19	5.7	3.1	6.2
30	13	17	17	30	---	24	104	41	17	4.8	2.7	5.5
31	14	---	27	28	---	24	---	20	---	4.1	3.5	---
TOTAL	512.8	814	988	2099	961	1708	928	1748	1144.0	1067.1	696.0	551.8
MEAN	16.5	27.1	31.9	67.7	34.3	55.1	30.9	56.4	38.1	34.4	22.5	18.4
MAX	105	115	200	664	158	533	112	231	247	342	478	189
MIN	9.8	12	13	16	22	23	18	18	7.9	4.1	2.7	1.7
CFSM	.33	.55	.65	1.37	.69	1.12	.63	1.14	.77	.70	.45	.37
IN.	.39	.61	.74	1.58	.72	1.29	.70	1.32	.86	.80	.52	.42

e Estimated

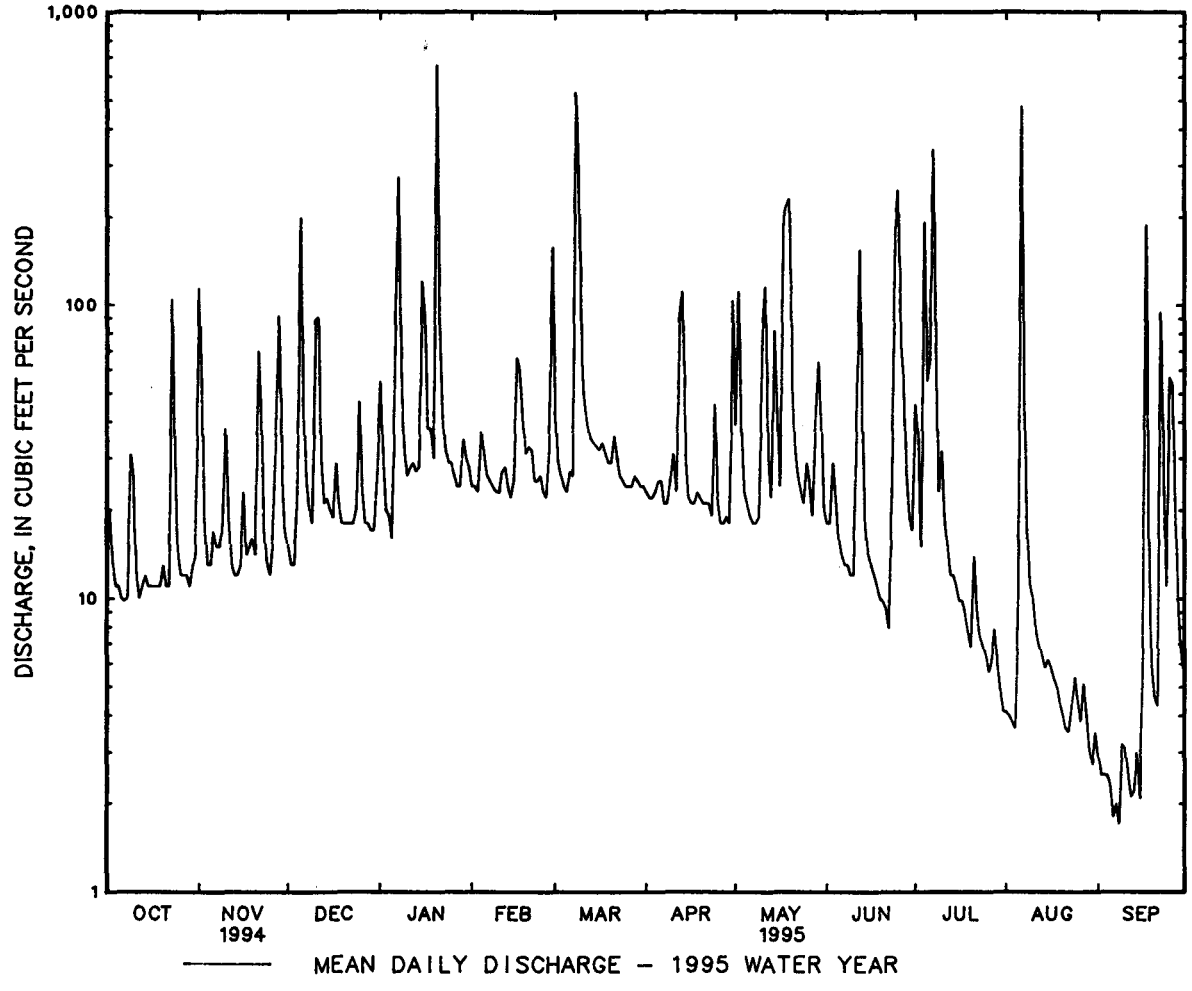
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 1995, BY WATER YEAR (WY)

MEAN	28.2	40.4	49.0	53.4	63.0	70.4	61.7	54.9	41.9	34.7	37.9	36.5
MAX	129	128	136	173	183	176	167	198	237	159	193	327
(WY)	1980	1994	1984	1979	1979	1994	1952	1989	1972	1945	1955	1975
MIN	2.44	4.30	11.4	8.04	13.6	23.5	15.3	9.91	10.1	4.07	3.61	2.58
(WY)	1942	1942	1966	1955	1947	1981	1950	1941	1940	1944	1943	1941

01651000 NORTHWEST BRANCH ANACOSTIA RIVER NEAR HYATTSVILLE, MD--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1938 - 1995	
ANNUAL TOTAL	23272.4		13217.7			
ANNUAL MEAN	(a)63.8		(a)36.2		(a)47.7	
HIGHEST ANNUAL MEAN					96.9	1979
LOWEST ANNUAL MEAN					20.8	1947
HIGHEST DAILY MEAN	702	Mar 28	664	Jan 20	5050	Sep 26 1975
LOWEST DAILY MEAN	8.0	Sep 21	1.7	Sep 8	.40	(b)
ANNUAL SEVEN-DAY MINIMUM	9.8	Sep 8	2.2	Sep 2	.60	Sep 7 1966
INSTANTANEOUS PEAK FLOW			4340	Jul 7	(c)18000	Jun 22 1972
INSTANTANEOUS PEAK STAGE			5.63	Jul 7	14.47	Jun 22 1972
INSTANTANEOUS LOW FLOW			1.6	Sep 8	.20	Sep 11 1966
ANNUAL RUNOFF (CFSM)	1.29		.73		.96	
ANNUAL RUNOFF (INCHES)	17.52		9.95		13.11	
10 PERCENT EXCEEDS	137		68		90	
50 PERCENT EXCEEDS	37		21		23	
90 PERCENT EXCEEDS	12		5.2		6.5	

a Unadjusted.
b Sept. 8, 11, 1966.
c From rating curve extended above 4,000 ft^3/s on the 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 1963, 1969-74, 1992, 1994 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TEMPER-ATURE AIR (DEG C)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3
AUG 1995												
16...	0830	5.4	293	6.9	25.5	27.0	89	25	6.5	16	5.0	63

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS NO3)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
AUG 1995											
16...	18	32	0.20	7.8	169	1.9	0.010	0.450	0.450	190	100

01651800 WATTS BRANCH AT WASHINGTON, D.C.

LOCATION.--Lat 38°54'04", long 76°56'33", District of Columbia, Hydrologic Unit 02070010, on right bank 5 ft downstream from footbridge, 200 ft upstream from Minnesota Ave., and 1.0 mi upstream from mouth.

DRAINAGE AREA.-- 3.28 mi^2.

PERIOD OF RECORD.--June 1992 to current year.

GAGE.--Water-stage recorder, crest-stage gage, and cobblestone control. Datum of gage is 16.52 ft above sea level.

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

PEAK DISCHARGES FOR CURRENT PERIOD.--Peak discharges greater than base discharge of 350 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 20	0400	*692	*5.30	May 18	1345	498	4.61
Mar. 8	1415	527	4.72	June 24	0400	501	4.62

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.92	6.2	.95	e6.8	1.7	2.6	1.6	1.6	1.1	11	.92	.57
2	1.2	1.1	.94	e4.0	1.7	2.0	1.6	9.5	3.5	1.8	1.4	.57
3	.89	.84	.95	e2.2	1.7	1.9	1.4	1.6	2.4	1.2	1.3	.56
4	.91	.83	3.3	e1.5	4.9	1.9	1.5	1.3	1.1	1.9	1.5	.56
5	.89	.89	14	e1.3	2.1	1.7	1.6	1.9	.80	1.3	4.0	.57
6	.86	1.3	1.7	e2.3	e1.8	2.3	1.6	1.3	.81	9.8	10	.52
7	.83	1.1	1.4	e19	e1.7	1.8	1.8	1.1	.90	9.3	1.3	.45
8	.89	1.5	1.3	e9.0	e1.7	87	1.7	1.2	.82	1.9	1.1	.59
9	2.6	1.0	1.4	e4.5	e1.8	13	1.7	1.8	.83	1.2	1.0	.62
10	1.3	3.6	11	e2.8	2.2	4.3	2.0	14	.69	2.8	1.1	.68
11	1.0	.96	3.0	e2.1	2.8	3.2	1.4	5.8	5.7	2.4	.97	.46
12	1.0	.78	1.6	e2.0	2.0	2.7	12	1.6	6.2	.87	.95	.46
13	.89	.85	1.6	e1.9	1.8	2.4	3.5	1.3	1.4	1.0	1.1	1.1
14	.93	.78	1.6	1.7	1.6	2.2	1.3	6.4	1.2	2.1	.92	.67
15	.82	.69	1.5	11	4.1	2.1	1.3	1.4	1.2	3.5	12	.47
16	.78	.81	1.4	2.8	8.8	2.0	1.1	.86	.86	1.9	.91	3.5
17	.79	.96	3.5	2.0	3.5	1.9	1.2	10	.96	1.6	1.7	12
18	.78	2.3	1.7	1.9	2.3	1.9	1.2	14	.94	1.7	.79	.66
19	.78	1.2	1.4	2.9	2.4	1.9	1.3	14	2.2	1.0	.72	.56
20	1.0	1.0	1.4	58	2.0	1.9	1.3	1.8	1.1	1.0	.58	.59
21	.88	8.9	1.4	4.1	2.2	3.9	1.2	1.1	1.6	13	.79	.60
22	.80	1.3	1.3	2.8	1.7	2.0	1.3	.84	.90	5.9	.75	9.9
23	17	.87	1.4	2.4	1.7	1.9	1.3	.72	5.8	1.6	.75	.94
24	1.3	.89	1.8	2.1	1.6	2.0	5.7	.80	18	2.4	.72	1.7
25	1.0	.93	5.2	1.9	1.4	1.8	1.6	4.1	5.2	2.1	.59	3.9
26	1.1	.89	1.6	1.9	1.4	1.7	1.5	1.7	1.9	.90	.57	4.1
27	1.0	5.1	e1.4	1.7	4.8	1.7	1.4	1.1	1.7	1.9	.61	.90
28	1.0	2.2	e1.3	1.8	11	1.7	1.4	4.1	1.2	1.5	.63	.66
29	.93	1.1	e1.3	3.7	---	2.0	1.4	6.1	1.1	1.1	.74	.61
30	.89	1.0	e1.4	2.2	---	1.8	12	1.6	2.0	1.4	.59	.60
31	.89	---	e2.0	1.9	---	1.7	---	1.1	---	.85	.67	---
TOTAL	46.85	51.87	75.74	166.2	78.4	162.9	70.9	115.72	74.11	91.92	51.67	50.07
MEAN	1.51	1.73	2.44	5.36	2.80	5.25	2.36	3.73	2.47	2.97	1.67	1.67
MAX	17	8.9	14	58	11	87	12	14	18	13	12	12
MIN	.78	.69	.94	1.3	1.4	1.7	1.1	.72	.69	.85	.57	.45
CFSM	.46	.53	.74	1.63	.85	1.60	.72	1.14	.75	.90	.51	.51
IN.	.53	.59	.86	1.88	.89	1.85	.80	1.31	.84	1.04	.59	.57

e Estimated

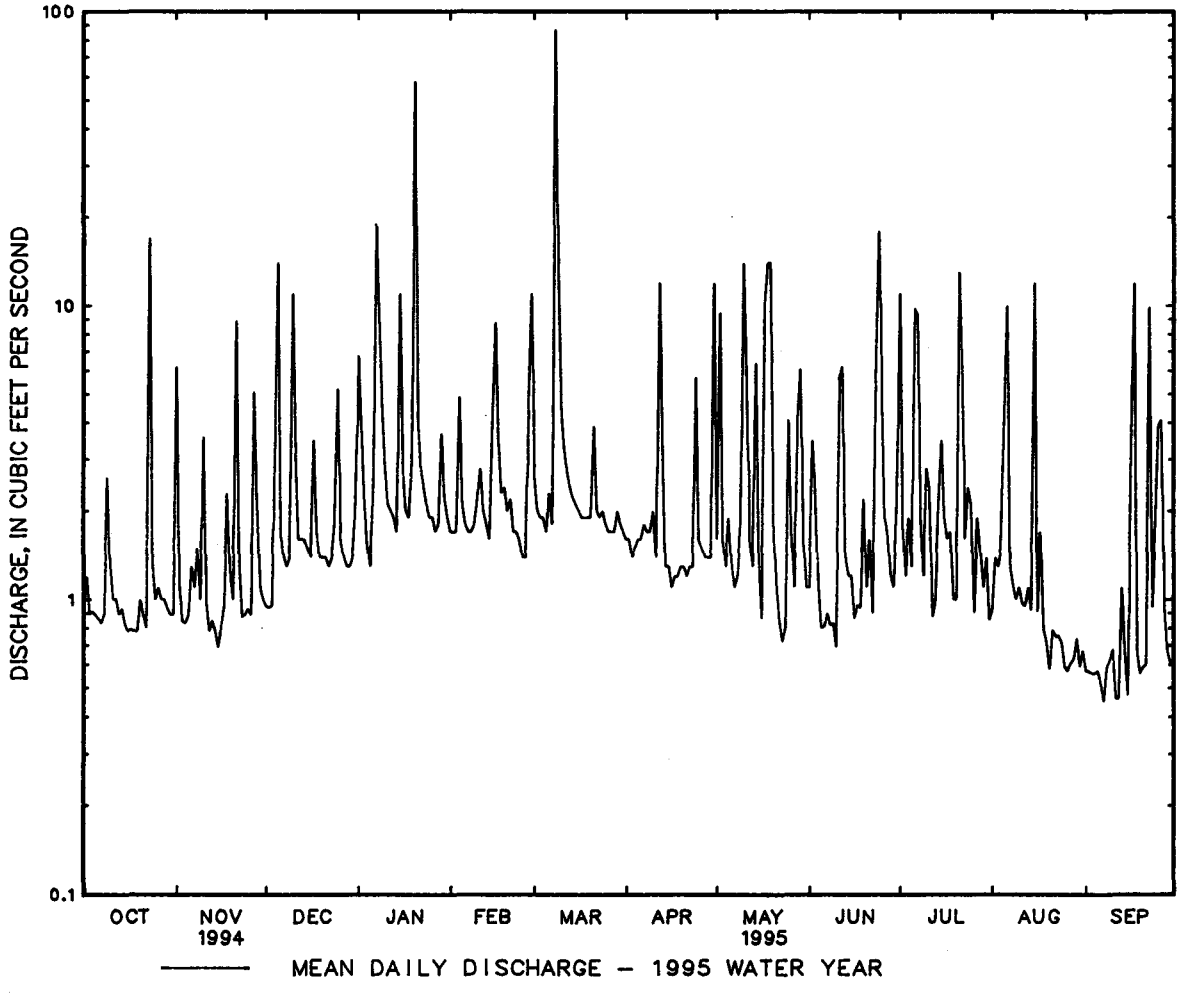
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 1995, BY WATER YEAR (WY)

MEAN	1.73	3.39	3.81	6.35	5.15	12.0	4.55	3.86	2.14	3.21	2.65	2.85
MAX	2.27	5.18	4.70	8.11	8.48	15.7	6.39	4.31	2.47	4.12	4.32	5.00
(WY)	1994	1994	1994	1994	1994	1994	1993	1993	1995	1992	1994	1994
MIN	1.43	1.73	2.44	5.36	2.80	5.25	2.36	3.55	1.83	2.31	1.67	1.67
(WY)	1993	1995	1995	1995	1995	1995	1995	1994	1994	1993	1995	1995

01651800 WATTS BRANCH AT WASHINGTON, D.C.--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1992 - 1995	
ANNUAL TOTAL	1851.76		1036.35			
ANNUAL MEAN	5.07		2.84		4.31	
HIGHEST ANNUAL MEAN					5.61	1994
LOWEST ANNUAL MEAN					2.84	1995
HIGHEST DAILY MEAN	86	Mar 28	87	Mar 8	109	Mar 17 1993
LOWEST DAILY MEAN	.60	Jul 1	.45	Sep 7	.37	Jul 23 1993
ANNUAL SEVEN-DAY MINIMUM	.73	Aug 31	.54	Sep 6	.45	Jul 30 1993
INSTANTANEOUS PEAK FLOW			692	Jan 20	1510	Sep 26 1994
INSTANTANEOUS PEAK STAGE			5.30	Jan 20	7.36	Sep 26 1994
INSTANTANEOUS LOW FLOW			.41	(a)	.36	(b)
ANNUAL RUNOFF (CFSM)	1.55		.87		1.31	
ANNUAL RUNOFF (INCHES)	21.00		11.75		17.86	
10 PERCENT EXCEEDS	11		5.7		9.3	
50 PERCENT EXCEEDS	2.2		1.5		1.7	
90 PERCENT EXCEEDS	.83		.77		.79	

a Sept. 6, 7.
b July 22-26, 28-31, Aug. 1, 2, 1993.



