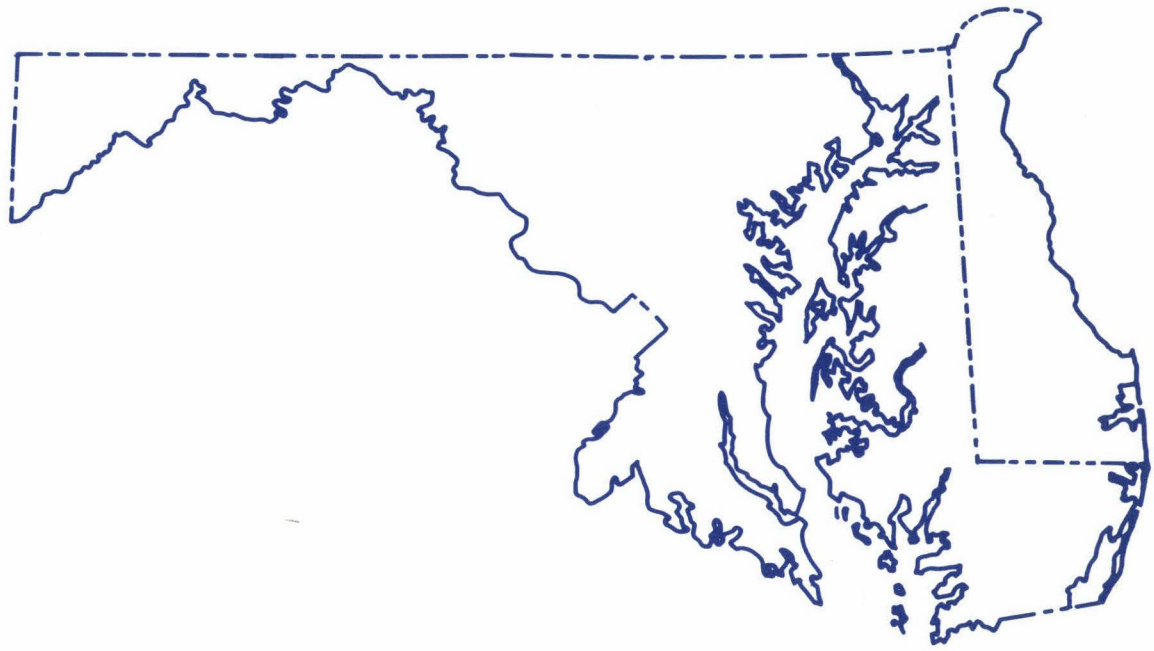
Water Resources Data Maryland and Delaware Water Year 1991

Volume 1. Surface-Water Data



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT MD-DE–91–1
Prepared in cooperation with the States of Maryland and Delaware
and with other agencies

CALENDAR FOR WATER YEAR 1991

1990

OCTOBER

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1991

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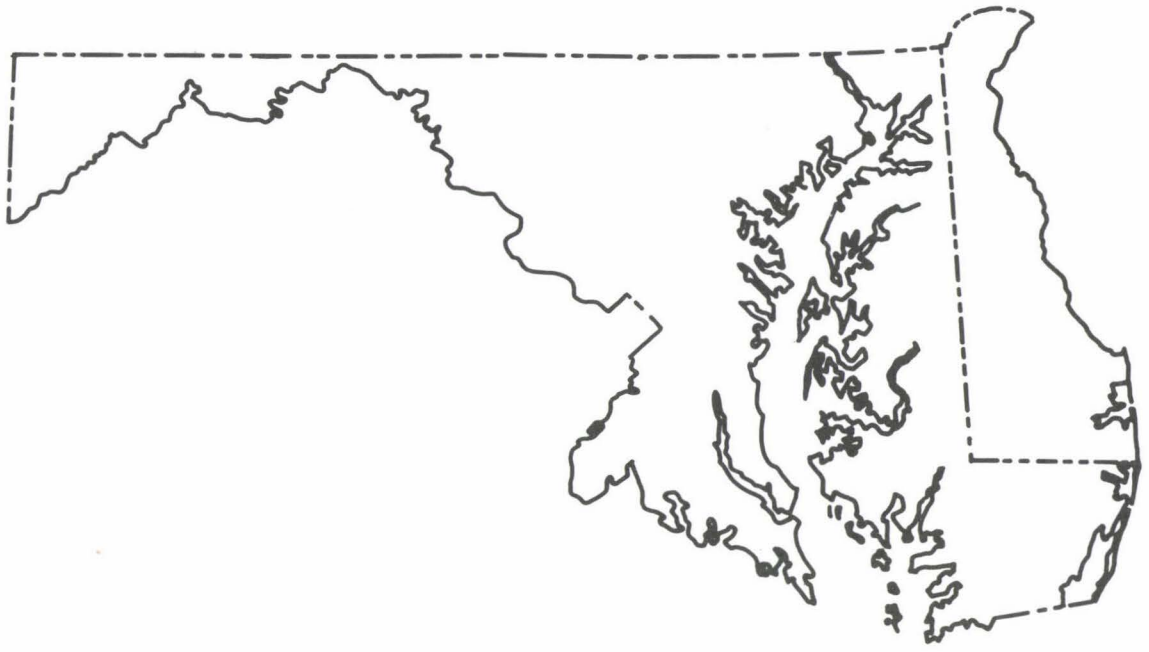
29	30					

Water Resources Data Maryland and Delaware Water Year 1991

Volume 1. Surface-Water Data

by R.W. James, J.F. Hornlein, R.H. Simmons, and B.F. Strain



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT MD-DE–91–1
Prepared in cooperation with the States of Maryland and Delaware and with other agencies

UNITED STATES DEPARTMENT OF THE INTERIOR

MANUEL LUJAN, JR., Secretary

U.S. GEOLOGICAL SURVEY

Dallas L. Peck, Director

For additional information write to
District Chief, Water Resources Division
U.S. Geological Survey
208 Carroll Building
8600 La Salle Road
Towson, Maryland 21204

1991

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:

J. E. Auvil	P. E. Exter	R. H. Pentz
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D. A. Bringman	J. F. Hornlein	J. L. Tegeler
D. P. Brower	L. B. Maclin	S. M. Wicklein
F. A. Danner	J. J. Manning	

This report was prepared under the general supervision of D. Grason, District Chief, MD-DE-DC District, H. J. Freiberger, Area Assistant Regional Hydrologist, Mid-Atlantic Programs, and S. P. Sauer, Regional Hydrologist, Northeastern Region, and in cooperation with the States of Maryland and Delaware and with other agencies.

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Volume 1. Surface-Water Data

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7. Author(s)
R. W. James, Jr., J. F. Hornlein, R. H. Simmons, and B. F. Strain

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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 1991 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 96 gaging stations; stage and contents 1 reservoir; and water quality at 34 gaging stations. Also included are data for 4 crest-stages and 3 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:			
White Clay Creek above Newark, DE	01478500	66.7	1952-59, 1962-80
Mill Creek at Stanton, DE	01479500	12.4	1931-33
Little Mill Creek at Elsmere, DE	01480100	6.70	1963-80
Army Creek at State Road, DE	01482200	2.42	1978-81
Red Lion Creek near Red Lion, DE	01482298	3.08	1978-81
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
MURDERKILL RIVER BASIN			
Murderkill River near Felton, DE	01484000	13.6	1931-33, 1960-85
BROADKILL RIVER BASIN			
Broadkill River:			
Sowbridge Branch (head of Primehook Creek) near Milton, DE	01484300	7.08	1956-78
INDIAN RIVER BASIN			
Cow Bridge Branch (head of Indian River):			
Millsboro Pond Outlet at Millsboro, DE	01484525	66.0	1986-88
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	1930-33, 1934-75
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	1951-75
Broad Creek:			
Holly Ditch near Laurel, DE	01488000	2.19	1951-56
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
NORTHEAST RIVER BASIN			
Northeast Creek (head of Northeast River) at Leslie, MD	01496000	24.3	1949-84

NORTH ATLANTIC SLOPE BASINS--Continued	Station number	Drainage area (mi^2)	Period of record
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	1950-55
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	1988-89
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
Whitemarsh Run (head of Bird River) at White Marsh, MD	01585100	7.61	1959-89
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
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:			
Marley Creek at Harundale, MD	01589522	4.79	1984-85
SOUTH RIVER BASIN			
North River (head of South River) near Annapolis, MD	01590000	8.50	1932-74
Bacon Ridge Branch at Chesterfield, MD	01590500	6.92	1943-52, 1975-90
RHODE RIVER BASIN			
Rhode River:			
Muddy Creek:			
North Fork Muddy Creek at South River, MD	01590700	0.88	1972-76
PATUXENT RIVER BASIN			
Patuxent River:			
Cattail Creek at Roxbury Mills, MD	01591500	27.7	1944-56
Patuxent River near Burtonsville, MD	01592000	127	1911-45
Little Patuxent River:			
Dorsey Run near Jessup, MD	01594400	11.6	1948-58
Western Branch near Largo, MD	01594500	30.2	1950-75
Wesrtern Branch at Upper Marlboro, MD	01594526	89.7	1986-89
Cocktown Creek near Huntingtown, MD	01594600	3.85	1957-76
St. Leonard Creek near St. Leonard, MD	01594800	6.73	1957-68

NORTH ATLANTIC SLOPE BASINS--Continued	Station number	Drainage area (mi^2)	Period of record
POTOMAC RIVER BASIN			
North Branch Potomac River:			
South Fork Sand Run near Wilson, MD	01594934	1.55	1981-86
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, 1967-80
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
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 Thurmont, MD	01640975	7.08	1982-86
Fishing Creek near Lewistown, MD	01641500	7.29	1948-84
Monocacy River near Frederick, MD	01642000	665	1896-1930
Linganore Creek near Frederick, MD	01642500	82.3	1932, 1934-82
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, 1962-78
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
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	1975-81
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 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
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 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
South Fork Sand Run near Wilson, MD	01594934	1.55	SC, pH, T	1981-86
Nouth Fork Sand Run near Wilson, MD	01594936	1.91	SC, T	1981-88
			pH	1985-88
North Branch Potomac River at Kitzmiller	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	01603000	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 Rairview, 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
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

WATER RESOURCES DATA - MARYLAND AND DELAWARE, 1991

VOLUME 1. SURFACE-WATER DATA

INTRODUCTION

The Water Resources Division of the U.S. Geological Survey, in cooperation with State agencies, obtains a large amount of data pertaining to the water resources of Maryland and Delaware each water year. These data, accumulated during many water years, constitute a valuable data base for developing an improved understanding of the water resources of the State. To make these data readily available to interested parties outside the Geological Survey, the data are published annually in this report series entitled **"Water Resources Data - Maryland 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 96 gaging stations; stage and contents at 1 reservoir; and water quality at 34 gaging stations. Also included are data for 4 crest-stages and 3 tidal crest-gage partial-record stations. Locations of these sites are shown on figure 3. 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 25425, 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-91-1."** 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. 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.

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 (301) 828-1535. 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 25425, Denver, Colorado 80225.

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, K. N. Weaver, director.

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

Maryland State Highway Adminstration, M. S. Caltrider, adminstrator.

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.

Assistance with funds or services was given by the U.S. Army Corps of Engineers for collecting records at 17 gaging stations and 4 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.

Organizations that provided data are acknowledged in station descriptions.

SUMMARY OF HYDROLOGIC CONDITIONS

Streamflow at the start of the 1991 water year was in the normal range except for western Marylander where flows were in the excessive (upper 25 percent of the record) range following above-normal rainfall (2 inches) during September 1990. During October 1990, flows remained in the normal range on the Eastern Shore of Maryland while in the remainder of the bi-State area flows were in the excessive range following continuing above-normal rainfall (2 to 6 inches). During November 1990, flows in western Maryland returned to the normal range while flows in central Maryland remained in the excessive range. Flows on the Eastern Shore of Maryland dropped into the deficient (lower 25 percent of the record) range following below-normal rainfall (2 inches. Flows remained in the deficient range on the Eastern Shore of Maryland during December 1990. Flows in western Maryland remained in the normal range and flows in central Maryland remained in the excessive range following above-normal rainfall (2.5 to 4 inches). During January 1991, flows on the Eastern Shore moved into the normal range while flows in the remainder of the bi-State area were in the excessive range following above-normal rainfall (1 to 4 inches). Because of below-normal rainfall (1.5 to 2.5 inches) throughout the bi-State area during February 1991, flows in western and southern Maryland decreased to the normal range whereas flows in central Maryland and on the Eastern Shore moved into the deficient range. Flows throughout the bi-State were in the normal range during March and April 1991. While flows remainded in the normal range on the Eastern Shore during May 1991, flows in the remainder of Maryland dropped into the deficient range following below-normal rainfall (2 to 3 inches). Conditions remained unchanged during June 1991. In July 1991 flows in western and central Maryland remained in the deficient range while flows on the Eastern Shore moved into the excessive range following above-normal rainfall (2 to 2.5 inches). Flows in western Maryland returned to the normal range. During August 1991, flows were in the normal range except central Maryland where flows continued in the deficient range. Below-normal rainfall averaging 1.0 inches decreased flows into the deficient range in western Maryland during September 1991. Flows in central Maryland moved into the normal range while flows on the Eastern Shore remained in the normal range.

During the 1991 water year, flows at the four index stations used (Potomac River near Washington, D.C. and Seneca Creek at Dawsonville in central Maryland, North Branch Potomac River at Paw Paw, W. Va., in western Maryland, and Choptank River at Greensboro on the Eastern Shore of Maryland) were in the normal range. A new record maximum monthly mean was set at the North Branch Potomac River at Paw Paw index site. The new monthly record is about 6 percent greater than that set in 1952.

Monthly and annual mean discharges in water year 1991 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 at 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 85,200 ft^3/s (cubic feet per second), on the basis of flows of the James, Potomac, and Susquehanna Rivers. This is 107 percent of the long-term average during the reference period 1951-91. Flows for October and November averaged 63 percent below normal. For the next three months flows averaged 25 percent below normal. During March, flows were 6 percent above normal. For the remainder of the water year flows averaged 53 percent below normal. No new record monthly means were set during the water year.

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 95 percent of capacity in September 1990, to 77 percent of capacity at the end of September 1991.

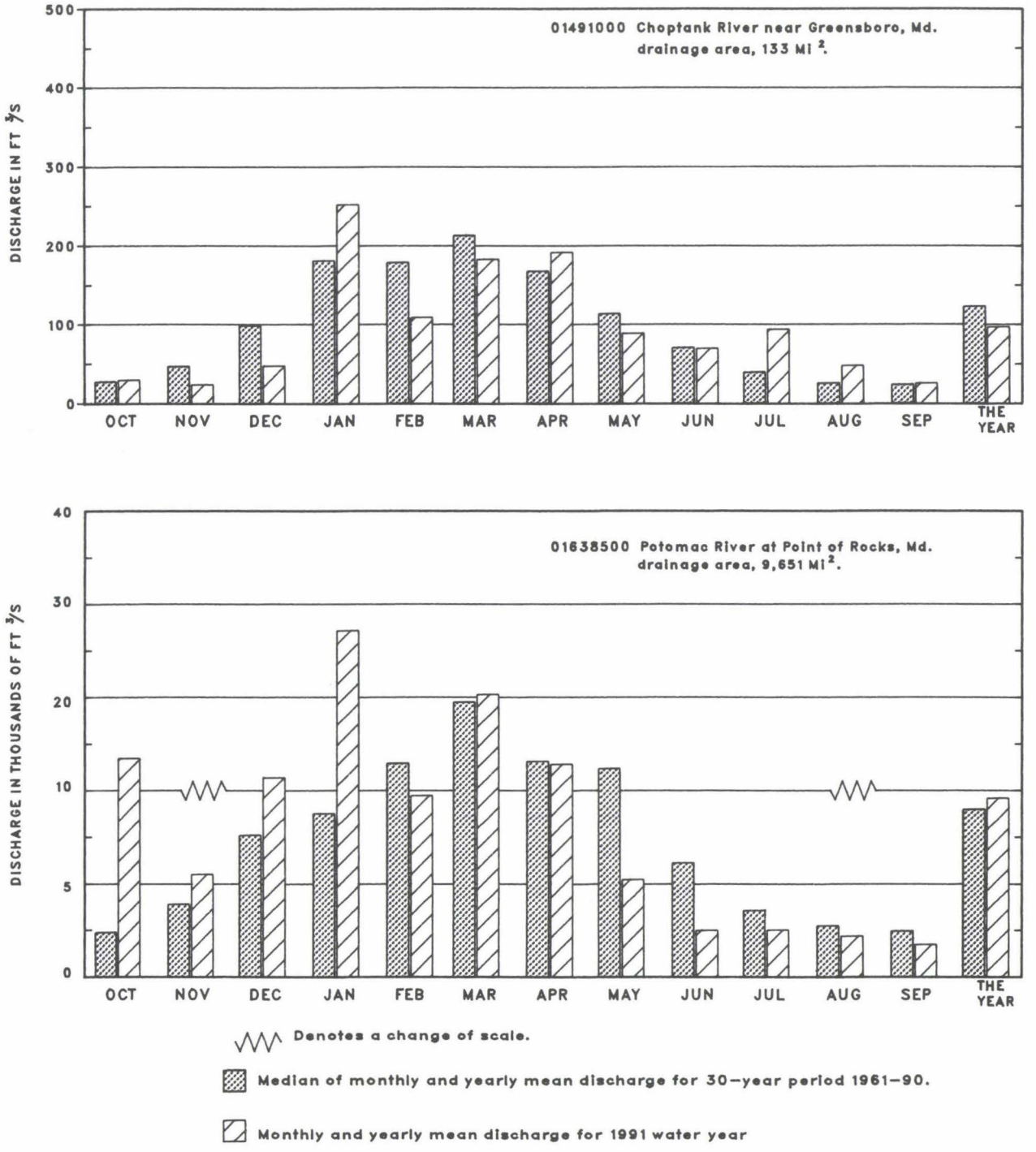

FIGURE 1. COMPARISON OF DISCHARGE AT TWO LONG—TERM REPRESENTATIVE GAGING STATIONS DURING THE 1991 WATER YEAR WITH MEDIAN DISCHARGE FOR INDICATED PERIOD.

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 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.

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 1991 water year that began October 1, 1990, and ended September 30, 1991. 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.)

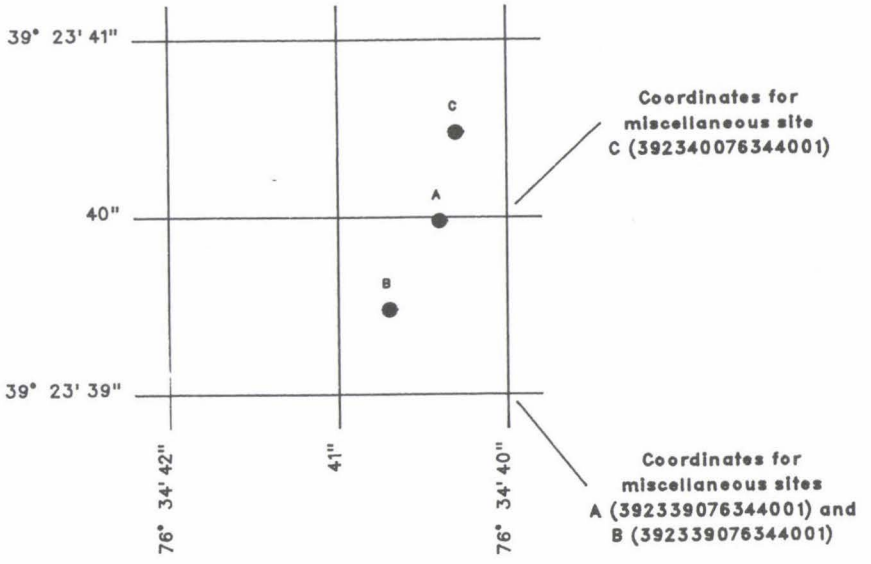

Figure 2.--System for numbering miscellaneous sites (latitude and longitude)

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 figures 3 and 4.

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, Book 3, Chapter A6.

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 foreach 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 manthly 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 complete months of record fpr 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 fpr 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. At least 5 complete years of record must be available before this statistic is published for the designated period.

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

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

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

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

ANNUAL 7-DAY MINIMUM.-- The lowest mean discharge for 7 consecutive days for a calendar year or a water year. Note that most low-flow frequency analyses of annual 7-day minimum flows use a climatic year (April 1-March 31). The date shown in the summary statistics tabe 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 (AC-FT).--Indicates the depth, in acre-feet, to which the drainage area would be covered if all the runoff for the year were uniformly distributed on it.

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

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

10 PERCENT EXCEEDS.--The discharge that is exceeded by 10 percent of the flow for the designated period.

50 PERCENT EXCEEDS.--The discharge that is exceeded by 50 percent of the flow for the designated period.

90 PERCENT EXCEEDS.--The discharge that is exceeded by 90 percent of the flow 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 Mid-Atlantic Programs. 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. All of these references are listed under **"PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS"** which appears at the end of the introductory text. 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.

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 in analyzing sediment samples and computing sediment records are given in TWRI, Book 5, Chap. C1. Methods used by the Geological Survey laboratory are given in TWRI, Book 1, Chap. D2; Book 3, Chap. C2; Book 5, Chap. A1, A3, and A4.

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 **WAT**er Data **STO**rage and **RE**trieval 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 25425, 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)**.

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 sedimentaiton 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 x 10) of the amount of radioactivity represented by a curie (Ci). A curie is the amount of radioactivity that yields 3.7 x 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.

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 ($7Q_{10}$) 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, Books and Open-File Reports Section, Federal Center, Box 25425, 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 Warren 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.

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

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

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

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

3-A9. **Measurement of time of travel 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.

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

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

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.

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

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

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

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

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

3-A18. **Determination of stream reaeration coefficients by use of tracers**, by F. A. Kilpatrick, R. E. Rathbun, N. Yotsukura, G. W. Parker, and L. L. Delong: USGS-TWRI Book 3, Chapter 18A. 1989. 52 pages.

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

PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS--Continued

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

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

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

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

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

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

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

3-C2. **Field methods of measurement of fluvial sediment**, by H. P. Guy and V. W. Norman: USGS--TWRI Book 3, Chapter C2. 1970. 59 pages.

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

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

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

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

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

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

4-D1. **Computation of rate and volume of stream depletion by wells**, by C. T. Jenkins: USGS--TWRI Book 4, Chapter D1. 1970. 17 pages.

5-A1. **Methods for determination of inorganic substances in water and fluvial sediments**, by M. J. Fishman and L. C. Friedman: USGS--TWRI Book 5, Chapter A1. 1989. 545 pages.

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

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

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

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

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

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

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

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

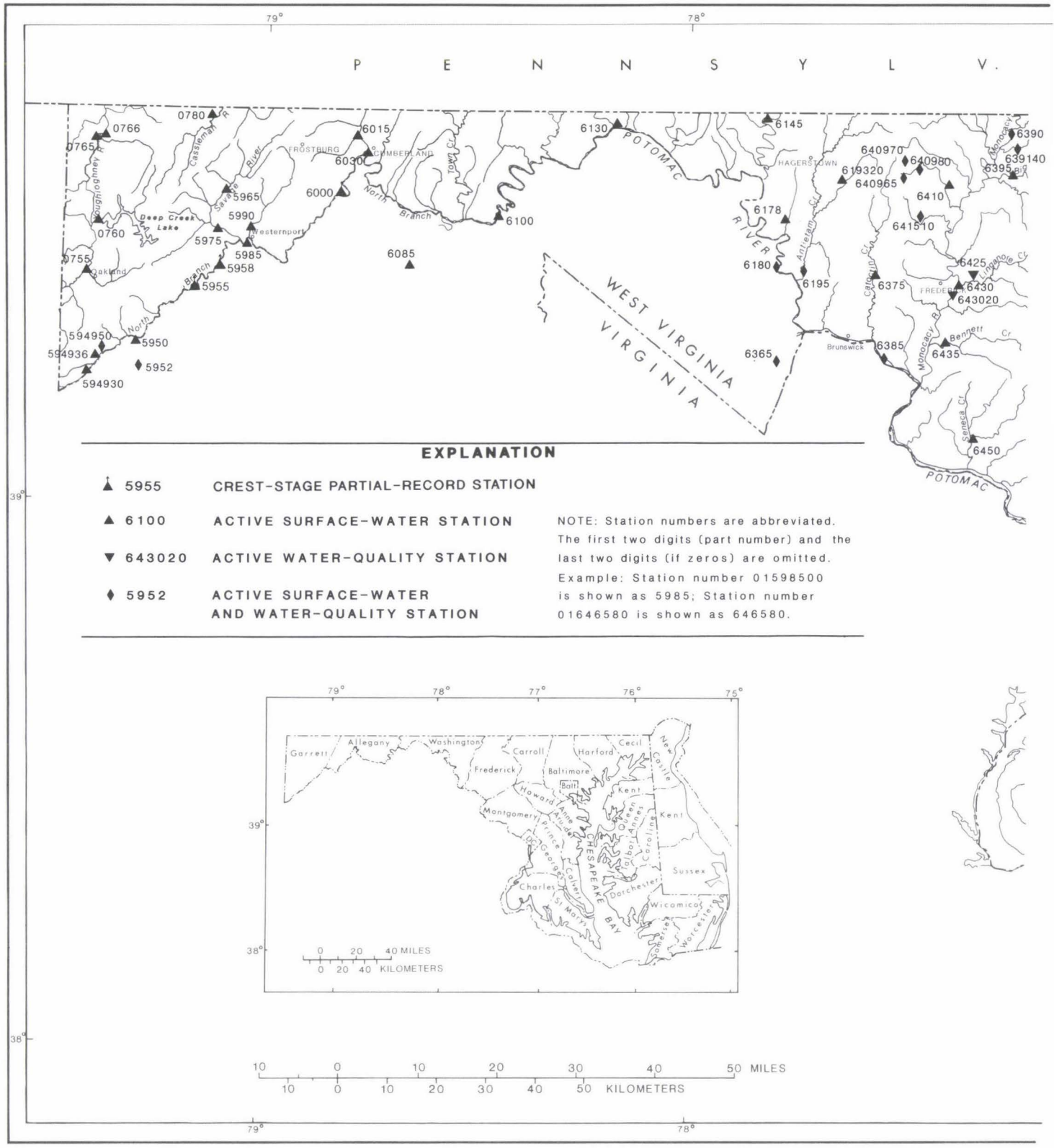
7-C2. **Computer model of two-dimensional solute transport and dispersion in ground water**, by L. F. Konikow and J. D. Bredehoeft: USGS--TWRI Book 7, Chapter C2. 1978. 90 pages.

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

8-A1. **Methods of measuring water levels in deep wells**, by M. S. Garber and F. C. Koopman: USGS--TWRI Book 8, Chapter A1. 1968. 23 pages.

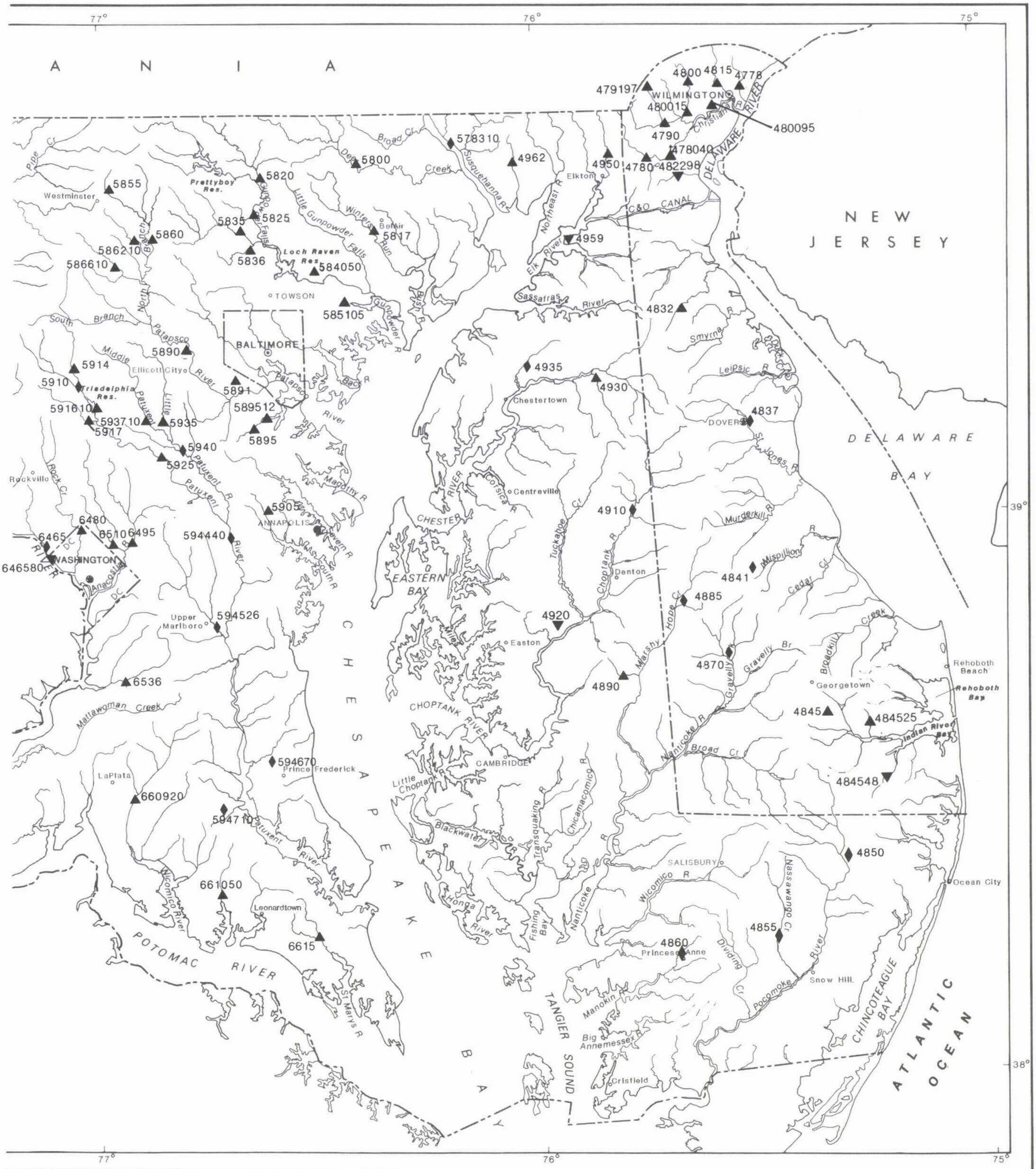
8-A2. **Installation and service manual for U. S. Geological Survey manometers**, by J. D. Craig: USGS--TWRI Book 8, Chapter A2. 1983. 57 pages.