01653600 PISCATAWAY CREEK AT PISCATAWAY, MD

LOCATION.--Lat 38°42'20", long 76°58'00", Prince Georges County, Hydrologic Unit 02070010, on left bank 75 ft downstream from bridge on State Highway 223, at Piscataway, 0.4 mi upstream from Tinker Creek, and 4.8 mi upstream from mouth.

DRAINAGE AREA.--39.5 mi^2.

PERIOD OF RECORD.--October 1965 to current year.

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 10 ft above sea level, from topographic map.

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

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 450 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 20	1300	572	6.08	June 4	0700	505	5.82
Mar. 9	0330	*814	*6.83				

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.3	4.5	7.5	19	25	54	20	49	9.4	12	2.7	.00
2	5.3	10	7.1	18	23	31	18	69	9.2	11	1.5	.00
3	5.3	5.5	6.8	12	19	27	18	43	91	8.8	.95	.00
4	4.0	3.9	6.4	10	25	24	18	23	275	23	.54	.00
5	3.5	4.0	73	8.3	25	23	16	38	41	38	.30	.00
6	3.2	4.1	36	8.7	18	24	16	26	25	20	3.5	.00
7	3.1	4.8	17	204	17	24	16	17	22	67	13	.00
8	3.1	3.8	12	61	17	152	16	14	16	115	3.2	.00
9	2.8	3.6	9.8	29	16	677	16	12	12	21	1.8	.00
10	3.1	5.2	11	21	16	138	18	24	11	17	1.3	.00
11	3.7	8.9	27	18	19	87	18	103	12	60	.90	.00
12	2.4	4.7	16	17	23	64	19	30	81	20	.57	.00
13	2.1	4.4	11	15	17	49	114	19	41	12	.23	.00
14	2.4	4.3	10	15	16	44	33	45	20	8.4	.06	.00
15	2.7	4.4	10	23	18	38	23	42	13	6.4	2.5	.00
16	2.3	4.4	8.9	52	72	36	20	20	10	5.4	3.7	.00
17	2.0	4.9	11	23	102	34	18	17	8.1	4.4	.83	5.4
18	2.0	5.7	14	17	53	30	22	21	6.8	3.7	.08	7.9
19	2.0	7.3	11	16	38	28	20	78	6.4	3.2	.01	1.4
20	2.0	6.0	9.1	411	34	28	18	33	5.0	2.3	.00	1.4
21	2.4	19	8.4	178	32	31	16	19	4.5	2.7	.00	1.5
22	2.4	50	8.3	63	25	29	15	14	4.5	42	.00	1.6
23	27	14	8.3	39	24	26	13	11	12	9.5	.00	18
24	31	8.0	8.3	33	23	24	30	9.8	161	4.5	.00	4.0
25	8.8	6.9	12	27	21	22	21	18	95	9.0	.00	2.9
26	5.7	6.3	13	24	19	22	15	56	142	5.0	.00	8.1
27	4.8	6.4	9.5	22	20	21	14	19	29	3.0	.00	7.4
28	5.0	20	8.7	23	90	21	12	14	22	6.3	.00	3.3
29	3.9	14	8.2	25	---	21	11	20	18	9.4	.00	2.3
30	3.7	9.4	7.3	25	---	21	50	15	15	12	.00	1.6
31	3.8	---	7.5	25	---	21	---	11	---	4.0	.00	---
TOTAL	160.8	258.4	414.1	1482.0	847	1871	674	929.8	1217.9	566.0	37.67	66.80
MEAN	5.19	8.61	13.4	47.8	30.2	60.4	22.5	30.0	40.6	18.3	1.22	2.23
MAX	31	50	73	411	102	677	114	103	275	115	13	18
MIN	2.0	3.6	6.4	8.3	16	21	11	9.8	4.5	2.3	.00	.00
CFSM	.13	.22	.34	1.21	.77	1.53	.57	.76	1.03	.46	.03	.06
IN.	.15	.24	.39	1.40	.80	1.76	.63	.88	1.15	.53	.04	.06

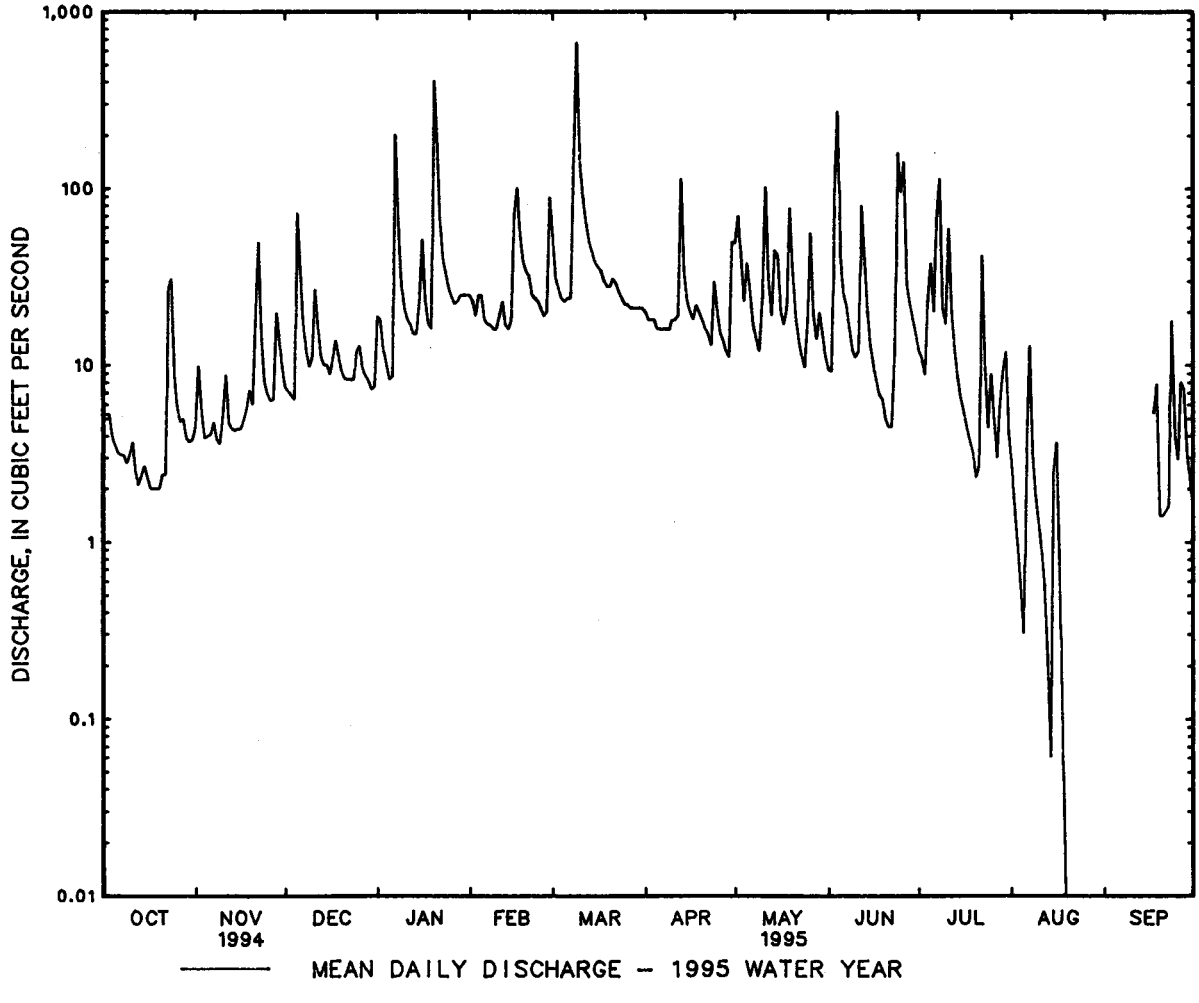
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 1995, BY WATER YEAR (WY)

MEAN	27.5	31.8	50.6	61.6	68.0	81.6	66.7	48.3	31.8	18.9	20.0	27.8
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	23.6	17.5	18.1	11.1	1.42	.14	.006	.000
(WY)	1987	1992	1966	1981	1977	1981	1985	1986	1986	1966	1966	1977

01653600 PISCATAWAY CREEK AT PISCATAWAY, MD--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1966 - 1995	
ANNUAL TOTAL	20465.23		8525.47			
ANNUAL MEAN	56.1		23.4		44.4	
HIGHEST ANNUAL MEAN					85.9	1972
LOWEST ANNUAL MEAN					13.4	1981
HIGHEST DAILY MEAN	1480	Mar 28	677	Mar 9	4500	Sep 6 1979
LOWEST DAILY MEAN	.00	(a)	.00	(b)	.00	(c)
ANNUAL SEVEN-DAY MINIMUM	.01	Sep 12	.00	Aug 20	.00	Jul 9 1966
INSTANTANEOUS PEAK FLOW			814	Mar 9	(d)8540	Sep 6 1979
INSTANTANEOUS PEAK STAGE			6.83	Mar 9	11.21	Sep 6 1979
INSTANTANEOUS LOW FLOW			.00	(f)	.00	(g)
ANNUAL RUNOFF (CFSM)	1.42		.59		1.12	
ANNUAL RUNOFF (INCHES)	19.27		8.03		15.29	
10 PERCENT EXCEEDS	135		44		87	
50 PERCENT EXCEEDS	12		13		23	
90 PERCENT EXCEEDS	2.4		.87		1.5	

a Sept. 15-18.
b Aug. 20-Sept. 16.
c Many days in 1966, 1970, 1977, 1980-83, 1985-89, 1991-1995.
d From rating curve extended above 1,700 ft^3/s on basis of contracted-opening measurement of peak flow at bridge 100 ft upstream.
f Aug. 19-Sept. 17.
g At times in 1966, 1970, 1977, 1980-83, 1985-89, 1991-1995.



01660920 ZEKIAH SWAMP RUN NEAR NEWTOWN, MD

LOCATION.--Lat 38°29'26", long 76°55'37", Charles County, Hydrologic Unit 02070011, on left-center downstream side of bridge on Maryland Route 6, 1.0 mi southeast of Newtown, and 1.7 mi downstream from Kerrick Swamp.

DRAINAGE AREA.--79.9 mi^2.

PERIOD OF RECORD.--June 1983 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 34.88 ft above sea level.

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

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 700 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar. 9	UNKNOWN	*873	*3.91	No other peak greater than base discharge			

DISCHARGE IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	26	38	32	e55	e130	45	84	19	24	1.9	.00
2	30	26	31	42	e52	e74	44	109	26	19	1.4	.00
3	24	25	27	34	e49	e64	43	154	112	14	1.1	.00
4	22	24	27	27	e49	e59	42	95	122	10	.85	.00
5	20	24	76	21	e49	e56	39	70	70	9.3	.55	.00
6	17	26	120	18	e45	e55	36	67	42	8.3	.45	.00
7	16	23	80	191	e41	e54	36	51	35	12	.26	.00
8	15	22	50	259	e38	e350	36	37	28	15	.12	.00
9	15	22	38	126	e37	e500	36	31	19	32	.10	.00
10	17	26	36	77	e37	e300	35	41	15	19	.47	.00
11	17	31	50	60	e41	e200	35	142	13	98	.73	.00
12	16	35	53	54	e47	e150	39	119	30	148	1.0	.00
13	15	29	42	e43	e41	e110	135	62	52	36	.93	.00
14	17	25	35	e40	e37	e92	140	55	35	16	.76	.00
15	21	24	32	e48	e50	e84	78	80	21	10	.65	.00
16	20	23	29	e80	e150	78	58	59	13	6.5	.53	.00
17	19	24	32	e64	e180	74	47	40	9.2	4.7	.17	.00
18	17	36	40	e43	e130	68	42	41	7.8	4.3	.02	.00
19	16	39	37	e39	e90	63	40	83	6.1	2.9	.00	.00
20	16	35	29	e320	e76	61	36	107	4.5	2.4	.00	.00
21	18	53	25	e280	e68	63	33	60	3.8	2.0	.00	.00
22	19	136	23	e140	e60	66	31	36	3.5	1.8	.00	.00
23	28	101	24	e90	e55	61	27	26	17	3.5	.00	.00
24	51	55	24	e74	e52	56	49	20	58	5.7	.00	.00
25	50	39	30	e64	e49	51	67	16	116	5.8	.00	.00
26	38	32	36	e58	e47	48	53	17	108	3.9	.00	.00
27	33	31	30	e56	e46	48	40	20	190	2.9	.00	.00
28	30	59	25	e54	e180	46	32	22	81	4.4	.00	.00
29	27	69	23	e56	---	46	25	26	45	5.1	.00	.00
30	25	52	20	e57	---	46	36	27	32	3.6	.00	.00
31	25	---	19	e57	---	47	---	23	---	2.5	.00	---
TOTAL	726	1172	1181	2604	1851	3200	1435	1820	1333.9	532.6	11.99	0.00
MEAN	23.4	39.1	38.1	84.0	66.1	103	47.8	58.7	44.5	17.2	.39	.000
MAX	51	136	120	320	180	500	140	154	190	148	1.9	.00
MIN	15	22	19	18	37	46	25	16	3.5	1.8	.00	.00
CFSM	.29	.49	.48	1.05	.83	1.29	.60	.73	.56	.22	.00	.00
IN.	.34	.55	.55	1.21	.86	1.49	.67	.85	.62	.25	.01	.00

e Estimated

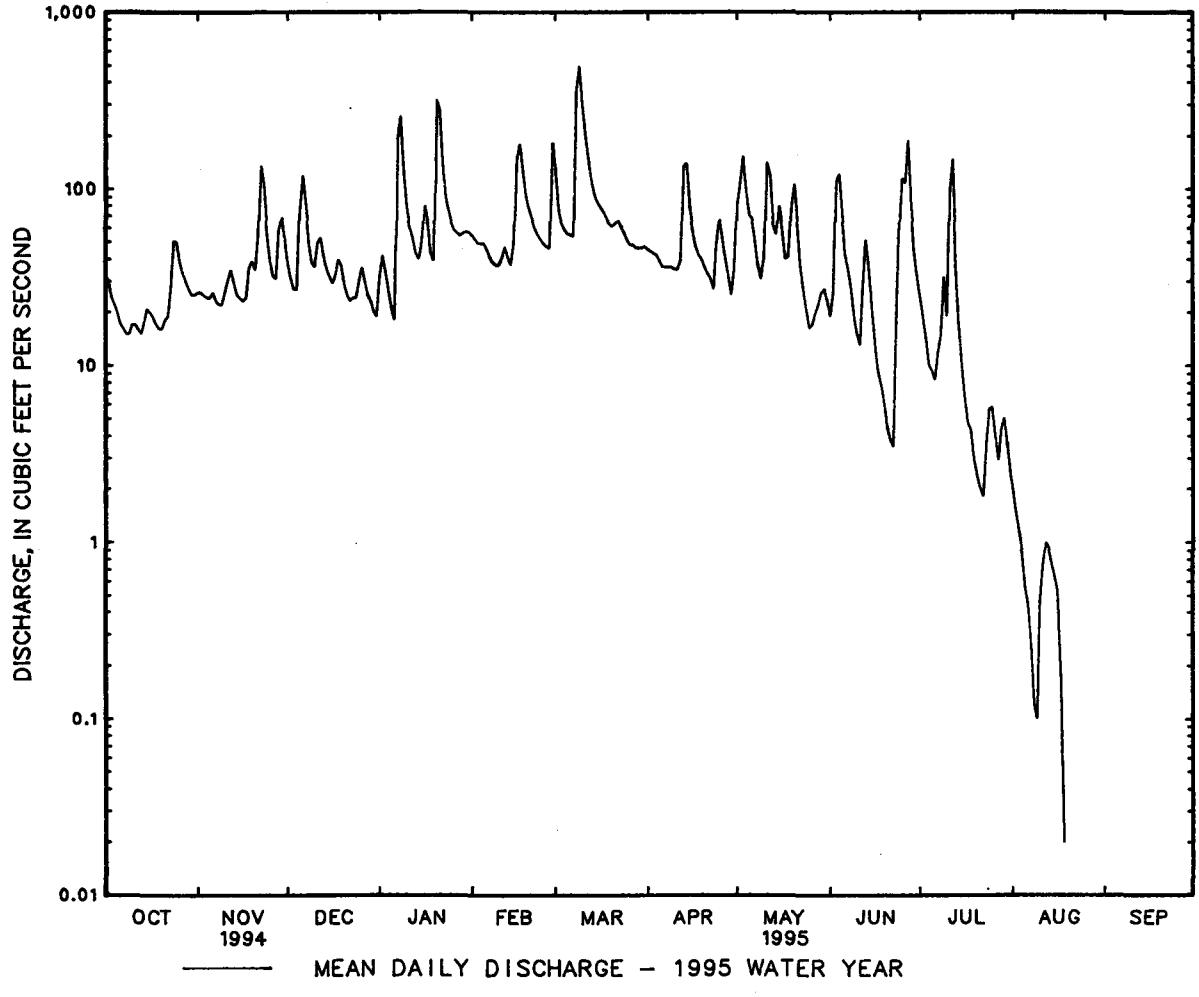
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 1995, BY WATER YEAR (WY)