8-B2. **Calibration and maintenance of vertical-axis type current meters**, by G. F. Smoot and C. E. Novak: USGS--TWRI Book 8, Chapter B2. 1968. 15 pages.



Base map modified from U.S. Geological Survey 1:500,000

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


77°
76°
75°
39°
38°
A N I A
NEW JERSEY
DELAWARE BAY
ATLANTIC OCEAN
CHESAPEAKE BAY
TANGIER SOUND
CHINCOTEAGUE BAY
POTOMAC RIVER
WILMINGTON
BALTIMORE
WASHINGTON
ANNAPOLIS
DOVER
TOWSON
Westminster
Ellicott City
Rockville
Upper Marlboro
LaPlata
Leonardtown
Prince Frederick
CAMBRIDGE
Easton
Denton
Centreville
Chestertown
Elkton
Bel Air
SALISBURY
Princess Anne
Crisfield
Snow Hill
Ocean City
Georgetown
Rehoboth Beach
Rehoboth Bay
Indian River Bay
Prettyboy Res.
Loch Raven Res.
Triadelphia Res.
C&O CANAL
DELAWARE RIVER
Susquehanna R
Little Gunpowder Falls
Gunpowder R
Patapsco River
Patuxent R
Anacostia
Mattawoman Creek
Wicomico River
St Marys R
Choptank River
Chester River
Little Choptank R
Blackwater
Transquaking
Chicamacomico R
Nanticoke R
Wicomico R
Manokin R
Big Annemessex R
Pocomoke River
Nassawango Cr
Dividing Cr
Marshy Hope Cr
Tuckahoe Cr
Sassafras River
Elk River
Northeast R
Christina R
Smyrna R
Leipsic R
St Jones R
Murderkill R
Mispillion R
Cedar Cr
Broadkill R
Gravelly Br
Broad Cr
EASTERN BAY
Honga River
Fishing Bay
Severn R
South R
Magothy R
Back R
Deer Creek
Broad Cr
Winters Run
Bush R
Rock Cr
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480015
480095
4790
478040
482298
4780
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4962
578310
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586210
586610
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593710
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SURFACE-WATER RECORDS

REMARK CODES.--The following remark codes may appear with the water-quality data in this section.

PRINTED OUTPUT	REMARK
E	Estimated
>	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.

NOTES: 1. In March 1989 the National Water-Quality Laboratory discovered a bias in the turbidimetric method for sulfate analysis, indicating that values below 75 mg/L have a median positive bias of 2 mg/L above the true value for the period between 1982 and 1989. Sulfate values in this report have not been corrected for this bias.

2. 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). Present 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 will begin using new trace-element protocols in the near future.

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 National Geodetic Vertical Datum of 1929.

REMARKS.--Records good below 100 ft^3/s and above 4,000 ft^3/s, except those for estimated daily discharges (back- from leaves or rocks, lagging intakes) 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. 12	0020	1,400	5.04	Aug. 9	0950	1,370	4.99
June 18	1205	1,500	5.22	Aug. 9	1615	*2,490	*6.67
July 26	1640	2,110	6.16	Sept. 25	0600	1,660	5.48

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	e.98	1.1	9.2	5.7	2.4	7.3	3.0	1.5	3.0	1.2	.73
2	.98	e.98	1.2	7.0	e5.2	5.5	6.6	2.8	1.4	1.4	1.1	.73
3	.95	e.98	33	6.1	e5.1	45	5.0	2.6	1.5	1.3	1.2	.68
4	1.7	e.98	91	5.6	e5.0	26	4.6	2.6	3.0	1.2	.94	.72
5	1.9	e.96	4.9	5.3	e4.9	7.2	4.6	2.4	1.3	1.3	.85	15
6	.99	e1.4	2.6	5.5	e6.0	12	4.6	118	1.2	1.2	.77	1.2
7	1.1	e1.0	2.2	10	9.8	15	3.8	11	1.2	29	.81	.89
8	1.3	e.98	2.0	8.0	4.2	5.2	3.6	4.4	1.1	2.4	.79	.72
9	1.9	e.98	2.0	133	3.7	4.0	3.7	3.5	1.0	1.3	338	.65
10	1.4	74	1.9	22	4.3	3.5	3.6	2.8	1.0	1.1	31	.64
11	.97	3.4	1.9	83	4.2	3.1	3.1	2.7	1.1	1.1	2.9	.72
12	4.0	1.3	1.8	201	3.7	2.9	3.0	2.9	1.3	7.5	1.9	.69
13	5.0	1.2	2.1	14	4.7	3.1	12	2.5	1.9	66	1.6	.56
14	2.4	1.2	2.6	7.6	17	9.3	12	3.4	1.3	2.4	1.4	12
15	1.0	1.1	24	6.4	5.5	11	21	2.5	1.1	1.4	5.4	1.1
16	1.1	1.2	9.8	83	3.2	4.7	7.3	2.4	15	1.1	2.1	.82
17	1.3	1.4	5.3	22	3.3	3.3	5.0	2.3	7.3	1.1	1.2	30
18	21	1.9	20	7.8	3.4	82	4.1	2.3	228	1.0	1.1	5.8
19	1.5	1.2	9.0	6.3	6.7	9.5	3.6	1.9	9.8	1.0	12	23
20	1.1	1.2	4.7	6.1	5.9	4.8	3.5	1.8	2.9	.96	8.6	6.1
21	1.2	1.2	34	19	3.6	3.7	149	1.8	2.0	1.5	2.7	1.3
22	13	1.2	12	6.7	2.9	4.0	19	1.9	7.2	2.3	1.4	.99
23	2.3	5.1	27	5.5	2.5	96	7.7	1.8	5.3	1.8	1.2	.90
24	1.3	2.0	71	5.4	2.4	15	33	1.7	2.3	.92	1.1	6.0
25	1.2	1.3	8.4	4.6	2.4	7.7	9.6	1.7	1.7	1.6	1.0	162
26	1.0	1.2	5.6	4.9	2.4	6.0	6.0	1.6	1.4	229	1.1	32
27	e1.0	1.2	4.8	5.1	2.4	12	5.1	1.6	1.4	6.1	.96	2.7
28	e1.0	1.3	6.4	5.5	2.4	7.1	4.5	1.6	1.3	1.9	1.0	1.7
29	e1.0	1.2	20	5.3	---	12	4.2	1.6	1.2	3.2	1.4	1.4
30	e.99	1.2	104	6.0	---	27	3.9	1.7	8.3	2.1	1.3	1.2
31	e.99	---	35	9.4	---	7.6	---	1.6	---	1.3	.90	---
TOTAL	77.67	115.24	551.3	726.3	132.5	457.6	364.0	196.4	316.0	378.48	428.92	312.94
MEAN	2.51	3.84	17.8	23.4	4.73	14.8	12.1	6.34	10.5	12.2	13.8	10.4
MAX	21	74	104	201	17	96	149	118	228	229	338	162
MIN	.95	.96	1.1	4.6	2.4	2.4	3.0	1.6	1.0	.92	.77	.56
CFSM	.34	.51	2.38	3.14	.63	1.98	1.63	.85	1.41	1.64	1.85	1.40
IN.	.39	.57	2.75	3.62	.66	2.28	1.82	.98	1.58	1.89	2.14	1.56

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1946 - 1991, BY WATER YEAR (WY)

MEAN	4.67	8.72	11.4	12.3	13.3	14.7	12.9	11.0	7.28	8.29	7.17	6.51
MAX	20.2	27.7	30.5	37.9	34.1	30.3	32.7	31.5	34.8	69.5	62.8	58.3
(WY)	1972	1973	1968	1979	1979	1978	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

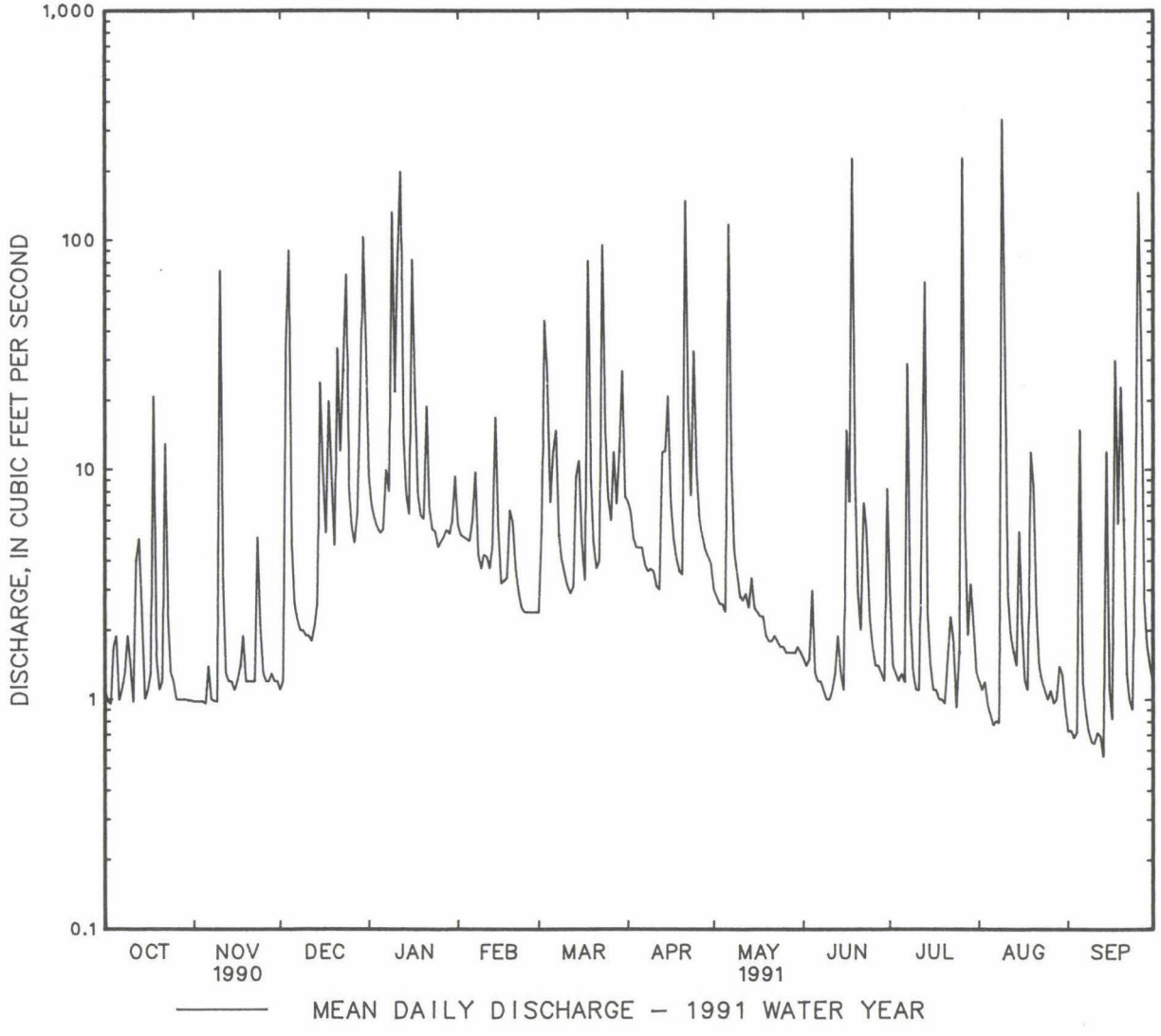
SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1946 - 1991	
ANNUAL TOTAL	3861.50		4057.35			
ANNUAL MEAN	10.6		11.1		9.81	
HIGHEST ANNUAL MEAN					16.2	1989
LOWEST ANNUAL MEAN					5.52	1963
HIGHEST DAILY MEAN	361	May 29	338	Aug 9	1310	Jul 5 1989
LOWEST DAILY MEAN	.77	Aug 3	.56	Sep 13	.09	(a)
ANNUAL SEVEN-DAY MINIMUM	.98	Oct 30	.70	Sep 7	.10	Aug 27 1966
INSTANTANEOUS PEAK FLOW	2140	Aug 6	2490	Aug 9	b8040	Jul 5 1989
INSTANTANEOUS PEAK STAGE	6.20	Aug 6	6.67	Aug 9	13.76	Jul 5 1989
INSTANTANEOUS LOW FLOW	.63	(c)	.50	(d)	UNKNOWN	
ANNUAL RUNOFF (CFSM)	1.42		1.49		1.31	
ANNUAL RUNOFF (INCHES)	19.26		20.23		17.86	
10 PERCENT EXCEEDS	20		20		18	
50 PERCENT EXCEEDS	3.1		2.7		2.8	
90 PERCENT EXCEEDS	1.1		1.0		.75	

a Oct. 2, 4, 1968.

b 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.

c July 31, Oct. 15.

d Sept. 13, 14.



01478000 CHRISTINA RIVER AT COOCHS BRIDGE, DE

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

DRAINAGE AREA.--20.5 mi^2.

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

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

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

REMARKS.--No estimated daily discharges. Records good. Low and medium flow regulated by mill upstream from station. 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. 12	0415	*1,400	*11.04	No other peak greater than base discharge.			

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.9	7.0	7.4	32	18	11	29	22	8.0	7.5	6.8	3.4
2	6.6	7.0	7.3	25	17	26	28	21	7.6	8.6	6.6	3.1
3	6.3	7.2	43	21	17	60	23	19	6.9	7.3	6.0	3.1
4	10	6.9	241	18	17	130	23	17	6.7	6.9	15	3.2
5	8.8	6.9	31	16	16	38	21	16	6.6	6.8	6.9	17
6	7.1	7.6	17	17	20	28	20	138	6.4	6.9	6.2	4.6
7	6.8	7.0	14	38	50	59	18	77	6.5	44	5.8	3.8
8	6.4	7.1	12	27	31	23	16	28	6.6	15	5.7	3.3
9	7.1	7.0	11	255	22	18	15	21	6.3	7.5	90	3.1
10	6.2	172	11	75	19	16	15	19	6.1	6.1	67	3.1
11	6.1	34	10	69	17	14	13	17	6.0	5.7	9.8	3.1
12	7.9	12	9.8	563	15	14	12	16	10	6.9	6.8	2.9
13	17	10	9.9	81	15	14	19	23	6.3	73	6.2	2.8
14	10	8.8	9.2	39	78	34	39	23	6.0	15	5.8	53
15	7.1	8.3	49	32	29	43	67	14	5.6	6.8	7.1	5.3
16	6.6	8.1	33	151	17	22	40	13	16	5.5	6.1	3.7
17	6.2	8.2	15	121	15	16	23	12	23	5.4	4.9	41
18	30	8.1	38	40	15	149	18	12	100	5.2	4.7	31
19	24	7.8	29	30	25	56	16	12	28	5.0	92	57
20	7.8	7.8	15	28	27	26	14	11	10	4.9	55	33
21	7.1	7.7	43	57	19	20	244	11	8.2	4.7	10	6.2
22	7.2	7.7	37	29	16	19	117	11	7.7	9.2	6.0	4.6
23	28	14	47	21	14	184	43	10	9.6	6.2	5.2	4.5
24	21	10	185	23	13	80	69	10	8.5	4.6	4.7	4.9
25	9.3	8.3	32	21	13	33	57	10	7.8	5.7	4.5	145
26	7.6	8.3	21	18	12	25	32	10	7.6	87	4.3	85
27	6.8	7.7	16	19	12	61	28	9.7	7.5	16	4.2	11
28	7.2	7.8	23	20	11	34	26	9.4	7.4	8.4	4.1	6.8
29	7.0	8.1	47	19	---	37	24	8.7	7.3	9.2	3.9	5.8
30	7.0	7.2	202	20	---	105	23	8.5	7.3	8.5	3.8	5.3
31	7.0	---	141	30	---	38	---	8.4	---	7.2	3.5	---
TOTAL	310.1	435.6	1406.6	1955	590	1433	1132	637.7	357.5	416.7	468.6	559.6
MEAN	10.0	14.5	45.4	63.1	21.1	46.2	37.7	20.6	11.9	13.4	15.1	18.7
MAX	30	172	241	563	78	184	244	138	100	87	92	145
MIN	6.1	6.9	7.3	16	11	11	12	8.4	5.6	4.6	3.5	2.8
CFSM	.49	.71	2.21	3.08	1.03	2.25	1.84	1.00	.58	.66	.74	.91
IN.	.56	.79	2.55	3.55	1.07	2.60	2.05	1.16	.65	.76	.85	1.02

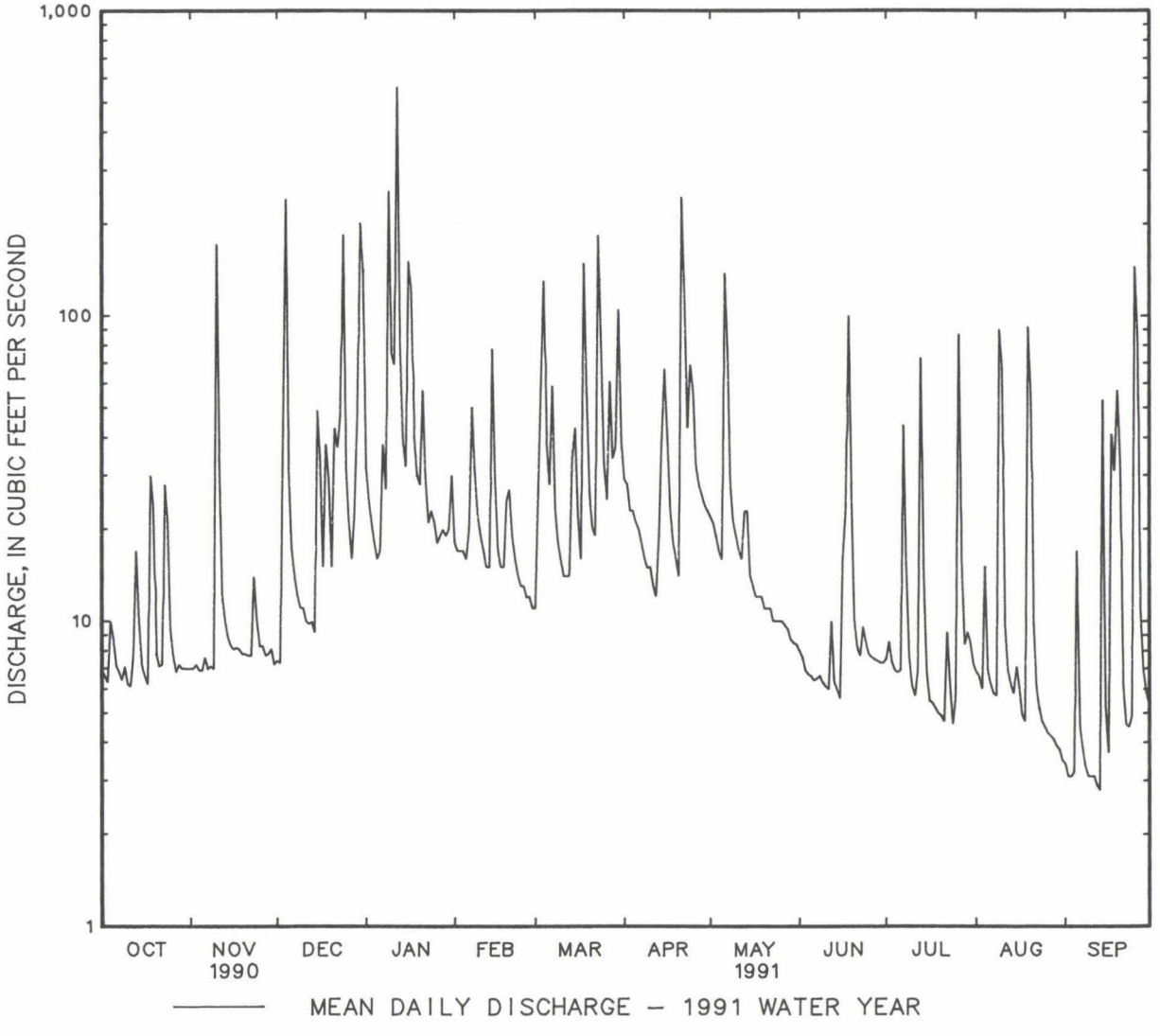
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1943 - 1991, BY WATER YEAR (WY)

MEAN	14.1	24.3	33.6	39.5	43.4	44.8	37.0	32.1	21.3	22.6	17.9	14.8
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 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1943 - 1991	
ANNUAL TOTAL	12473.6		9702.4			
ANNUAL MEAN	34.2		26.6		28.7	
HIGHEST ANNUAL MEAN					53.4	1978
LOWEST ANNUAL MEAN					14.2	1981
HIGHEST DAILY MEAN	639	May 29	563	Jan 12	2000	Jul 5 1989
LOWEST DAILY MEAN	6.1	Oct 11	2.8	Sep 13	.20	(a)
ANNUAL SEVEN-DAY MINIMUM	6.8	Oct 6	3.2	Sep 7	.50	Aug 25 1966
INSTANTANEOUS PEAK FLOW	1620	May 29	1400	Jan 12	5530	Jul 5 1989
INSTANTANEOUS PEAK STAGE	10.72	May 29	11.04	Jan 12	13.12	Jul 5 1989
INSTANTANEOUS LOW FLOW	5.9	(b)	2.8	(c)	UNKNOWN	
ANNUAL RUNOFF (CFSM)	1.67		1.30		1.40	
ANNUAL RUNOFF (INCHES)	22.64		17.61		19.02	
10 PERCENT EXCEEDS	64		57		48	
50 PERCENT EXCEEDS	18		13		13	
90 PERCENT EXCEEDS	7.3		5.6		4.3	

a Aug. 7, 14, 18, 21, 27, 28, 1966.
b Oct. 10, 11, 17.
c Sept. 12-14.



01479000 WHITE CLAY CREEK NEAR NEWARK, DE

LOCATION.--Lat 39°41'47", long 75°40'33", New Castle County, Hydrologic Unit 02040205, on left bank 35 ft downstream from bridge on private road at Delaware Park Race Track, 0.4 mi downstream from the Baltimore and Ohio Railroad bridge, 1.1 mi downstream from Pike Creek, 3.8 mi east of Newark, and 5.0 mi upstream from mouth.

DRAINAGE AREA.--89.1 mi^2.

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

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

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

REMARKS.--Records good except those for estimated daily discharges (ice effect), which are fair. Slight diurnal fluctuation at low flow caused by mills upstream from station. Records do not include a negligible diversion upstream from station by E. I. du Pont de Nemours & Co. 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. 12	0630	*1,650	*11.06	No peak greater than base discharge.			

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	45	48	49	146	105	88	124	103	54	47	37	26
2	43	49	50	114	101	109	120	97	53	51	34	24
3	41	48	129	101	102	152	110	94	53	50	98	25
4	46	49	617	91	101	330	107	92	51	51	65	26
5	46	50	140	84	99	173	106	90	49	48	39	54
6	43	54	89	86	106	136	107	303	49	49	33	34
7	42	53	75	117	142	174	102	210	48	182	30	30
8	43	52	69	97	123	121	97	114	47	96	30	27
9	45	51	65	333	107	110	96	101	46	55	188	24
10	43	345	62	187	102	107	93	98	43	47	249	25
11	44	140	59	202	98	101	87	93	42	43	58	26
12	47	69	58	981	94	98	86	90	47	47	43	23
13	79	60	57	272	96	99	104	87	45	257	39	22
14	58	57	55	173	159	126	126	89	40	80	36	90
15	45	55	110	151	114	139	156	83	39	54	42	43
16	43	54	121	340	94	117	134	78	73	46	41	32
17	42	55	72	292	e94	104	103	77	171	43	34	100
18	77	54	117	166	97	300	97	79	292	40	32	66
19	156	52	109	144	112	176	93	76	197	37	166	109
20	56	52	75	136	118	119	92	74	80	37	149	66
21	50	51	119	169	103	108	493	72	65	36	111	35
22	49	51	144	134	97	107	322	72	59	37	50	32
23	87	67	128	e110	93	367	164	70	65	36	41	31
24	122	62	370	e108	91	262	182	66	61	32	37	35
25	62	53	133	e107	93	155	180	70	54	34	36	331
26	53	52	95	e106	92	131	128	111	50	143	34	182
27	50	51	86	e106	89	170	118	68	47	55	33	50
28	50	52	e192	108	88	139	112	62	45	44	32	36
29	50	51	130	105	---	136	109	58	44	44	30	32
30	48	49	332	107	---	199	107	57	46	44	29	30
31	48	---	404	133	---	137	---	56	---	40	28	---
TOTAL	1753	1986	4311	5506	2910	4790	4055	2890	2055	1905	1904	1666
MEAN	56.5	66.2	139	178	104	155	135	93.2	68.5	61.5	61.4	55.5
MAX	156	345	617	981	159	367	493	303	292	257	249	331
MIN	41	48	49	84	88	88	86	56	39	32	28	22
CFSM	.63	.74	1.56	1.99	1.17	1.73	1.52	1.05	.77	.69	.69	.62
IN.	.73	.83	1.80	2.30	1.21	2.00	1.69	1.21	.86	.80	.79	.70

e Estimated

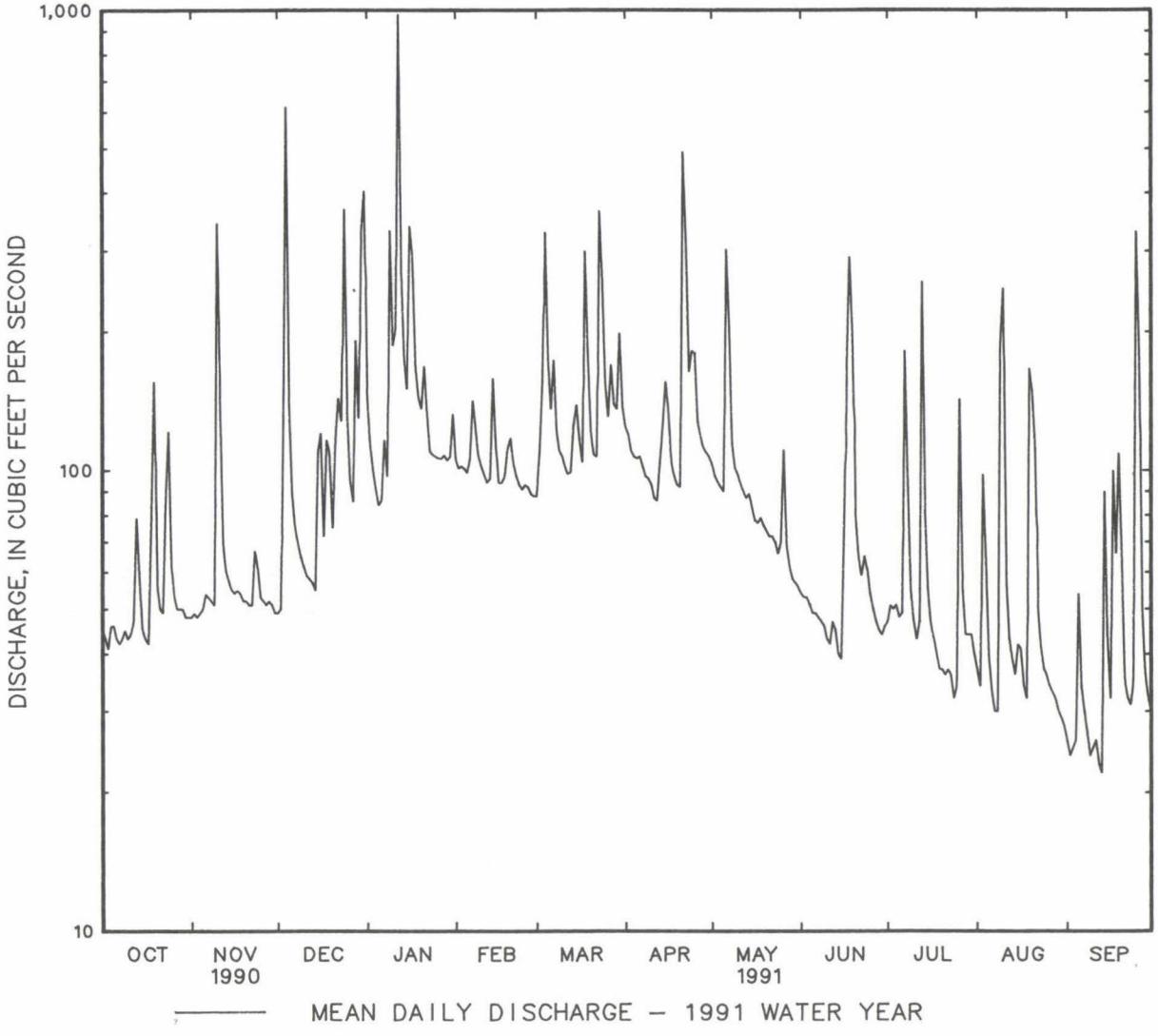
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1932 - 1991, BY WATER YEAR (WY)

MEAN	64.2	92.5	112	144	163	167	149	130	99.3	99.8	81.9	73.1
MAX	230	221	304	493	542	398	342	265	311	540	301	231
(WY)	1972	1973	1984	1979	1979	1978	1983	1989	1972	1975	1967	1979
MIN	17.6	28.4	28.1	32.8	52.4	57.5	59.7	42.3	37.9	16.6	13.6	15.0
(WY)	1964	1966	1966	1966	1934	1981	1963	1955	1963	1963	1966	1932

01479000 WHITE CLAY CREEK NEAR NEWARK, DE--Continued

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1932 - 1991	
ANNUAL TOTAL	43421		35731			
ANNUAL MEAN	119		97.9		115	
HIGHEST ANNUAL MEAN					193	1975
LOWEST ANNUAL MEAN					55.9	1966
HIGHEST DAILY MEAN	1240	May 29	981	Jan 12	5220	Jan 26 1978
LOWEST DAILY MEAN	41	Oct 3	22	Sep 13	5.0	Sep 10 1966
ANNUAL SEVEN-DAY MINIMUM	43	Oct 2	25	Sep 7	5.7	Sep 7 1966
INSTANTANEOUS PEAK FLOW	3270	May 29	1650	Jan 12	a11600	Jul 5 1989
INSTANTANEOUS PEAK STAGE	13.51	May 29	11.06	Jan 12	b7.74	Jun 22 1972
INSTANTANEOUS LOW FLOW	37	Sep 25	20	(c)	4.7	Sep 11 1966
ANNUAL RUNOFF (CFSM)	1.34		1.10		1.29	
ANNUAL RUNOFF (INCHES)	18.13		14.92		17.48	
10 PERCENT EXCEEDS	186		172		188	
50 PERCENT EXCEEDS	96		78		77	
90 PERCENT EXCEEDS	48		36		33	

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 previos site and datum.
c Sept. 13, 14.