MEAN	38.2	71.1	100	124	132	186	134	109	64.5	30.1	29.4	31.7
MAX	163	139	226	248	261	491	277	334	311	93.5	113	127
(WY)	1990	1986	1984	1990	1994	1994	1993	1989	1989	1989	1990	1992
MIN	7.93	7.35	38.1	49.1	57.6	57.0	30.5	25.5	2.07	4.47	.39	.000
(WY)	1992	1992	1995	1985	1992	1985	1985	1986	1986	1987	1995	1995

01660920 ZEKIAH SWAMP RUN NEAR NEWTOWN, MD--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1983 - 1995	
ANNUAL TOTAL	42567.13		15867.49			
ANNUAL MEAN	117		43.5		87.7	
HIGHEST ANNUAL MEAN					137	1990
LOWEST ANNUAL MEAN					43.5	1995
HIGHEST DAILY MEAN	2570	Mar 29	(e)500	Mar 9	2570	Mar 29 1994
LOWEST DAILY MEAN	.47	Jul 15	.00	(a)	.00	many days
ANNUAL SEVEN-DAY MINIMUM	1.2	Jul 13	.00	Aug 19	.00	Jul 20 1987
INSTANTANEOUS PEAK FLOW			873	Mar 9	3380	Mar 29 1994
INSTANTANEOUS PEAK STAGE			3.91	Mar 9	5.26	Mar 29 1994
INSTANTANEOUS LOW FLOW			.00	(b)	.00	(c)
ANNUAL RUNOFF (CFSM)	1.46		.54		1.10	
ANNUAL RUNOFF (INCHES)	19.82		7.39		14.91	
10 PERCENT EXCEEDS	244		91		193	
50 PERCENT EXCEEDS	44		32		47	
90 PERCENT EXCEEDS	6.0		.00		1.8	

e Estimated.
a Aug. 19-31, Sept. 1-30.
b Aug. 18-31, Sept. 1-30.
c No flow for several days in 1983, 1985-89, 1991, 1993, 1995.



01661050 ST. CLEMENT CREEK NEAR CLEMENTS, MD

LOCATION.--Lat 38°20'00", long 76°43'31", St. Marys County, Hydrologic Unit 02070011, on left bank 60 ft downstream from bridge on State Highway 242, 0.5 mi north of Clements, 2.3 mi upstream from mouth, and 5.7 mi northwest of Leonardtown.

DRAINAGE AREA.--18.5 mi^2.

PERIOD OF RECORD.--October 1968 to current year.

REVISED RECORDS.--WDR MD-DE-79-1: 1974(P).

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Elevation of gage is 8 ft above sea level, from topographic map.

REMARKS.--Records good except those for estimated daily discharges (missing record and backwater from beaverdam), 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 220 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar. 9	0530	*203	*3.27	No peak greater than base discharge.			

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.1	7.2	11	10	18	20	11	28	e3.5	e16	.77	e.00
2	5.4	8.1	10	11	16	14	11	51	e6.0	e11	.59	e.00
3	5.2	6.9	10	8.4	14	12	10	37	e25	e7.4	.48	e.00
4	4.4	6.1	11	7.8	42	12	10	20	e10	e5.4	e.42	e.00
5	4.2	7.1	22	6.4	31	12	9.6	19	e7.6	e4.7	e.37	e.00
6	4.2	6.5	20	6.6	14	12	9.3	15	e7.2	e4.4	e.40	e.00
7	3.7	7.2	13	67	12	12	9.5	11	e6.2	e6.0	e.42	e.00
8	3.8	6.9	11	29	13	31	9.7	9.4	e5.6	e6.4	e.44	e.00
9	3.8	6.2	9.9	16	11	130	9.6	8.2	e5.0	e3.5	e.46	e.00
10	4.0	6.7	11	13	13	35	9.4	14	e4.8	e3.0	e.46	e.00
11	3.6	7.4	14	12	15	23	9.3	28	e17	2.4	e.46	e.00
12	3.6	7.2	12	12	14	20	12	14	e13	2.2	e.40	e.00
13	3.6	6.4	10	12	11	17	82	9.5	e9.0	1.9	e.36	e.00
14	6.3	6.2	9.7	11	11	17	27	16	e7.6	1.5	e.40	e.00
15	8.7	6.1	9.4	16	13	16	18	20	e5.8	1.1	e.50	e.00
16	6.1	6.3	9.1	23	28	15	15	11	e4.5	.91	e.25	e.00
17	4.5	11	11	15	29	14	15	8.6	e3.7	1.1	e.15	e.44
18	4.3	17	13	12	19	13	14	11	e3.2	10	.00	e.37
19	3.8	17	11	12	16	13	14	16	e2.9	6.9	.00	e.31
20	4.0	11	9.6	116	16	12	12	13	e2.7	2.1	.00	e.27
21	4.1	42	8.8	70	15	19	11	7.8	e4.0	18	.00	e.45
22	3.9	60	8.5	29	13	19	11	e6.0	e6.0	12	.00	e.96
23	8.6	20	8.9	20	13	14	8.7	e5.2	e20	3.9	.00	e.84
24	12	13	9.1	17	14	13	48	e4.7	e45	2.6	e.00	e.70
25	8.4	11	9.7	16	11	12	28	e4.5	e30	2.3	e.00	e.60
26	6.5	10	9.7	15	11	12	16	e4.3	e10	1.8	e.00	e.64
27	6.6	12	8.4	13	11	12	13	e4.2	e7.6	1.6	e.00	e.44
28	6.3	25	8.1	13	17	12	12	e6.0	e7.0	2.3	e.00	e.35
29	6.2	18	8.4	14	---	11	10	e5.4	e6.8	2.0	e.00	e.32
30	5.4	13	8.1	15	---	11	22	e4.7	e6.8	1.4	e.00	e.30
31	5.6	---	7.9	18	---	11	---	e4.0	---	.99	e.00	---
TOTAL	166.9	388.5	333.3	656.2	461	596	497.1	416.5	293.5	146.80	7.33	6.99
MEAN	5.38	12.9	10.8	21.2	16.5	19.2	16.6	13.4	9.78	4.74	.24	.23
MAX	12	60	22	116	42	130	82	51	45	18	.77	.96
MIN	3.6	6.1	7.9	6.4	11	11	8.7	4.0	2.7	.91	.00	.00
CFSM	.29	.70	.58	1.14	.89	1.04	.90	.73	.53	.26	.01	.01
IN.	.34	.78	.67	1.32	.93	1.20	1.00	.84	.59	.30	.01	.01

e Estimated

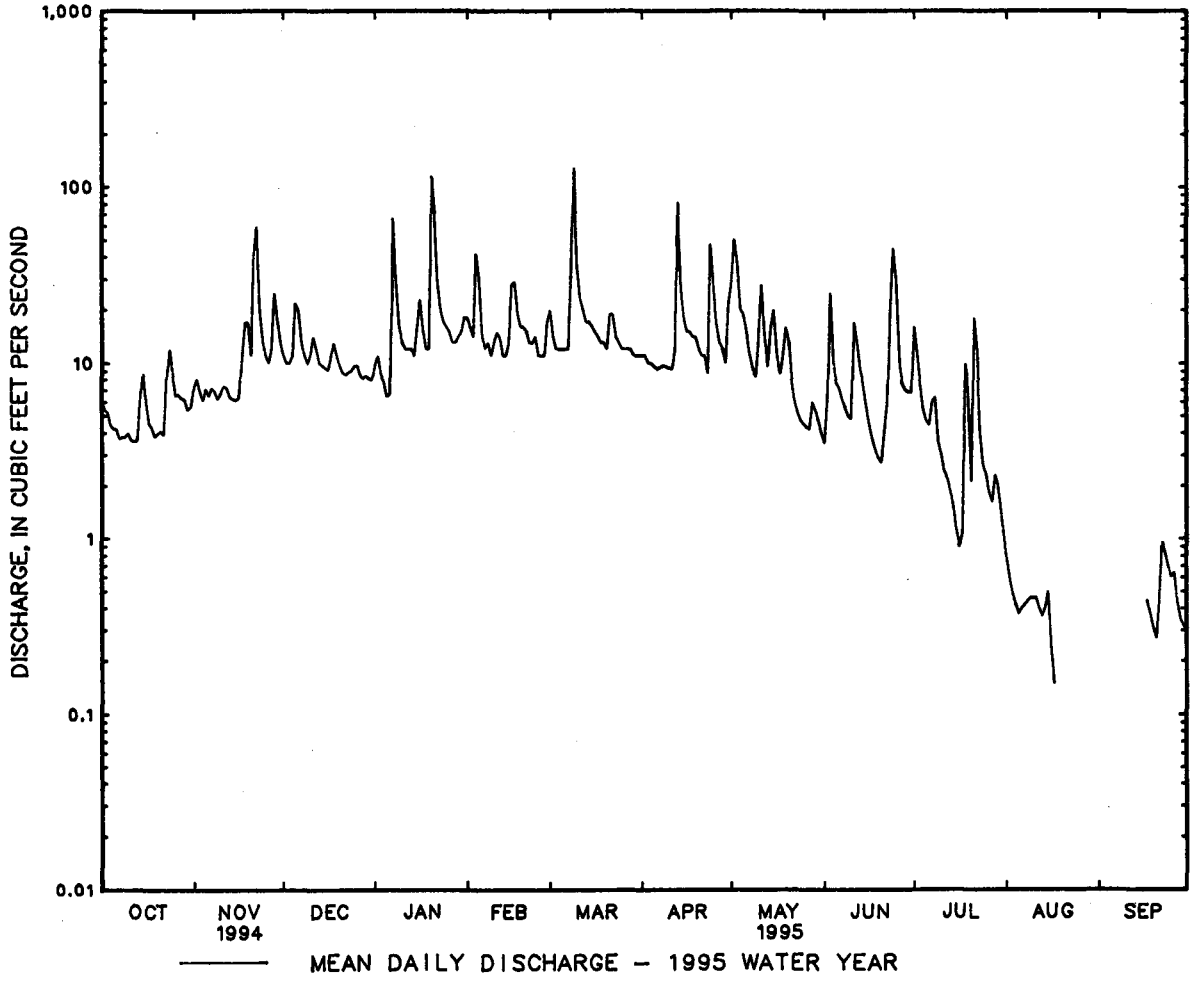
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1969 - 1995, BY WATER YEAR (WY)

MEAN	9.91	14.7	20.5	26.2	28.9	33.9	26.4	22.1	16.2	11.2	11.0	11.9
MAX	46.8	45.3	40.3	77.4	85.7	115	54.7	57.9	116	56.4	45.0	75.2
(WY)	1980	1980	1973	1978	1979	1994	1983	1978	1972	1975	1985	1979
MIN	.73	3.23	5.01	5.30	11.9	10.1	9.05	4.39	1.32	.50	.036	.000
(WY)	1989	1982	1989	1981	1991	1981	1985	1991	1988	1988	1988	1988

01661050 ST. CLEMENT CREEK NEAR CLEMENTS, MD--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1969 - 1995	
ANNUAL TOTAL	9700.22		3970.12			
ANNUAL MEAN	26.6		10.9		19.4	
HIGHEST ANNUAL MEAN					34.5	1972
LOWEST ANNUAL MEAN					9.19	1981
HIGHEST DAILY MEAN	1200	Mar 3	130	Mar 9	1580	Jun 22 1972
LOWEST DAILY MEAN	.57	Sep 14	.00	(a)	.00	(b)
ANNUAL SEVEN-DAY MINIMUM	.74	Sep 10	.00	Aug 18	.00	Aug 31 1980
INSTANTANEOUS PEAK FLOW			203	Mar 9	(c)4500	Sep 6 1979
INSTANTANEOUS PEAK STAGE			3.27	Mar 9	(d)6.96	Sep 6 1979
INSTANTANEOUS LOW FLOW			.00	(a)	.00	(f)
ANNUAL RUNOFF (CFSM)	1.44		.59		1.05	
ANNUAL RUNOFF (INCHES)	19.51		7.98		14.22	
10 PERCENT EXCEEDS	52		20		37	
50 PERCENT EXCEEDS	10		9.1		11	
90 PERCENT EXCEEDS	1.8		.34		1.2	

a Aug. 18 to Sept. 16.
b Many days
c From rating curve extended above 480 ft^3/s on basis of contracted-opening and flow-over-road measurement of peak flow.
d Backwater from tide; maximum gage height unaffected by backwater, 6.55 ft, June 22, 1972.
f No flow at times in 1977, 1980, 1981, 1983, 1985-89, 1991, 1993, 1995.



01661500 ST. MARYS RIVER AT GREAT MILLS, MD

LOCATION.--Lat 38°14'36", long 76°30'13", St. Marys County, Hydrologic Unit 02070011, on left bank at downstream side of bridge on State Highway 471 in Great Mills, 0.3 mi downstream from Western Branch, and 12.0 mi upstream from mouth.

DRAINAGE AREA.--24.0 mi^2.

PERIOD OF RECORD.--June 1946 to current year.

REVISED RECORDS.--WSP 1702: 1946, 1948-49, 1955, 1957-58. WDR MD-DE-83-1: 1981-82(M).

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 10 ft above sea level, from topographic map.

REMARKS.--Records good except those for estimated daily discharges (missing record), which are fair. Occasional regulation by reservoir on Western Branch of St. Marys River, 2.0 mi upstream since 1975, total capacity, 3,200 acre feet. 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 400 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar. 9	0430	*459	*4.66	No other peak greater than base discharge.			

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.8	6.6	10	6.7	12	12	8.8	18	3.4	4.9	1.9	.82
2	4.8	7.2	9.2	6.2	11	9.9	8.3	60	3.0	14	1.7	1.6
3	4.6	5.7	51	5.6	8.7	8.1	7.9	40	13	6.8	1.6	1.1
4	4.2	5.4	147	5.8	37	7.7	8.1	24	8.4	4.9	1.5	1.0
5	4.2	5.3	158	6.1	21	7.4	7.4	19	6.2	5.0	1.4	.89
6	3.9	6.7	140	5.8	12	7.7	6.7	16	5.3	4.5	1.5	.86
7	3.9	6.9	65	45	9.3	7.4	7.1	13	5.7	e6.0	1.7	.89
8	3.8	6.1	7.2	18	8.6	55	7.1	9.9	4.7	e12	1.7	.88
9	3.9	5.8	6.5	11	7.6	259	7.1	8.2	4.6	e8.6	1.7	.83
10	3.9	6.1	7.2	8.7	7.9	103	6.7	16	3.9	e6.2	1.9	.82
11	3.7	6.5	8.3	7.5	8.6	54	7.0	16	3.4	5.1	1.9	.64
12	3.5	5.9	7.0	6.9	7.8	38	7.2	12	14	4.1	1.7	.61
13	3.6	5.8	6.5	6.8	6.7	29	29	9.2	7.7	3.3	1.4	.71
14	5.3	6.0	6.5	6.6	6.7	24	16	15	6.9	2.7	1.3	.64
15	7.6	5.6	6.4	9.3	8.3	20	12	15	4.9	2.3	2.2	.59
16	5.6	5.8	6.5	13	21	18	10	10	3.7	2.0	1.6	.57
17	4.6	12	6.2	9.3	18	16	8.8	8.6	2.9	1.9	1.4	3.8
18	4.4	15	6.6	7.8	13	14	7.9	11	2.5	3.3	1.3	3.0
19	4.2	19	6.3	7.6	11	13	7.7	16	2.2	6.0	1.1	2.2
20	4.4	12	5.9	135	9.9	12	7.3	12	2.0	2.8	.94	1.8
21	4.6	47	5.8	45	9.3	18	6.8	9.1	1.9	21	.90	1.7
22	4.3	45	5.7	20	7.9	16	6.6	7.1	3.0	71	.97	6.2
23	8.7	20	6.1	14	7.7	15	6.1	6.1	11	23	.82	7.3
24	9.7	13	6.3	11	7.5	13	41	4.9	58	11	.69	5.1
25	6.7	11	6.9	9.4	6.5	12	27	4.6	18	7.5	.66	3.9
26	6.6	9.4	6.3	8.6	7.2	10	16	4.5	10	5.4	.63	4.4
27	7.1	10	5.9	8.1	7.1	9.8	12	4.3	6.9	4.4	.75	3.2
28	6.0	22	5.8	8.0	11	9.6	9.9	4.1	6.3	6.1	.87	2.5
29	5.5	15	5.6	9.0	---	9.3	8.4	5.3	5.2	4.4	.81	2.1
30	5.3	12	5.0	10	---	9.5	21	4.7	4.7	3.2	.72	1.8
31	5.6	---	5.5	12	---	9.4	---	4.0	---	2.6	.70	---
TOTAL	159.0	359.8	732.2	483.8	310.3	846.8	342.9	407.6	233.4	266.0	39.96	62.45
MEAN	5.13	12.0	23.6	15.6	11.1	27.3	11.4	13.1	7.78	8.58	1.29	2.08
MAX	9.7	47	158	135	37	259	41	60	58	71	2.2	7.3
MIN	3.5	5.3	5.0	5.6	6.5	7.4	6.1	4.0	1.9	1.9	.63	.57
CFSM	.21	.50	.98	.65	.46	1.14	.48	.55	.32	.36	.05	.09
IN.	.25	.56	1.13	.75	.48	1.31	.53	.63	.36	.41	.06	.10