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.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1989 to current year.

GAGE.--Water-stage recorder. Concrete control since February 12, 1990. Datum of gage is 224.56 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records good except those for Jan. 23, 24 (ice effect), which are fair, and those for Apr. 27 to May 20 (no gage-height record), which are poor.

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 YEAR.--Peak discharges greater than base discharge of 150 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct. 13	1445	161	4.28	June 16	2100	182	4.70
Jan. 12	0045	263	5.14	Aug. 10	0100	170	4.63
May 25	2030	*367	*5.61	Sept. 25	0600	202	4.82

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.68	.78	.78	2.8	2.0	1.6	2.7	e1.9	.98	.95	.56	.35
2	.68	.78	1.2	2.4	2.1	3.9	2.4	e1.7	.88	.99	.51	.36
3	.69	.74	20	2.2	2.2	10	2.2	e1.7	.87	.95	.60	.34
4	.95	.75	38	1.9	2.0	9.4	2.0	e1.9	.86	.89	.55	.35
5	.92	.74	3.0	1.8	2.0	2.9	2.1	e1.8	.81	.91	.46	2.0
6	.61	1.2	2.1	2.0	2.8	4.7	2.1	e8.0	.83	.87	.39	.56
7	.57	.74	1.7	3.3	5.3	5.0	1.9	e3.1	.80	13	.35	.44
8	.88	.84	1.5	2.2	2.7	2.3	1.7	e2.6	.77	1.5	.37	.32
9	1.0	.92	1.3	29	2.3	2.1	1.8	e2.2	.80	.92	17	.28
10	.59	33	1.2	8.2	2.1	2.0	1.7	e2.1	.87	.82	17	.29
11	.58	2.8	1.2	16	2.0	1.8	1.5	e2.0	.67	.76	.74	.30
12	.71	1.4	1.1	56	1.8	1.8	1.5	e2.1	.89	1.4	.57	.24
13	19	1.1	1.1	5.7	2.2	1.9	3.6	e2.0	.72	15	.56	.24
14	1.9	1.2	.99	3.3	6.3	3.9	3.1	e1.9	.65	1.4	.52	3.2
15	.95	.98	8.0	2.9	2.4	3.9	6.3	e1.8	.64	.86	1.2	.75
16	.81	.96	2.8	26	1.7	2.2	2.5	e1.6	19	.76	.57	.66
17	.77	.94	1.7	7.3	1.9	2.0	2.0	e1.4	3.9	.72	.50	8.8
18	6.1	.87	7.8	3.4	2.2	18	1.9	e1.2	46	.67	.49	2.3
19	2.3	.87	3.2	2.9	3.1	3.5	1.8	e1.1	5.5	.64	3.4	7.0
20	.94	.85	1.7	2.8	2.7	2.4	1.7	e1.0	2.2	.63	2.9	1.7
21	.87	1.1	10	6.0	2.1	2.2	33	1.1	1.5	.59	.75	.58
22	.88	1.9	3.7	2.4	1.9	2.5	7.0	1.0	1.5	.72	.54	.52
23	6.1	2.4	9.2	e2.3	1.7	23	2.9	1.0	3.0	.58	.51	.52
24	2.3	.99	22	e2.1	1.7	5.8	8.0	.95	1.4	.51	.50	1.4
25	1.1	.86	2.8	2.0	1.7	3.2	3.4	36	1.1	.65	.49	32
26	.87	.83	2.1	2.0	1.7	2.7	2.4	5.8	.99	4.6	.49	8.4
27	.79	.83	1.6	2.1	1.6	4.0	e2.2	1.8	.93	.87	.48	1.1
28	.81	.85	2.4	2.2	1.6	2.7	e2.0	1.4	.90	.61	.46	.82
29	.77	.96	4.8	2.1	---	3.3	e1.9	1.1	.86	1.2	.44	.73
30	.75	.79	31	2.6	---	6.5	e2.0	1.1	1.4	.72	.41	.67
31	.78	---	11	4.0	---	2.7	---	.99	---	.62	.36	---
TOTAL	57.65	63.97	200.97	211.9	65.8	143.9	111.3	95.34	102.22	56.31	54.67	77.22
MEAN	1.86	2.13	6.48	6.84	2.35	4.64	3.71	3.08	3.41	1.82	1.76	2.57
MAX	19	33	38	56	6.3	23	33	36	46	15	17	32
MIN	.57	.74	.78	1.8	1.6	1.6	1.5	.95	.64	.51	.35	.24
CFSM	.53	.60	1.83	1.93	.66	1.31	1.05	.87	.96	.51	.50	.73
IN.	.61	.67	2.11	2.23	.69	1.51	1.17	1.00	1.07	.59	.57	.81

e Estimated

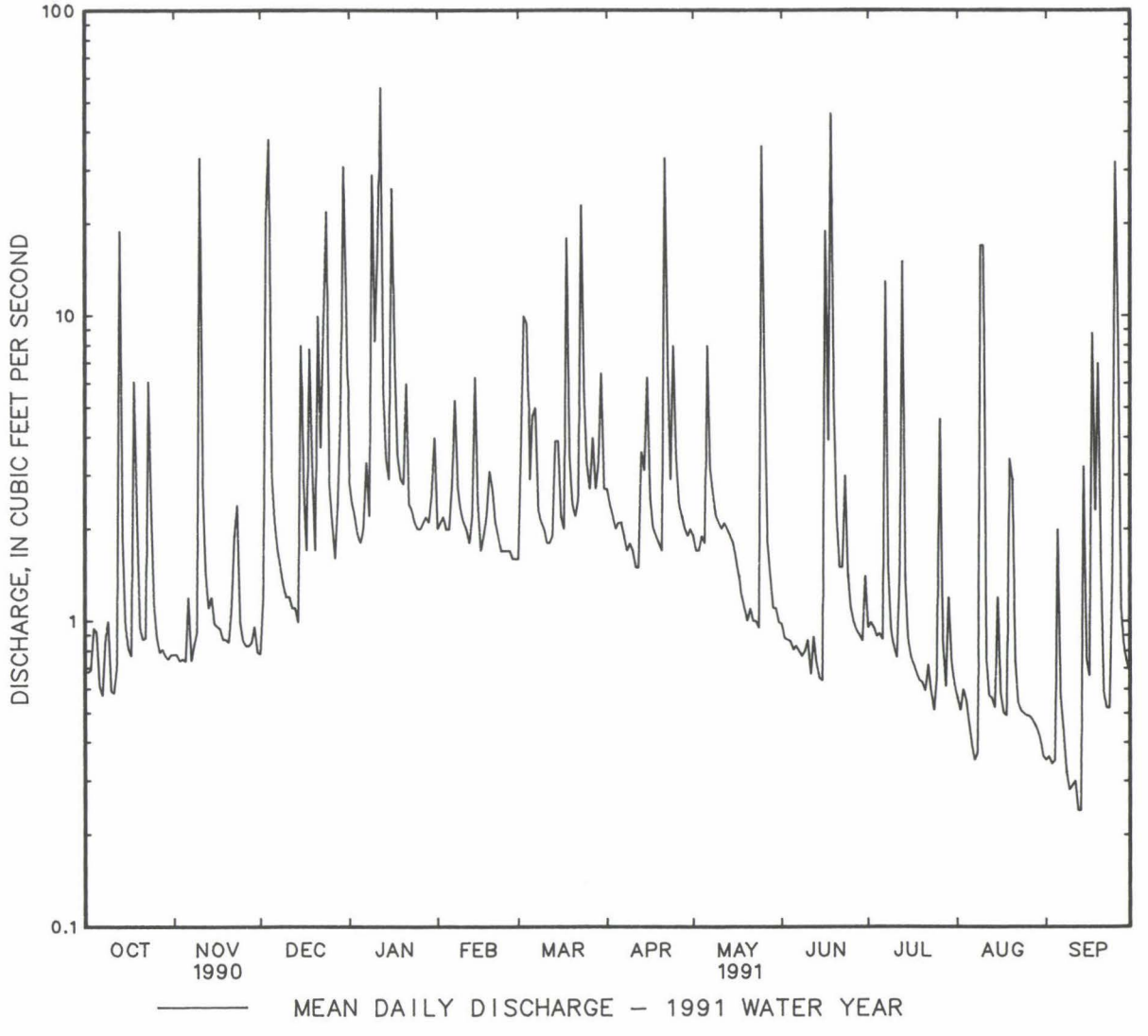
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 1991, BY WATER YEAR (WY)

MEAN	3.91	2.48	4.13	5.95	2.76	3.50	3.95	6.08	4.09	1.92	2.51	2.04
MAX	5.95	2.83	6.48	6.84	3.17	4.64	4.19	9.09	4.76	2.03	3.26	2.57
(WY)	1990	1990	1991	1991	1990	1991	1990	1990	1990	1990	1990	1991
MIN	1.86	2.13	1.77	5.06	2.35	2.35	3.71	3.08	3.41	1.82	1.76	1.51
(WY)	1991	1991	1990	1990	1991	1990	1991	1991	1991	1991	1991	1990

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

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1990 - 1991	
ANNUAL TOTAL	1400.97		1241.25			
ANNUAL MEAN	3.84		3.40		3.62	
HIGHEST ANNUAL MEAN					3.84	1990
LOWEST ANNUAL MEAN					3.40	1991
HIGHEST DAILY MEAN	90	May 29	56	Jan 12	90	May 29 1990
LOWEST DAILY MEAN	.57	Oct 7	.24	(a)	.24	(a)
ANNUAL SEVEN-DAY MINIMUM	.71	Oct 6	.30	Sep 7	.30	Sep 7 1991
INSTANTANEOUS PEAK FLOW	413	May 29	367	May 25	413	Sep 11 1990
INSTANTANEOUS PEAK STAGE	5.80	May 29	5.61	May 25	5.80	Sep 11 1990
INSTANTANEOUS LOW FLOW	.53	(b)	.20	(c)	(d).18	Dec 29 1989
ANNUAL RUNOFF (CFSM)	1.08		.96		1.02	
ANNUAL RUNOFF (INCHES)	14.72		13.04		13.90	
10 PERCENT EXCEEDS	6.7		6.7		6.3	
50 PERCENT EXCEEDS	2.0		1.7		2.0	
90 PERCENT EXCEEDS	.79		.57		.73	

a Sept. 12, 13, 1991.
b Oct. 8-10.
c Sept. 12-14.
d Result of freezeup.



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 National Geodetic Vertical Datum of 1929. Prior to Sept. 21, 1950, nonrecording gage at site 10 ft downstream at same datum.

REMARKS.--No estimated daily discharges. Records good. Some diurnal fluctuation at low flow caused by mills 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 1,200 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan 12	0545	*1,040	*4.45	No peak greater than base discharge.			

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26	27	27	74	55	45	66	56	31	34	22	15
2	25	27	27	60	55	55	67	53	30	28	21	15
3	24	26	47	55	55	65	60	51	30	31	21	14
4	25	26	350	51	53	155	59	50	30	29	21	15
5	26	26	71	48	53	75	60	49	28	29	19	20
6	24	27	47	49	56	62	61	140	28	29	18	17
7	23	26	41	57	73	90	58	98	28	92	17	17
8	24	26	39	51	63	59	55	60	28	45	17	16
9	24	25	37	166	57	55	56	55	26	30	119	15
10	23	180	35	110	54	53	55	54	25	27	104	15
11	23	74	34	91	51	50	51	51	25	26	29	15
12	24	38	33	479	48	48	49	49	27	26	23	14
13	61	34	33	127	49	49	57	47	27	145	23	13
14	46	31	32	82	74	59	82	49	24	45	21	44
15	28	30	59	74	57	75	88	45	24	31	22	20
16	26	30	59	191	48	60	76	43	48	27	23	17
17	25	31	39	147	48	53	62	42	81	25	20	35
18	46	30	65	85	49	148	58	44	256	24	19	42
19	110	29	55	75	56	86	55	42	144	23	24	27
20	33	28	41	72	60	63	55	40	46	23	41	32
21	30	28	67	88	53	57	272	40	37	24	32	19
22	29	28	77	70	51	58	146	39	34	23	22	17
23	42	36	56	61	48	193	79	38	39	24	20	17
24	52	34	215	61	47	119	87	37	35	21	19	19
25	33	30	69	58	47	81	88	42	32	22	18	156
26	29	28	52	56	47	68	67	53	30	33	18	73
27	28	28	48	56	46	81	63	37	28	31	18	30
28	28	28	55	58	45	73	61	35	27	24	18	24
29	27	28	57	57	---	67	59	33	27	23	17	22
30	27	27	171	58	---	104	60	33	28	25	16	21
31	27	---	210	73	---	72	---	33	---	23	17	---
TOTAL	1018	1066	2248	2840	1498	2378	2212	1538	1303	1042	839	816
MEAN	32.8	35.5	72.5	91.6	53.5	76.7	73.7	49.6	43.4	33.6	27.1	27.2
MAX	110	180	350	479	74	193	272	140	256	145	119	156
MIN	23	25	27	48	45	45	49	33	24	21	16	13
CFSM	.70	.76	1.54	1.95	1.14	1.63	1.57	1.06	.92	.72	.58	.58
IN.	.81	.84	1.78	2.25	1.19	1.88	1.75	1.22	1.03	.82	.66	.65

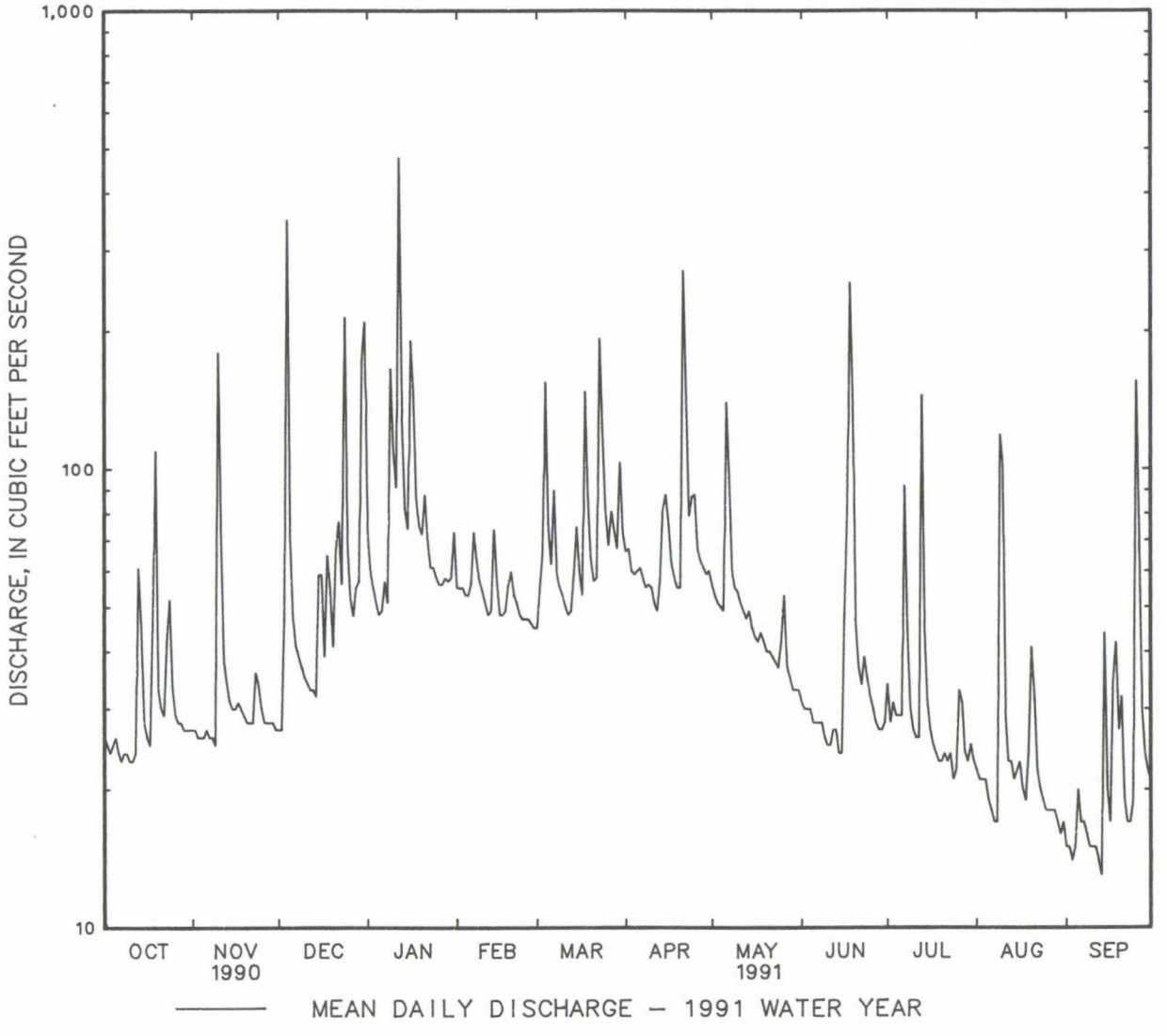
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1943 - 1991, BY WATER YEAR (WY)

MEAN	36.5	50.5	63.1	77.2	89.9	90.5	85.2	75.4	58.1	53.5	44.8	40.7
MAX	129	115	147	232	237	182	167	156	147	279	180	180
(WY)	1972	1973	1984	1979	1979	1978	1958	1958	1972	1975	1955	1971
MIN	11.1	18.8	18.9	16.8	33.3	27.3	35.1	24.2	21.7	12.7	9.79	13.7
(WY)	1964	1966	1966	1981	1969	1981	1985	1955	1966	1963	1966	1964

01480000 RED CLAY CREEK AT WOODDALE, DE--Continued

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1943 - 1991	
ANNUAL TOTAL	23054		18798			
ANNUAL MEAN	63.2		51.5		63.7	
HIGHEST ANNUAL MEAN					104	1975
LOWEST ANNUAL MEAN					32.3	1981
HIGHEST DAILY MEAN	517	May 29	479	Jan 12	2430	Sep 12 1960
LOWEST DAILY MEAN	23	Oct 7	13	Sep 13	4.5	Sep 4 1966
ANNUAL SEVEN-DAY MINIMUM	24	Oct 6	15	Sep 7	4.9	Sep 7 1966
INSTANTANEOUS PEAK FLOW	1490	May 29	1040	Jan 12	a5010	Jul 21 1975
INSTANTANEOUS PEAK STAGE	5.25	May 29	4.45	Jan 12	10.32	Jul 21 1975
INSTANTANEOUS LOW FLOW	22	Oct 8	13	(b)	2.9	Sep 4 1966
ANNUAL RUNOFF (CFSM)	1.34		1.10		1.35	
ANNUAL RUNOFF (INCHES)	18.25		14.88		18.41	
10 PERCENT EXCEEDS	96		83		107	
50 PERCENT EXCEEDS	54		42		44	
90 PERCENT EXCEEDS	27		21		19	

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. 12, 13.



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 National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges (backwater from leaves), which are fair. 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)
Jan. 12	0545	*1,390	*13.51	No other peak greater than base discharge.			

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	32	31	84	65	53	73	62	35	38	27	17
2	28	31	31	67	64	64	74	58	33	31	24	16
3	e26	32	60	61	65	80	68	57	33	33	31	16
4	e27	31	385	57	63	168	66	55	33	32	26	16
5	e29	31	81	53	62	87	66	54	31	31	23	27
6	e27	33	53	54	65	71	68	161	30	33	20	20
7	e25	33	47	64	83	99	65	112	30	103	19	19
8	e26	32	44	57	74	68	62	67	29	54	19	18
9	e26	31	42	188	67	63	61	61	29	35	134	17
10	e25	211	39	127	64	61	60	60	26	30	132	16
11	e26	92	37	117	60	57	57	57	25	29	35	17
12	e29	46	36	599	58	55	56	56	28	33	28	15
13	75	40	37	152	59	55	62	53	29	160	26	15
14	59	37	36	97	87	67	89	55	25	52	24	54
15	36	36	65	86	68	82	95	52	26	36	25	25
16	31	35	72	215	58	68	85	49	35	31	27	21
17	30	37	45	176	57	61	68	48	100	28	23	26
18	43	35	73	100	58	161	64	50	239	27	21	64
19	130	33	65	88	66	100	61	48	173	25	37	40
20	40	33	48	84	70	72	60	46	53	25	43	43
21	36	33	74	103	62	66	277	46	43	25	41	24
22	34	33	92	83	59	66	162	45	39	25	26	21
23	49	43	69	74	56	199	88	44	43	26	22	20
24	62	42	228	72	54	139	95	43	40	22	21	23
25	40	36	80	69	55	91	99	47	36	25	20	182
26	35	34	59	69	54	77	74	63	33	60	20	89
27	33	31	54	67	53	89	69	43	31	40	20	37
28	33	33	62	67	53	82	67	39	30	30	19	29
29	32	33	67	67	---	76	65	38	30	29	19	26
30	31	31	170	68	---	114	66	37	30	30	18	24
31	31	---	235	84	---	81	---	36	---	29	18	---
TOTAL	1183	1270	2517	3349	1759	2672	2422	1742	1397	1207	988	977
MEAN	38.2	42.3	81.2	108	62.8	86.2	80.7	56.2	46.6	38.9	31.9	32.6
MAX	130	211	385	599	87	199	277	161	239	160	134	182
MIN	25	31	31	53	53	53	56	36	25	22	18	15
CFSM	.73	.81	1.55	2.06	1.20	1.64	1.54	1.07	.89	.74	.61	.62
IN.	.84	.90	1.79	2.38	1.25	1.90	1.72	1.24	.99	.86	.70	.69

e Estimated

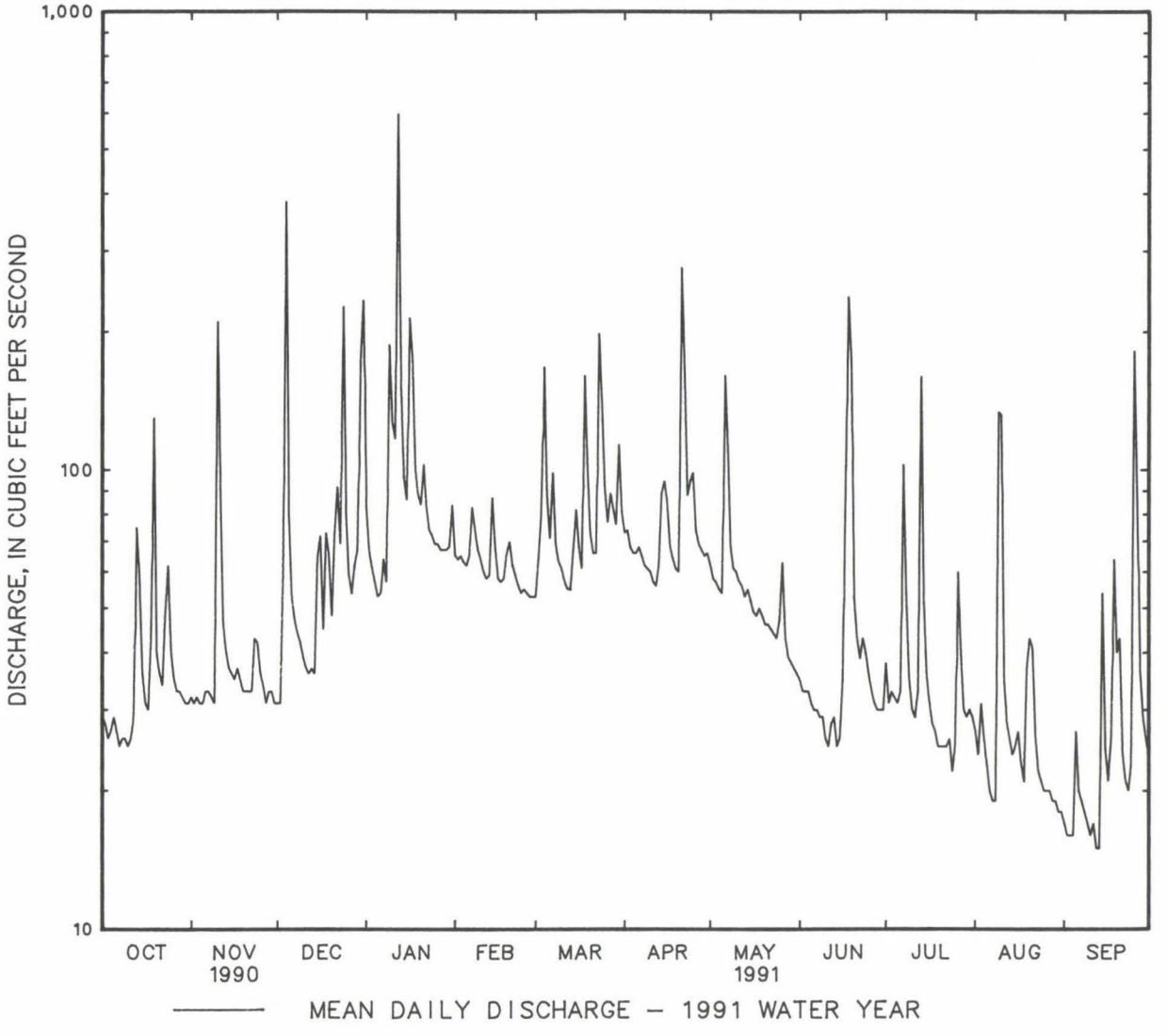
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 1991, BY WATER YEAR (WY)

MEAN	57.0	64.4	59.3	92.4	69.8	79.8	83.5	106	80.8	112	61.2	61.1
MAX	103	75.9	81.2	112	81.7	88.3	85.7	138	101	246	90.0	115
(WY)	1990	1990	1991	1990	1990	1989	1989	1989	1989	1989	1989	1989
MIN	29.5	42.3	42.1	56.7	62.8	65.0	80.7	56.2	46.6	38.9	31.9	32.6
(WY)	1989	1991	1989	1989	1991	1990	1991	1991	1991	1991	1991	1991

01480015 RED CLAY CREEK NEAR STANTON, DE--Continued

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1989 - 1991	
ANNUAL TOTAL	26533		21483			
ANNUAL MEAN	72.7		58.9		77.4	
HIGHEST ANNUAL MEAN					94.7	1989
LOWEST ANNUAL MEAN					58.9	1991
HIGHEST DAILY MEAN	740	May 29	599	Jan 12	2480	Jul 5 1989
LOWEST DAILY MEAN	25	Oct 7	15	Sep 12	15	(a)
ANNUAL SEVEN-DAY MINIMUM	26	Oct 5	17	Sep 7	17	Sep 7 1991
INSTANTANEOUS PEAK FLOW	2040	May 29	1390	Jan 12	5320	Jul 5 1989
INSTANTANEOUS PEAK STAGE	14.88	May 29	13.51	Jan 12	19.35	Jul 5 1989
INSTANTANEOUS LOW FLOW	27	(b)	14	(c)	14	Oct 14 1988
ANNUAL RUNOFF (CFSM)	1.39		1.12		1.48	
ANNUAL RUNOFF (INCHES)	18.84		15.25		20.08	
10 PERCENT EXCEEDS	115		96		124	
50 PERCENT EXCEEDS	60		47		61	
90 PERCENT EXCEEDS	31		25		30	

a Sept. 12, 13, 1991.
b Sept. 9, 13.
c Sept. 3, 4.



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, 1.2 miles northeast Newport, 0.5 miles downstream from Chestnut Run, and 3.1 mi upstream from mouth.