e Estimated

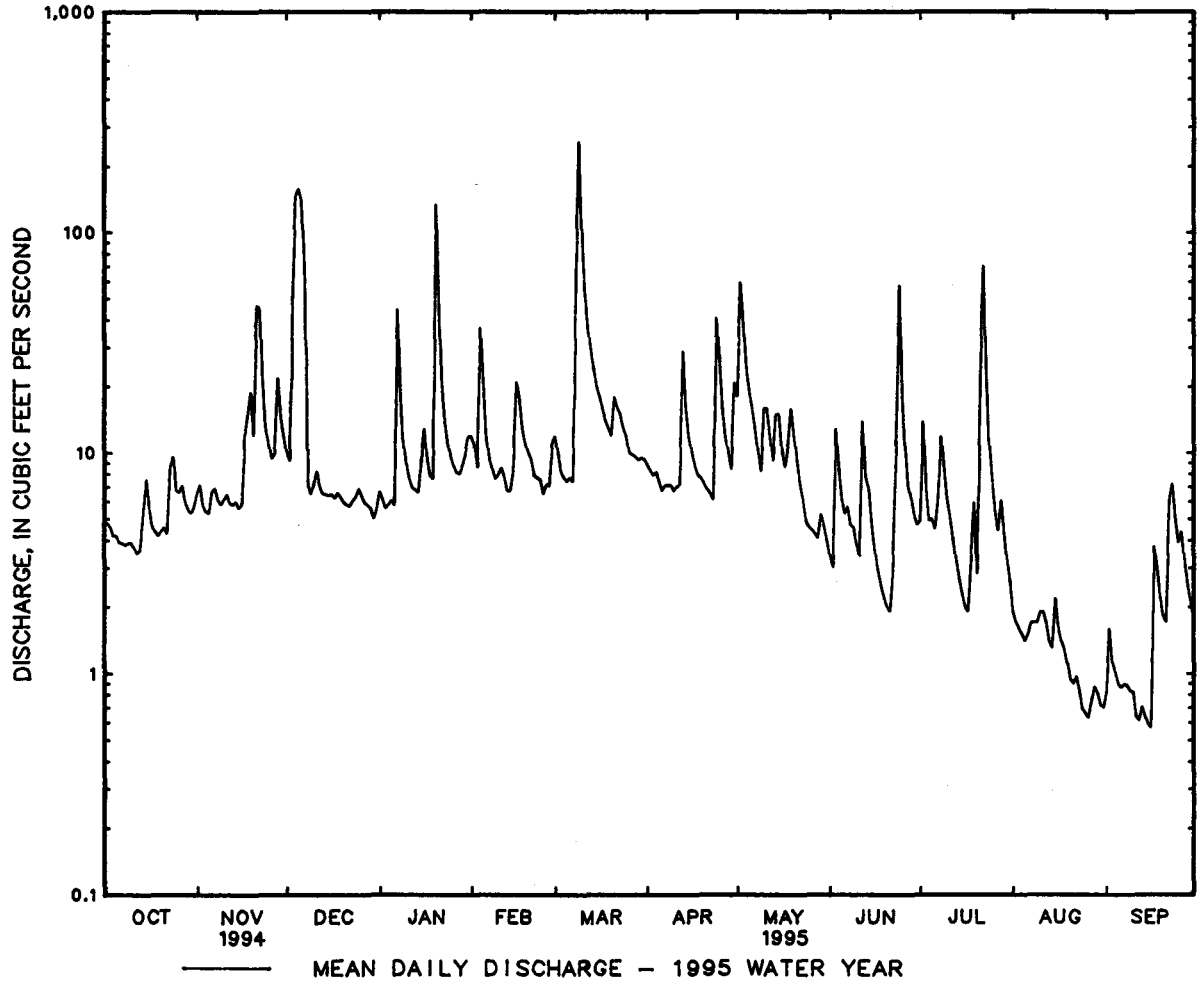
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1946 - 1995, BY WATER YEAR (WY)

MEAN	11.8	18.3	28.0	33.5	35.0	45.1	32.1	25.4	15.1	13.6	17.6	13.3
MAX	39.9	84.4	68.7	125	114	166	95.9	97.4	68.4	63.7	118	112
(WY)	1980	1957	1949	1978	1979	1994	1983	1990	1972	1960	1955	1979
MIN	2.58	4.29	5.27	6.45	9.31	8.52	6.82	5.36	2.68	1.48	1.29	2.02
(WY)	1969	1982	1966	1955	1968	1981	1985	1985	1986	1985	1995	1988

01661500 ST. MARYS RIVER AT GREAT MILLS, MD--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1946 - 1995	
ANNUAL TOTAL	13208.6		4244.21			
ANNUAL MEAN	36.2		11.6		24.0	
HIGHEST ANNUAL MEAN					49.1	1958
LOWEST ANNUAL MEAN					11.1	1966
HIGHEST DAILY MEAN	1430	Mar 3	259	Mar 9	2260	Aug 13 1955
LOWEST DAILY MEAN	2.5	Sep 12	.57	Sep 16	.30	Sep 7 1966
ANNUAL SEVEN-DAY MINIMUM	2.7	Sep 10	.65	Sep 10	.39	Sep 3 1966
INSTANTANEOUS PEAK FLOW			459	Mar 9	(a)7950	Aug 20 1969
INSTANTANEOUS PEAK STAGE			4.66	Mar 9	13.34	Aug 20 1969
INSTANTANEOUS LOW FLOW			.40	(b)	.20	Sep 7 1966
ANNUAL RUNOFF (CFSM)	1.51		.48		1.00	
ANNUAL RUNOFF (INCHES)	20.47		6.58		13.58	
10 PERCENT EXCEEDS	79		19		47	
50 PERCENT EXCEEDS	13		6.7		12	
90 PERCENT EXCEEDS	4.6		1.6		3.2	

a From rating curve extended above 1,500 ft^3/s on basis of contracted-opening measurement at gage height 12.08 ft.
b Sept. 15, 16.



03075500 YOUGHIOGHENY RIVER NEAR OAKLAND, MD

LOCATION.--Lat 39°25'19", long 79°25'32", Garrett County, Hydrologic Unit 05020006, on left bank 200 ft downstream from Baltimore and Ohio Railroad bridge, 250 ft downstream from Little Youghiogheny River, 1.2 mi northwest of Oakland, and 1.5 mi upstream from Dunkard Lick Run.

DRAINAGE AREA.--134 mi^2.

PERIOD OF RECORD.--August 1941 to current year.

REVISED RECORDS.--WSP 1113: 1947(M).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 2,353.61 ft above sea level. 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 fair. Town of Oakland diverted an average of 0.4 ft^3/s for water supply. The diversion is returned upstream from station as sewage. U.S. Army Corps of Engineers satellite 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 in March 1936 reached a stage of 15.3 ft, from floodmarks.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 16	1545	*2,660	*5.94	No other peak greater than base discharge.			

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	28	173	282	157	906	91	246	110	83	16	15
2	34	127	143	504	e150	650	86	460	115	115	12	15
3	42	81	124	389	143	502	81	557	282	60	13	14
4	32	50	114	319	163	402	96	423	318	44	14	14
5	27	38	781	e240	123	327	100	368	196	38	10	14
6	27	33	837	e220	e120	533	85	302	156	35	1010	14
7	25	31	528	987	e115	524	79	239	137	57	671	13
8	23	29	379	720	e110	465	75	204	137	47	203	11
9	22	28	365	495	e105	416	103	178	110	33	126	10
10	20	79	1200	372	e100	350	105	179	99	33	96	9.9
11	20	90	1660	316	e97	355	132	181	106	28	102	9.5
12	19	58	1000	585	e94	440	117	158	252	22	155	9.6
13	19	48	644	782	91	399	148	136	209	20	88	11
14	19	45	463	580	91	350	155	945	146	20	228	13
15	19	41	363	601	98	307	145	1010	116	21	124	14
16	17	49	288	609	1530	264	133	505	96	110	201	13
17	17	93	391	474	1230	223	139	496	82	63	97	47
18	17	77	389	388	723	193	160	1010	71	46	69	55
19	17	65	356	324	618	174	141	1260	64	31	55	31
20	21	56	297	836	697	158	123	848	58	23	45	22
21	29	81	259	708	815	179	124	590	52	20	41	21
22	26	137	233	539	605	186	115	417	47	21	36	46
23	24	93	218	426	714	156	106	297	50	23	31	73
24	26	78	201	346	1410	137	198	234	59	20	28	36
25	25	71	189	303	925	122	385	206	48	18	24	24
26	24	66	169	265	686	112	283	215	45	18	22	21
27	23	66	152	e230	593	107	236	163	56	19	20	18
28	20	458	142	202	861	117	211	159	47	17	20	16
29	19	338	132	e190	---	110	181	195	42	19	19	15
30	19	225	118	174	---	101	206	160	39	20	18	14
31	21	---	112	e165	---	98	---	129	---	17	17	---
TOTAL	717	2759	12420	13571	13164	9363	4339	12470	3345	1141	3611	639.0
MEAN	23.1	92.0	401	438	470	302	145	402	111	36.8	116	21.3
MAX	42	458	1660	987	1530	906	385	1260	318	115	1010	73
MIN	17	28	112	165	91	98	75	129	39	17	10	9.5
CFSM	.17	.69	2.99	3.27	3.51	2.25	1.08	3.00	.83	.27	.87	.16
IN.	.20	.77	3.45	3.77	3.65	2.60	1.20	3.46	.93	.32	1.00	.18

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1941 - 1995, BY WATER YEAR (WY)

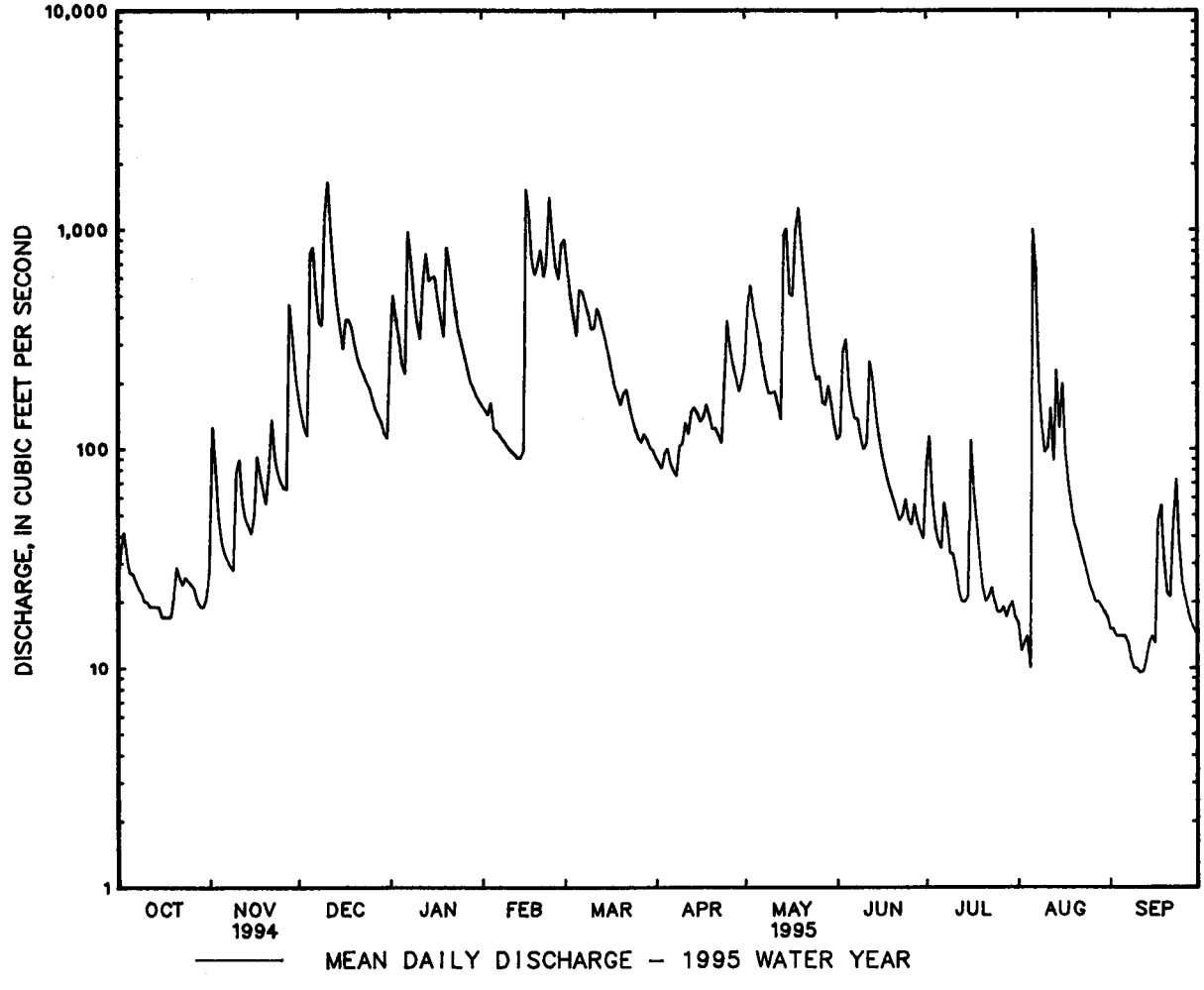
MEAN	115	238	410	424	495	604	453	325	200	156	130	80.0
MAX	608	1152	1027	861	1100	1477	879	676	730	629	586	533
(WY)	1955	1986	1973	1952	1986	1963	1973	1956	1981	1978	1956	1945
MIN	4.45	7.08	62.2	63.2	127	168	121	76.0	24.0	10.3	10.5	5.99
(WY)	1954	1954	1944	1977	1978	1990	1946	1982	1965	1953	1944	1953

03075500 YOUGHIOGHENY RIVER NEAR OAKLAND, MD--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1941 - 1995	
ANNUAL TOTAL	153750		77539.0			
ANNUAL MEAN	421		212		302	
HIGHEST ANNUAL MEAN					458	1994
LOWEST ANNUAL MEAN					193	1947
HIGHEST DAILY MEAN	7370	Feb 9	1660	Dec 11	8570	Nov 5 1985
LOWEST DAILY MEAN	17	(a)	9.5	Sep 11	2.5	Oct 4 1953
ANNUAL SEVEN-DAY MINIMUM	18	Oct 13	11	Sep 7	2.7	Oct 2 1953
INSTANTANEOUS PEAK FLOW			2660	Feb 16	(b)11800	Oct 16 1954
INSTANTANEOUS PEAK STAGE			5.94	Feb 16	12.16	Oct 16 1954
INSTANTANEOUS LOW FLOW			9.3	(c)	UNKNOWN	
ANNUAL RUNOFF (CFSM)	3.14		1.59		2.25	
ANNUAL RUNOFF (INCHES)	42.68		21.53		30.60	
10 PERCENT EXCEEDS	1180		587		718	
50 PERCENT EXCEEDS	168		112		162	
90 PERCENT EXCEEDS	31		19		24	

a Oct. 16-19.

b From rating curve extended above 7,000 ft^3/s.
c Aug. 5, Sept. 10-12.



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 mi^2.

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, 89,600 acre-ft, June 2, elevation, 2,461.1 ft; minimum, 63,700 acre-ft, Oct. 8, elevation, 2,453.8 ft.

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTBER 1994 TO SEPTEMBER 1995

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	2453.9	64000	
Oct. 31	2453.8	63700	-300
Nov. 30	2454.5	66000	+2300
Dec. 31	2456.8	73900	+7900
CAL YR 1994			-800
Jan. 31	2457.0	74700	+800
Feb. 28	2458.0	78200	+3500
Mar. 31	2458.9	81500	+3300
Apr. 30	2459.6	84100	+2600
May 31	2461.0	89300	+5200
June 30	2460.3	86700	-2600
July 31	2458.9	81500	-5200
Aug. 31	2457.9	77900	-3600
Sept. 30	2456.9	74300	-3600
WTR YR 1995			+10300

03076500 YOUGHIOGHENY RIVER AT FRIENDSVILLE, MD

LOCATION.--Lat 39°39'13", long 79°24'31", Garrett County, Hydrologic Unit 05020006, on left bank 0.7 mi upstream from bridge on State Highway 42 at Friendsville, and 1.5 mi upstream from Bear Creek.

DRAINAGE AREA.--295 mi^2.

PERIOD OF RECORD.--August 1898 to December 1904 and October 1940 to current year. Annual maximum, water years 1905, 1923-31, 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 sea level. 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 (missing record), 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 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.

PEAK DISCHARGE FOR CURRENT YEAR.--Peak discharge 3,250 ft^3/s (result of regulation), Feb. 24, gage height, 4.85 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	153	55	456	416	342	1900	220	583	280	196	99	120
2	284	192	382	835	316	1570	209	683	270	226	101	122
3	184	257	322	703	348	1260	232	1040	324	222	138	54
4	112	146	302	623	272	787	217	793	457	174	137	119
5	88	103	964	549	e260	637	252	773	372	140	148	69
6	76	87	1370	613	533	1290	219	677	252	82	1600	49
7	73	76	921	1280	e280	1250	201	502	218	149	1370	47
8	62	73	789	1210	e260	867	196	504	302	176	447	125
9	57	69	642	944	e220	836	260	392	249	83	273	65
10	57	121	1660	774	e210	673	313	383	168	139	205	53
11	53	224	2650	681	e200	614	340	402	178	108	255	52
12	49	160	1730	850	e190	758	320	433	376	131	307	53
13	47	124	1140	1340	e180	710	349	313	669	126	230	54
14	46	108	888	1000	e170	615	357	936	400	255	385	54
15	46	119	779	963	e180	549	354	1630	282	271	381	116
16	46	154	600	1340	e1400	492	318	839	258	319	396	59
17	41	248	648	1150	1700	447	380	715	166	273	275	68
18	78	236	707	1040	1000	405	348	1510	142	154	267	100
19	88	192	644	916	846	367	332	2280	198	88	153	80
20	54	165	556	1580	1080	343	297	1530	180	108	144	58
21	57	185	497	1640	1360	375	357	1130	161	166	179	50
22	59	295	454	1260	1090	401	276	932	166	75	164	142
23	56	255	430	1120	1210	356	256	563	178	77	90	115
24	49	210	407	964	2650	324	394	456	180	127	88	100
25	48	220	385	869	2150	294	617	481	177	75	133	139
26	48	198	354	795	1350	260	516	536	166	155	126	57
27	45	195	322	786	1240	249	448	419	160	84	75	49
28	44	718	343	478	1860	266	485	303	171	123	120	56
29	42	744	326	389	---	259	375	429	160	108	96	117
30	38	530	312	449	---	240	386	298	165	103	197	50
31	37	---	261	431	---	235	---	254	---	110	126	---
TOTAL	2217	6459	22241	27988	22897	19629	9824	22719	7425	4623	8705	2392
MEAN	71.5	215	717	903	818	633	327	733	247	149	281	79.7
MAX	284	744	2650	1640	2650	1900	617	2280	669	319	1600	142
MIN	37	55	261	389	170	235	196	254	142	75	75	47
(†)	-4.9	+38.7	+129	+13.0	+63.0	+53.4	+43.7	-84.7	+43.7	+84.7	-58.5	-60.5
MEAN≠	66.4	254	846	916	881	686	371	648	291	234	222	19.2
CFSM≠	0.23	0.86	2.87	3.11	2.99	2.33	1.26	2.20	0.99	0.79	0.75	0.07
IN≠	0.26	0.96	3.31	3.58	3.11	2.69	1.41	2.54	1.10	0.91	0.86	0.08

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1941 - 1995 BY WATER YEAR (WY)

MEAN	282	495	855	872	988	1220	950	680	475	363	296	232
MAX	1103	2190	2147	1664	2277	2644	2231	1564	1823	1335	1319	920
(WY)	1955	1986	1903	1952	1903	1963	1901	1967	1903	1990	1956	1945
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

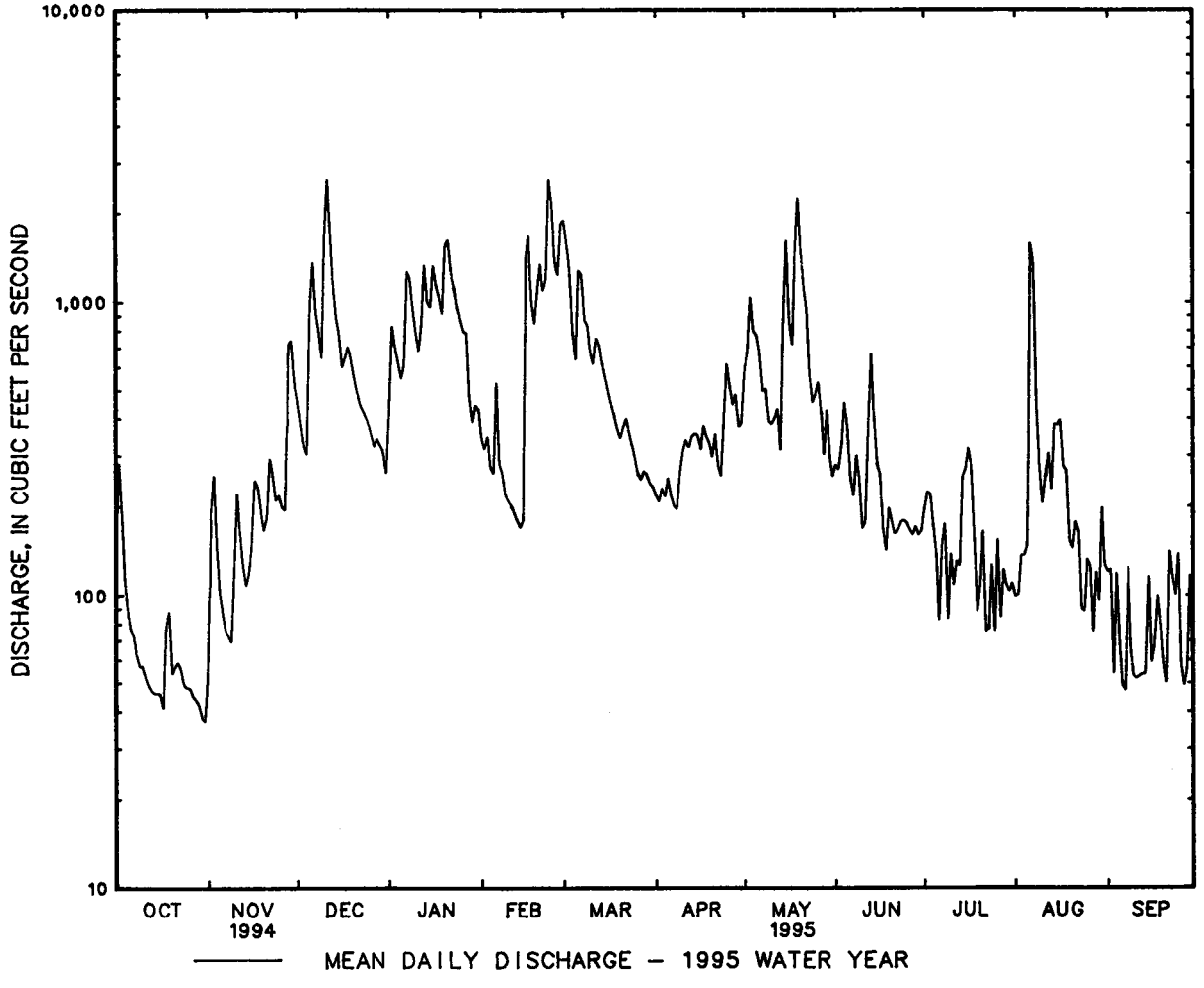
† Change in contents in Deep Creek Reservoir, equivalent in cubic feet per second, provided by Pennsylvania Electric Co.
≠ Adjusted for change in reservoir contents.

03076500 YOUGHIOGHENY RIVER AT FRIENDSVILLE, MD--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1941 - 1995	
ANNUAL TOTAL	306474		157119			
ANNUAL MEAN	840		430		639	
ANNUAL MEAN≠	839		444		643	
HIGHEST ANNUAL MEAN					1052	1903
LOWEST ANNUAL MEAN					375	1954
HIGHEST DAILY MEAN	8600	Feb 9	2650	Dec 11	10000	Aug 6 1956
LOWEST DAILY MEAN	37	Oct 31	37	Oct 31	8.2	Sep 11 1966
ANNUAL SEVEN-DAY MINIMUM	43	Oct 25	43	Oct 25	29	Sep 21 1972
INSTANTANEOUS PEAK FLOW			3250	Feb 24	(a)15600	Mar 29 1924
INSTANTANEOUS PEAK STAGE			4.85	Feb 24	(b)14.20	Mar 29 1924
INSTANTANEOUS LOW FLOW			36	(c)	UNKNOWN	
ANNUAL RUNOFF (CFSM)	2.85		1.46		2.17	
ANNUAL RUNOFF (CFSM)≠	2.84		1.51		2.18	
ANNUAL RUNOFF (INCHES)	38.65		19.81		29.42	
ANNUAL RUNOFF (INCHES)≠	38.53		20.44		29.60	
10 PERCENT EXCEEDS	2240		1080		1410	
50 PERCENT EXCEEDS	444		267		405	
90 PERCENT EXCEEDS	114		59		105	

≠ Adjusted for change in reservoir contents since October 1940.

a From rating curve extended above 5,800 ft^3/s on basis of slope-area measurement of peak flow.
b From floodmarks, site and datum then in use or 10.2 ft, present site and datum.
c Oct. 30, 31, Nov. 1.



03076600 BEAR CREEK AT FRIENDSVILLE, MD

LOCATION.--Lat 39°39'22", long 79°23'41", Garrett County, Hydrologic Unit 05020006, on right bank 0.2 mi downstream from bridge on Accident-Friendsville Road, 0.6 mi downstream from South Branch Bear Creek, 0.8 mi southeast of Friendsville, and 1.2 mi upstream from mouth.

DRAINAGE AREA.--48.9 mi^2.

PERIOD OF RECORD.--October 1964 to current year.

REVISED RECORDS.--WDR MD-DE-94-1: 1993

GAGE.--Water-stage recorder. Datum of gage is 1,551.34 ft above sea level.

REMARKS.--Records good except those for estimated daily discharges (ice effect), which are fair. U.S. Army Corps of Engineers satellite 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.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 660 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 16	----	ICE JAM	*4.26	No peak greater than base discharge.			
May 18	1330	*512	3.54				

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	15	68	50	49	345	32	65	37	58	7.2	4.8
2	41	25	57	68	47	274	31	113	36	43	6.7	4.6
3	25	15	49	70	42	212	30	133	36	32	7.0	4.3
4	18	12	45	e70	41	155	34	125	32	27	7.3	4.2
5	15	10	137	e65	36	123	32	120	29	23	14	4.0
6	14	10	154	e75	e35	166	30	99	27	21	213	3.7
7	13	9.1	126	226	e33	165	29	83	27	20	e70	3.7
8	12	8.5	104	167	e32	165	29	75	30	17	40	3.5
9	11	8.7	105	131	e31	142	55	67	25	15	31	3.5
10	11	25	252	104	e30	121	88	64	23	14	25	3.7
11	10	19	371	88	e29	124	92	69	22	13	e21	3.3
12	9.9	15	281	99	e28	162	90	56	52	12	27	3.2
13	9.6	14	209	130	e28	162	90	51	34	11	26	3.7
14	9.5	13	145	124	e27	148	85	124	26	11	e21	3.9
15	9.6	13	110	183	e27	124	79	120	23	10	16	3.8
16	9.2	35	88	246	e270	105	74	101	20	20	14	3.4
17	8.9	53	84	224	211	87	72	108	19	18	12	12
18	8.7	41	86	175	158	76	69	277	17	e18	11	8.0
19	8.7	34	84	137	161	67	64	337	17	13	10	5.5
20	11	30	78	283	208	61	56	255	16	11	9.4	4.6
21	11	40	71	283	239	60	55	184	15	10	8.9	4.5
22	9.6	42	67	227	181	55	50	129	14	9.8	8.2	7.9
23	9.1	36	67	167	174	50	48	96	15	9.4	7.7	9.6
24	8.5	34	62	127	281	46	65	80	18	9.4	7.2	6.0
25	7.9	33	59	99	241	41	74	68	18	9.9	7.2	4.9
26	7.6	31	53	85	189	38	68	61	26	18	6.7	4.7
27	7.4	30	48	77	164	37	68	52	17	12	6.3	4.7
28	7.4	149	47	69	295	40	67	57	19	9.8	6.1	4.4
29	7.4	115	44	61	---	37	60	55	16	10	5.8	4.0
30	7.3	85	40	56	---	35	65	47	16	8.7	5.4	3.8
31	7.2	---	39	51	---	34	---	41	---	7.6	4.9	---
TOTAL	358.5	1000.3	3230	4017	3287	3457	1781	3312	722	521.6	663.0	145.9
MEAN	11.6	33.3	104	130	117	112	59.4	107	24.1	16.8	21.4	4.86
MAX	41	149	371	283	295	345	92	337	52	58	213	12
MIN	7.2	8.5	39	50	27	34	29	41	14	7.6	4.9	3.2
CFSM	.24	.68	2.13	2.65	2.40	2.28	1.21	2.18	.49	.34	.44	.10
IN.	.27	.76	2.46	3.06	2.50	2.63	1.35	2.52	.55	.40	.50	.11

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 1995, BY WATER YEAR (WY)

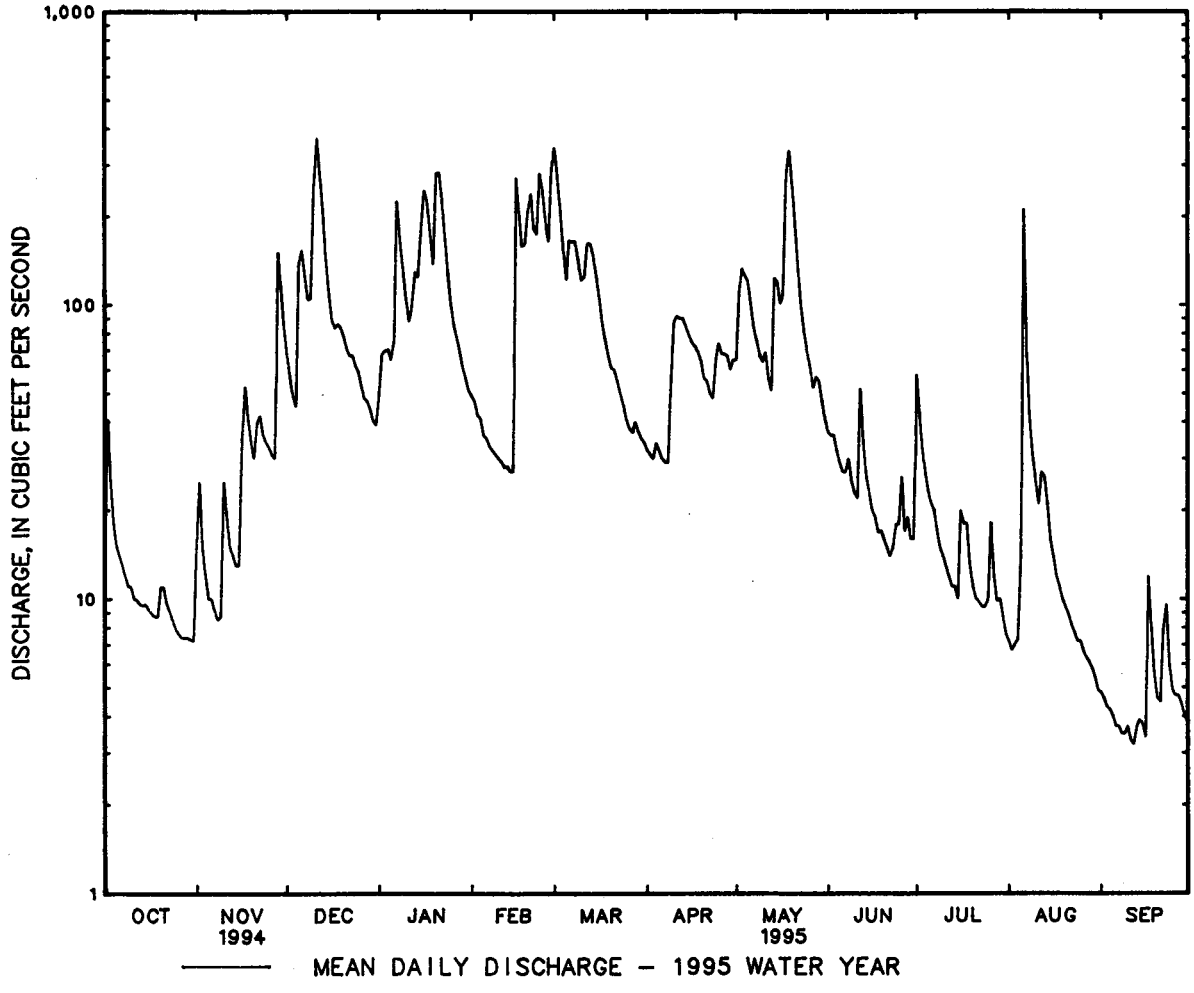
MEAN	35.6	70.6	123	112	150	192	155	100	50.7	50.6	31.8	30.4
MAX	187	341	293	248	387	413	293	215	153	274	117	256
(WY)	1980	1986	1991	1975	1986	1994	1984	1989	1981	1990	1980	1971
MIN	4.05	12.0	23.2	19.1	39.8	45.5	59.4	23.5	10.6	6.35	4.32	2.98
(WY)	1992	1992	1966	1977	1993	1990	1995	1982	1991	1965	1966	1991

03076600 BEAR CREEK AT FRIENDSVILLE, MD--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1965 - 1995	
ANNUAL TOTAL	43361.8		22495.3			
ANNUAL MEAN	119		61.6		91.5	
HIGHEST ANNUAL MEAN					130	1994
LOWEST ANNUAL MEAN					53.4	1966
HIGHEST DAILY MEAN	832	Mar 22	371	Dec 11	3100	Sep 14 1971
LOWEST DAILY MEAN	7.2	Oct 31	3.2	Sep 12	1.6	(a)
ANNUAL SEVEN-DAY MINIMUM	7.5	Oct 25	3.5	Sep 6	2.0	Sep 7 1966
INSTANTANEOUS PEAK FLOW			512	May 18	(b)4650	Sep 14 1971
INSTANTANEOUS PEAK STAGE			4.26	Feb 16	(c)9.60	Sep 14 1971
INSTANTANEOUS LOW FLOW			3.1	Sep 12	1.5	Sep 12 1966
ANNUAL RUNOFF (CFSM)	2.43		1.26		1.87	
ANNUAL RUNOFF (INCHES)	32.99		17.11		25.42	
10 PERCENT EXCEEDS	343		163		226	
50 PERCENT EXCEEDS	50		35		49	
90 PERCENT EXCEEDS	12		7.2		8.7	

a Sept. 12, 13, 1966.

b From rating curve extended above 2,000 ft^3/s on basis of slope-area measurement of peak flow.
c From floodmarks.