DRAINAGE AREA.--5.24 mi^2.

PERIOD OF RECORD.--October 1990 to September 1991.

GAGE.--Water-stage recorder. Elevation of gage is 60 ft above National Geodetic Vertical Datum of 1929, from topographic maps.

REMARKS.--Records good except those for Oct. 1-9 and Sept. 26-30 (no gage-height record) and Oct. 27 to Nov. 5 (backwater from leaves), 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. 11	2300	*487	*6.51	Aug. 9	1545	478	6.46
June 18	1800	447	6.30	Sept. 25	0530	423	6.17
July 26	1615	414	6.12				

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e2.1	e1.8	2.0	6.2	3.9	4.0	6.7	4.1	1.8	2.2	1.8	1.9
2	e2.0	e1.8	2.1	4.9	4.0	9.0	6.1	3.9	1.7	2.4	1.7	1.4
3	e2.0	e1.8	27	4.2	3.9	29	5.4	3.6	2.5	2.1	6.8	1.4
4	e10	e1.8	59	3.7	4.0	17	5.3	3.1	11	1.9	2.0	1.5
5	e4.5	e1.7	5.6	3.4	4.1	7.4	5.3	3.1	2.6	1.9	1.8	9.5
6	e2.5	2.7	3.8	3.6	5.0	10	5.3	52	2.5	2.0	1.6	2.4
7	e2.0	1.8	3.1	8.7	7.6	10	5.0	8.4	2.2	25	1.6	1.7
8	e4.5	1.8	2.7	4.7	4.9	5.5	4.9	4.8	2.2	3.6	1.6	1.5
9	e2.3	1.8	2.6	68	4.0	4.9	4.8	4.1	2.5	2.2	93	1.5
10	1.8	52	2.8	12	3.9	4.8	4.5	3.8	2.3	1.9	26	1.7
11	2.3	5.2	2.5	60	4.0	4.5	4.3	3.5	2.3	1.8	3.9	1.5
12	4.2	2.6	2.4	74	3.8	4.4	4.0	3.5	2.6	11	3.0	1.4
13	17	2.3	2.4	9.7	4.0	4.4	9.6	3.4	2.2	36	2.4	1.3
14	3.3	2.2	2.4	6.6	13	9.3	8.2	3.2	2.0	3.1	2.3	15
15	2.0	2.2	17	5.8	4.9	8.7	15	2.9	2.0	2.4	4.1	2.1
16	1.7	2.3	6.1	60	3.9	5.3	6.4	2.8	4.7	2.2	2.6	1.7
17	1.7	2.6	3.1	14	4.0	4.8	5.0	2.9	4.5	2.0	2.2	11
18	15	2.5	12	7.5	4.5	39	4.7	2.8	102	1.7	2.1	4.2
19	6.0	2.1	5.3	6.1	6.4	8.3	4.3	2.5	8.8	1.7	19	19
20	3.3	2.1	3.0	5.6	5.4	6.1	4.2	2.5	3.8	1.8	6.2	5.4
21	2.6	2.0	18	14	4.2	5.4	89	2.5	2.9	1.7	3.1	2.1
22	1.8	2.0	7.2	5.3	3.8	5.6	15	2.6	2.6	2.3	2.5	1.7
23	9.8	5.6	18	5.0	3.4	45	6.5	2.4	4.1	1.8	2.5	1.7
24	3.5	2.4	38	4.8	3.5	11	18	2.4	2.7	1.6	2.4	4.3
25	2.1	2.3	5.7	4.8	3.6	7.4	7.7	2.9	2.3	2.5	2.5	51
26	2.0	2.0	4.0	4.4	3.6	6.4	5.4	2.4	2.1	56	2.3	e15
27	e1.9	2.0	3.4	4.3	3.6	9.1	5.1	2.3	2.0	4.8	2.2	e2.5
28	e1.9	2.1	5.7	4.6	3.5	6.4	4.7	2.6	1.9	2.5	2.1	e1.6
29	e1.9	2.1	14	4.4	---	9.8	4.5	2.1	1.8	3.4	2.0	e1.4
30	e1.9	2.0	42	5.6	---	15	4.5	2.0	2.9	2.3	1.9	e1.3
31	e1.9	---	21	5.6	---	7.0	---	1.9	---	1.9	1.9	---
TOTAL	121.5	119.6	343.9	431.5	128.4	324.5	279.4	147.0	191.5	189.7	211.1	169.7
MEAN	3.92	3.99	11.1	13.9	4.59	10.5	9.31	4.74	6.38	6.12	6.81	5.66
MAX	17	52	59	74	13	45	89	52	102	56	93	51
MIN	1.7	1.7	2.0	3.4	3.4	4.0	4.0	1.9	1.7	1.6	1.6	1.3
CFSM	.75	.76	2.12	2.66	.88	2.00	1.78	.90	1.22	1.17	1.30	1.08
IN.	.86	.85	2.44	3.06	.91	2.30	1.98	1.04	1.36	1.35	1.50	1.20

e Estimated

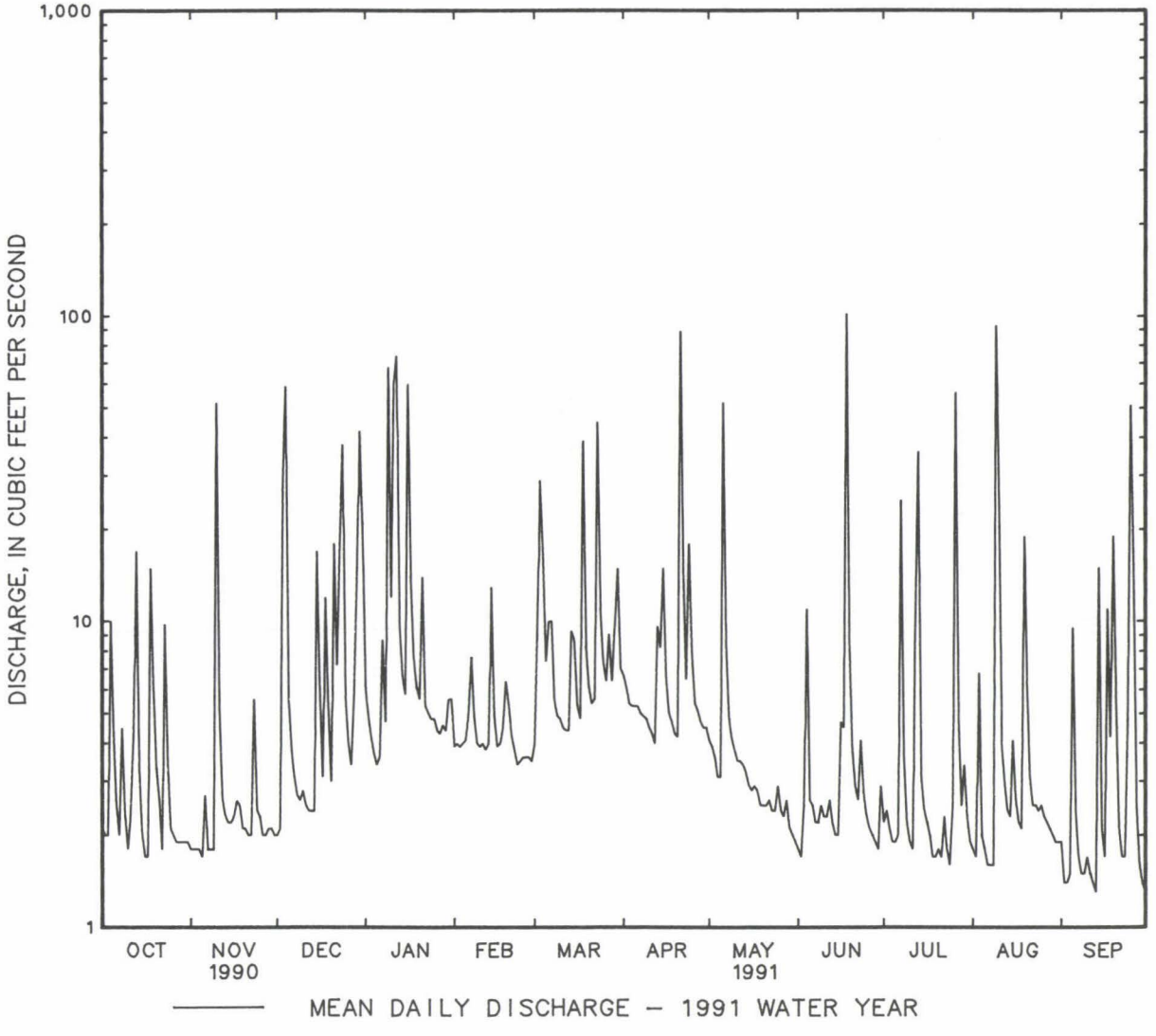
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 1991, BY WATER YEAR (WY)

MEAN	3.98	4.06	11.1	13.9	4.59	10.5	9.31	4.74	6.38	6.12	6.81	5.66
MAX	3.98	4.06	11.1	13.9	4.59	10.5	9.31	4.74	6.38	6.12	6.81	5.66
(WY)	1991	1991	1991	1991	1991	1991	1991	1991	1991	1991	1991	1991
MIN	3.98	4.06	11.1	13.9	4.59	10.5	9.31	4.74	6.38	6.12	6.81	5.66
(WY)	1991	1991	1991	1991	1991	1991	1991	1991	1991	1991	1991	1991

01480095 LITTLE MILL CREEK NEAR NEWPORT, DE--Continued

SUMMARY STATISTICS	FOR 1991 WATER YEAR	
ANNUAL TOTAL	2657.8	
ANNUAL MEAN	7.28	
HIGHEST DAILY MEAN	102	Jun 18
LOWEST DAILY MEAN	1.3	(a)
ANNUAL SEVEN-DAY MINIMUM	1.5	Sep 7
INSTANTANEOUS PEAK FLOW	487	Jan 11
INSTANTANEOUS PEAK STAGE	6.51	Jan 11
INSTANTANEOUS LOW FLOW	1.3	(b)
ANNUAL RUNOFF (CFSM)	1.39	
ANNUAL RUNOFF (INCHES)	18.87	
10 PERCENT EXCEEDS	14	
50 PERCENT EXCEEDS	3.5	
90 PERCENT EXCEEDS	1.8	

a Sept. 13, 30, 1991.
b Sept. 12-14, 1991.



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 National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good. 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. 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. 12	1145	*3,470	*6.43	No peak greater than base discharge.			

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	167	176	190	760	491	327	652	498	280	248	161	106
2	157	176	173	578	421	372	657	463	266	204	147	100
3	151	172	220	522	425	460	599	444	259	202	136	101
4	145	171	1660	474	420	997	535	429	264	202	151	101
5	150	170	828	438	418	759	507	421	256	198	132	125
6	145	173	421	433	431	518	522	708	250	197	121	122
7	134	174	333	477	596	684	500	709	248	286	120	113
8	130	159	315	461	629	526	483	519	243	273	126	109
9	136	151	289	734	482	447	483	462	235	212	391	111
10	241	685	272	716	438	435	462	457	224	175	558	107
11	169	1270	260	654	424	419	429	431	214	156	276	101
12	162	344	252	2410	402	404	419	423	236	162	172	101
13	198	276	251	1140	433	400	429	421	251	1170	142	96
14	313	251	249	783	560	434	644	434	220	1000	127	118
15	214	235	290	881	582	543	616	412	196	375	134	134
16	180	228	605	1210	444	543	698	386	234	313	158	116
17	170	244	391	1350	381	443	540	367	536	258	134	138
18	190	245	478	791	391	768	494	375	1000	219	121	213
19	710	234	658	681	410	840	470	356	1060	191	137	163
20	298	221	417	650	477	556	452	349	376	183	696	155
21	225	213	439	710	442	491	1060	336	301	175	780	121
22	211	207	676	692	399	467	1260	336	272	174	255	108
23	248	243	503	562	371	911	751	322	274	182	185	104
24	757	284	1100	600	348	1160	720	319	275	178	164	109
25	339	243	742	559	354	730	857	309	251	157	150	822
26	262	221	516	501	352	640	614	318	229	232	142	545
27	223	209	466	535	340	654	560	306	221	324	135	253
28	202	212	459	457	333	678	536	314	208	208	132	154
29	196	209	551	445	---	601	514	304	203	177	129	132
30	188	192	717	444	---	725	504	283	209	190	122	123
31	177	---	1850	585	---	705	---	317	---	176	116	---
TOTAL	7188	7988	16571	22233	12194	18637	17967	12528	9291	8397	6450	4901
MEAN	232	266	535	717	435	601	599	404	310	271	208	163
MAX	757	1270	1850	2410	629	1160	1260	709	1060	1170	780	822
MIN	130	151	173	433	333	327	419	283	196	156	116	96
(†)	+1.8	-4.4	+4.4	-23.7	+5.9	+21.9	-3.9	-0.2	-1.3	0.0	+0.2	-3.2
MEAN≠	234	262	539	693	441	623	595	404	309	271	208	160
CFSM≠	0.74	0.83	1.72	2.21	1.40	1.98	1.90	1.29	0.98	0.86	0.66	0.51
IN≠	0.86	0.93	1.97	2.55	1.46	2.29	2.11	1.48	1.10	0.99	0.76	0.57

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1947 - 1991, BY WATER YEAR (WY)

MEAN	255	360	466	555	677	708	698	592	452	376	300	295
MAX	918	794	1306	1868	1610	1309	1773	1168	1343	1243	1436	1403
(WY)	1980	1972	1984	1979	1979	1978	1983	1989	1972	1975	1955	1971
MIN	80.6	117	129	119	225	230	223	190	149	92.5	81.9	99.6
(WY)	1964	1966	1966	1981	1954	1981	1985	1963	1963	1963	1957	1964

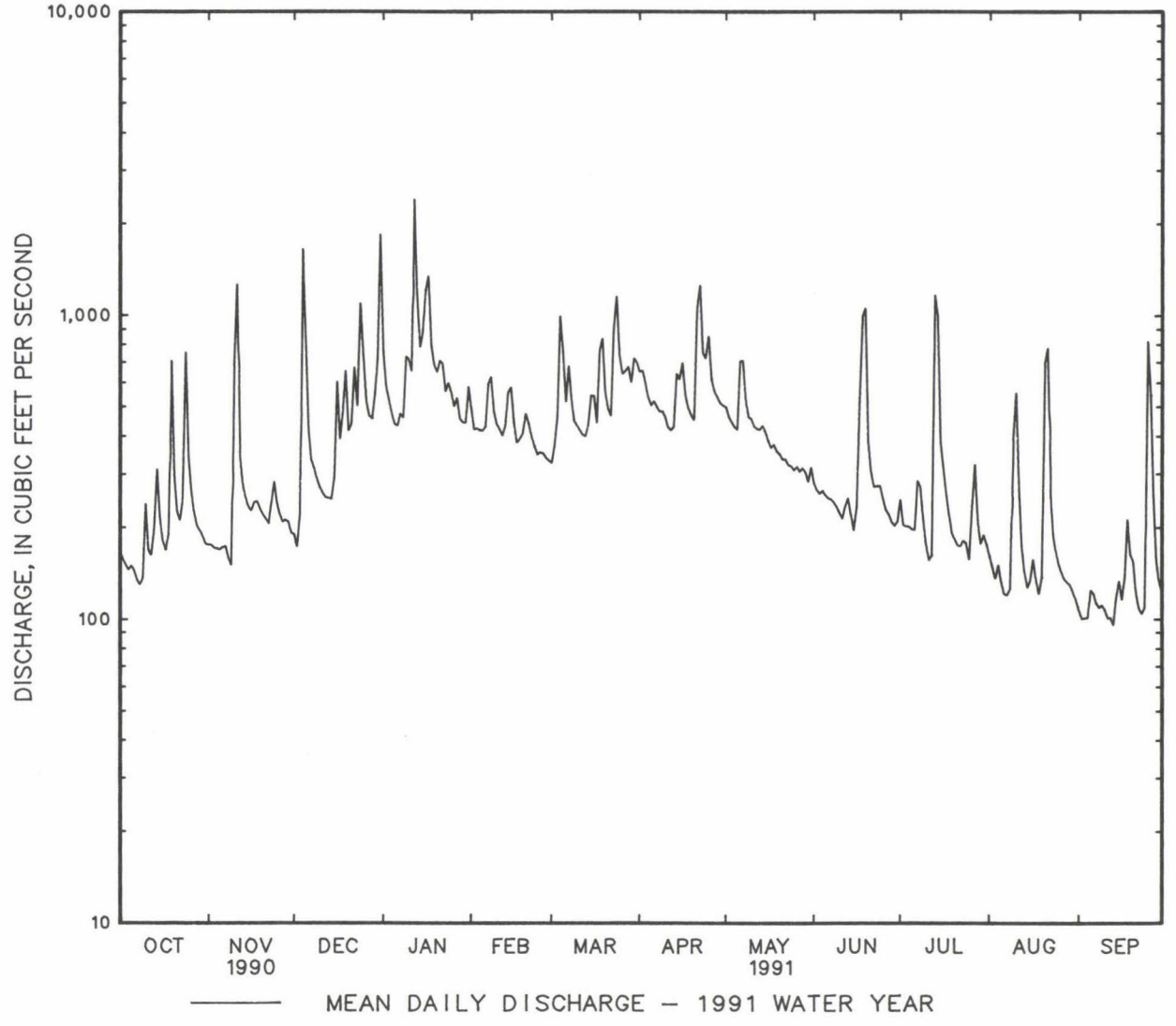
† Change in contents in Marsh Creek Reservoir, equivalent in cubic feet per second, provided by Pennsylvania Department of Environmental Resources.
≠ Adjusted for change in reservoir contents.

01481500 BRANDYWINE CREEK AT WILMINGTON, DE--Continued

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1947 - 1991	
ANNUAL TOTAL	161051		144345			
ANNUAL MEAN	441		395		477	
ANNUAL MEAN≠	444		395		502	
HIGHEST ANNUAL MEAN					835	1984
LOWEST ANNUAL MEAN					228	1981
HIGHEST ANNUAL MEAN≠					839	1984
LOWEST ANNUAL MEAN≠					229	1981
HIGHEST DAILY MEAN	3990	May 30	2410	Jan 12	14300	Jun 23 1972
LOWEST DAILY MEAN	130	Oct 8	96	Sep 13	56	Aug 23 1957
ANNUAL SEVEN-DAY MINIMUM	142	Oct 3	105	Sep 7	59	Aug 18 1957
INSTANTANEOUS PEAK FLOW	5450	May 30	3470	Jan 12	a29000	Jun 23 1972
INSTANTANEOUS PEAK STAGE	7.04	May 30	6.43	Jan 12	15.49	Jun 23 1972
INSTANTANEOUS LOW FLOW	118	Oct 9	88	(b)	c30	Dec 26 1948
ANNUAL RUNOFF (CFSM)≠	1.41		1.26		1.60	
ANNUAL RUNOFF (INCHES)≠	19.19		17.09		21.71	
10 PERCENT EXCEEDS	730		716		880	
50 PERCENT EXCEEDS	372		322		337	
90 PERCENT EXCEEDS	190		135		134	

≠ Adjusted for change in reservoir contents since November 1973.

a From rating curve extended above 18,000 ft^3/s.
b Sept. 2, 4, 13.
c During period of ice effect.



01482298 RED LION CREEK NEAR RED LION, DE

WATER-QUALITY RECORDS

LOCATION.--Lat 39°36'16", long 75°40'06", New Castle County, Hydrologic Unit 02040205, on left bank at downstream side of culvert on U.S. Highway 301S, 0.2 mi southwest of Red Lion, and 3.4 mi upstream from mouth.

DRAINAGE AREA--3.08 mi^2.

PERIOD OF RECORD.--Water years 1978-81, October 1990 to September 1991.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (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)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
JUN 1991											
12...	1000	0.55	129	5.7	20.0	26.0	760	8.6	95	8.4	4.9

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	BICAR-BONATE WATER WH 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)	BROMIDE DIS-SOLVED (MG/L AS BR)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)
JUN 1991											
12...	8.1	2.7	18	21	16	13	<0.10	0.010	11	81	1.29

DATE	NITRO-GEN, NITRITE DIS-SOLVED (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 ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ANTI-MONY, DIS-SOLVED (UG/L AS SB)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)
JUN 1991										
12...	0.010	1.30	0.070	0.40	<0.010	60	<1	<1	55	<0.5

DATE	BORON, DIS-SOLVED (UG/L AS B)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)
JUN 1991										
12...	20	<1.0	<5	<3	<10	190	<10	<4	47	<0.1

DATE	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)	HARD-NESS TOTAL (MG/L AS CACO3)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)
JUN 1991										
12...	<10	<10	<1	<1.0	70	<6	9	41	4.4	0.05

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 National Geodetic Vertical Datum of 1929. Mar. 5, 1951, to Oct. 16, 1956, nonrecording gage and crest-stage gage at site 15 ft upstream at datum 1.0 ft higher. Oct. 17, 1956, to June 16, 1986, recording gage at same site on right bank at datum 1.0 ft higher.

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

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)
Jan. 9	1900	73	2.59	Jan. 12	0615	*116	*3.20

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.3	1.5	1.6	6.8	5.0	3.8	7.3	5.1	1.1	1.2	.67	.58
2	1.2	1.5	1.6	5.0	5.0	4.0	6.6	4.6	1.2	1.1	.55	.37
3	1.0	1.4	2.1	4.6	5.1	5.1	6.1	4.4	1.3	1.2	.50	.17
4	.89	1.4	8.7	4.3	4.9	7.8	5.7	4.3	1.4	1.1	.50	.12
5	1.0	1.5	5.3	4.0	4.8	5.0	5.7	4.0	1.2	1.1	.51	.12
6	1.1	1.4	2.6	4.3	5.0	4.5	5.8	13	1.3	.98	.57	.16
7	.96	1.3	2.1	5.8	5.8	6.6	5.5	12	1.2	.82	.59	.18
8	.87	1.3	1.9	5.4	5.4	4.5	5.1	6.4	1.1	.76	.53	.15
9	.82	1.5	1.8	40	4.9	4.0	4.9	4.8	1.2	.81	1.9	.18
10	.81	3.8	1.7	22	4.7	3.9	4.7	4.4	1.2	.86	3.3	.17
11	.77	4.3	1.7	15	4.5	3.6	4.2	4.0	1.2	.88	.85	.14
12	.77	2.0	1.7	63	4.3	3.6	4.2	3.8	1.2	.90	.52	.13
13	.85	1.5	1.7	15	4.5	3.7	5.0	3.5	1.2	.94	.48	.13
14	2.0	1.5	1.6	9.2	7.1	7.2	9.0	3.9	1.1	1.2	.43	.14
15	1.4	1.6	3.9	8.3	5.3	7.3	7.9	3.3	1.1	1.3	.42	.23
16	1.1	1.6	6.4	11	4.1	4.9	7.4	2.8	1.1	1.2	.40	.30
17	.99	1.9	3.1	12	4.1	4.3	5.6	2.6	1.1	1.1	.41	.39
18	3.5	1.9	3.7	8.6	4.7	9.5	4.9	2.7	10	1.0	.44	.44
19	13	1.7	3.6	7.4	6.1	8.5	4.8	2.6	5.8	.87	.78	.30
20	3.0	1.6	2.4	7.1	6.1	5.6	4.8	2.5	2.4	.84	1.2	.19
21	1.7	1.6	4.2	8.4	4.7	4.8	18	2.4	1.6	.74	2.2	.23
22	1.6	1.6	5.8	7.3	4.4	4.6	17	2.2	1.3	.56	.81	.24
23	3.0	2.1	4.8	5.8	4.1	17	8.5	2.2	1.6	.46	.61	.24
24	3.6	2.3	16	6.4	4.0	14	11	2.0	1.7	.15	.59	.38
25	2.0	1.7	6.4	5.9	4.0	7.6	12	2.0	1.4	.14	.61	4.8
26	1.7	1.6	3.8	5.2	4.1	6.3	7.7	1.9	1.3	.23	.62	8.3
27	1.5	1.6	3.5	5.6	4.0	7.3	6.8	1.9	1.3	.29	.64	2.1
28	1.5	1.8	5.8	6.2	3.8	6.7	5.6	1.8	1.3	.53	.63	.88
29	1.4	1.9	9.0	5.9	---	9.4	5.2	1.5	1.4	.79	.63	.76
30	1.4	1.7	14	6.0	---	19	5.4	1.4	1.2	.68	.64	.72
31	1.4	---	14	6.0	---	9.9	---	1.3	---	.58	.64	---
TOTAL	58.13	54.1	146.5	327.5	134.5	214.0	212.4	115.3	52.5	25.31	24.17	23.24
MEAN	1.88	1.80	4.73	10.6	4.80	6.90	7.08	3.72	1.75	.82	.78	.77
MAX	13	4.3	16	63	7.1	19	18	13	10	1.3	3.3	8.3
MIN	.77	1.3	1.6	4.0	3.8	3.6	4.2	1.3	1.1	.14	.40	.12
CFSM	.49	.47	1.23	2.74	1.25	1.79	1.84	.97	.45	.21	.20	.20
IN.	.56	.52	1.42	3.16	1.30	2.07	2.05	1.11	.51	.24	.23	.22

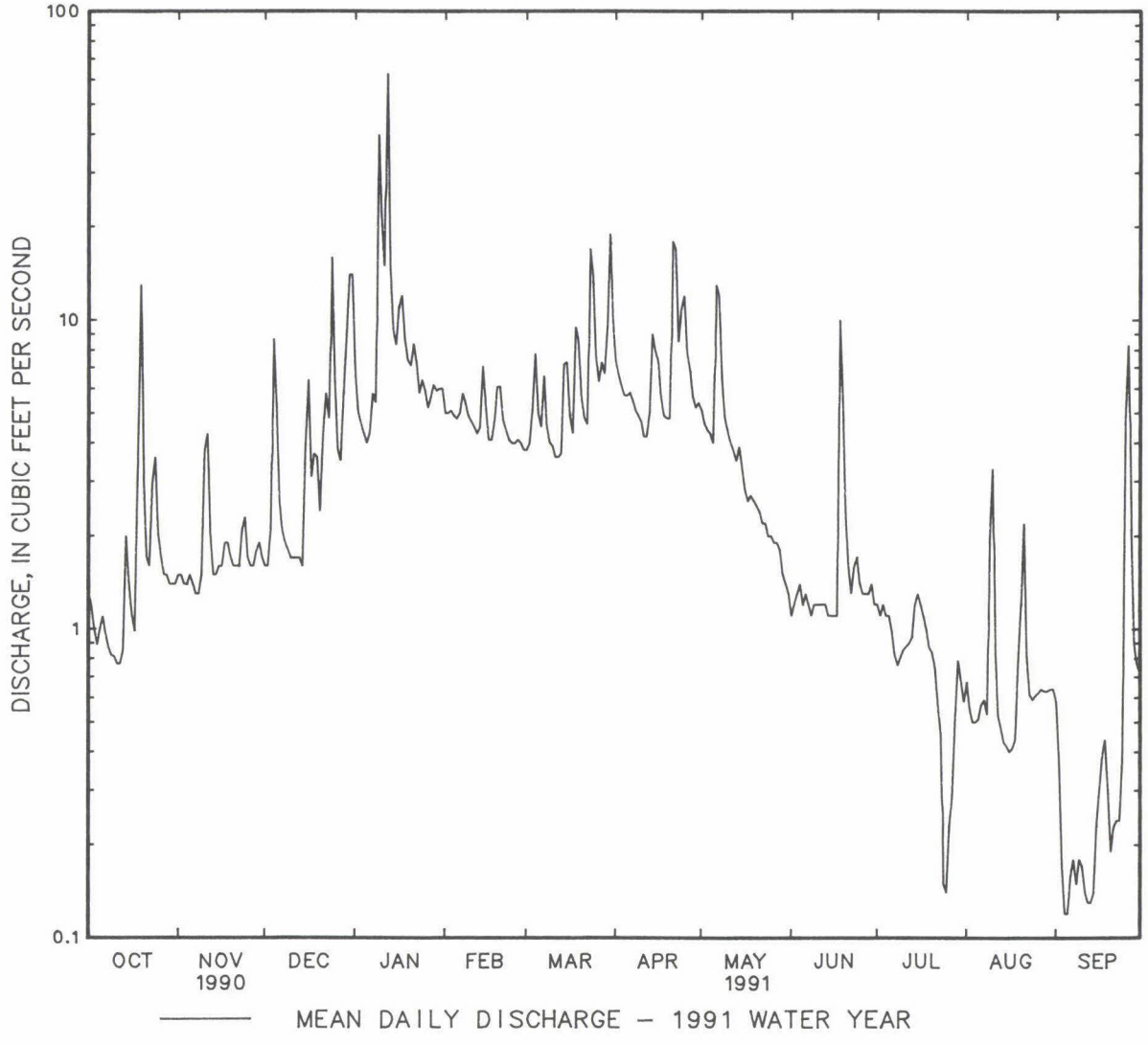
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1957 - 1991, BY WATER YEAR (WY)

MEAN	2.49	3.60	4.92	6.34	7.27	8.19	7.49	5.53	3.68	3.00	1.94	2.18
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	2.94	1.98	2.16	1.26	.54	.077	.013	.21
(WY)	1969	1966	1966	1981	1969	1966	1966	1977	1966	1966	1966	1968

01483200 BLACKBIRD CREEK AT BLACKBIRD, DE--Continued

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1957 - 1991	
ANNUAL TOTAL	1804.43		1387.65			
ANNUAL MEAN	4.94		3.80		4.71	
HIGHEST ANNUAL MEAN					9.05	1972
LOWEST ANNUAL MEAN					1.40	1966
HIGHEST DAILY MEAN	85	May 29	63	Jan 12	338	Jun 22 1972
LOWEST DAILY MEAN	.77	(a)	.12	(b)	.00	(c)
ANNUAL SEVEN-DAY MINIMUM	.84	Oct 7	.15	Sep 8	.00	Jul 17 1966
INSTANTANEOUS PEAK FLOW	215	May 29	116	Jan 12	d712	Jun 22 1972
INSTANTANEOUS PEAK STAGE	4.12	May 29	3.20	Jan 12	5.04	Jun 22 1972
INSTANTANEOUS LOW FLOW	.68	(f)	.10	Jul 25	.00	(g)
ANNUAL RUNOFF (CFSM)	1.28		.99		1.22	
ANNUAL RUNOFF (INCHES)	17.44		13.41		16.61	
10 PERCENT EXCEEDS	8.8		7.7		9.6	
50 PERCENT EXCEEDS	3.8		2.0		2.7	
90 PERCENT EXCEEDS	1.3		.51		.52	

a Oct. 11, 12.
b Sept. 4, 5.
c Sept. 11, 1965; July 12-15, 17-31, Aug. 1-12, 14, 15, 18-31, Sept. 1-20, 1966.
d From rating curve extended above 200 ft^3/s on basis of Type III culvert measurement of peak flow.
f July 4, Oct. 11, 12.
g 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.