03078000 CASSELMAN RIVER AT GRANTSVILLE, MD

LOCATION.--Lat 39°42'08", long 79°08'12", Garrett County, Hydrologic Unit 05020006, on left bank at downstream side of highway bridge, 0.3 mi upstream from Slaubaugh Run, 0.7 mi downstream from U.S. Highway 40, and 1.0 mi northeast of Grantsville.

DRAINAGE AREA.--62.5 mi^2.

PERIOD OF RECORD.--July 1947 to current year.

REVISED RECORDS.--WSP 1143: 1948.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 2,088.97 ft above sea level.

REMARKS.--Records good except those for estimated daily discharges (missing record), which are fair. U.S. Army Corps of Engineers satellite 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.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
June 27	2115	*709	*3.20	No peak greater than base discharge.			

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	13	79	111	103	e350	50	99	61	293	5.8	5.7
2	30	42	67	141	84	e230	48	194	69	186	4.7	5.3
3	34	30	60	104	80	e160	46	205	73	105	4.2	4.9
4	20	19	57	82	71	e120	52	143	56	81	5.4	4.8
5	15	15	273	91	72	e98	56	131	50	74	15	2.8
6	12	13	204	200	e66	e105	49	116	43	69	176	2.6
7	11	12	136	252	e62	e120	46	98	39	55	76	2.5
8	11	11	124	e210	e58	e140	46	88	46	47	36	2.4
9	11	11	128	e180	e54	e100	137	80	43	42	25	2.4
10	11	32	322	e150	e50	e87	195	84	36	36	22	2.4
11	11	35	395	e140	e48	e85	147	138	33	34	94	2.3
12	10	23	223	e130	e46	e88	125	99	98	29	168	2.2
13	9.5	18	165	e180	e45	127	140	84	69	25	69	2.3
14	9.7	16	136	169	e44	142	126	295	44	23	61	2.5
15	9.5	15	122	511	e42	126	116	224	38	21	41	2.5
16	9.1	57	111	521	e280	113	101	148	30	22	31	2.5
17	9.0	101	129	289	e200	102	94	163	25	27	26	18
18	8.8	54	155	224	e130	93	96	381	23	39	22	17
19	8.7	44	131	191	e100	87	93	337	21	24	20	9.6
20	10	35	109	411	e150	81	80	216	19	18	18	6.3
21	10	77	97	290	e220	82	79	165	18	15	17	4.8
22	10	93	91	216	e150	85	73	137	16	16	14	9.9
23	9.4	55	88	184	e110	75	65	114	21	14	12	22
24	8.9	47	86	162	e250	67	115	99	27	14	11	13
25	8.6	43	84	149	e170	60	167	90	23	14	10	8.4
26	8.4	42	76	144	e130	57	115	86	27	15	9.3	6.9
27	8.2	44	71	128	e100	54	95	73	225	14	8.2	5.6
28	8.0	300	66	119	e220	60	90	90	244	20	8.0	4.7
29	7.8	161	64	110	---	60	81	114	113	16	7.8	4.3
30	8.0	99	63	111	---	55	87	91	140	12	7.2	3.6
31	7.4	---	94	112	---	52	---	73	---	7.8	6.4	---
TOTAL	356.0	1557	4006	6012	3135	3261	2810	4455	1770	1407.8	1031.0	184.2
MEAN	11.5	51.9	129	194	112	105	93.7	144	59.0	45.4	33.3	6.14
MAX	34	300	395	521	280	350	195	381	244	293	176	22
MIN	7.4	11	57	82	42	52	46	73	16	7.8	4.2	2.2
CFSM	.18	.83	2.07	3.10	1.79	1.68	1.50	2.30	.94	.73	.53	.10
IN.	.21	.93	2.38	3.58	1.87	1.94	1.67	2.65	1.05	.84	.61	.11

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1947 - 1995, BY WATER YEAR (WY)

MEAN	46.6	86.3	150	159	193	263	213	134	70.9	47.9	36.4	30.4
MAX	288	449	341	333	414	582	468	287	200	169	202	236
(WY)	1955	1986	1973	1952	1956	1963	1970	1968	1951	1990	1956	1971
MIN	1.65	3.38	14.5	26.4	60.3	57.0	77.1	40.1	10.0	4.30	2.87	1.58
(WY)	1954	1954	1954	1977	1964	1990	1968	1976	1965	1965	1991	1991

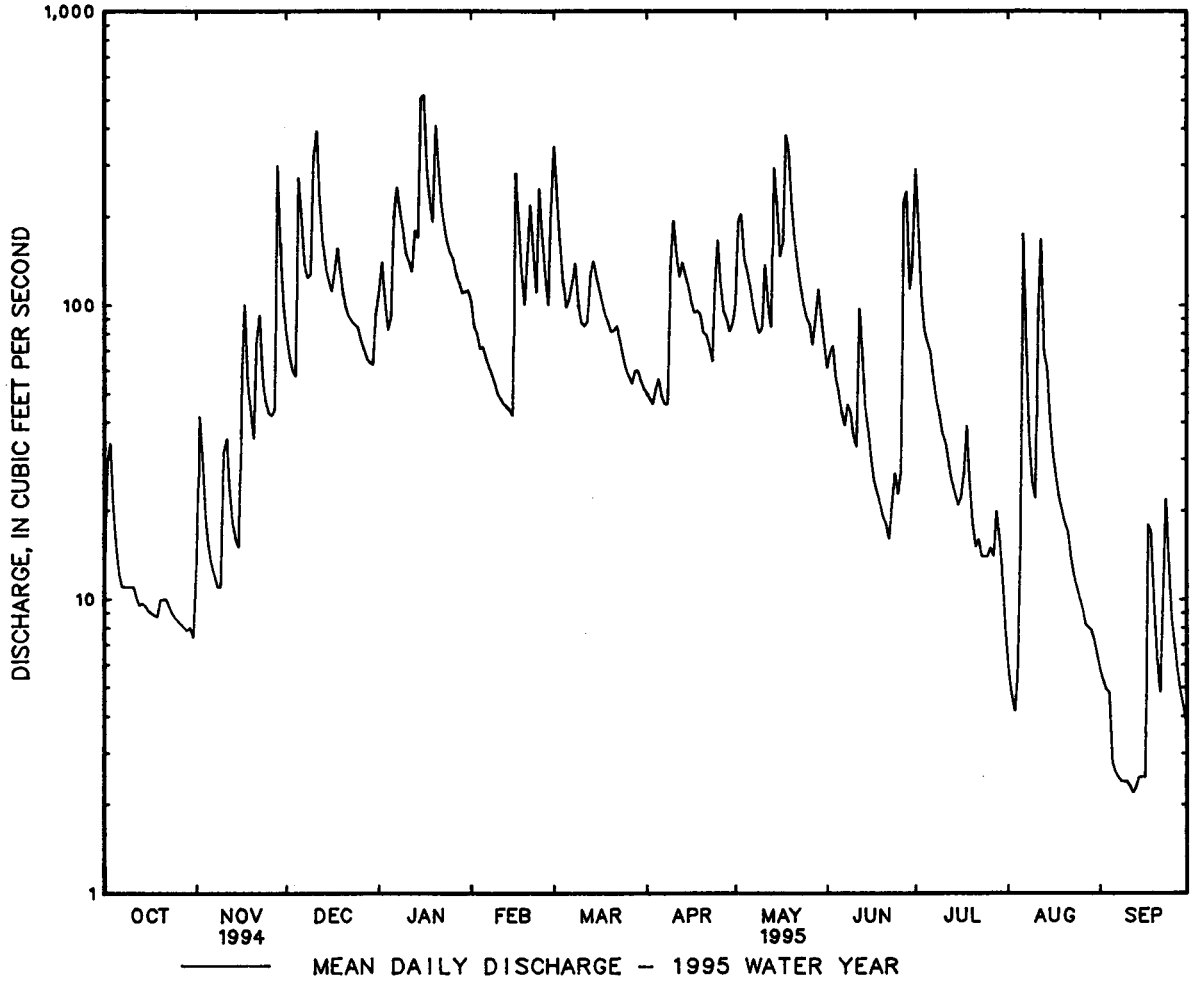
03078000 CASSELMAN RIVER AT GRANTSVILLE, MD--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1947 - 1995	
ANNUAL TOTAL	53285.2		29985.0			
ANNUAL MEAN	146		82.2		119	
HIGHEST ANNUAL MEAN					162	1994
LOWEST ANNUAL MEAN					64.2	1954
HIGHEST DAILY MEAN	1270	Mar 24	521	Jan 16	2630	Oct 15 1954
LOWEST DAILY MEAN	7.4	Oct 31	2.2	Sep 12	(a).00	Aug 31 1962
ANNUAL SEVEN-DAY MINIMUM	8.1	Oct 25	2.4	Sep 7	.89	Aug 27 1962
INSTANTANEOUS PEAK FLOW			709	Jun 27	(b)8400	Oct 15 1954
INSTANTANEOUS PEAK STAGE			3.20	Jun 27	10.70	Oct 15 1954
INSTANTANEOUS LOW FLOW			1.2	Sep 7	(a).00	(c)
ANNUAL RUNOFF (CFSM)	2.34		1.31		1.90	
ANNUAL RUNOFF (INCHES)	31.72		17.85		25.82	
10 PERCENT EXCEEDS	371		185		278	
50 PERCENT EXCEEDS	71		61		65	
90 PERCENT EXCEEDS	11		8.1		8.2	

a Result of regulation from unknown source.

b From rating curve extended above 1,600 ft^3/s on basis of contracted-opening measurement at gage height 8.13 ft.

c Aug. 31, Sept. 1, 1962.



As the number of streams on which streamflow information is likely to be desired far exceeds the number of stream-gaging stations feasible to operate at one time, the Geological Survey collects limited streamflow data at sites other than stream-gaging stations. When limited streamflow data are collected on a systematic basis over a period of years for use in hydrologic analyses, the site at which the data are collected is called a partial-record station. Data collected at these partial-record stations are usable in low-flow or floodflow analyses, depending on the type of data collected. In addition, discharge measurements are made at other sites not included in the partial-record program. These measurements are generally made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for some special reason are called measurements at miscellaneous sites.

Records collected at partial-record stations are presented in two tables. The first is a table of annual maximum stage and discharge at crest-stage stations and the second is a table of annual maximum stage for tidal crest-stage stations.

Crest-stage partial-record stations

The following table contains annual maximum discharges for crest-stage stations. A crest-stage gage is a device which will register the peak stage occurring between inspections of the gage. A stage-discharge relation for each gage is developed from discharge measurements made by indirect measurements of peak flow or by current meter. The date of the maximum discharge is not always certain, but is usually determined by comparison with nearby continuous-record stations, weather records, or local inquiry. Only the maximum discharge for each water year is given. Information on some lower floods may have been obtained, but is not published herein. The years given in the period of record represent water years for which the annual maximum has been determined.

Maximum discharge at crest-stage partial-record stations

Station name and number	Location and drainage area	Period of record	Water year 1995 maximum			Period of record maximum		
			Date	Gage height (ft)	Discharge (ft^3/s)	Date	Gage height (ft)	Discharge (ft^3/s)
POTOMAC RIVER BASIN								
North Branch Potomac River at Kitzmiller, Md. (01595500)	Lat 39°23'38", long 79°10'55", Garrett County, Hydrologic Unit 02070002, on left bank 0.6 mi downstream from bridge on State Highway 38 in Kitzmiller. Drainage area is 225 mi^2.	1950-85≠, 1986-95	8-6-95	8.82	9,010	10-15-54	a13.73	33,400
North Branch Potomac River at Barnum, W. Va. (01595800)	Lat 39°26'44", long 79°06'39", Garrett County, Hydrologic Unit 02070002, on right bank at highway bridge at Barnum. Drainage area is 266 mi^2.	1967-85≠, 1986-95	3-30-95	8.92	8,830	7-03-78	13.37	27,100
North Branch Potomac River at Pinto, Md. (01600000)	Lat 39°26'44", long 79°06'39", Mineral County, W. Va., Hydrologic Unit 02070002, on right bank at downstream side of Western Maryland railroad bridge at Pinto, 2.8 mi downstream from Mill Run. Drainage area is 596 mi^2.	1939-85≠, 1986-95	6-27-95	14.02	15,100	10-16-54	23.23	37,000

≠ Operated as a continuous-record station.
a From floodmark

Tidal crest-stage partial-record stations

The following table contains annual maximum stages for tidal crest-stage stations. The informaton 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 1995

Station No.	Station Name	Location	Period of Record	Annual Maximum Date	Annual Maximum Elevation, in feet NGVD
		DELAWARE RIVER BASIN			
01480065	Christina River at Newport, De.	Lat 39°42'38", long 75°36'33", New Castle County, Hydrologic Unit 02040205, on downstream side of bridge on James Street, at Newport and 7.5 mi upstream from the confluence with Delaware River.	1995	1-20-95	5.73
01481602	Delaware River below Christina River, at Wilmington, De. 39 43 00 75 31 03	[redacted] 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	8-7-95	5.74
		INDIAN RIVER BASIN			
01484549	Vines Creek near Dagsboro, De.	Lat 38°33'23", long 75°12'13", Sussex County, Hydrologic Unit 02060010, on right bank at upstream side of bridge on State Highway 26, 2.4 mi east of Dagsboro and 3.8 mi upstream from the confluence with Indian River at Indian River Bay.	1985-95	12-24-94	3.85
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 a privately owned fishing pier, at Seals Point, 1.9 mi west of Oak Orchard.	1992-95	12-24-94	4.17
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.	1985-95	12-24-94	3.22
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.	1992-95	12-24-94	4.12
		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 (Discontinued)	1-20-95	3.42

Water-quality partial-record stations are particular sites where chemical-quality, biological, and/or sediment data are collected systematically over a period of years for use in hydrologic analyses. The data are collected usually less than quarterly. Samples collected at sites other than gaging stations and partial-record stations to give better areal coverage in a river basin are referred to as miscellaneous sites.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

HERRING CREEK BASIN

383917075130701 - PHILLIPS BRANCH AT FAIRMOUNT, DE

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)
MAY 1995 15...	1445	111	6.7	17.0	6.7	27	5.7	3.2	8.8

DATE	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WAT WH TOT IT FIELD MG/L AS CACO3	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	BROMIDE DISSOLVED (MG/L AS BR)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRATE DISSOLVED (MG/L AS NO3)
MAY 1995 15...	2.4	24	3.0	11	<0.10	<0.010	13	77	4.0

DATE	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
MAY 1995 15...	0.020	0.920	0.920	0.090	0.40	<0.010	0.010	110	18