WATER-DISCHARGE RECORDS

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

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

REMARKS.--Water-discharge 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.

PEAK DISCHARGE FOR CURRENT YEAR.--Peak discharge, 276 ft^3/s, Jan. 12, gage height, 4.21 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.2	4.7	5.3	40	24	18	87	29	5.6	3.4	5.5	e1.9
2	3.8	4.8	6.7	24	23	19	56	29	4.9	5.4	4.5	e1.4
3	2.3	4.9	e6.5	16	23	30	45	25	5.2	6.1	4.3	e1.0
4	3.3	4.7	e22	14	22	52	40	21	7.3	5.5	5.1	1.1
5	4.5	e4.8	16	12	22	42	38	18	e5.4	6.1	5.1	1.5
6	3.4	6.0	9.7	13	23	30	38	41	5.1	6.2	3.3	e1.5
7	3.7	3.1	7.9	22	29	37	36	54	5.0	15	2.6	e2.3
8	4.0	4.6	7.5	25	31	33	31	38	4.8	19	2.8	e1.9
9	3.8	1.9	6.7	102	27	26	29	24	4.3	9.3	20	e1.4
10	3.4	16	6.6	137	24	23	27	21	4.1	5.7	26	1.4
11	e3.5	13	5.6	116	23	20	22	18	3.8	4.8	13	1.7
12	4.1	9.1	5.9	246	20	16	20	16	3.4	e3.7	6.2	e1.2
13	5.6	6.7	7.0	218	19	18	24	16	3.5	e4.1	4.7	1.2
14	8.4	4.9	5.6	114	29	39	56	20	2.0	e4.6	3.6	6.5
15	6.2	5.4	14	62	30	57	65	16	2.5	e3.1	8.1	5.2
16	3.6	6.8	23	68	22	46	59	13	3.0	2.6	6.5	3.7
17	3.2	7.5	15	92	18	32	45	11	5.1	2.1	4.7	7.8
18	27	6.0	14	84	22	53	33	11	54	1.9	3.7	34
19	59	3.5	12	55	32	89	e27	e9.2	55	2.2	16	19
20	38	5.1	8.5	43	39	70	31	9.7	37	2.4	12	11
21	14	5.0	14	43	33	44	99	11	13	2.4	12	5.1
22	8.7	5.6	17	39	28	35	169	10	9.4	1.6	8.3	3.4
23	14	7.2	18	30	22	73	129	8.9	e11	2.0	5.7	3.0
24	16	7.4	55	30	20	120	81	8.4	e8.1	2.1	4.6	3.9
25	12	6.5	40	29	20	99	78	8.4	6.2	6.3	3.9	15
26	11	5.9	18	25	21	59	66	7.9	5.5	14	e3.0	52
27	e4.8	6.4	13	26	20	50	48	7.3	5.1	53	3.2	28
28	5.6	7.0	41	28	18	50	37	7.1	4.7	41	3.9	10
29	5.8	9.4	51	28	---	58	32	6.3	4.6	17	4.0	5.8
30	4.0	6.0	44	28	---	108	30	6.1	4.4	8.2	2.9	3.9
31	4.5	---	53	31	---	130	---	5.8	---	6.2	2.8	---
TOTAL	295.4	189.9	569.5	1840	684	1576	1578	527.1	293.0	267.0	212.0	236.8
MEAN	9.53	6.33	18.4	59.4	24.4	50.8	52.6	17.0	9.77	8.61	6.84	7.89
MAX	59	16	55	246	39	130	169	54	55	53	26	52
MIN	2.3	1.9	5.3	12	18	16	20	5.8	2.0	1.6	2.6	1.0
CFSM	.30	.20	.58	1.86	.77	1.59	1.65	.53	.31	.27	.21	.25
IN.	.34	.22	.66	2.15	.80	1.84	1.84	.61	.34	.31	.25	.28

e Estimated

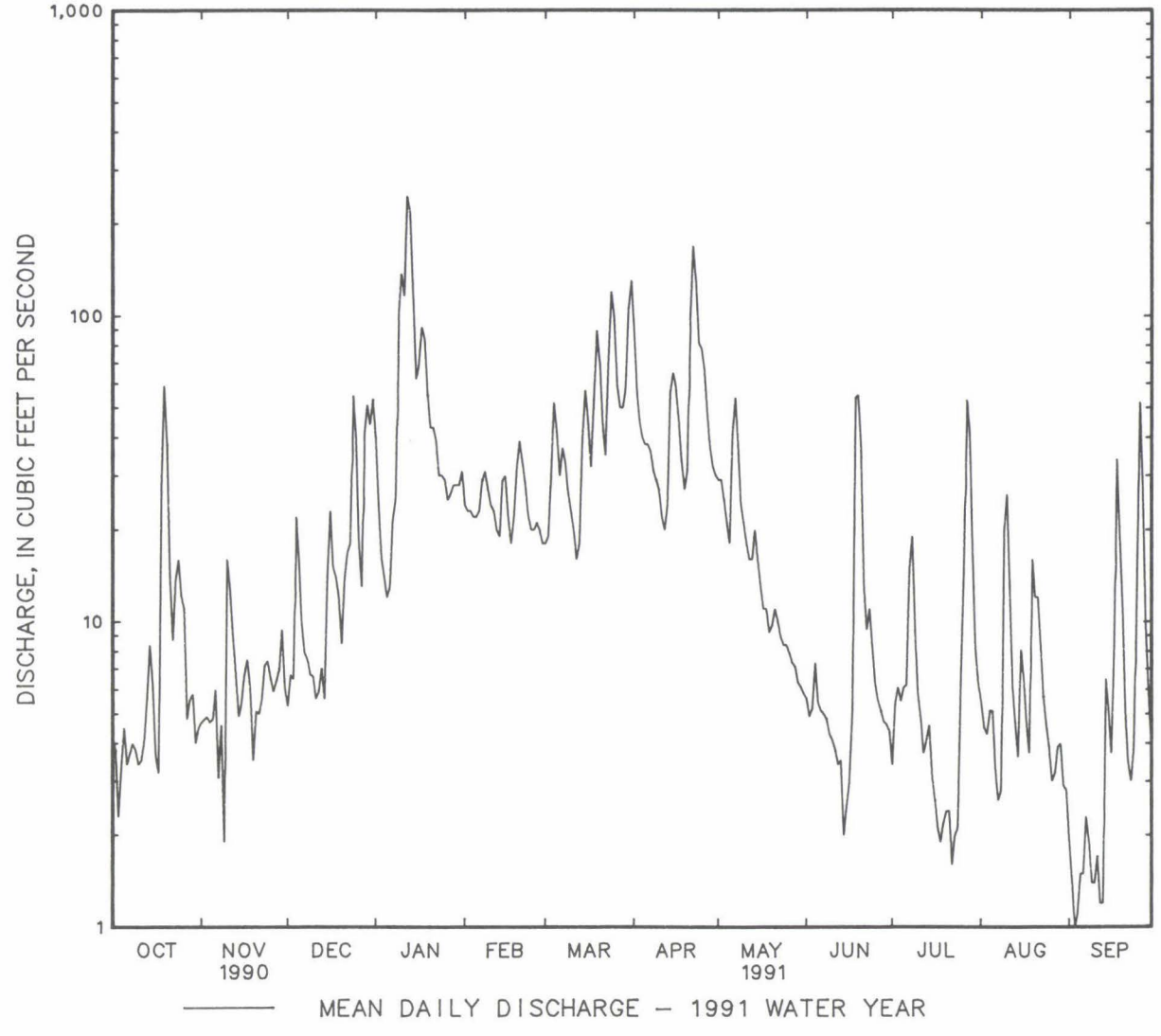
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1958 - 1991, BY WATER YEAR (WY)

MEAN	20.1	25.7	36.6	51.4	59.0	70.0	57.7	37.5	28.6	19.5	23.5	20.6
MAX	93.5	103	131	156	141	171	180	117	122	88.6	144	128
(WY)	1972	1973	1973	1978	1961	1958	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 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1958 - 1991	
ANNUAL TOTAL	12143.0		8268.7			
ANNUAL MEAN	33.3		22.7		36.5	
HIGHEST ANNUAL MEAN					69.3	1972
LOWEST ANNUAL MEAN					6.14	1966
HIGHEST DAILY MEAN	477	May 30	246	Jan 12	1460	Sep 13 1960
LOWEST DAILY MEAN	1.4	Apr 21	1.0	Sep 3	.00	(a)
ANNUAL SEVEN-DAY MINIMUM	3.1	Sep 7	1.5	Sep 1	.40	Sep 30 1963
INSTANTANEOUS PEAK FLOW	537	May 30	276	Jan 12	1900	Sep 13 1960
INSTANTANEOUS PEAK STAGE	5.50	May 30	4.21	Jan 12	b9.45	Sep 13 1960
INSTANTANEOUS LOW FLOW	.73	Apr 21	.89	Sep 3	.00	(c)
ANNUAL RUNOFF (CFSM)	1.04		.71		1.14	
ANNUAL RUNOFF (INCHES)	14.16		9.64		15.54	
10 PERCENT EXCEEDS	70		54		85	
50 PERCENT EXCEEDS	19		12		21	
90 PERCENT EXCEEDS	4.6		3.2		3.7	

a Sept. 13, 1960, May 9, 10, 1961.
b From floodmarks.
c No flow at times in 1959, 1961, 1962.



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

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965-72, 1974-80, October 1990 to September 1991.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (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)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
MAR 1991											
01...	0930	18	192	7.2	7.5	12.0	766	12.4	102	13	3.8

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	BICAR-BONATE WATER WH 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)	BROMIDE DIS-SOLVED (MG/L AS BR)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)
MAR 1991										
01...	14	2.6	20	25	33	15	<0.10	0.020	13	112

DATE	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (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 ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ANTI-MONY, DIS-SOLVED (UG/L AS SB)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)
MAR 1991										
01...	1.09	0.010	1.10	0.010	0.30	<0.010	<10	<1	<1	48

DATE	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	BORON, DIS-SOLVED (UG/L AS B)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
MAR 1991										
01...	<0.5	30	<1.0	<5	<3	<10	260	<10	<4	17

DATE	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)	HARD-NESS TOTAL (MG/L AS CACO3)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)
MAR 1991										
01...	<0.1	<10	<10	<1	<1.0	110	<6	10	48	4.8

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.

WATER-DISCHARGE RECORDS

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

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

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

REMARKS.--No estimated daily discharges. Water-discharge records good. Diversion for irrigation of about 150 acres upstream from station during some years.

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. 12	0645	*32	*3.31	No other peak greater than base discharge.			

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.2	1.0	.86	1.4	3.4	2.6	4.5	3.4	1.6	1.3	1.1	1.3
2	1.2	1.0	.86	1.4	3.4	2.8	4.2	3.3	1.6	1.4	1.1	1.2
3	1.2	1.0	.88	1.4	3.4	3.6	3.9	3.3	1.7	1.6	1.1	1.2
4	1.2	1.0	1.1	1.4	3.4	4.4	3.9	3.2	1.8	1.5	1.0	1.2
5	1.2	.97	.95	1.4	3.2	3.2	3.9	3.1	1.7	1.4	.94	1.2
6	1.2	.92	.93	1.4	3.2	3.2	3.9	3.7	1.7	1.3	.82	1.3
7	1.2	.93	.88	1.7	3.7	3.4	3.8	3.7	1.6	1.5	.80	1.2
8	1.1	.93	.91	1.9	3.5	3.0	3.6	3.1	1.6	1.7	.80	1.2
9	1.1	.94	.82	11	3.3	3.0	3.6	3.0	1.5	1.5	3.4	1.1
10	1.1	1.3	.79	4.5	3.2	2.9	3.6	2.9	1.5	1.3	1.8	1.0
11	1.1	1.1	.79	5.3	3.2	2.8	3.4	2.8	1.4	1.3	1.4	1.0
12	1.1	1.0	.79	20	3.0	2.8	3.3	2.8	1.4	1.2	1.3	.99
13	1.2	.96	.79	6.3	3.2	2.9	3.4	2.7	1.3	1.2	1.3	.99
14	1.1	.93	.75	4.9	3.4	3.6	3.8	2.7	1.2	1.2	1.2	1.2
15	1.1	.93	1.1	4.5	3.1	3.4	3.7	2.6	1.3	1.1	3.2	1.0
16	1.1	.93	1.2	8.3	2.8	3.0	3.5	2.5	1.2	1.0	1.8	.98
17	1.0	.95	.97	7.6	2.8	2.9	3.4	2.4	1.3	1.0	1.5	.97
18	1.3	.93	.98	5.3	2.9	7.3	3.3	2.4	1.9	1.0	1.5	.97
19	1.6	1.0	.89	4.9	3.3	5.2	3.2	2.4	1.6	1.0	3.2	1.1
20	1.2	1.0	.85	4.8	3.2	4.1	3.3	2.3	1.5	.94	1.9	1.1
21	1.2	.89	.97	4.6	3.0	3.9	6.6	2.3	1.4	.87	1.8	1.0
22	1.2	.87	.99	4.3	3.0	3.8	5.1	2.2	1.5	.97	1.6	.98
23	1.4	.97	.99	4.2	2.7	5.1	4.1	2.2	2.0	.94	1.6	1.0
24	1.4	.91	1.9	4.3	2.8	5.1	4.4	2.2	1.6	.85	1.5	1.0
25	1.2	.87	1.2	4.1	2.8	4.2	4.2	2.1	1.5	1.6	1.5	1.6
26	1.1	.86	1.1	4.0	2.8	4.0	3.8	2.1	1.4	1.6	1.5	3.3
27	1.0	.87	1.1	4.1	2.7	4.1	3.7	2.0	1.4	2.1	1.5	1.5
28	1.0	.89	2.7	3.9	2.6	4.0	3.6	2.1	1.3	1.6	1.5	1.3
29	1.0	.95	1.8	3.6	---	4.9	3.6	2.0	1.3	1.4	1.5	1.2
30	1.0	.88	1.6	3.6	---	7.1	3.6	1.9	1.3	1.3	1.5	1.1
31	1.0	---	1.6	3.6	---	4.8	---	1.7	---	1.3	1.5	---
TOTAL	36.0	28.68	34.04	143.7	87.0	121.1	115.9	81.1	45.1	39.97	48.16	36.18
MEAN	1.16	.96	1.10	4.64	3.11	3.91	3.86	2.62	1.50	1.29	1.55	1.21
MAX	1.6	1.3	2.7	20	3.7	7.3	6.6	3.7	2.0	2.1	3.4	3.3
MIN	1.0	.86	.75	1.4	2.6	2.6	3.2	1.7	1.2	.85	.80	.97
CFSM	.41	.34	.39	1.64	1.10	1.38	1.37	.92	.53	.46	.55	.43
IN.	.47	.38	.45	1.89	1.14	1.59	1.52	1.07	.59	.53	.63	.48

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1958 - 1991, BY WATER YEAR (WY)

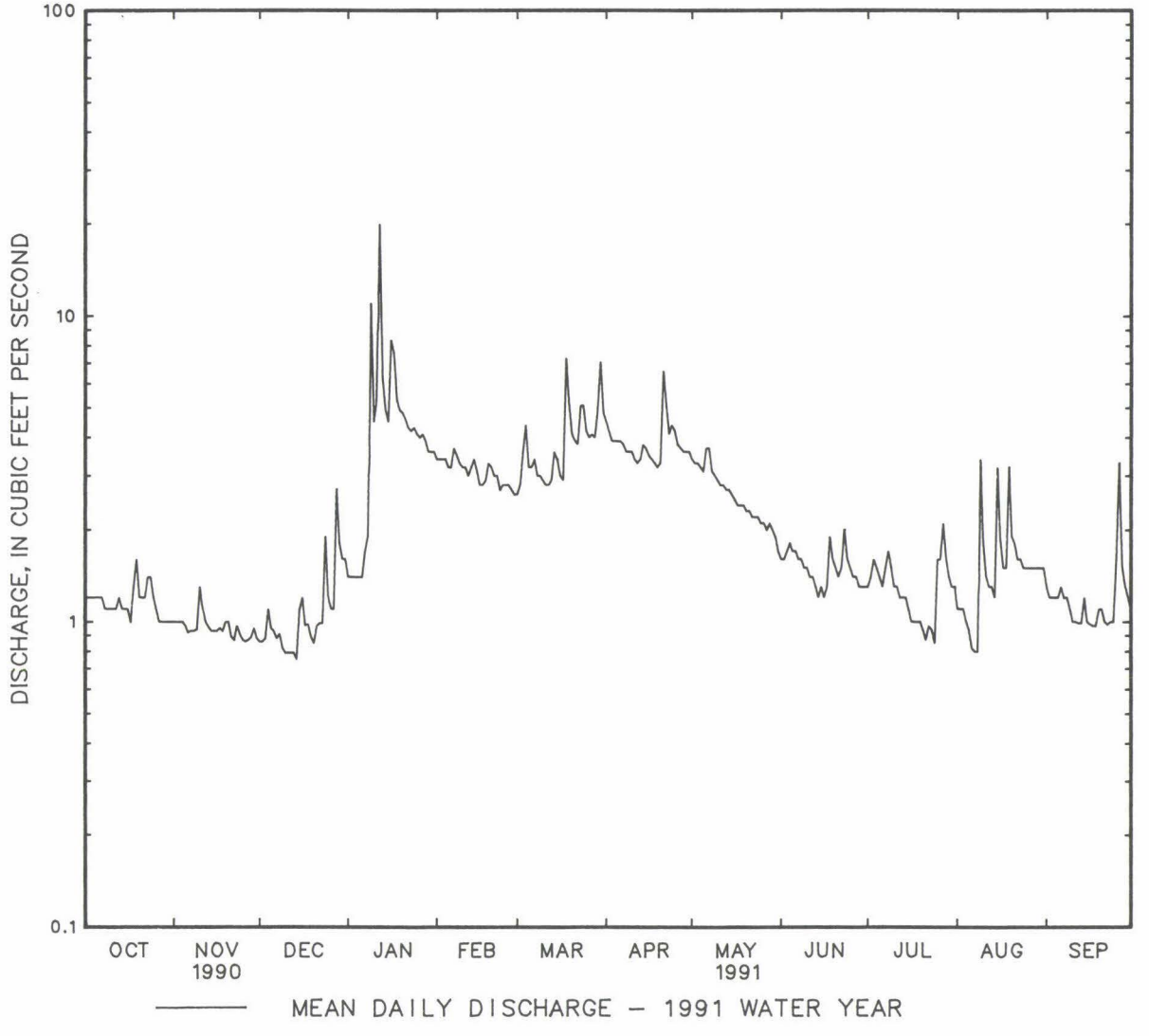
MEAN	1.83	2.08	3.15	4.45	5.30	6.06	5.57	4.49	3.12	2.77	2.39	2.05
MAX	4.69	6.55	11.5	10.7	14.6	11.9	11.0	10.5	6.17	16.8	9.38	10.1
(WY)	1959	1973	1973	1978	1961	1979	1983	1984	1979	1975	1967	1960
MIN	.37	.44	.48	.57	1.06	1.70	1.90	1.88	1.22	.42	.51	.44
(WY)	1987	1988	1966	1966	1966	1966	1985	1977	1986	1977	1987	1986

01484100 BEAVERDAM BRANCH AT HOUSTON, DE--Continued

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1958 - 1991	
ANNUAL TOTAL	1212.02		816.93			
ANNUAL MEAN	3.32		2.24		3.56	
HIGHEST ANNUAL MEAN					5.86	1961
LOWEST ANNUAL MEAN					1.20	1966
HIGHEST DAILY MEAN	33	May 29	20	Jan 12	98	May 30 1984
LOWEST DAILY MEAN	.75	Dec 14	.75	Dec 14	a.00	Jul 28 1977
ANNUAL SEVEN-DAY MINIMUM	.81	Dec 8	.81	Dec 8	.06	Jul 19 1977
INSTANTANEOUS PEAK FLOW	60	May 29	32	Jan 12	b176	Sep 12 1960
INSTANTANEOUS PEAK STAGE	3.84	May 29	3.31	Jan 12	5.55	Sep 12 1960
INSTANTANEOUS LOW FLOW	.72	(c)	.72	(d)	a.00	(f)
ANNUAL RUNOFF (CFSM)	1.17		.79		1.26	
ANNUAL RUNOFF (INCHES)	15.93		10.74		17.08	
10 PERCENT EXCEEDS	5.6		4.0		6.5	
50 PERCENT EXCEEDS	2.7		1.5		2.8	
90 PERCENT EXCEEDS	.97		.94		.80	

a Result of pumpage for irrigation.

b From rating curve extended above 75 ft^3/s.
c Dec. 14, 15.
d Dec. 14, 15, July 24, Aug. 7, 8.
f July 18-30, 1977.



01484100 BEAVERDAM BRANCH AT HOUSTON, DE--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1973-78, October 1990 to September 1991.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	TEMPERATURE AIR (DEG C)	BAROMETRIC PRESSURE (MM OF HG)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)
NOV 1990											
07...	1410	0.96	58	6.5	11.0	18.0	--	7.6	--	4.3	1.1
FEB 1991											
28...	0900	2.6	93	6.7	7.0	4.5	764	10.2	84	5.2	1.4
JUN											
13...	1000	1.3	69	5.7	16.0	21.5	765	7.6	77	4.5	1.1

DATE	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WAT WH TOT IT FIELD MG/L AS CACO3	BICARBONATE WATER WH IT FIELD MG/L AS HCO3	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, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRATE DISSOLVED (MG/L AS N)
NOV 1990											
07...	8.4	1.5	12	15	2.2	7.5	<0.10	0.030	27	69	--
FEB 1991											
28...	9.1	1.3	11	14	4.7	9.1	<0.10	0.020	24	75	--
JUN											
13...	8.5	1.3	12	15	2.9	8.2	<0.10	0.020	28	73	2.47

DATE	NITROGEN, NITRITE DISSOLVED (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 ORTHO, DISSOLVED (MG/L AS P)	ALUMINUM, DISSOLVED (UG/L AS AL)	ANTIMONY, DISSOLVED (UG/L AS SB)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)
NOV 1990										
07...	<0.010	2.10	0.020	<0.20	0.030	20	<1	<1	58	<0.5
FEB 1991										
28...	<0.010	3.00	0.030	0.30	<0.010	30	<1	<1	71	<0.5
JUN										
13...	0.030	2.50	0.050	0.30	<0.010	10	<1	1	64	<0.5

DATE	BORON, DISSOLVED (UG/L AS B)	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)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)
NOV 1990										
07...	<10	<1.0	<5	<3	<10	110	<10	<4	13	<0.1
FEB 1991										
28...	<10	<1.0	<5	<3	<10	40	<10	<4	11	<0.1
JUN										
13...	<10	<1.0	<5	<3	<10	30	<10	<4	10	<0.1

DATE	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)	HARDNESS TOTAL (MG/L AS CACO3)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)
NOV 1990										
07...	<10	<10	<1	<1.0	80	<6	7	15	3.1	--
FEB 1991										
28...	<10	<10	<1	<1.0	97	<6	14	19	1.5	--
JUN										
13...	<10	<10	<1	<1.0	87	<6	7	16	1.4	0.03

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 National Geodetic Vertical Datum of 1929. Prior to Aug. 16, 1950, nonrecording gage at same site and datum.

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 45 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 12	0615	*73	*3.45	No other peak greater than base discharge.			

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.1	2.2	1.9	3.7	8.3	4.7	14	9.9	3.1	2.6	3.5	2.4
2	2.0	2.1	1.9	3.9	8.3	6.5	12	9.8	3.2	2.9	3.2	2.2
3	1.9	2.1	1.9	4.4	8.2	13	11	9.0	5.9	3.0	2.9	2.2
4	2.0	2.0	2.4	4.2	8.3	24	11	9.0	6.3	3.0	2.8	2.1
5	2.0	2.0	2.1	3.7	8.8	12	11	8.5	3.5	3.3	2.6	2.1
6	1.9	1.8	2.0	3.7	7.3	9.9	11	9.0	3.2	3.1	2.3	2.1
7	1.8	1.8	2.0	4.7	7.9	10	10	9.0	3.8	9.9	2.3	2.1
8	1.9	1.9	2.2	5.0	8.4	8.9	10	8.0	3.9	7.8	2.2	2.0
9	1.8	2.0	2.1	21	7.3	8.7	10	7.7	3.0	4.5	4.9	2.0
10	1.8	6.0	2.0	12	7.4	8.3	9.3	7.7	3.1	3.9	3.8	1.9
11	1.8	4.2	2.0	12	6.9	8.0	8.6	7.0	2.8	3.8	2.8	1.9
12	2.7	2.7	2.0	52	6.3	7.4	7.5	7.4	2.6	3.8	2.6	1.8
13	2.4	2.3	2.0	23	6.2	7.9	8.4	6.5	2.4	4.3	2.5	1.8
14	2.1	2.0	1.9	17	6.9	9.6	9.6	5.9	2.4	3.7	2.6	2.8
15	2.0	2.0	2.6	15	7.8	11	9.5	5.3	2.4	3.2	3.1	2.3
16	1.9	2.0	3.5	23	6.9	8.8	8.8	4.8	2.3	2.9	2.7	2.1
17	2.0	1.8	2.5	23	6.0	8.3	8.6	5.0	8.8	2.7	2.5	2.0
18	2.4	1.8	2.3	18	5.9	18	8.3	4.9	15	2.5	3.6	2.0
19	3.3	1.7	2.4	15	6.1	16	8.2	4.8	7.1	2.4	6.4	2.0
20	2.2	1.8	2.2	14	6.3	13	8.8	4.5	4.8	2.5	5.9	2.7
21	2.0	1.7	2.8	13	5.7	11	21	5.6	4.3	2.6	10	2.1
22	2.0	1.8	3.1	12	5.5	10	15	6.4	4.3	3.8	4.1	2.0
23	3.8	1.9	2.7	11	5.0	11	13	4.3	8.5	3.2	3.4	2.0
24	4.8	2.0	2.6	11	5.0	11	16	4.7	6.1	2.8	3.3	2.2
25	2.6	2.0	2.4	10	5.6	10	15	3.9	4.6	7.6	3.2	4.2
26	2.4	1.9	2.4	9.9	5.8	10	12	3.2	3.9	5.3	3.2	9.8
27	2.3	2.0	2.4	9.8	5.2	9.6	12	3.2	3.1	10	3.2	3.2
28	2.3	2.0	7.5	10	4.7	9.8	11	4.0	3.2	7.6	3.1	2.7
29	2.2	2.4	4.9	9.8	---	16	10	3.8	3.1	3.8	2.6	2.5
30	2.2	2.0	4.0	9.3	---	28	9.9	3.4	3.0	3.6	2.6	2.3
31	2.2	---	4.0	9.2	---	17	---	3.1	---	3.7	2.5	---
TOTAL	70.8	65.9	82.7	393.3	188.0	357.4	330.5	189.3	133.7	129.8	106.4	75.5
MEAN	2.28	2.20	2.67	12.7	6.71	11.5	11.0	6.11	4.46	4.19	3.43	2.52
MAX	4.8	6.0	7.5	52	8.8	28	21	9.9	15	10	10	9.8
MIN	1.8	1.7	1.9	3.7	4.7	4.7	7.5	3.1	2.3	2.4	2.2	1.8
CFSM	.44	.42	.51	2.42	1.28	2.20	2.10	1.17	.85	.80	.66	.48
IN.	.50	.47	.59	2.79	1.33	2.54	2.35	1.34	.95	.92	.76	.54

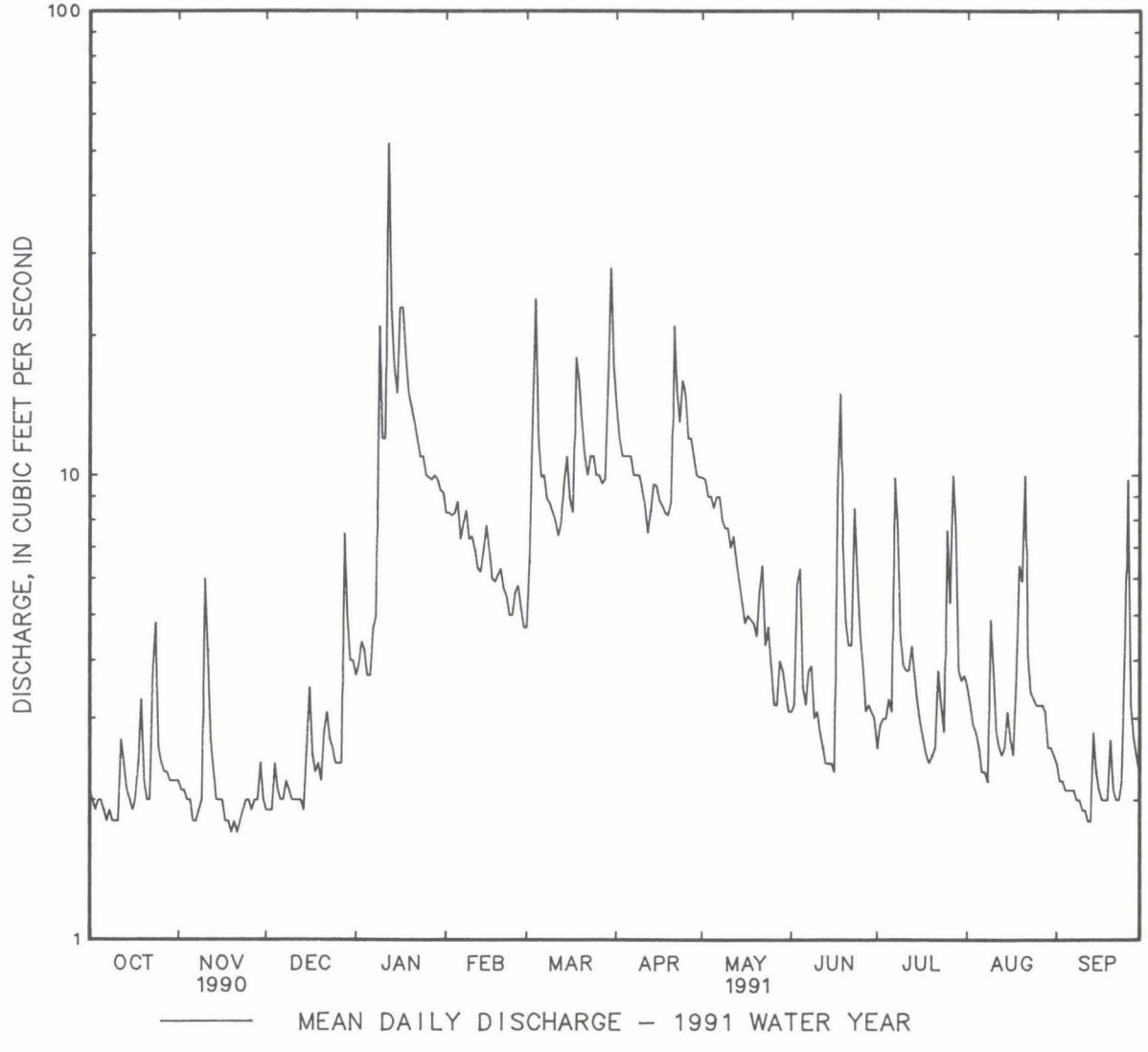
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1943 - 1991, BY WATER YEAR (WY)

MEAN	3.25	4.61	6.63	9.44	10.2	12.2	10.2	7.53	5.56	4.19	4.93	3.11
MAX	10.5	14.3	22.8	24.8	25.8	28.0	24.4	19.7	25.3	17.4	24.8	8.61
(WY)	1972	1957	1946	1978	1979	1958	1983	1948	1948	1945	1989	1989
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 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1943 - 1991	
ANNUAL TOTAL	2168.6		2123.3			
ANNUAL MEAN	5.94		5.82		6.83	
HIGHEST ANNUAL MEAN					12.0	1958
LOWEST ANNUAL MEAN					3.24	1966
HIGHEST DAILY MEAN	39	May 29	52	Jan 12	174	Feb 26 1979
LOWEST DAILY MEAN	1.7	(a)	1.7	(a)	.13	(b)
ANNUAL SEVEN-DAY MINIMUM	1.8	Nov 17	1.8	Nov 17	.13	Sep 2 1944
INSTANTANEOUS PEAK FLOW	99	May 29	73	Jan 12	c217	Feb 26 1979
INSTANTANEOUS PEAK STAGE	3.35	May 29	3.45	Jan 12	5.01	Feb 26 1979
INSTANTANEOUS LOW FLOW	1.7	(d)	1.7	(f)	.13	(g)
ANNUAL RUNOFF (CFSM)	1.13		1.11		1.30	
ANNUAL RUNOFF (INCHES)	15.40		15.07		17.72	
10 PERCENT EXCEEDS	11		11		14	
50 PERCENT EXCEEDS	4.6		3.8		4.9	
90 PERCENT EXCEEDS	2.0		2.0		1.4	

a Nov. 19, 21.
b Sept. 2-11, 1944.
c From rating curve extended above 130 ft^3/s.
d Sept. 7, Oct. 6, 7, 9, 10-12, Nov. 6, 7, 17-22.
f Oct. 6, 7, 9, 10-12, Nov. 6, 7, 17-22, Sept. 12, 13.
g 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 September 1991.

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

REMARKS.--No estimated daily discharges. Records good. Flow affected by Millsboro Pond and mill ponds on tributaries upstream. Several measurements of water temperature were made during the period.

EXTREMES FOR CURRENT PERIOD.--March to September 1991: Maximum discharge, 222 ft^3/s, , Mar. 30, gage height, 3.44 ft; minimum discharge, 27 ft^3/s, June 11, gage height, 2.93 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, MARCH 1991 TO SEPTEMBER 1991
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	176	110	50	47	51	44
2	---	---	---	---	---	---	151	119	46	53	48	44
3	---	---	---	---	---	---	149	102	48	56	47	43
4	---	---	---	---	---	---	138	92	81	56	44	41
5	---	---	---	---	---	---	135	91	67	59	43	41
6	---	---	---	---	---	---	127	98	50	55	38	41
7	---	---	---	---	---	---	119	107	48	75	39	41
8	---	---	---	---	---	---	118	95	48	117	39	41
9	---	---	---	---	---	---	118	87	44	71	85	39
10	---	---	---	---	---	---	114	86	42	60	173	36
11	---	---	---	---	---	---	103	83	40	58	106	36
12	---	---	---	---	---	---	97	83	40	53	68	36
13	---	---	---	---	---	---	94	83	36	54	65	33
14	---	---	---	---	---	---	112	82	34	55	65	44
15	---	---	---	---	---	---	109	76	35	49	72	47
16	---	---	---	---	---	110	107	72	35	46	59	42
17	---	---	---	---	---	102	99	72	56	42	49	38
18	---	---	---	---	---	130	96	70	159	41	65	37
19	---	---	---	---	---	184	91	67	132	39	108	37
20	---	---	---	---	---	167	91	65	83	38	85	57
21	---	---	---	---	---	141	162	65	64	37	97	45
22	---	---	---	---	---	129	192	66	60	42	81	37
23	---	---	---	---	---	133	165	65	79	63	68	35
24	---	---	---	---	---	139	144	60	85	61	65	36
25	---	---	---	---	---	122	156	55	67	55	62	60
26	---	---	---	---	---	111	147	52	57	75	58	106
27	---	---	---	---	---	112	134	53	54	69	58	80
28	---	---	---	---	---	125	125	62	54	88	58	57
29	---	---	---	---	---	163	115	58	53	66	57	50
30	---	---	---	---	---	204	114	52	51	58	55	45
31	---	---	---	---	---	211	---	51	---	55	50	---
TOTAL	---	---	---	---	---	---	3798	2379	1798	1793	2058	1369
MEAN	---	---	---	---	---	---	127	76.7	59.9	57.8	66.4	45.6
MAX	---	---	---	---	---	---	192	119	159	117	173	106
MIN	---	---	---	---	---	---	91	51	34	37	38	33
CFSM	---	---	---	---	---	---	1.92	1.16	.91	.88	1.01	.69
IN.	---	---	---	---	---	---	2.14	1.34	1.01	1.01	1.16	.77

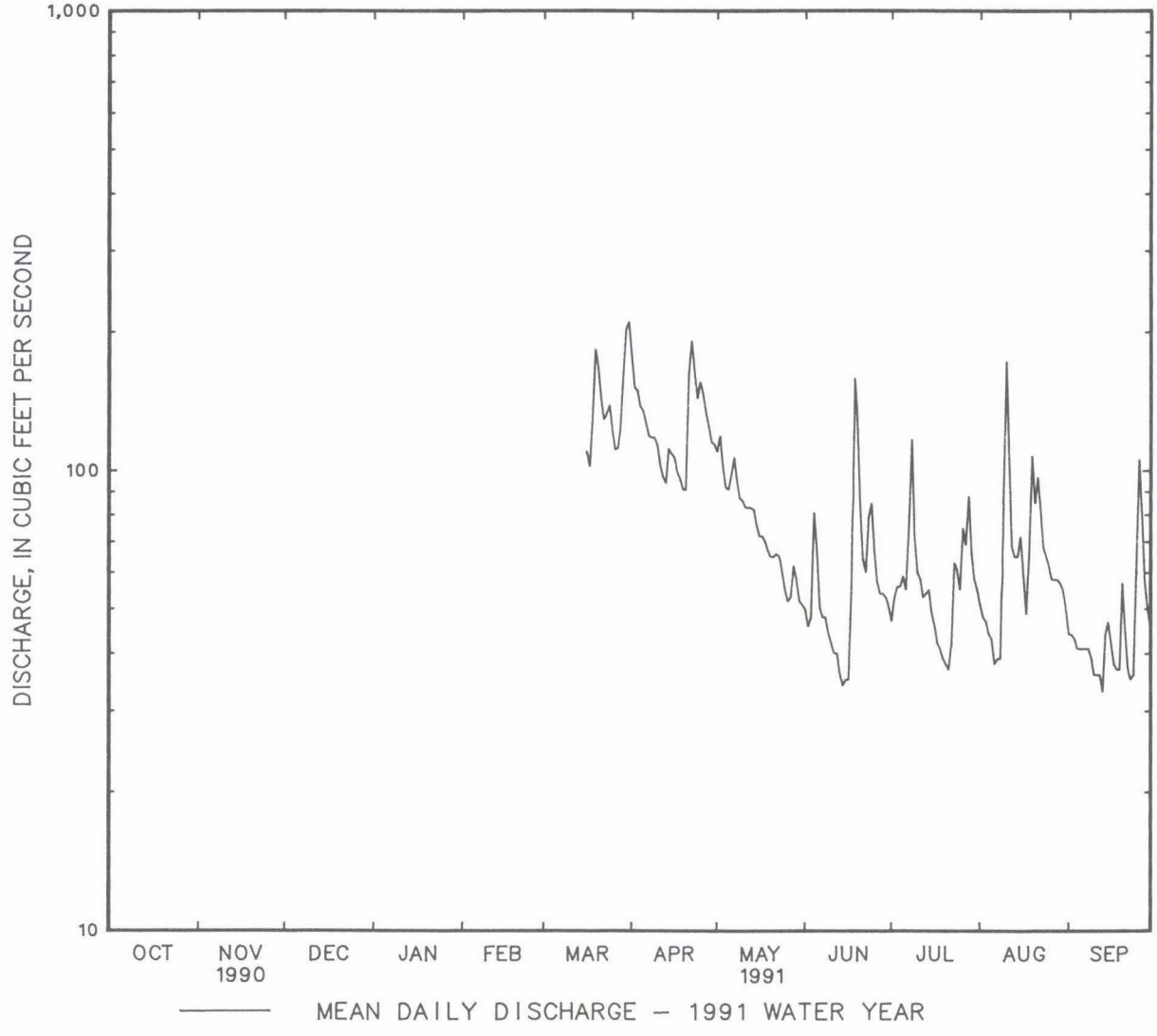
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1986 - 1991, BY WATER YEAR (WY)

MEAN	22.0	24.5	42.5	78.8	119	119	128	81.1	50.2	39.7	36.6	27.5
MAX	23.1	24.7	51.8	104	139	144	143	111	60.2	57.8	66.4	45.6
(WY)	1988	1987	1987	1987	1987	1987	1987	1987	1987	1991	1991	1991
MIN	20.8	24.3	33.2	53.7	99.8	95.0	114	47.3	34.0	23.2	25.5	20.1
(WY)	1987	1988	1988	1988	1988	1988	1988	1986	1986	1986	1988	1986

01484525 MILLSBORO POND OUTLET AT MILLSBORO, DE--Continued

SUMMARY STATISTICS	WATER YEARS 1986 - 1991		
ANNUAL MEAN	64.4		
HIGHEST ANNUAL MEAN	73.8		1987
LOWEST ANNUAL MEAN	55.0		1988
HIGHEST DAILY MEAN	226	Mar 2	1987
LOWEST DAILY MEAN	13	Oct 7	1986
ANNUAL SEVEN-DAY MINIMUM	15	Oct 5	1986
INSTANTANEOUS PEAK FLOW	246	Mar 2	1987
INSTANTANEOUS PEAK STAGE	3.60	Mar 2	1987
INSTANTANEOUS LOW FLOW	11	(a)	
ANNUAL RUNOFF (CFSM)	.98		
ANNUAL RUNOFF (INCHES)	13.26		

a Sep 12, Oct 6, 1986, Nov 6, 1987.



01485000 POCOMOKE RIVER NEAR WILLARDS, MD--Continued

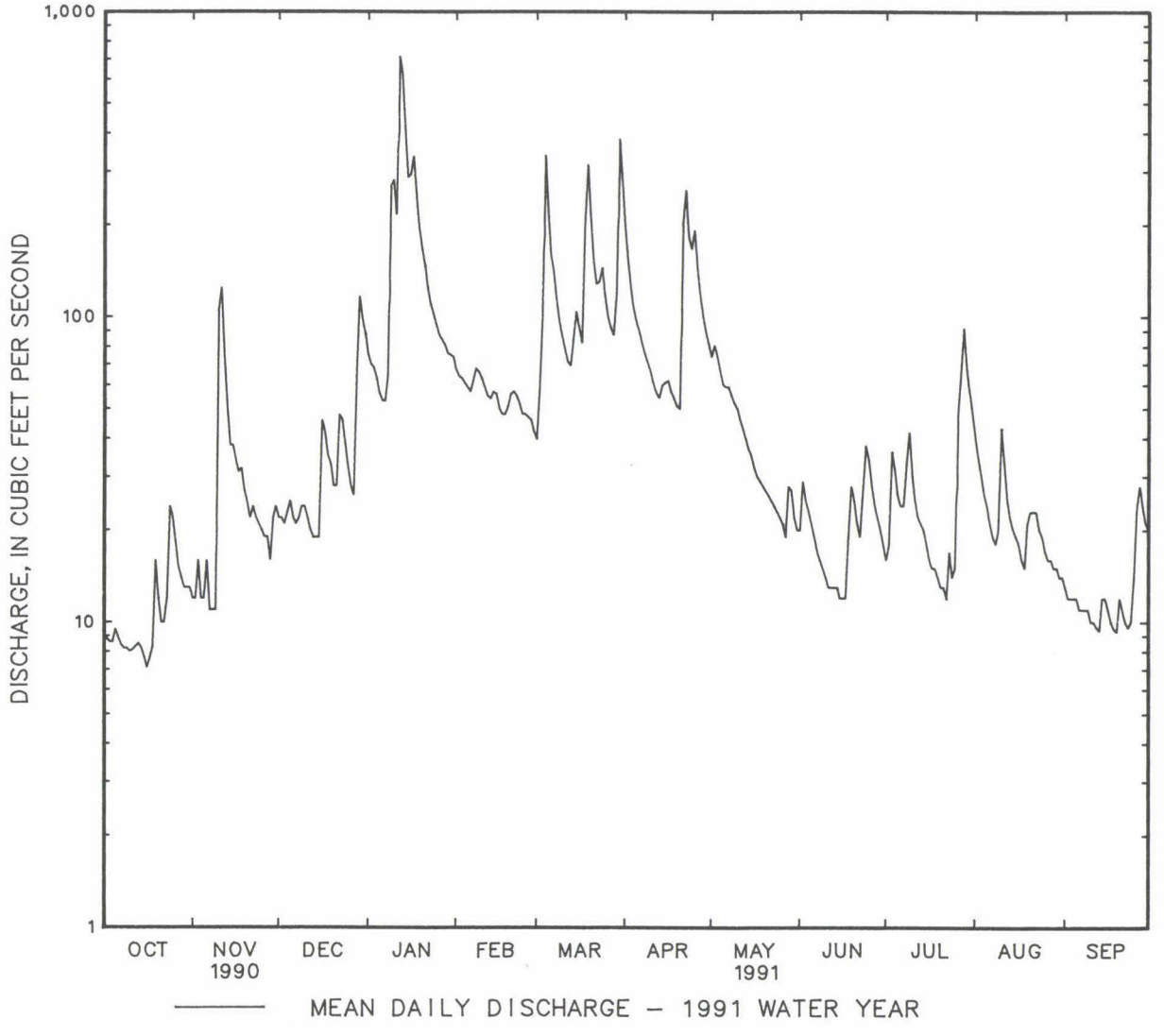
SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1950 - 1991	
ANNUAL TOTAL	20074.5		20866.6			
ANNUAL MEAN	55.0		57.2		71.3	
HIGHEST ANNUAL MEAN					130	1979
LOWEST ANNUAL MEAN					24.8	1981
HIGHEST DAILY MEAN	483	May 30	716	Jan 12	2580	Aug 20 1989
LOWEST DAILY MEAN	7.1	Oct 16	7.1	Oct 16	2.4	(a)
ANNUAL SEVEN-DAY MINIMUM	7.9	Oct 11	7.9	Oct 11	2.6	Aug 12 1957
INSTANTANEOUS PEAK FLOW	609	May 29	767	Jan 12	b2820	Aug 20 1989
INSTANTANEOUS PEAK STAGE	10.04	May 29	10.67	Jan 12	15.41	Aug 20 1989
INSTANTANEOUS LOW FLOW	7.1	(c)	7.1	(c)	2.2	(d)
ANNUAL RUNOFF (CFSM)	.91		.94		1.18	
ANNUAL RUNOFF (INCHES)	12.34		12.83		16.01	
10 PERCENT EXCEEDS	119		123		157	
50 PERCENT EXCEEDS	35		28		39	
90 PERCENT EXCEEDS	11		11		8.9	

a Aug. 14, 18, 1957.

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

c Oct. 15, 16, 17.

d Aug. 18, 19, 1957.



01485000 POCOMOKE RIVER NEAR WILLARDS, MD--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974-78, October 1990 to September 1991.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (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)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
NOV 1990											
14...	0950	39	168	6.3	7.5	7.5	--	8.0	--	12	4.1
FEB 1991											
26...	1430	46	118	6.3	8.0	4.5	760	10.2	86	7.9	2.5
MAY											
31...	0900	23	107	6.5	26.5	31.0	760	5.4	67	6.9	2.1

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	BICAR-BONATE WATER WH 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)	BROMIDE DIS-SOLVED (MG/L AS BR)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)
NOV 1990											
14...	8.2	8.1	12	15	29	19	<0.10	0.030	21	125	3.37
FEB 1991											
26...	7.6	3.2	10	12	14	11	<0.10	0.020	20	83	2.29
MAY											
31...	8.0	3.6	18	22	9.2	10	0.20	0.030	25	79	0.570

DATE	NITRO-GEN, NITRITE DIS-SOLVED (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 ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ANTI-MONY, DIS-SOLVED (UG/L AS SB)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)
NOV 1990										
14...	0.030	3.40	0.280	0.90	<0.010	240	<1	<1	76	<0.5
FEB 1991										
26...	0.010	2.30	0.130	0.50	<0.010	170	<1	<1	81	<0.5
MAY										
31...	0.020	0.590	0.210	1.1	<0.010	50	<1	<1	51	<0.5

DATE	BORON, DIS-SOLVED (UG/L AS B)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)
NOV 1990										
14...	20	<1.0	<5	<3	<10	560	<10	<4	130	0.1
FEB 1991										
26...	<10	<1.0	<5	3	<10	290	<10	<4	86	<0.1
MAY										
31...	20	<1.0	<5	<3	<10	130	<10	<4	67	<0.1

DATE	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)	HARD-NESS TOTAL (MG/L AS CACO3)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)
NOV 1990										
14...	<10	<10	<1	<1.0	78	<6	49	47	12	--
FEB 1991										
26...	<10	<10	<1	<1.0	74	<6	28	30	8.6	--
MAY										
31...	<10	<10	<1	<1.0	70	<6	6	26	11	0.06

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.

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WSP 1332: 1953.

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

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

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)
Jan. 13	1000	*546	*6.19	Mar. 20	0500	284	5.37
Mar. 5	1000	387	5.77	Mar. 31	1200	308	5.51

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.4	2.4	7.9	34	35	24	230	34	3.1	1.9	16	6.2
2	2.4	2.5	7.5	30	32	36	147	35	4.2	4.5	13	7.0
3	2.0	2.5	7.4	28	30	65	105	32	4.4	14	9.8	6.3
4	2.0	2.5	11	25	29	218	82	28	4.2	8.4	7.4	5.6
5	2.2	2.3	13	23	28	357	67	25	3.9	7.2	5.8	5.5
6	1.9	2.2	11	21	27	247	59	24	3.4	18	4.4	6.2
7	1.7	2.4	10	24	35	160	51	24	3.1	10	3.7	7.3
8	1.9	2.6	14	38	42	116	45	23	2.8	15	3.3	6.2
9	1.9	2.6	14	96	41	93	41	21	2.5	19	15	5.3
10	1.8	63	13	130	40	75	37	20	2.2	13	149	4.8
11	1.8	45	11	160	36	63	32	18	2.0	10	148	4.3
12	1.9	25	11	327	31	53	28	15	1.9	8.5	120	4.1
13	2.1	19	10	512	29	48	27	14	1.7	7.9	75	3.8
14	2.1	15	9.9	328	32	55	32	12	1.5	8.6	37	3.8
15	2.1	13	17	186	32	66	35	11	1.5	6.8	29	4.9
16	2.1	11	39	141	29	71	39	9.5	1.4	5.4	23	5.2
17	2.1	10	31	163	26	66	38	8.5	1.4	4.4	17	4.8
18	2.9	9.1	26	184	29	91	36	8.1	3.1	3.6	14	4.3
19	6.9	8.4	24	145	33	202	33	8.0	2.8	2.9	32	4.2
20	5.3	8.0	21	110	38	269	32	7.9	5.5	2.7	30	6.1
21	4.5	7.5	23	93	39	186	109	7.3	5.1	2.4	28	6.6
22	3.3	7.3	30	80	37	123	219	6.7	5.4	2.1	25	5.3
23	3.6	7.3	28	64	33	97	245	6.3	12	2.0	21	3.8
24	5.4	7.3	26	59	29	89	167	5.8	13	1.8	17	6.3
25	4.3	6.8	23	54	28	80	110	5.3	9.2	5.8	14	25
26	3.6	6.8	21	45	28	72	80	4.5	6.8	13	12	33
27	3.0	6.6	19	44	27	62	62	3.8	5.3	21	11	26
28	2.7	6.5	35	43	25	53	50	3.8	3.9	45	9.6	24
29	2.5	9.2	38	42	---	66	44	4.3	2.9	33	8.3	22
30	2.4	9.4	39	40	---	178	39	3.7	2.4	24	7.2	16
31	2.4	---	41	39	---	291	---	3.1	---	19	6.2	---
TOTAL	87.2	323.2	631.7	3308	900	3672	2321	432.6	122.6	340.9	911.7	273.9
MEAN	2.81	10.8	20.4	107	32.1	118	77.4	14.0	4.09	11.0	29.4	9.13
MAX	6.9	63	41	512	42	357	245	35	13	45	149	33
MIN	1.7	2.2	7.4	21	25	24	27	3.1	1.4	1.8	3.3	3.8
CFSM	.06	.24	.45	2.38	.72	2.64	1.72	.31	.09	.24	.66	.20
IN.	.07	.27	.52	2.74	.75	3.04	1.92	.36	.10	.28	.76	.23

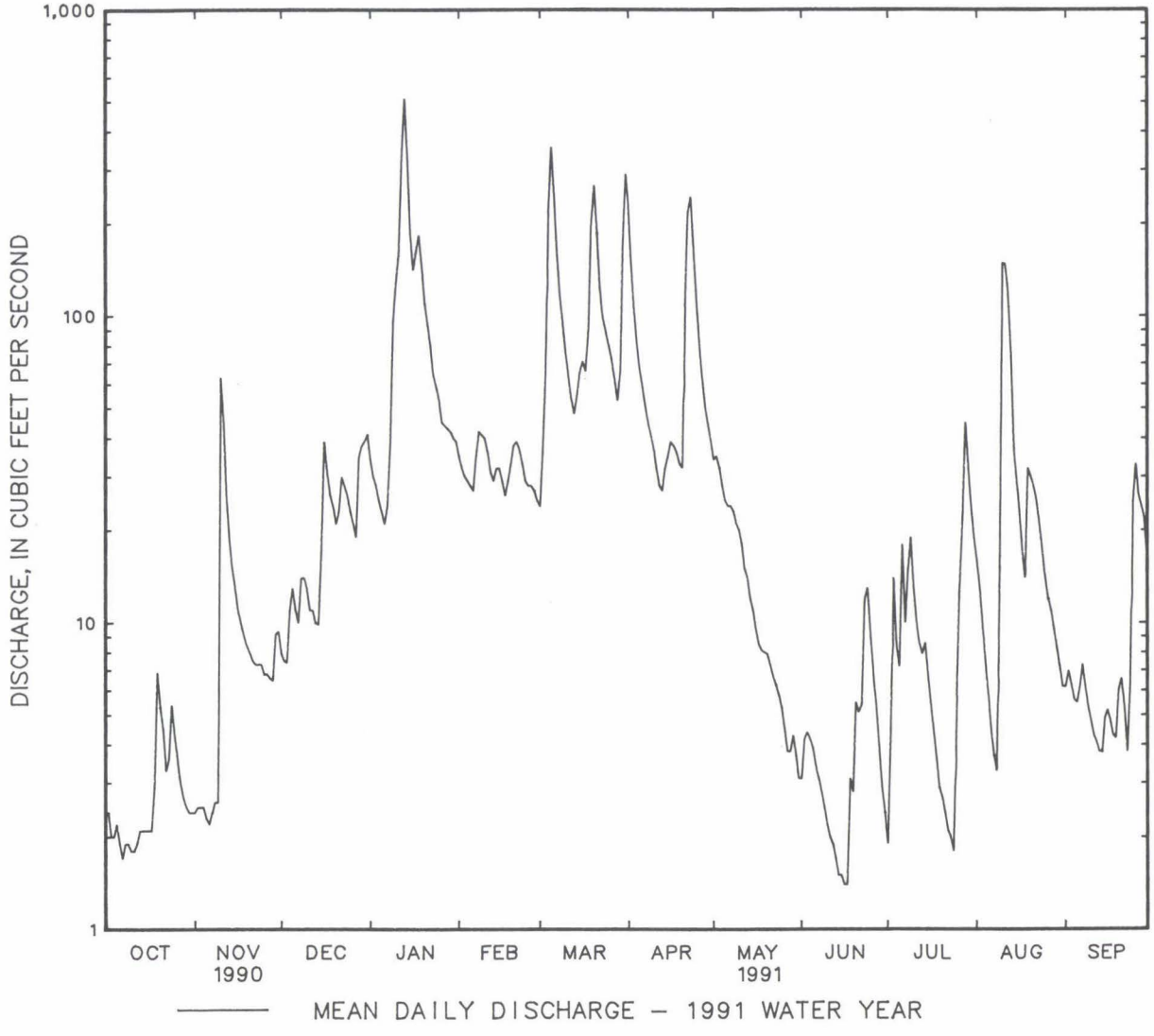
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1950 - 1991, BY WATER YEAR (WY)

MEAN	25.5	36.0	55.3	84.4	94.9	111	78.7	43.6	29.3	21.8	40.9	18.1
MAX	150	175	155	261	269	230	202	183	160	120	346	177
(WY)	1977	1980	1978	1978	1979	1963	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 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1950 - 1991	
ANNUAL TOTAL	16410.1		13324.8			
ANNUAL MEAN	45.0		36.5		53.7	
HIGHEST ANNUAL MEAN					116	1979
LOWEST ANNUAL MEAN					20.8	1981
HIGHEST DAILY MEAN	565	May 30	512	Jan 13	2590	Aug 19 1989
LOWEST DAILY MEAN	1.7	Oct 7	1.4	(a)	.80	(b)
ANNUAL SEVEN-DAY MINIMUM	1.8	Oct 6	1.6	Jun 11	.86	Sep 7 1966
INSTANTANEOUS PEAK FLOW	636	May 30	546	Jan 13	c3930	Aug 19 1989
INSTANTANEOUS PEAK STAGE	6.39	May 30	6.19	Jan 13	9.07	Aug 19 1989
INSTANTANEOUS LOW FLOW	1.6	(d)	1.3	(f)	.80	(b)
ANNUAL RUNOFF (CFSM)	1.00		.81		1.20	
ANNUAL RUNOFF (INCHES)	13.60		11.04		16.27	
10 PERCENT EXCEEDS	121		93		126	
50 PERCENT EXCEEDS	18		15		26	
90 PERCENT EXCEEDS	2.5		2.4		3.4	

a June 16, 17.
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 Oct. 7, 9.
f June 17, 18.