383930075123101 - PHILLIPS BRANCH NEAR FAIRMOUNT, DE

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)
MAY 1995 15...	1145	122	6.8	15.5	8.5	31	7.0	3.2	9.0	2.2

DATE	ALKALINITY WAT DIS TOT IT FIELD MG/L AS CACO3	ALKALINITY WAT WH TOT IT FIELD MG/L AS CACO3	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	BROMIDE DISSOLVED (MG/L AS BR)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRATE DISSOLVED (MG/L AS NO3)
MAY 1995 15...	17	17	3.8	12	<0.10	<0.010	16	86	16

DATE	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
MAY 1995 15...	0.010	3.60	3.60	0.050	0.30	<0.010	<0.010	50	11

WATER-QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

ST JONES RIVER BASIN

390715075364401 - ISAAC BRANCH NEAR WYOMING, DE

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)
MAY 1995 22...	1515	106	6.7	27.0	3.8	26	6.2	2.5	7.2

DATE	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WAT WH TOT IT FIELD MG/L AS CACO3	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	BROMIDE DISSOLVED (MG/L AS BR)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRATE DISSOLVED (MG/L AS NO3)
MAY 1995 22...	2.5	20	5.1	10	<0.10	<0.010	16	82	5.0

DATE	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
MAY 1995 22...	0.060	1.20	1.20	0.350	1.2	0.040	0.030	950	61

390652075361801 - ALLABANDS MILL STREAM NEAR WYOMING, DE

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)
MAY 1995 22...	1530	231	6.6	17.5	7.6	66	16	6.4	10

DATE	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WAT WH TOT IT FIELD MG/L AS CACO3	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	BROMIDE DISSOLVED (MG/L AS BR)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRATE DISSOLVED (MG/L AS NO3)
MAY 1995 22...	2.3	15	8.0	23	<0.10	0.020	23	176	49

DATE	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
MAY 1995 22...	0.020	11.0	11.0	0.050	0.20	<0.010	0.010	48	26

ST JONES RIVER BASIN--Continued

390724075352101 - ISAAC BRANCH AT WYOMING, DE

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
MAY 1995 22...	1400	177	6.8	19.0	7.7	53	13	5.0	8.1

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT WH TOT IT FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	BROMIDE DIS-SOLVED (MG/L AS BR)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS NO3)
MAY 1995 22...	2.3	18	10	15	<0.10	<0.010	20	130	25

DATE	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
MAY 1995 22...	0.050	5.80	5.80	0.100	0.30	<0.010	0.020	270	35

NANTICOKE RIVER BASIN

384608075245201 - GRAVELLY BRANCH TRIBUTARY DRAINAGE DITCH NEAR ELLENDALE, DE

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)
MAY 1995 16...	1100	64	5.3	13.5	2.7	6	1.2	0.61	6.3	0.70

DATE	ALKA-LINITY WAT WH TOT IT FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	BROMIDE DIS-SOLVED (MG/L AS BR)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
MAY 1995 16...	3	8.0	6.7	<0.10	<0.010	24	66	1600	18

WATER-QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

NANTICOKE RIVER BASIN--Continued

384528075245701 - GRAVELLY BRANCH TRIBUTARY NEAR ELLENDALE, DE

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)
MAY 1995 16...	0930	60	6.1	13.5	6.4	6	1.6	0.58	6.0

DATE	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WAT WH TOT IT FIELD MG/L AS CACO3	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	BROMIDE DISSOLVED (MG/L AS BR)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)
MAY 1995 16...	1.1	8	3.4	6.9	<0.10	0.010	23	61	<0.010

DATE	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
MAY 1995 16...	0.130	0.130	0.050	0.40	0.010	<0.010	2200	41

384203075395601 - BUCKS BRANCH AT ATLANTA, DE

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)
MAY 1995 16...	1500	109	6.7	22.5	10.9	22	6.3	1.4	9.3

DATE	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WAT WH TOT IT FIELD MG/L AS CACO3	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	BROMIDE DISSOLVED (MG/L AS BR)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRATE DISSOLVED (MG/L AS NO3)
MAY 1995 16...	1.9	11	4.3	8.9	<0.10	0.020	23	87	19

DATE	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
MAY 1995 16...	0.020	4.30	4.30	0.050	<0.20	0.010	0.010	190	9

NANTICOKE RIVER BASIN--Continued

384129075380601 - BUCKS BRANCH NEAR ATLANTA, DE

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)
MAY 1995 16...	1330	130	6.6	18.5	10.1	31	8.3	2.4	9.1

DATE	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WAT WH TOT IT FIELD MG/L AS CACO3	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	BROMIDE DISSOLVED (MG/L AS BR)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRATE DISSOLVED (MG/L AS NO3)
MAY 1995 16...	2.1	12	3.7	10	<0.10	0.010	21	103	27

DATE	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
MAY 1995 16...	0.010	6.10	6.10	0.040	0.20	<0.010	0.010	86	11

CHESTER RIVER BASIN

391815075433801 - CYPRESS BRANCH NEAR CLAYTON, DE

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)
MAY 1995 22...	1015	50	5.2	16.0	6.2	10	2.2	1.2	4.3

DATE	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WAT WH TOT IT FIELD MG/L AS CACO3	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	BROMIDE DISSOLVED (MG/L AS BR)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRATE DISSOLVED (MG/L AS NO3)
MAY 1995 22...	1.6	1	1.8	5.9	<0.10	0.31	15	125	0.18

DATE	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
MAY 1995 22...	0.020	0.060	0.060	0.210	1.7	0.040	0.030	3100	66

WATER-QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

PATAPSCO RIVER BASIN

01589295 - SCOTTS LEVEL BRANCH AT VILLA NOVA, MD

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	TEMPERATURE AIR (DEG C)	OXYGEN, DISSOLVED (MG/L)	NITROGEN, NITRATE DISSOLVED (MG/L AS NO3)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)
DEC 1994									
21...	1150	1.3	298	8.0	3.5	--	13.9	--	<0.010
JAN 1995									
25...	1055	2.3	283	7.6	2.5	2.5	14.3	7.4	0.020
FEB									
22...	1035	2.1	396	8.2	2.5	1.0	15.0	--	<0.010
MAR									
22...	1100	1.9	475	8.6	10.5	10.5	12.3	3.9	0.010
APR									
26...	0935	1.5	287	7.8	11.0	13.5	11.5	4.0	0.010
MAY									
24...	0900	1.7	324	7.5	17.0	22.0	9.5	4.8	0.020
JUN									
21...	0950	0.63	324	8.0	21.5	27.0	7.0	--	<0.010
JUL									
26...	0815	1.4	257	7.6	24.0	26.0	11.0	3.9	0.010

DATE	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)
DEC 1994								
21...	1.30	1.30	<0.015	<0.20	<0.20	<0.010	<0.010	<0.010
JAN 1995								
25...	1.70	1.70	0.020	<0.20	<0.20	0.020	<0.010	<0.010
FEB								
22...	1.10	1.10	0.020	<0.20	<0.20	0.020	<0.010	<0.010
MAR								
22...	0.900	0.900	<0.015	<0.20	0.20	0.010	<0.010	<0.010
APR								
26...	0.910	0.910	<0.015	0.30	0.20	0.030	0.020	<0.010
MAY								
24...	1.10	1.10	0.030	<0.20	<0.20	<0.010	<0.010	0.010
JUN								
21...	0.870	0.870	0.020	0.20	<0.20	0.030	0.020	0.010
JUL								
26...	0.890	0.890	0.030	0.30	<0.20	0.010	<0.010	0.020

PATAPSCO RIVER BASIN--Continued

01589350 - GWYNNS FALLS AT US 1 AT BALTIMORE, MD

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TEMPER-ATURE AIR (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS NO3)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)
DEC 1994									
21...	1515	33	307	7.8	5.5	--	13.0	7.0	0.010
JAN 1995									
25...	1320	49	312	7.7	4.0	4.0	13.4	7.4	0.020
FEB									
22...	1315	52	402	7.8	5.0	3.5	13.6	--	<0.010
MAR									
22...	1410	40	578	8.3	12.0	12.0	12.7	6.6	0.010
APR									
26...	1200	42	318	8.2	13.0	16.0	12.4	6.6	0.020
MAY									
24...	1235	44	316	7.6	20.0	27.0	9.8	6.6	0.020
JUN									
21...	1110	34	297	8.2	22.5	28.0	8.6	5.7	0.010
JUL									
26...	1025	37	222	7.8	24.5	30.0	12.1	6.1	0.030

DATE	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)
DEC 1994								
21...	1.60	1.60	0.050	0.50	0.20	0.040	<0.010	<0.010
JAN 1995								
25...	1.70	1.70	0.070	0.50	0.40	0.050	0.020	0.030
FEB								
22...	1.60	1.60	0.220	0.90	0.90	0.110	0.050	0.050
MAR								
22...	1.50	1.50	0.020	0.60	0.30	0.050	<0.010	<0.010
APR								
26...	1.50	1.50	0.050	0.60	0.50	0.070	0.020	<0.010
MAY								
24...	1.50	1.50	0.070	0.40	0.30	<0.010	<0.010	<0.010
JUN								
21...	1.30	1.30	0.020	0.30	0.20	<0.010	0.020	<0.010
JUL								
26...	1.40	1.40	0.030	0.30	0.30	0.020	<0.010	<0.010

WATER-QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

PATUXENT RIVER BASIN

01594464 - ROCK CREEK NEAR BAYARD, MD

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TEMPER-ATURE AIR (DEG C)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3
AUG 1995 03...	0800	0.50	198	6.8	23.0	24.0	66	19	4.6	5.2	3.3	22

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS NO3)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
AUG 1995 03...	31	16	0.30	30	155	2.1	0.010	0.480	0.480	360	130

01594475 - WILSON OWENS BRANCH AT DRURY, MD

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TEMPER-ATURE AIR (DEG C)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)
AUG 1995 03...	0915	0.20	178	6.9	24.0	26.0	67	22	2.9	4.3	2.4

DATE	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
AUG 1995 03...	41	19	11	0.20	30	134	<0.010	0.500	0.500	95	51

PATUXENT RIVER BASIN--Continued

01594520 - COLLINGTON BRANCH NEAR KIDWELLS CORNER, MD

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	TEMPERATURE AIR (DEG C)	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)
AUG 1995 14...	1030	0.60	245	6.8	23.5	29.0	98	33	3.9	5.6

DATE	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WAT DIS TOT IT FIELD MG/L AS CACO3	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
AUG 1995 14...	5.2	73	16	13	0.20	24	161	150	190

01594528 - CHARLES BRANCH NEAR CROOM, MD

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	TEMPERATURE AIR (DEG C)	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)
AUG 1995 11...	0730	1.2	200	6.6	21.0	22.0	66	21	3.4	9.1

DATE	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WAT DIS TOT IT FIELD MG/L AS CACO3	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
AUG 1995 11...	2.5	34	17	21	0.30	25	132	140	82

WATER-QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

PATUXENT RIVER BASIN--Continued

01594533 - MATAPONI CREEK NEAR BRANDYWINE, MD

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TEMPER-ATURE AIR (DEG C)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)
NOV 1994											
07...	0830	0.50	370	6.0	12.0	11.0	90	21	9.0	28	5.3
AUG 1995											
11...	0830	0.80	255	6.4	23.5	22.5	60	15	5.5	20	3.3

DATE	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
NOV 1994											
07...	12	70	48	0.10	13	218	<0.010	--	<0.050	130	200
AUG 1995											
11...	17	36	33	0.20	13	163	<0.010	0.100	0.100	270	75

01594542 - LYONS CREEK NEAR TRACYS LANDING, MD

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TEMPER-ATURE AIR (DEG C)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3
AUG 1995												
04...	0830	0.20	205	6.5	25.0	26.0	65	20	3.6	12	2.0	29

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS NO3)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
AUG 1995											
04...	19	24	0.20	33	158	2.1	0.010	0.490	0.490	100	400

PATUXENT RIVER BASIN--Continued

01594545 - LYONS CREEK AT LYONS CREEK, MD

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TEMPER-ATURE AIR (DEG C)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3
AUG 1995 04...	0700	0.90	180	6.6	24.0	25.0	60	18	3.6	8.3	2.4	27

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS NO3)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
AUG 1995 04...	19	19	0.20	34	146	2.8	0.020	0.660	0.660	160	140

01594563 - HALL CREEK AT DUNKIRK, MD

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TEMPER-ATURE AIR (DEG C)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)
AUG 1995 03...	1145	0.20	236	6.8	24.5	27.5	66	21	3.4	13	2.1

DATE	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
AUG 1995 03...	25	22	33	0.30	33	178	<0.010	0.830	0.830	180	43

WATER-QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

PATUXENT RIVER BASIN--Continued

01594585 - FULL MILL BRANCH NEAR WESTWOOD, MD

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	TEMPERATURE AIR (DEG C)	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WAT DIS TOT IT FIELD MG/L AS CACO3
NOV 1994												
07...	0930	0.50	197	6.3	11.5	13.0	70	21	4.2	6.5	3.1	37
AUG 1995												
11...	0930	0.20	217	6.8	22.0	24.0	82	26	4.1	7.2	2.4	42

DATE	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRATE DISSOLVED (MG/L AS NO3)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
NOV 1994											
07...	19	17	0.20	19	129	--	<0.010	0.230	0.230	700	190
AUG 1995											
11...	19	18	0.20	22	152	6.1	0.020	1.40	1.40	190	49

01594590 - CHEW CREEK NEAR LOWER MARLBORO, MD

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	TEMPERATURE AIR (DEG C)	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WAT DIS TOT IT FIELD MG/L AS CACO3
AUG 1995												
04...	0945	0.20	250	6.7	25.0	27.0	90	29	4.3	12	1.8	57

DATE	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRATE DISSOLVED (MG/L AS NO3)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
AUG 1995											
04...	14	24	0.20	23	170	1.4	0.020	0.340	0.340	260	200

PATUXENT RIVER BASIN--Continued

01594610 - BLACK SWAMP CREEK NEAR POPLAR HILL, MD

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	TEMPERATURE AIR (DEG C)	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)
OCT 1994 19...	0930	2.7	129	6.5	11.0	18.0	39	11	2.7	5.6	1.4
AUG 1995 11...	1000	1.5	128	6.6	23.0	25.5	39	11	2.8	7.3	1.5

DATE	ALKALINITY WAT DIS TOT IT FIELD MG/L AS CACO3	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
OCT 1994 19...	18	15	12	0.10	16	77	<0.010	0.360	0.360	250	67
AUG 1995 11...	22	9.9	14	0.10	16	93	<0.010	0.200	0.200	67	70

01594665 - HUNTING CREEK NEAR PARRAN, MD

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	TEMPERATURE AIR (DEG C)	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)
NOV 1994 08...	0930	0.20	133	6.5	9.0	10.0	45	14	2.5	5.9	1.5
AUG 1995 10...	0800	0.03	115	6.7	21.0	21.0	43	13	2.6	5.1	1.2

DATE	ALKALINITY WAT DIS TOT IT FIELD MG/L AS CACO3	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
NOV 1994 08...	33	5.2	13	<0.10	13	91	<0.010	--	<0.050	140	180
AUG 1995 10...	32	3.8	10	<0.10	13	81	<0.010	0.240	0.240	370	110

WATER-QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

PATUXENT RIVER BASIN--Continued

01594682 - SWANSON CREEK NEAR MALCOLM, MD

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TEMPER-ATURE AIR (DEG C)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)
OCT 1994											
19...	1130	--	82	5.6	12.0	19.0	18	4.1	2.0	4.7	1.4
AUG 1995											
11...	1045	0.70	80	5.6	21.0	25.0	20	4.5	2.1	5.2	1.5

DATE	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
OCT 1994											
19...	3	12	9.7	<0.10	11	53	<0.010	0.380	0.380	94	19
AUG 1995											
11...	3	11	11	<0.10	10	61	<0.010	0.400	0.400	210	14

01594684 - SWANSON CREEK NEAR AQUASCO, MD

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TEMPER-ATURE AIR (DEG C)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)
OCT 1994											
19...	1230	--	79	6.1	12.0	19.0	19	4.5	2.0	4.3	1.4
AUG 1995											
11...	1130	1.0	78	6.1	22.0	25.0	21	5.0	2.0	4.9	1.5

DATE	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
OCT 1994											
19...	7	10	9.1	<0.10	12	50	<0.010	0.360	0.360	110	43
AUG 1995											
11...	8	8.3	9.7	<0.10	12	59	<0.010	0.250	0.250	120	28

PATUXENT RIVER BASIN--Continued

01594688 - SWANSON CREEK NEAR PATUXENT, MD

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TEMPER-ATURE AIR (DEG C)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3
OCT 1994												
19...	1330	11	98	6.1	12.0	18.0	30	8.8	2.0	3.8	1.4	15
AUG 1995												
10...	1000	2.5	104	6.4	22.0	24.0	37	11	2.2	4.2	1.5	23

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS NO3)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
OCT 1994											
19...	12	8.4	0.10	14	58	--	<0.010	0.220	0.220	130	64
AUG 1995											
10...	7.6	8.4	0.10	15	76	0.53	0.010	0.130	0.130	120	200

01594689 - SCHOOLHOUSE BRANCH AT BENEDICT, MD

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TEMPER-ATURE AIR (DEG C)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3
OCT 1994												
04...	0945	--	142	6.8	12.5	12.0	46	14	2.7	7.5	1.6	25
AUG 1995												
10...	0915	0.10	150	6.6	20.5	22.5	48	14	3.1	8.8	1.8	32

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS NO3)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
OCT 1994											
04...	11	15	<0.10	15	101	--	<0.010	0.450	0.450	230	72
AUG 1995											
10...	7.5	17	0.10	18	99	1.2	0.010	0.290	0.290	320	38

PATUXENT RIVER BASIN--Continued

01594709 - KILLPECK CREEK NEAR HUNTERSVILLE, MD

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TEMPER-ATURE AIR (DEG C)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)
NOV 1994											
07...	1100	0.50	144	6.4	12.0	14.0	42	12	3.0	7.9	3.1
AUG 1995											
09...	1230	1.0	229	6.8	20.0	22.5	54	15	3.9	17	5.2

DATE	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
NOV 1994											
07...	23	13	14	0.10	11	87	<0.010	1.10	1.10	91	38
AUG 1995											
09...	18	17	29	0.10	9.6	139	<0.010	4.00	4.00	78	15

01594712 - LOCKES SWAMP CREEK AT MECHANICSVILLE, MD

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TEMPER-ATURE AIR (DEG C)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3
AUG 1995												
09...	1015	0.40	223	7.1	21.5	24.0	81	26	3.9	11	2.3	62

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS NO3)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
AUG 1995											
09...	7.7	21	0.20	15	134	1.3	0.010	0.300	0.300	280	64

PATUXENT RIVER BASIN--Continued

01594738 - BATTLE CREEK NEAR BARSTOW, MD

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TEMPER-ATURE AIR (DEG C)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)
OCT 1994											
04...	1030	--	151	6.6	12.5	14.0	55	19	1.9	6.8	1.0
AUG 1995											
08...	0830	0.10	169	7.0	20.0	20.0	66	23	2.0	6.4	1.2

DATE	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
OCT 1994											
04...	38	7.9	14	<0.10	12	103	<0.010	0.300	0.300	280	130
AUG 1995											
08...	53	4.8	12	0.10	14	105	<0.010	0.190	0.190	580	73

01594740 - BATTLE CREEK TRIBUTARY NEAR MUTUAL, MD

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TEMPER-ATURE AIR (DEG C)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)
OCT 1994											
04...	1130	1.3	154	6.6	12.0	14.0	63	21	2.5	5.4	0.90
AUG 1995											
08...	0915	1.0	178	7.0	20.0	19.5	74	25	2.7	5.5	1.5

DATE	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
OCT 1994											
04...	46	5.4	11	<0.10	13	101	<0.010	0.090	0.090	200	190
AUG 1995											
08...	62	3.3	11	0.10	13	116	<0.010	0.270	0.270	960	180

PATUXENT RIVER BASIN--Continued

01594770 - ISLAND CREEK AT ISLAND CREEK, MD

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TEMPER-ATURE AIR (DEG C)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)
OCT 1994											
04...	1330	--	149	6.8	14.0	16.0	52	16	3.0	7.3	1.6
AUG 1995											
08...	1000	0.08	159	6.8	20.0	20.0	56	17	3.3	7.9	2.3

DATE	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
OCT 1994											
04...	33	8.5	14	<0.10	12	93	<0.010	0.470	0.470	210	37
AUG 1995											
08...	39	7.3	15	<0.10	12	103	<0.010	0.350	0.350	380	21

01594795 - ST LEONARD CREEK AT ST LEONARD, MD

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TEMPER-ATURE AIR (DEG C)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)
NOV 1994											
08...	1100	1.0	150	6.4	10.0	10.0	50	15	3.0	7.2	2.1
AUG 1995											
08...	1100	1.0	157	6.8	22.0	23.0	55	17	3.1	8.2	1.5

DATE	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
NOV 1994											
08...	39	4.7	15	<0.10	11	95	<0.010	--	<0.050	160	140
AUG 1995											
08...	45	2.7	16	<0.10	13	102	<0.010	0.170	0.170	1600	300

PATUXENT RIVER BASIN--Continued

01594812 - HELLEN CREEK NEAR LUSBY, MD

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TEMPER-ATURE AIR (DEG C)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)
AUG 1995 08...	1300	0.10	80	5.9	20.0	21.0	13	2.1	1.9	8.4	1.1

DATE	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
AUG 1995 08...	5	3.8	15	<0.10	12	60	<0.010	0.090	0.090	130	25

01594816 - CUCKOLD CREEK NEAR HOLLYWOOD, MD

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TEMPER-ATURE AIR (DEG C)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)
AUG 1995 09...	0845	0.10	344	7.2	20.0	21.0	170	56	8.1	5.3	2.2

DATE	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
AUG 1995 09...	142	13	8.2	0.20	19	209	<0.010	0.420	0.420	52	100

WATER-QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

PATUXENT RIVER BASIN--Continued

01594826 - LEWIS CREEK AT CALIFORNIA, MD

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TEMPER-ATURE AIR (DEG C)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)
AUG 1995 08...	1530	0.10	146	5.7	19.0	20.0	22	3.7	3.1	17	1.4

DATE	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
AUG 1995 08...	8	3.8	29	<0.10	10	90	<0.010	1.40	1.40	190	28

01594828 - MILL CREEK TRIBUTARY NEAR CHERRY HILL, MD

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TEMPER-ATURE AIR (DEG C)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)
NOV 1994 08...	1230	0.10	56	5.4	12.0	20.0	9	1.1	1.4	5.6	1.3
AUG 1995 08...	1400	0.10	56	5.5	20.5	20.0	8	1.3	1.2	5.8	1.0

DATE	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
NOV 1994 08...	4	5.3	8.0	<0.10	11	47	<0.010	0.070	0.070	360	120
AUG 1995 08...	5	5.8	7.5	<0.10	13	47	<0.010	0.140	0.140	390	99

POTOMAC RIVER BASIN

01601470 - PINEY MOUNTAIN CREEK AT LAVALE, MD

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TEMPER-ATURE AIR (DEG C)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
AUG 1995 08...	1215	0.52	287	7.6	19.5	23.5	747	8.1	90	130	41	6.8

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)
AUG 1995 08...	7.3	1.9	104	127	19	11	<0.10	9.3	200	<0.010	3.90	3.90

DATE	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)	2,6-DI-ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L)	ETHAL-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L)
AUG 1995 08...	<0.015	<0.20	<0.20	0.030	<0.010	0.020	<10	<10	2.1	0.40	<0.003	<0.004

DATE	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L)	TER-BACIL WATER FLTRD 0.7 U GF, REC (UG/L)	TRI-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L)	ACETO-CHLOR, WATER FLTRD REC (UG/L)	ALA-CHLOR, WATER, DISS, REC, (UG/L)	ALPHA BHC DIS-SOLVED (UG/L)	ATRA-ZINE, WATER, DISS, REC (UG/L)	BEN-FLUR-ALIN WAT FLD 0.7 U GF, REC (UG/L)	BUTYL-ATE, WATER, DISS, REC (UG/L)	CAR-BARYL WATER FLTRD 0.7 U GF, REC (UG/L)	CARBO-FURAN WATER FLTRD 0.7 U GF, REC (UG/L)
AUG 1995 08...	<0.002	<0.007	<0.002	<0.002	<0.002	<0.002	E0.002	<0.002	<0.002	<0.003	<0.003

DATE	CHLOR-PYRIFOS DIS-SOLVED (UG/L)	CYANA-ZINE, WATER, DISS, REC (UG/L)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L)	DEETHYL ATRA-ZINE, WATER, DISS, REC (UG/L)	DI-AZINON, DIS-SOLVED (UG/L)	DI-ELDRIN DIS-SOLVED (UG/L)	DISUL-FOTON WATER FLTRD 0.7 U GF, REC (UG/L)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L)	ETHO-PROP WATER FLTRD 0.7 U GF, REC (UG/L)	FONOFOS WATER DISS REC (UG/L)	LINDANE DIS-SOLVED (UG/L)
AUG 1995 08...	<0.004	<0.004	<0.002	<0.002	<0.002	<0.001	<0.017	<0.002	<0.003	<0.003	<0.004

WATER-QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

POTOMAC RIVER BASIN--Continued

01601470 - PINEY MOUNTAIN CREEK AT LAVALE, MD--Continued

DATE	LINURON WATER FLTRD 0.7 U GF, REC (UG/L)	MALATHION, DISSOLVED (UG/L)	METHYL AZINPHOS WAT FLT 0.7 U GF, REC (UG/L)	METHYL PARATHION WAT FLT 0.7 U GF, REC (UG/L)	METRIBUZIN SENCOR WATER DISSOLV (UG/L)	MOLINATE WATER FLTRD 0.7 U GF, REC (UG/L)	NAPROPAMIDE WATER FLTRD 0.7 U GF, REC (UG/L)	P,P' DDE DISSOLV (UG/L)	PARATHION, DISSOLVED (UG/L)	PEBULATE WATER FILTRD 0.7 U GF, REC (UG/L)	PENDIMETHALIN WAT FLT 0.7 U GF, REC (UG/L)
AUG 1995											
08...	<0.002	<0.005	<0.001	<0.006	<0.004	<0.004	<0.003	<0.006	<0.004	<0.004	<0.004

DATE	PERMETHRINCIS WAT FLT 0.7 U GF, REC (UG/L)	PROMETON, WATER, DISS, REC (UG/L)	PRONAMIDE WATER FLTRD 0.7 U GF, REC (UG/L)	PROPCHLOR, WATER, DISS, REC (UG/L)	PROPANIL WATER FLTRD 0.7 U GF, REC (UG/L)	PROPARGITE WATER FLTRD 0.7 U GF, REC (UG/L)	SIMAZINE, WATER, DISS, REC (UG/L)	TEBUTHIURON WATER FLTRD 0.7 U GF, REC (UG/L)	TERBUFOS WATER FLTRD 0.7 U GF, REC (UG/L)	THIOBENCARB WATER FLTRD 0.7 U GF, REC (UG/L)	TRIALLATE WATER FLTRD 0.7 U GF, REC (UG/L)
AUG 1995											
08...	<0.005	E0.003	<0.003	<0.007	<0.004	<0.013	<0.005	0.034	<0.013	<0.002	<0.001

SUSPENDED SEDIMENT DISCHARGE

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
AUG 1995				
8...	1215	0.52	9	0.01

POTOMAC RIVER BASIN--Continued

01610063 - WHITE SULFUR RUN NEAR FLINTSTONE, MD

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TEMPER-ATURE AIR (DEG C)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
AUG 1995 09...	1745	0.26	67	7.5	20.5	20.0	745	7.9	90	22	4.5	2.7

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)
AUG 1995 09...	2.2	1.6	15	19	9.3	1.5	<0.10	9.1	39	<0.010	0.070	0.070

DATE	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)	2,6-DI-ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L)	ETHAL-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L)
AUG 1995 09...	<0.015	<0.20	<0.20	<0.010	<0.010	<0.010	34	10	5.4	0.10	<0.003	<0.004

DATE	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L)	TER-BACIL WATER FLTRD 0.7 U GF, REC (UG/L)	TRI-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L)	ACETO-CHLOR, WATER FLTRD REC (UG/L)	ALA-CHLOR, WATER, DISS, REC, (UG/L)	ALPHA BHC DIS-SOLVED (UG/L)	ATRA-ZINE, WATER, DISS, REC (UG/L)	BEN-FLUR-ALIN WAT FLD 0.7 U GF, REC (UG/L)	BUTYL-ATE, WATER, DISS, REC (UG/L)	CAR-BARYL WATER FLTRD 0.7 U GF, REC (UG/L)	CARBO-FURAN WATER FLTRD 0.7 U GF, REC (UG/L)
AUG 1995 09...	<0.002	<0.007	<0.002	<0.002	<0.002	<0.002	<0.001	<0.002	<0.002	<0.003	<0.003

DATE	CHLOR-PYRIFOS DIS-SOLVED (UG/L)	CYANA-ZINE, WATER, DISS, REC (UG/L)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L)	DEETHYL ATRA-ZINE, WATER, DISS, REC (UG/L)	DI-AZINON, DIS-SOLVED (UG/L)	DI-ELDRIN DIS-SOLVED (UG/L)	DISUL-FOTON WATER FLTRD 0.7 U GF, REC (UG/L)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L)	ETHO-PROP WATER FLTRD 0.7 U GF, REC (UG/L)	FONOFOS WATER DISS REC (UG/L)	LINDANE DIS-SOLVED (UG/L)
AUG 1995 09...	<0.004	<0.004	<0.002	<0.002	<0.002	<0.001	<0.017	<0.002	<0.003	<0.003	<0.004

WATER-QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

POTOMAC RIVER BASIN--Continued

01610063 - WHITE SULFUR RUN NEAR FLINTSTONE, MD--Continued

DATE	LIN-URON WATER FLTRD 0.7 U GF, REC (UG/L)	MALA-THION, DIS-SOLVED (UG/L)	METHYL AZIN-PHOS WAT FLT 0.7 U GF, REC (UG/L)	METHYL PARA-THION WAT FLT 0.7 U GF, REC (UG/L)	METRI-BUZIN SENCOR WATER DISSOLV (UG/L)	MOL-INATE WATER FLTRD 0.7 U GF, REC (UG/L)	NAPROP-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L)	P,P' DDE DISSOLV (UG/L)	PARA-THION, DIS-SOLVED (UG/L)	PEB-ULATE WATER FILTRD 0.7 U GF, REC (UG/L)	PENDI-METH-ALIN WAT FLT 0.7 U GF, REC (UG/L)
AUG 1995 09...	<0.002	<0.005	<0.001	<0.006	<0.004	<0.004	<0.003	<0.006	<0.004	<0.004	<0.004

DATE	PER-METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L)	PRO-METON, WATER, DISS, REC (UG/L)	PRON-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L)	PROP-CHLOR, WATER, DISS, REC (UG/L)	PRO-PANIL WATER FLTRD 0.7 U GF, REC (UG/L)	PRO-PARGITE WATER FLTRD 0.7 U GF, REC (UG/L)	SI-MAZINE, WATER, DISS, REC (UG/L)	TEBU-THIURON WATER FLTRD 0.7 U GF, REC (UG/L)	TER-BUFOS WATER FLTRD 0.7 U GF, REC (UG/L)	THIO-BENCARB WATER FLTRD 0.7 U GF, REC (UG/L)	TRIAL-LATE WATER FLTRD 0.7 U GF, REC (UG/L)
AUG 1995 09...	<0.005	<0.018	<0.003	<0.007	<0.004	<0.013	<0.005	<0.010	<0.013	<0.002	<0.001

SUSPENDED SEDIMENT DISCHARGE

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
AUG 1995 09...	1745	0.26	9	0.01

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CONVERSION FACTORS AND VERTICAL DATUM

Multiply	By	To obtain
	Length	
inch (in.)	2.54×10^{1}	millimeter
	2.54×10^{-2}	meter
foot (ft)	3.048×10^{-1}	meter
mile (mi)	1.609×10^{0}	kilometer
	Area	
acre	4.047×10^{3}	square meter
	4.047×10^{-1}	square hectometer
	4.047×10^{-3}	square kilometer
square mile (mi^2)	2.590×10^{0}	square kilometer
	Volume	
gallon (gal)	3.785×10^{0}	liter
	3.785×10^{0}	cubic decimeter
	3.785×10^{-3}	cubic meter
million gallons (Mgal)	3.785×10^{3}	cubic meter
	3.785×10^{-3}	cubic hectometer
cubic foot (ft^3)	2.832×10^{1}	cubic decimeter
	2.832×10^{-2}	cubic meter
cubic-foot-per-second day [(ft^3/s) d]	2.447×10^{3}	cubic meter
	2.447×10^{-3}	cubic hectometer
acre-foot (acre-ft)	1.233×10^{3}	cubic meter
	1.233×10^{-3}	cubic hectometer
	1.233×10^{-6}	cubic kilometer
	Flow	
cubic foot per second (ft^3/s)	2.832×10^{1}	liter per second
	2.832×10^{1}	cubic decimeter per second
	2.832×10^{-2}	cubic meter per second
gallon per minute (gal/min)	6.309×10^{-2}	liter per second
	6.309×10^{-2}	cubic decimeter per second
	6.309×10^{-5}	cubic meter per second
million gallons per day (Mgal/d)	4.381×10^{1}	cubic decimeter per second
	4.381×10^{-2}	cubic meter per second
	Mass	
ton (short)	9.072×10^{-1}	megagram or metric ton

Sea level: In this report "sea level" refers to the National Geodetic Vertical Datum of 1929 (NGVD of 1929)—a geodetic datum derived from a general adjustment for the first-order level nets of both the United States and Canada, formerly called Sea Level Datum of 1929.

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