01485500 NASSAWANGO CREEK NEAR SNOW HILL, MD--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974-78, October 1990 to September 1991.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (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)	CALCIUM DIS-SOLVED (MG/L AS CA)
FEB 1991										
26...	1130	30	91	6.1	6.5	5.5	760	9.8	80	4.3

DATE	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	BICAR-BONATE WATER WH 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)	BROMIDE DIS-SOLVED (MG/L AS BR)	SILICA, DIS-SOLVED (MG/L AS SIO2)
FEB 1991										
26...	2.0	6.9	2.9	5	6	14	10	<0.10	0.020	15

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE DIS-SOLVED (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 ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ANTI-MONY, DIS-SOLVED (UG/L AS SB)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)
FEB 1991										
26...	62	<0.010	0.700	0.040	0.40	0.020	210	<1	<1	53

DATE	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	BORON, DIS-SOLVED (UG/L AS B)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
FEB 1991										
26...	<0.5	20	1.0	<5	<3	<10	400	<10	<4	29

DATE	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)	HARD-NESS TOTAL (MG/L AS CACO3)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)
FEB 1991										
26...	<0.1	<10	<10	<1	<1.0	37	<6	14	19	8.6

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.

WATER-DISCHARGE RECORDS

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

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

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

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

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)
Jan. 9	1200	51	3.12	Mar. 29	2230	59	3.23
Jan. 12	0100	*129	*4.12	June 18	0815	51	3.13
Mar. 18	1515	51	3.12	Aug. 10	0045	113	3.92

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.57	.65	1.1	4.9	4.3	3.2	13	4.0	1.3	1.2	2.2	2.2
2	.53	.65	1.1	4.6	4.1	4.1	9.8	4.0	1.2	2.0	1.9	1.8
3	.52	.64	1.1	4.9	4.1	8.7	7.7	3.5	1.3	3.0	1.7	1.7
4	.53	.64	1.6	4.3	4.1	17	6.5	3.2	1.4	1.7	1.5	1.7
5	.55	.65	1.6	3.8	3.9	10	6.2	3.0	1.1	1.6	1.4	1.6
6	.53	.62	1.4	3.8	3.6	7.7	5.8	2.9	1.0	1.4	1.2	1.7
7	.53	.59	1.4	4.3	5.0	7.3	5.3	2.9	1.0	1.3	1.2	1.6
8	.53	.58	1.7	5.9	5.4	5.9	4.9	2.6	.97	1.6	1.1	1.5
9	.45	.57	1.7	41	5.0	5.1	4.5	2.6	.94	2.2	10	1.4
10	.42	6.1	1.6	20	4.6	4.7	4.2	2.5	.91	1.6	64	1.3
11	.47	3.6	1.4	26	4.2	4.3	3.8	2.3	.91	1.5	19	1.3
12	.49	2.2	1.4	75	3.9	4.0	3.5	2.3	.89	1.4	9.4	1.2
13	.51	1.8	1.4	36	4.0	4.0	3.7	2.2	.84	1.5	6.3	1.2
14	.50	1.6	1.3	20	4.8	5.0	4.5	2.1	.81	1.4	5.2	1.3
15	.48	1.5	1.8	15	4.4	5.1	4.8	2.1	.82	1.2	5.2	1.3
16	.45	1.5	5.7	23	3.7	4.4	4.8	1.9	.81	1.1	4.6	1.2
17	.45	1.5	4.1	20	3.6	4.0	4.2	2.0	.78	1.1	3.8	1.1
18	.90	1.3	3.6	14	3.7	24	3.8	1.9	12	1.0	3.3	1.1
19	3.3	1.3	3.4	12	4.5	21	3.4	1.8	2.2	.97	4.7	1.2
20	.91	1.2	2.8	11	5.0	12	3.7	1.8	1.6	.95	5.1	1.7
21	.70	1.1	3.4	10	4.4	9.3	30	1.7	1.4	.92	13	1.4
22	.67	1.1	5.4	8.3	4.2	8.0	22	1.6	1.5	.89	7.4	1.1
23	.93	1.2	4.6	7.2	3.7	7.3	13	1.6	2.7	.87	5.3	1.1
24	1.3	1.1	4.1	6.8	3.5	7.4	9.7	1.5	2.7	.91	4.3	1.2
25	.89	1.0	3.4	6.3	3.5	6.2	7.4	1.5	1.9	2.8	3.7	2.3
26	.78	.99	3.2	5.8	3.6	5.5	6.2	1.4	1.7	3.6	3.4	6.5
27	.69	.98	3.0	5.7	3.5	5.3	5.4	1.4	1.5	8.4	3.3	5.3
28	.69	1.0	6.1	5.6	3.3	5.1	4.8	1.3	1.4	8.1	3.1	3.6
29	.67	1.4	6.1	5.2	---	18	4.5	1.3	1.3	3.8	2.8	2.9
30	.65	1.2	5.2	5.2	---	41	4.4	1.2	1.3	3.1	2.7	2.6
31	.65	---	6.1	4.8	---	20	---	1.2	---	2.6	2.5	---
TOTAL	22.24	40.26	91.8	420.4	115.6	294.6	215.5	67.3	50.18	65.71	204.3	57.1
MEAN	.72	1.34	2.96	13.6	4.13	9.50	7.18	2.17	1.67	2.12	6.59	1.90
MAX	3.3	6.1	6.1	75	5.4	41	30	4.0	12	8.4	64	6.5
MIN	.42	.57	1.1	3.8	3.3	3.2	3.4	1.2	.78	.87	1.1	1.1
CFSM	.15	.28	.62	2.83	.86	1.98	1.50	.45	.35	.44	1.37	.40
IN.	.17	.31	.71	3.26	.90	2.28	1.67	.52	.39	.51	1.58	.44

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 1991, BY WATER YEAR (WY)

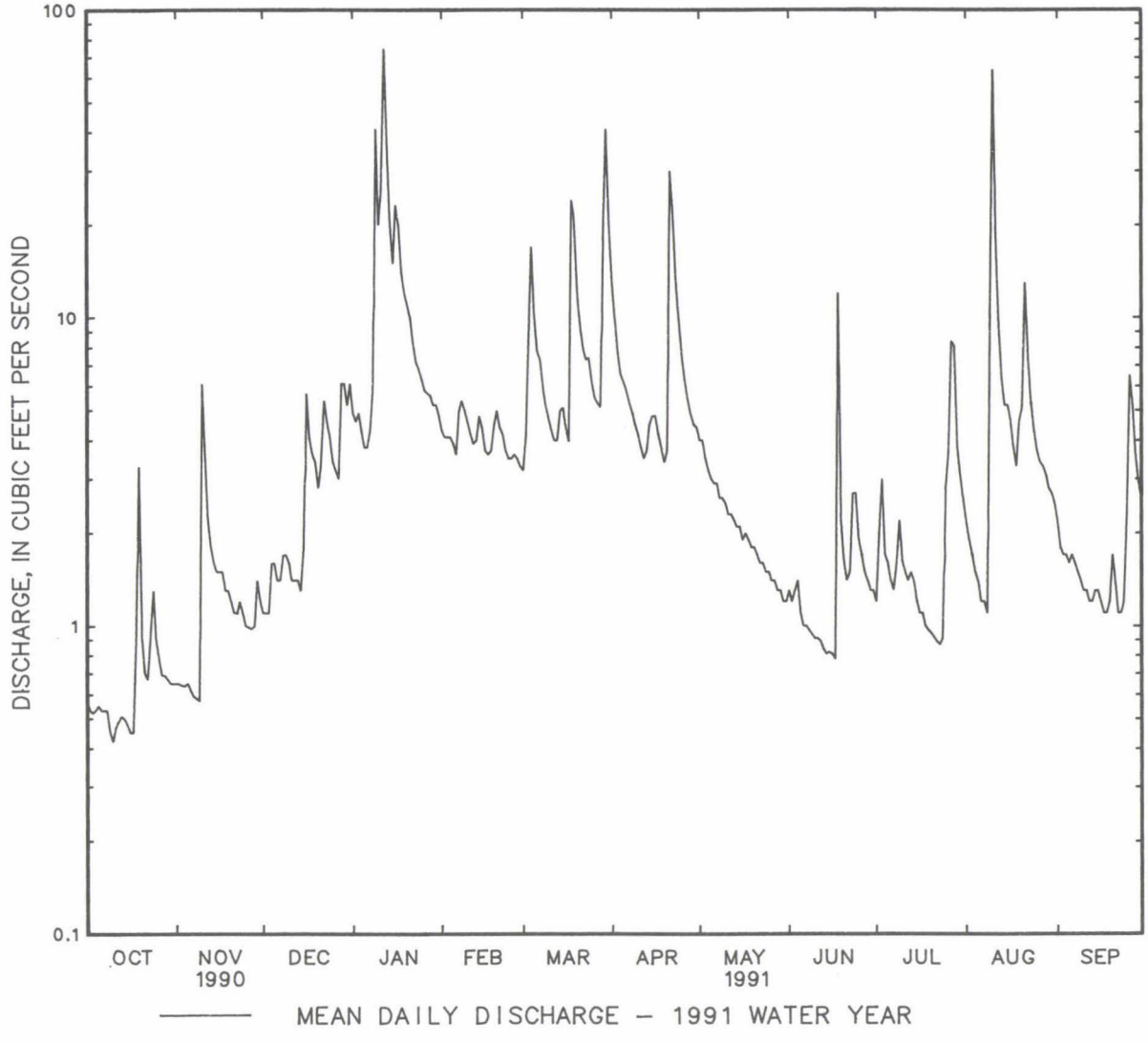
MEAN	1.72	2.49	4.70	8.04	8.74	10.4	7.19	3.73	2.37	1.63	3.93	1.84
MAX	10.5	17.5	13.5	23.8	22.8	22.0	17.3	12.2	12.7	9.20	27.8	18.7
(WY)	1980	1980	1978	1978	1979	1963	1983	1978	1979	1975	1969	1979
MIN	.030	.050	.13	.51	2.40	2.64	1.64	.62	.39	.16	.003	.017
(WY)	1967	1967	1967	1966	1981	1981	1967	1957	1964	1953	1966	1966

01486000 MANOKIN BRANCH NEAR PRINCESS ANNE, MD--Continued

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1951 - 1991	
ANNUAL TOTAL	1963.57		1644.99			
ANNUAL MEAN	5.38		4.51		4.72	
HIGHEST ANNUAL MEAN					10.3	1979
LOWEST ANNUAL MEAN					1.41	1981
HIGHEST DAILY MEAN	74	May 29	75	Jan 12	251	Aug 20 1969
LOWEST DAILY MEAN	.42	Oct 10	.42	Oct 10	.00	(a)
ANNUAL SEVEN-DAY MINIMUM	.47	Oct 9	.47	Oct 9	.00	Aug 23 1963
INSTANTANEOUS PEAK FLOW	145	May 29	129	Jan 12	b547	Aug 20 1969
INSTANTANEOUS PEAK STAGE	4.36	May 29	4.12	Jan 12	c7.08	Aug 19 1985
INSTANTANEOUS LOW FLOW	.35	Oct 10	.35	Oct 10	.00	(d)
ANNUAL RUNOFF (CFSM)	1.12		.94		.98	
ANNUAL RUNOFF (INCHES)	15.22		12.75		13.35	
10 PERCENT EXCEEDS	12		8.3		11	
50 PERCENT EXCEEDS	3.4		2.6		1.9	
90 PERCENT EXCEEDS	.65		.81		.30	

a No flow during 1954, 1963, 1964, 1966.

b From rating curve extended above 27 ft^3/s on basis of channel-conveyance study.
c Gage height of 5.44 ft occurred on Aug. 20, 1969 following ditching of stream channel.
d No flow at times during 1954, 1963, 1964, 1966.



01486000 MANOKIN BRANCH NEAR PRINCESS ANNE, MD--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1975-78, October 1990 to September 1991.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	TEMPERATURE AIR (DEG C)	BAROMETRIC PRESSURE (MM OF HG)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	CALCIUM DISSOLVED (MG/L AS CA)
FEB 1991 26...	0930	3.5	152	5.3	7.5	4.5	760	9.6	80	8.7

DATE	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	BICARBONATE WATER WH IT FIELD MG/L AS HCO3	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)
FEB 1991 26...	4.4	9.7	2.4	10	12	31	13	<0.10	0.020	23

DATE	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRITE DISSOLVED (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 ORTHO, DISSOLVED (MG/L AS P)	ALUMINUM, DISSOLVED (UG/L AS AL)	ANTIMONY, DISSOLVED (UG/L AS SB)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)
FEB 1991 26...	107	<0.010	1.70	0.170	0.50	<0.010	80	<1	<1	57

DATE	BERYLLIUM, DISSOLVED (UG/L AS BE)	BORON, DISSOLVED (UG/L AS B)	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)	MANGANESE, DISSOLVED (UG/L AS MN)
FEB 1991 26...	0.6	<10	<1.0	<5	5	<10	580	<10	4	64

DATE	MERCURY DISSOLVED (UG/L AS HG)	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)	HARDNESS TOTAL (MG/L AS CACO3)	CARBON, ORGANIC DISSOLVED (MG/L AS C)
FEB 1991 26...	<0.1	<10	20	<1	<1.0	100	<6	44	40	4.8

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

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

EXTREMES 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)
Jan. 12	0900	*549	*6.74	No other peak greater than base discharge.			

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	37	36	31	44	95	72	138	109	50	42	42	34
2	36	36	30	43	94	76	130	107	67	44	40	33
3	35	36	30	43	94	85	121	103	74	50	37	33
4	37	35	34	42	92	120	116	100	96	48	36	30
5	39	36	31	41	91	99	115	97	65	46	35	31
6	37	37	30	41	90	93	114	101	59	42	32	32
7	36	37	30	49	95	96	111	106	56	41	31	34
8	36	37	29	50	93	91	109	98	53	44	30	31
9	36	36	29	185	90	88	108	95	49	43	73	31
10	36	46	29	170	89	87	107	93	44	41	89	30
11	37	40	29	113	87	85	102	90	43	40	53	30
12	37	37	29	415	84	84	98	88	42	38	45	29
13	38	37	30	238	84	85	98	84	40	40	42	28
14	37	36	29	161	89	93	106	88	36	37	40	39
15	36	35	33	141	85	93	102	82	34	32	50	37
16	35	36	38	166	79	87	101	76	35	31	49	34
17	35	35	33	216	78	84	98	72	39	31	43	33
18	40	35	32	158	78	132	97	73	65	33	41	34
19	54	34	32	141	83	170	96	68	55	30	52	33
20	40	35	30	136	86	123	98	69	49	28	50	36
21	37	34	33	131	82	112	131	65	45	29	49	33
22	37	34	33	121	81	110	149	61	48	31	43	32
23	44	35	32	115	78	115	129	57	91	30	41	32
24	50	34	45	114	76	121	135	55	70	29	40	33
25	41	33	37	110	77	113	137	54	58	44	39	47
26	39	33	34	107	76	107	124	52	53	70	38	92
27	38	32	33	107	75	109	118	50	49	71	38	57
28	37	32	64	106	73	109	116	54	45	61	36	44
29	37	34	54	103	---	117	112	50	44	51	34	39
30	37	32	46	102	---	193	110	46	41	47	32	37
31	36	---	49	101	---	158	---	48	---	45	34	---
TOTAL	1187	1065	1078	3810	2374	3307	3426	2391	1595	1289	1334	1098
MEAN	38.3	35.5	34.8	123	84.8	107	114	77.1	53.2	41.6	43.0	36.6
MAX	54	46	64	415	95	193	149	109	96	71	89	92
MIN	35	32	29	41	73	72	96	46	34	28	30	28
CFSM	.51	.47	.46	1.63	1.12	1.41	1.51	1.02	.71	.55	.57	.49
IN.	.59	.53	.53	1.88	1.17	1.63	1.69	1.18	.79	.64	.66	.54

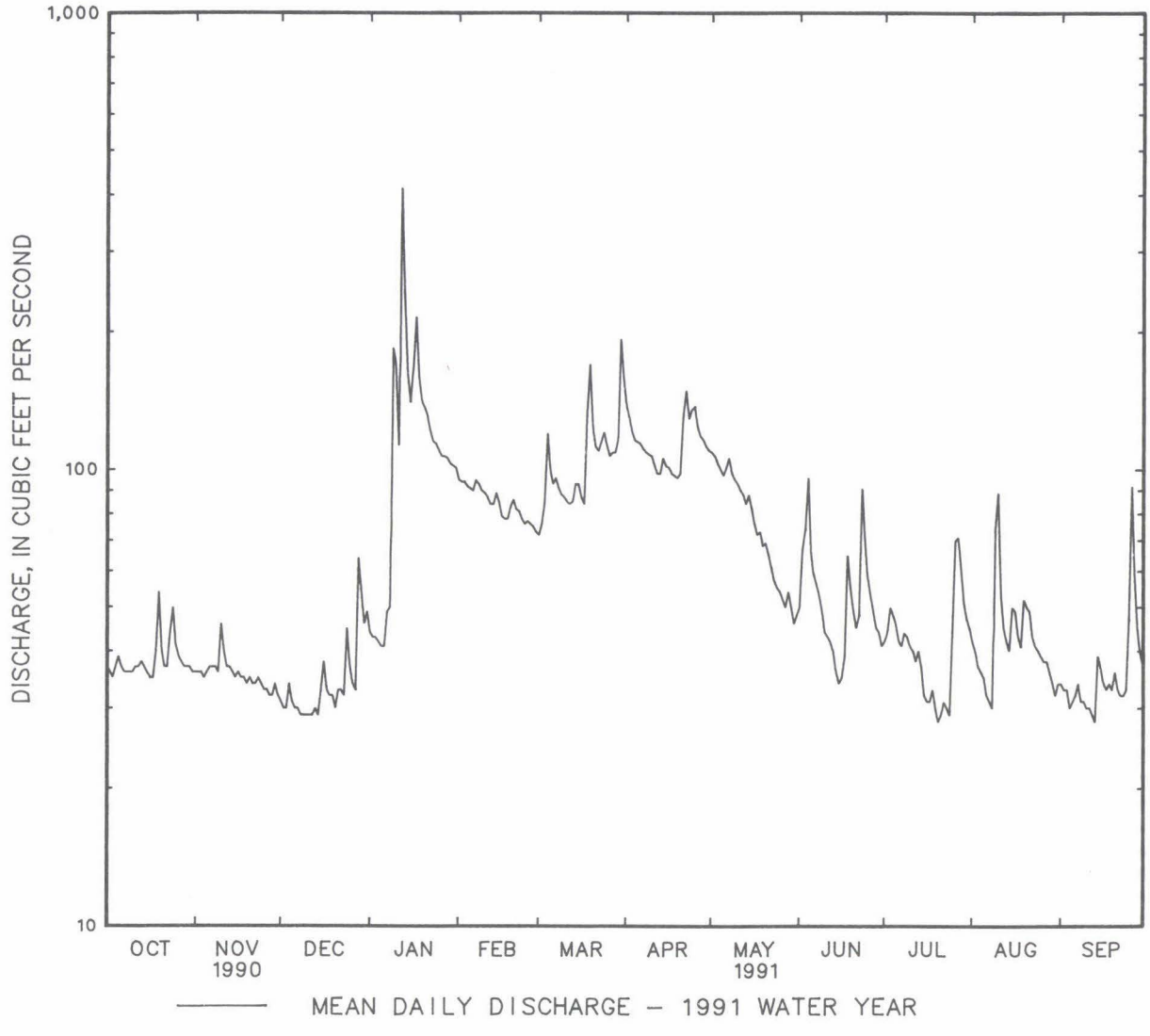
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1943 - 1991, BY WATER YEAR (WY)

MEAN	45.7	60.2	88.7	119	132	155	135	100	75.0	59.4	64.7	47.0
MAX	137	192	294	311	376	373	300	219	298	210	412	234
(WY)	1980	1957	1949	1978	1961	1958	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 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1943 - 1991	
ANNUAL TOTAL	34117		23954			
ANNUAL MEAN	93.5		65.6		90.3	
HIGHEST ANNUAL MEAN					170	1958
LOWEST ANNUAL MEAN					43.8	1985
HIGHEST DAILY MEAN	577	May 30	415	Jan 12	2880	Feb 26 1979
LOWEST DAILY MEAN	29	(a)	28	(b)	6.6	Sep 29 1943
ANNUAL SEVEN-DAY MINIMUM	29	Dec 8	29	Dec 8	7.8	Sep 23 1943
INSTANTANEOUS PEAK FLOW	829	May 29	549	Jan 12	3020	Feb 26 1979
INSTANTANEOUS PEAK STAGE	7.44	May 29	6.74	Jan 12	10.31	Feb 26 1979
INSTANTANEOUS LOW FLOW	28	Dec 10	26	(c)	d6.3	Sep 29 1943
ANNUAL RUNOFF (CFSM)	1.24		.87		1.20	
ANNUAL RUNOFF (INCHES)	16.83		11.82		16.27	
10 PERCENT EXCEEDS	158		114		172	
50 PERCENT EXCEEDS	81		48		65	
90 PERCENT EXCEEDS	35		32		26	

a Dec. 8-12, 14.
b Jul. 20, Sep. 13.
c Jul. 19, 24, 25, Sep. 12.
d Minimum discharge observed.



01487000 NANTICOKE RIVER NEAR BRIDGEVILLE, DE--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1961-72, 1974-80, October 1990 to September 1991.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (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)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
FEB 1991											
25...	1530	87	108	6.6	10.0	12.5	760	11.1	99	6.4	2.5

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	BICAR-BONATE WATER WH 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)	BROMIDE DIS-SOLVED (MG/L AS BR)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)
FEB 1991										
25...	8.8	2.3	10	10	6.9	12	<0.10	0.020	19	82

DATE	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (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 ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ANTI-MONY, DIS-SOLVED (UG/L AS SB)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)
FEB 1991										
25...	4.19	0.010	4.20	0.030	<0.20	0.020	10	<1	<1	120

DATE	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	BORON, DIS-SOLVED (UG/L AS B)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
FEB 1991										
25...	<0.5	10	2.0	<5	10	<10	53	<10	<4	61

DATE	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)	HARD-NESS TOTAL (MG/L AS CACO3)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)
FEB 1991										
25...	<0.1	<10	<10	1	<1.0	110	<6	27	26	1.8

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.

WATER-DISCHARGE RECORDS

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

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

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)
Jan. 9	1600	589	5.42	Jan. 12	0430	*1,090	*7.12

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	14	15	28	52	36	97	48	21	17	26	19
2	15	14	17	26	51	39	83	47	20	17	24	18
3	14	14	17	25	51	44	73	44	25	22	22	18
4	15	14	20	24	50	81	67	41	24	17	22	17
5	15	14	18	24	48	57	65	39	21	16	20	17
6	15	14	17	24	47	52	63	52	19	17	18	17
7	15	13	17	28	52	57	60	77	18	17	18	17
8	14	13	16	31	53	50	57	55	18	20	18	16
9	14	13	17	348	51	47	56	49	18	26	167	16
10	14	16	17	167	49	46	53	46	17	20	125	15
11	14	14	18	133	46	44	48	43	17	17	50	15
12	14	13	18	624	44	42	45	41	16	17	34	16
13	16	13	18	218	44	42	46	41	16	16	29	15
14	15	13	18	147	48	49	50	39	16	16	27	17
15	14	14	20	121	45	58	50	37	16	15	38	16
16	14	13	23	206	41	49	49	34	16	14	39	15
17	14	13	19	229	40	47	47	33	16	14	32	15
18	16	13	19	143	40	151	44	33	132	14	28	18
19	54	13	20	117	42	134	42	31	54	13	33	16
20	22	13	18	108	47	91	43	30	31	12	35	15
21	16	13	20	98	45	77	102	29	25	14	31	14
22	15	12	21	85	44	71	115	28	23	17	28	14
23	16	13	21	77	41	93	84	27	25	16	26	14
24	17	13	45	74	39	119	79	26	23	14	24	14
25	15	14	24	69	39	89	85	25	21	17	23	16
26	15	13	18	66	39	75	69	23	20	40	22	26
27	14	14	17	65	38	73	62	22	19	191	22	25
28	14	14	39	64	37	71	58	22	19	104	21	19
29	14	16	46	59	---	81	52	25	18	47	21	16
30	15	15	31	58	---	186	50	22	17	34	21	16
31	14	---	33	58	---	118	---	22	---	29	20	---
TOTAL	504	408	677	3544	1263	2269	1894	1131	741	860	1064	502
MEAN	16.3	13.6	21.8	114	45.1	73.2	63.1	36.5	24.7	27.7	34.3	16.7
MAX	54	16	46	624	53	186	115	77	132	191	167	26
MIN	14	12	15	24	37	36	42	22	16	12	18	14
CFSM	.37	.31	.50	2.60	1.03	1.67	1.44	.83	.56	.63	.78	.38
IN.	.43	.35	.57	3.00	1.07	1.92	1.60	.96	.63	.73	.90	.43

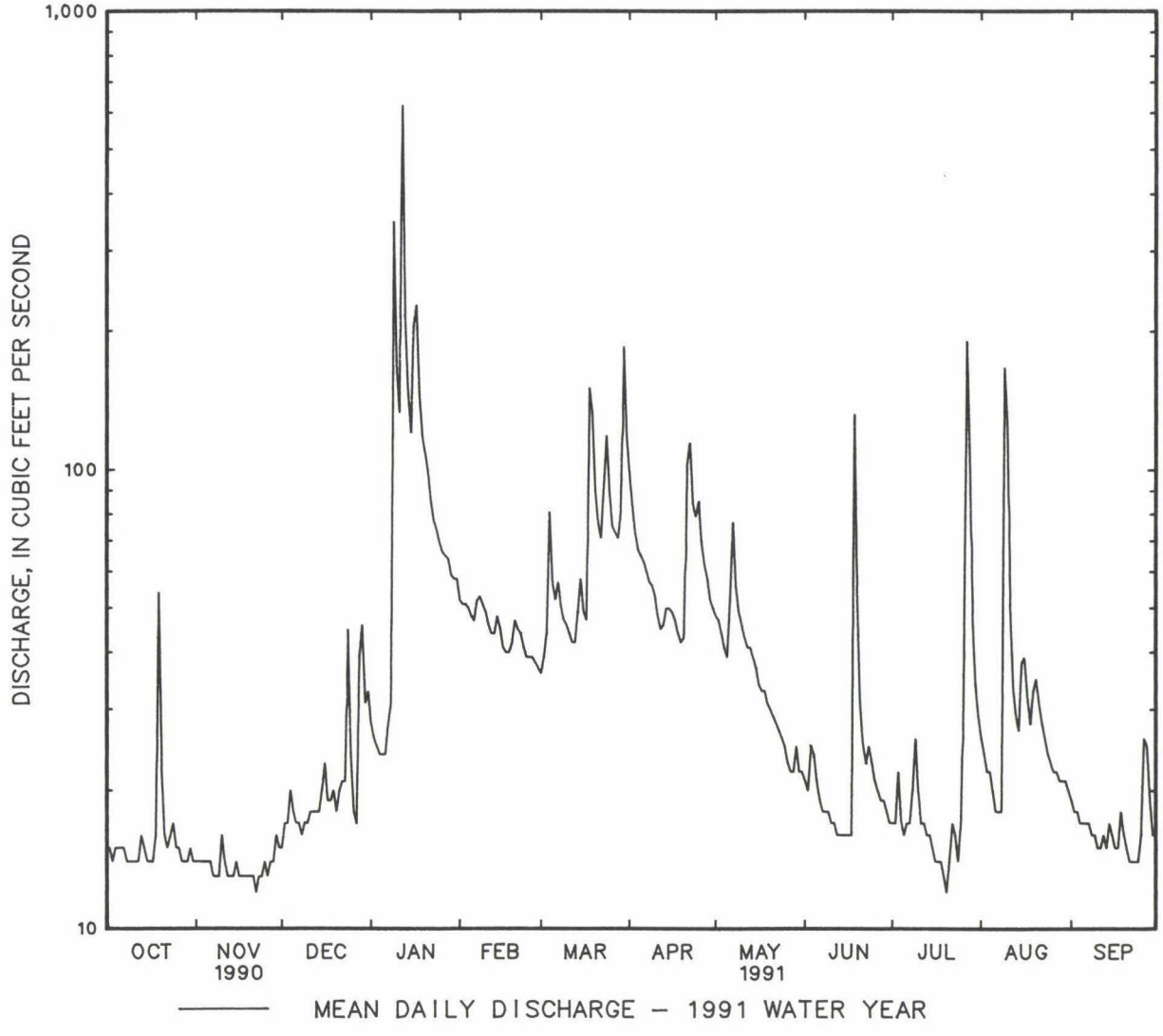
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1943 - 1991, BY WATER YEAR (WY)

MEAN	19.2	35.0	59.7	83.1	86.4	105	75.7	52.4	35.8	36.2	36.8	19.1
MAX	101	190	196	258	267	266	226	178	156	297	340	126
(WY)	1972	1957	1949	1978	1979	1958	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 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1943 - 1991	
ANNUAL TOTAL	19498		14857			
ANNUAL MEAN	53.4		40.7		54.2	
HIGHEST ANNUAL MEAN					111	1958
LOWEST ANNUAL MEAN					16.2	1966
HIGHEST DAILY MEAN	812	May 29	624	Jan 12	2710	Aug 5 1967
LOWEST DAILY MEAN	12	Nov 22	12	(a)	1.2	(b)
ANNUAL SEVEN-DAY MINIMUM	13	Nov 16	13	Nov 16	1.3	Sep 5 1964
INSTANTANEOUS PEAK FLOW	1650	May 29	1090	Jan 12	c3700	Jul 13 1975
INSTANTANEOUS PEAK STAGE	8.72	May 29	7.12	Jan 12	13.98	Aug 5 1967
INSTANTANEOUS LOW FLOW	12	(d)	11	Jul 20	1.0	(f)
ANNUAL RUNOFF (CFSM)	1.22		.93		1.24	
ANNUAL RUNOFF (INCHES)	16.52		12.59		16.79	
10 PERCENT EXCEEDS	104		78		114	
50 PERCENT EXCEEDS	35		24		27	
90 PERCENT EXCEEDS	14		14		7.0	

a Nov. 22, July 20.
b Sept. 9, 10, 1964.
c From rating curve extended above 3,300 ft^3/s.
d Nov. 22, 23.
f Sept. 9, 10, 1964, Aug. 20, 1965.



01488500 MARSHYHOPE CREEK NEAR ADAMSVILLE, DE--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974-80, October 1990 to September 1991.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (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)	CALCIUM DIS-SOLVED (MG/L AS CA)
FEB 1991										
26...	1130	30	91	6.1	6.5	5.5	760	9.8	80	4.3

DATE	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	BICAR-BONATE WATER WH 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)	BROMIDE DIS-SOLVED (MG/L AS BR)	SILICA, DIS-SOLVED (MG/L AS SIO2)
FEB 1991										
26...	2.0	6.9	2.9	5	6	14	10	<0.10	0.020	15

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE DIS-SOLVED (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 ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ANTI-MONY, DIS-SOLVED (UG/L AS SB)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)
FEB 1991										
26...	62	<0.010	0.700	0.040	0.40	0.020	210	<1	<1	53

DATE	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	BORON, DIS-SOLVED (UG/L AS B)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
FEB 1991										
26...	<0.5	20	1.0	<5	<3	<10	400	<10	<4	29

DATE	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)	HARD-NESS TOTAL (MG/L AS CACO3)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)
FEB 1991										
26...	<0.1	<10	<10	<1	<1.0	37	<6	14	19	8.6

01489000 FAULKNER BRANCH AT FEDERALSBURG, MD

LOCATION.--Lat 38°42'44", long 75°47'34", Caroline County, Hydrologic Unit 02060008, on right bank 25 ft downstream from bridge on Laurel Grove Road, 0.9 mi upstream from mouth, and 1.0 mi northwest of Federalsburg.

DRAINAGE AREA.--7.10 mi^2.

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

REVISED RECORDS.--WSP 1552: 1952. WSP 2103: 1960(M).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 16.70 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good. Diversion for irrigation of about 500 acres upstream from station during some years. 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 1935 is believed to have been higher than that of July 13, 1975, from information by local resident.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 140 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 9	1245	145	3.09	Jan. 12	0130	*262	*3.79

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.6	2.4	2.3	4.5	9.9	6.7	15	10	3.3	2.0	4.7	3.6
2	2.6	2.3	2.3	4.6	9.9	7.4	14	9.6	3.8	3.1	4.3	3.0
3	2.4	2.3	2.3	4.5	9.9	8.7	12	9.0	5.7	1.9	4.2	2.0
4	2.7	2.3	3.1	4.4	9.8	10	12	8.3	4.9	2.5	4.1	3.0
5	2.4	2.4	2.4	4.4	9.5	8.5	12	7.9	4.2	4.0	2.7	3.3
6	2.2	2.2	2.4	4.4	9.5	8.2	12	17	4.1	3.9	1.2	3.5
7	2.1	2.2	2.3	5.3	10	8.5	11	12	3.7	3.0	2.2	3.5
8	2.2	2.1	2.3	6.0	9.9	7.4	11	9.7	2.6	1.7	.92	3.2
9	2.0	2.2	2.2	57	9.7	7.1	11	9.2	2.2	2.5	15	2.1
10	2.0	3.4	2.2	18	9.4	7.3	10	8.8	1.9	1.9	14	2.6
11	2.1	2.7	2.1	32	8.9	7.0	9.1	8.3	1.9	1.8	6.9	2.8
12	2.1	2.4	2.2	94	8.4	6.8	8.6	8.1	1.3	1.1	5.5	2.6
13	2.3	2.3	2.2	29	8.7	7.0	9.0	7.9	.79	1.6	5.0	2.5
14	2.3	2.1	2.1	22	9.6	8.5	9.7	7.5	1.0	2.8	4.8	1.8
15	2.2	2.2	2.9	20	8.6	7.9	9.3	6.8	1.5	1.8	15	2.7
16	2.0	2.3	3.2	34	7.5	7.0	8.8	6.2	2.8	1.1	8.5	2.6
17	2.0	2.3	2.6	27	7.5	6.8	8.4	6.6	1.9	.99	6.8	1.7
18	3.0	2.1	2.8	21	7.4	24	8.1	6.5	27	.68	6.2	2.6
19	4.1	2.1	2.8	19	8.2	17	7.7	6.1	7.0	.62	7.0	3.2
20	2.7	2.1	2.4	18	8.3	13	8.7	5.9	5.5	.59	6.0	3.1
21	2.5	2.1	3.1	17	7.8	12	21	5.8	4.9	.80	5.7	2.9
22	2.5	2.2	3.1	15	7.9	12	17	5.6	5.0	.80	5.2	2.8
23	2.9	2.4	3.1	15	7.4	14	13	4.4	6.2	.61	5.0	2.9
24	2.8	2.3	5.6	14	7.3	14	15	3.1	5.3	.56	4.8	3.0
25	2.6	2.2	3.8	13	7.4	12	13	4.9	4.9	5.0	4.6	3.9
26	2.4	2.1	3.5	13	7.4	11	11	4.7	4.7	6.5	4.2	7.2
27	2.3	2.3	3.4	13	7.0	12	12	3.5	4.3	9.7	3.2	4.6
28	2.4	2.4	8.2	12	6.7	12	14	2.9	3.9	7.7	3.3	3.8
29	2.4	2.5	5.9	11	---	16	11	4.4	2.8	5.2	4.1	3.6
30	2.3	2.3	5.3	12	---	22	11	3.6	2.5	4.9	4.0	3.5
31	2.4	---	5.6	11	---	16	---	2.7	---	4.8	4.0	---
TOTAL	75.5	69.2	99.7	575.1	239.5	337.8	345.4	217.0	131.59	86.15	173.12	93.6
MEAN	2.44	2.31	3.22	18.6	8.55	10.9	11.5	7.00	4.39	2.78	5.58	3.12
MAX	4.1	3.4	8.2	94	10	24	21	17	27	9.7	15	7.2
MIN	2.0	2.1	2.1	4.4	6.7	6.7	7.7	2.7	.79	.56	.92	1.7
CFSM	.34	.32	.45	2.61	1.20	1.53	1.62	.99	.62	.39	.79	.44
IN.	.40	.36	.52	3.01	1.25	1.77	1.81	1.14	.69	.45	.91	.49

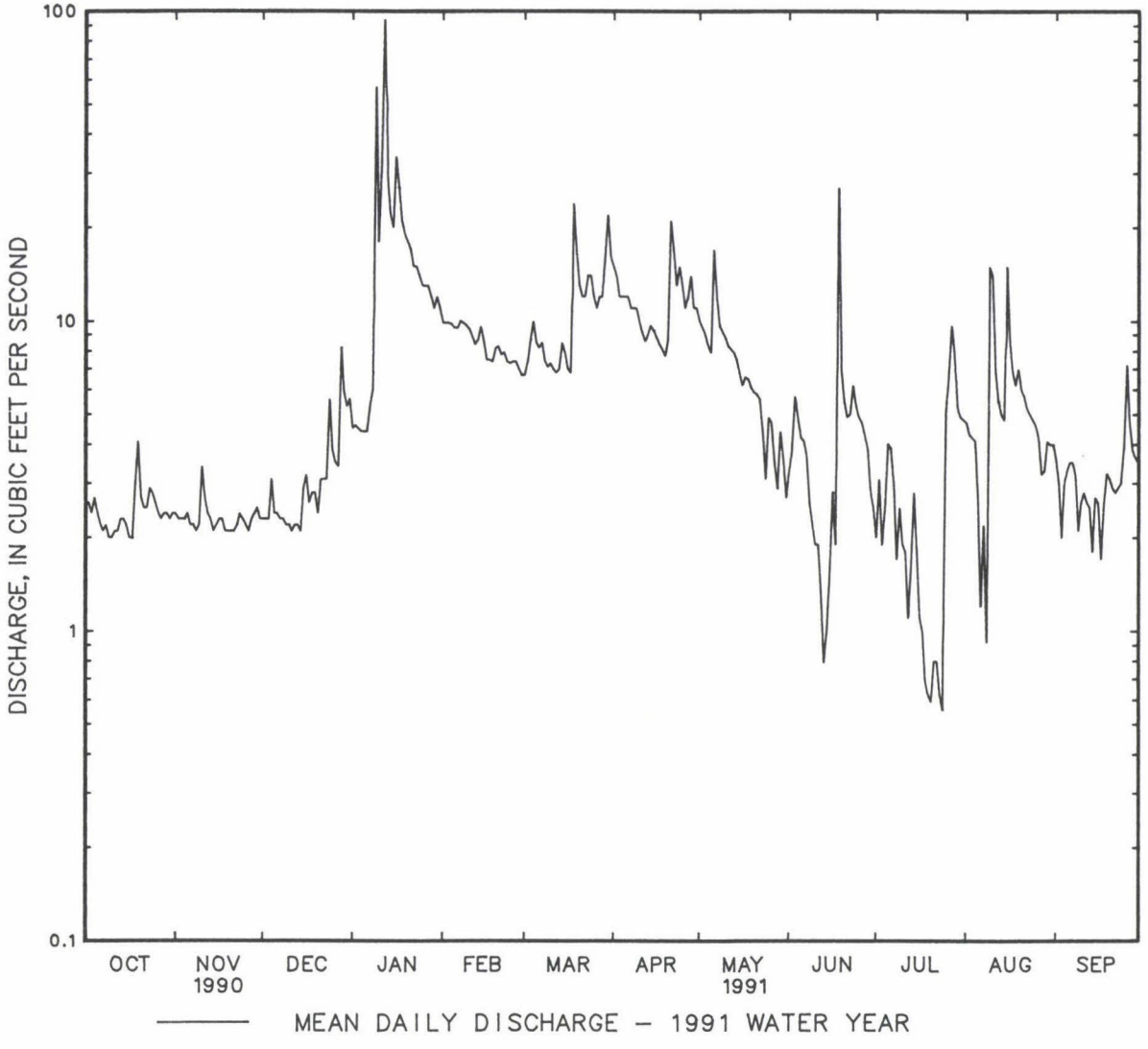
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1950 - 1991, BY WATER YEAR (WY)

MEAN	3.90	5.61	9.25	13.4	15.4	16.2	13.2	8.70	6.20	5.80	6.75	4.24
MAX	20.4	20.1	26.6	43.6	53.9	34.5	37.7	32.1	20.0	57.1	51.5	22.9
(WY)	1980	1960	1973	1978	1979	1978	1983	1984	1989	1975	1967	1960
MIN	1.02	1.21	1.57	1.28	5.42	6.62	4.84	2.83	1.17	.78	.71	.89
(WY)	1971	1965	1966	1966	1969	1966	1985	1976	1986	1987	1964	1987

01489000 FAULKNER BRANCH AT FEDERALSBURG, MD--Continued

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1950 - 1991	
ANNUAL TOTAL	3374.7		2443.66			
ANNUAL MEAN	9.25		6.69		9.04	
HIGHEST ANNUAL MEAN					16.1	1984
LOWEST ANNUAL MEAN					3.63	1966
HIGHEST DAILY MEAN	160	May 29	94	Jan 12	699	Jul 13 1975
LOWEST DAILY MEAN	1.6	(a)	.56	Jul 24	.00	(b)
ANNUAL SEVEN-DAY MINIMUM	2.1	Oct 6	.67	Jul 18	.04	Sep 6 1964
INSTANTANEOUS PEAK FLOW	383	May 10	262	Jan 12	c1680	Jul 13 1975
INSTANTANEOUS PEAK STAGE	4.19	May 10	3.79	Jan 12	5.98	Jul 13 1975
INSTANTANEOUS LOW FLOW	.94	Sep 11	.54	(d)	.00	(f)
ANNUAL RUNOFF (CFSM)	1.30		.94		1.27	
ANNUAL RUNOFF (INCHES)	17.68		12.80		17.30	
10 PERCENT EXCEEDS	17		13		18	
50 PERCENT EXCEEDS	6.2		4.5		5.7	
90 PERCENT EXCEEDS	2.2		2.1		1.4	

a Sept. 12, 13.
b No flow during 1957, 1959, 1964-66 (result of pumpage for irrigation).
c From rating curve extended above 400 ft^3/s on basis of contracted-opening measurement of peak flow.
d July 23, 24, 25.
f No flow at times during many years (result of pumpage for irrigation).



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 National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records good. 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)
Jan. 12	2315	*1,260	*7.17	No other peak greater than base discharge.			

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	24	22	146	125	89	336	147	35	36	99	22
2	18	24	22	110	113	88	253	141	31	35	81	22
3	17	24	23	89	99	97	211	133	51	39	67	22
4	16	23	35	82	99	126	185	125	67	37	59	21
5	16	22	42	75	107	135	173	114	63	38	53	21
6	16	21	34	72	107	120	167	120	47	39	48	24
7	16	21	28	81	114	121	161	145	42	36	42	22
8	15	20	27	94	122	124	154	149	39	64	39	18
9	15	20	26	240	120	114	146	136	34	74	57	19
10	15	26	25	553	115	105	141	122	31	51	99	18
11	16	33	25	397	110	101	132	111	29	41	81	19
12	15	26	25	843	104	96	124	102	24	36	56	18
13	16	25	24	920	98	92	120	94	26	35	47	17
14	21	23	24	464	111	115	133	99	22	33	42	21
15	21	24	29	295	118	157	147	96	23	28	45	24
16	19	23	50	265	133	164	160	86	24	23	46	23
17	16	23	42	449	90	143	154	76	27	21	41	22
18	25	24	40	425	74	166	141	73	258	21	37	38
19	129	23	38	278	102	293	130	70	333	16	42	35
20	111	23	35	232	167	286	125	65	245	16	45	32
21	51	24	36	212	138	208	166	60	126	17	55	25
22	34	23	42	195	87	178	337	58	82	23	44	22
23	37	24	42	171	90	197	380	59	73	24	38	20
24	47	26	84	162	105	345	277	55	72	18	35	21
25	38	25	84	154	102	356	285	50	62	28	33	29
26	31	24	63	143	104	252	285	48	52	103	30	58
27	28	24	54	138	99	209	226	44	49	e456	29	51
28	24	25	83	138	95	198	190	48	46	e790	28	36
29	25	24	118	138	---	199	168	46	42	e405	25	29
30	25	24	118	131	---	324	156	41	39	199	23	26
31	24	---	132	131	---	464	---	38	---	130	23	---
TOTAL	917	715	1472	7823	3048	5662	5763	2751	2094	2912	1489	775
MEAN	29.6	23.8	47.5	252	109	183	192	88.7	69.8	93.9	48.0	25.8
MAX	129	33	132	920	167	464	380	149	333	790	99	58
MIN	15	20	22	72	74	88	120	38	22	16	23	17
CFSM	.26	.21	.42	2.23	.96	1.62	1.70	.79	.62	.83	.43	.23
IN.	.30	.24	.48	2.58	1.00	1.86	1.90	.91	.69	.96	.49	.26

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1948 - 1991, BY WATER YEAR (WY)

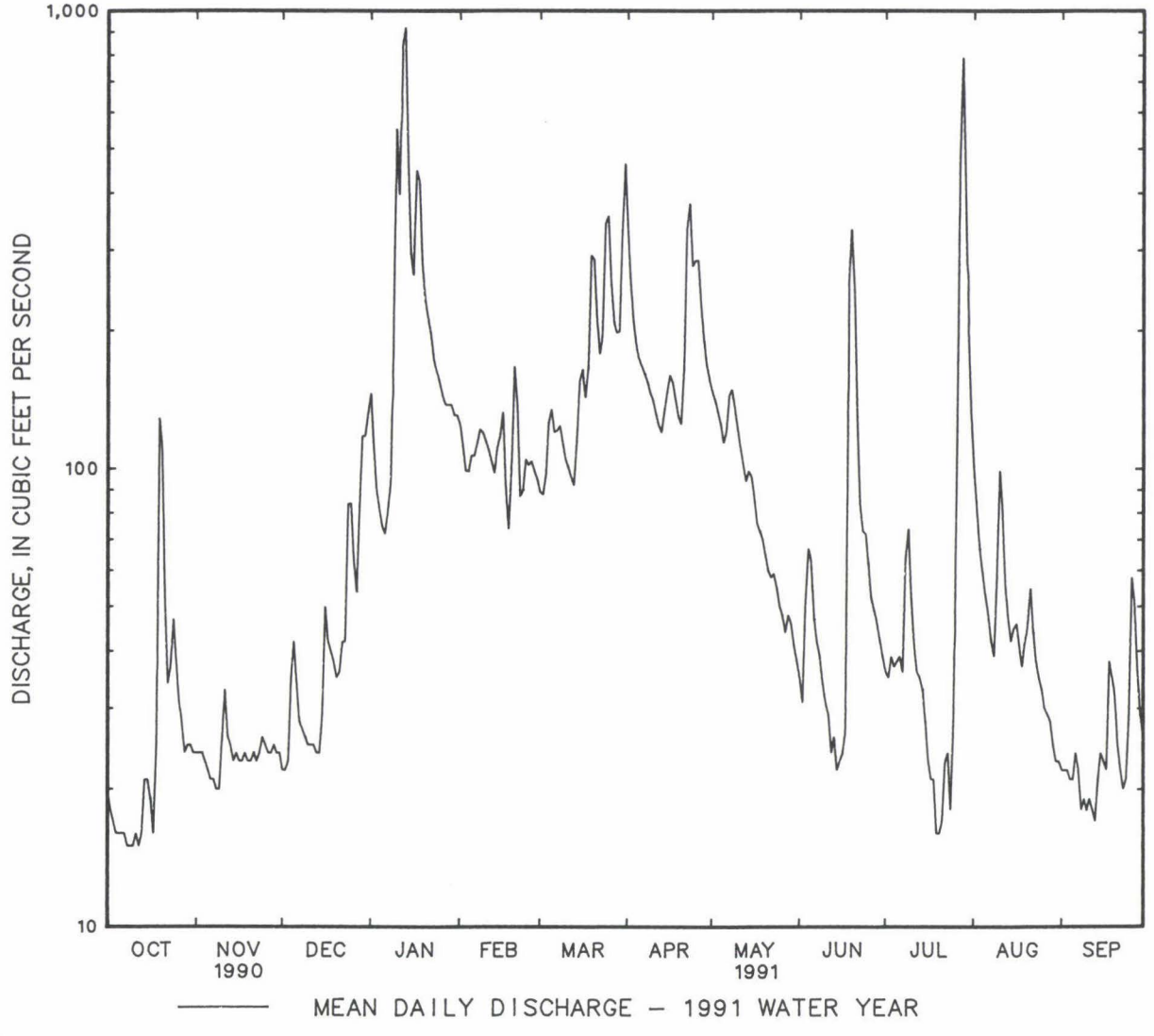
MEAN	53.6	91.6	149	200	219	248	196	133	93.0	60.0	84.7	46.6
MAX	402	476	475	559	646	557	649	457	329	421	829	323
(WY)	1972	1957	1973	1978	1979	1978	1983	1989	1972	1975	1967	1960
MIN	9.85	10.9	13.3	17.9	42.7	43.7	47.2	30.3	19.5	9.49	5.31	9.38
(WY)	1966	1966	1966	1966	1966	1966	1966	1977	1986	1977	1966	1987

01491000 CHOPTANK RIVER NEAR GREENSBORO, MD--Continued

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1948 - 1991	
ANNUAL TOTAL	41858		35421			
ANNUAL MEAN	115		97.0		130	
HIGHEST ANNUAL MEAN					237	1972
LOWEST ANNUAL MEAN					26.6	1966
HIGHEST DAILY MEAN	1700	May 30	920	Jan 13	6160	Aug 4 1967
LOWEST DAILY MEAN	15	(a)	15	(a)	1.5	Aug 29 1966
ANNUAL SEVEN-DAY MINIMUM	15	Oct 6	15	Oct 6	2.2	Aug 26 1966
INSTANTANEOUS PEAK FLOW	1960	May 30	1260	Jan 12	b6970	Aug 4 1967
INSTANTANEOUS PEAK STAGE	8.52	May 30	7.17	Jan 12	14.47	Aug 4 1967
INSTANTANEOUS LOW FLOW	14	(c)	11	Jul 25	1.2	(d)
ANNUAL RUNOFF (CFSM)	1.01		.86		1.15	
ANNUAL RUNOFF (INCHES)	13.78		11.66		15.60	
10 PERCENT EXCEEDS	226		208		285	
50 PERCENT EXCEEDS	81		53		70	
90 PERCENT EXCEEDS	23		21		15	

a Oct. 8-10, 12.

b From rating curve extended above 3,600 ft^3/s.
c Sept. 12, Oct. 10, 11.
d Aug. 29, 1966 and Sept. 3, 1987.



01491000 CHOPTANK RIVER NEAR GREENSBORO, MD--Continued
(National stream-quality accounting network station)

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 (discontinued).
WATER TEMPERATURE: October 1974 to September 1991 (discontinued).
SUSPENDED-SEDIMENT DISCHARGE: October 1980 to September 1991 (discontinued).
REMARKS.--Water temperatures are measured daily in field by local observer at time of sampling.
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.
EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 191 microsiemens, Sept. 17, 23; minimum daily, 55 microsiemens, June 28.
WATER TEMPERATURE: Maximum daily, 27.0°C, June 1, 17, July 23; minimum daily, 1.0°C, Jan. 23, Feb. 16.
SEDIMENT CONCENTRATION: Maximum daily mean, 46 mg/L, Jan. 12; minimum daily mean, 1 mg/L, on many days during the year.
SEDIMENT LOAD: Maximum daily, 111 tons, Jan. 12; minimum daily, 0.04 ton, Oct. 4-13, 17.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (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)
OCT 1990										
04...	1030	16	157	6.5	10.0	24.0	--	--	8.5	--
19...	1000	130	93	--	10.0	13.0	--	--	8.0	--
30...	1130	26	57	6.0	16.5	17.0	771	4.6	10.4	105
NOV										
13...	1215	26	167	6.0	7.0	11.0	767	--	10.0	82
28...	1100	23	169	6.1	11.0	21.0	766	--	10.6	96
DEC										
17...	1000	39	164	6.0	12.0	5.0	769	--	--	--
JAN 1991										
09...	1300	200	--	--	3.0	8.0	--	--	--	--
10...	1230	580	123	5.6	3.0	12.0	776	--	--	--
12...	1100	800	94	5.8	5.0	6.0	--	--	--	--
17...	1115	456	119	5.7	6.0	11.0	758	--	6.4	52
FEB										
11...	1440	110	141	5.5	5.0	6.5	759	--	6.3	50
MAR										
12...	1200	96	139	6.0	6.5	12.0	764	4.2	10.9	88
APR										
10...	1030	138	129	6.1	20.0	22.0	758	--	7.0	77
MAY										
08...	1315	151	125	6.0	19.5	25.0	770	--	--	--
15...	1245	96	126	5.9	23.0	28.0	762	5.2	--	--
JUN										
*06...	1245	47	156	6.2	19.0	20.5	768	--	8.3	89
*06...	1250	47	156	6.2	19.0	20.5	768	--	8.3	89
10...	1030	31	146	6.7	21.5	29.0	767	--	6.0	68
18...	1215	382	111	5.8	22.5	21.0	764	--	4.4	51
19...	1100	331	108	5.7	20.5	20.0	765	--	4.7	52
20...	1100	256	115	6.0	22.5	30.0	764	--	6.7	77
JUL										
10...	1045	52	143	5.9	24.0	24.0	761	--	6.9	82
27...	1400	824	91	5.9	22.0	20.0	766	--	6.7	76
27...	1600	870	93	6.8	22.0	22.0	766	--	6.2	71
28...	0930	1040	56	5.7	22.0	24.0	766	--	5.7	65
29...	1200	425	78	5.7	22.0	25.0	767	--	6.0	68
AUG										
15...	1245	36	143	6.1	23.0	25.0	761	3.0	6.7	78
SEP										
06...	1340	25	152	6.9	20.5	22.0	767	--	9.0	99

* Duplicate samples collected for quality-assurance purposes.

01491000 CHOPTANK RIVER NEAR GREENSBORO, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	COLIFORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	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 FET FIELD MG/L AS CACO3	ALKALINITY WAT DIS TOT IT FIELD MG/L AS CACO3	ALKALINITY WAT WH TOT IT FIELD MG/L AS CACO3	BICARBONATE WATER WH IT FIELD MG/L AS HCO3	SULFATE DISSOLVED (MG/L AS SO4)
OCT 1990											
04...	--	--	--	--	--	--	29	--	--	--	--
19...	--	--	--	--	--	--	27	--	--	--	--
30...	--	--	14	4.0	8.1	4.4	23	--	--	--	22
NOV											
13...	--	--	--	--	--	--	25	--	--	--	--
28...	--	--	--	--	--	--	27	--	--	--	--
DEC											
17...	--	--	--	--	--	--	23	--	--	--	--
JAN 1991											
09...	--	--	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	9	--	--	--	--
12...	--	--	--	--	--	--	12	--	--	--	--
17...	--	--	--	--	--	--	16	--	--	--	--
FEB											
11...	--	--	--	--	--	--	15	--	--	--	--
MAR											
12...	16	4	11	3.2	8.7	1.9	15	22	--	--	20
APR											
10...	--	--	--	--	--	--	24	--	--	--	--
MAY											
08...	--	--	--	--	--	--	19	--	--	--	--
15...	K18	K220	9.6	3.2	8.7	2.0	22	18	--	--	16
JUN											
06...	--	--	--	--	--	--	24	--	--	--	--
06...	--	--	--	--	--	--	24	--	--	--	--
10...	--	--	10	3.2	7.7	2.4	--	--	29	35	20
18...	--	--	--	--	--	--	17	--	--	--	--
19...	--	--	--	--	--	--	15	--	--	--	--
20...	--	--	--	--	--	--	23	--	--	--	--
JUL											
10...	--	--	--	--	--	--	28	--	--	--	--
27...	--	--	--	--	--	--	12	--	--	--	--
27...	--	--	--	--	--	--	12	--	--	--	--
28...	--	--	--	--	--	--	9	--	--	--	--
29...	--	--	--	--	--	--	10	--	--	--	--
AUG											
15...	230	300	11	3.7	10	2.7	--	28	--	--	12
SEP											
06...	--	--	--	--	--	--	30	--	--	--	--

K: Results based on colony count outside the accepted range (non-ideal colony).

01491000 CHOPTANK RIVER NEAR GREENSBORO, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	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)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRATE DISSOLVED (MG/L AS N)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)
OCT 1990											
04...	--	--	--	12	--	--	1.69	<0.010	0.008	--	1.70
19...	--	--	--	8.4	--	--	1.18	0.040	0.018	--	1.20
30...	18	<0.10	--	14	106	106	1.69	0.010	0.014	1.60	1.70
NOV											
13...	--	--	--	15	--	--	1.09	--	0.006	--	1.10
28...	--	--	--	15	--	--	1.40	<0.010	0.005	--	1.40
DEC											
17...	--	--	--	15	--	--	1.49	--	0.012	--	1.50
JAN 1991											
09...	--	--	--	--	--	--	--	--	--	--	--
10...	--	--	--	11	--	--	0.990	--	0.010	--	1.00
12...	--	--	--	8.7	--	--	0.895	--	0.005	--	0.900
17...	--	--	--	16	--	--	1.39	--	0.009	--	1.40
FEB											
11...	--	--	--	19	--	--	--	--	<0.010	--	1.60
MAR											
12...	13	0.10	--	17	88	90	1.19	<0.010	0.013	1.10	1.20
APR											
10...	--	--	--	15	--	--	0.900	--	0.020	--	0.920
MAY											
08...	--	--	--	15	--	--	0.836	--	0.014	--	0.850
15...	12	<0.10	--	16	72	86	0.882	0.030	0.038	0.920	0.920
JUN											
06...	--	--	--	17	--	--	1.25	--	0.045	--	1.30
06...	--	--	--	17	--	--	1.26	--	0.039	--	1.30
10...	20	0.10	0.060	16	--	104	1.58	--	0.020	--	1.60
18...	--	--	--	5.3	--	--	1.16	--	0.036	--	1.20
19...	--	--	--	9.4	--	--	0.936	--	0.034	--	0.970
20...	--	--	--	9.4	--	--	0.974	--	0.026	--	1.00
JUL											
10...	--	--	--	14	--	--	0.973	--	0.007	--	0.980
27...	--	--	--	6.6	--	--	0.777	--	0.013	--	0.790
27...	--	--	--	6.4	--	--	0.817	--	0.013	--	0.830
28...	--	--	--	4.5	--	--	0.342	--	0.008	--	0.350
29...	--	--	--	8.2	--	--	--	--	<0.010	--	0.430
AUG											
15...	16	<0.10	--	16	86	90	1.19	<0.010	0.010	1.10	1.20
SEP											
06...	--	--	--	14	--	--	1.40	--	0.004	--	1.40

01491000 CHOPTANK RIVER NEAR GREENSBORO, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	NITROGEN, AMMONIA TOTAL (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)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO TOTAL (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	ALUMINUM, DISSOLVED (UG/L AS AL)	ANTIMONY, DISSOLVED (UG/L AS SB)
OCT 1990											
04...	<0.010	<0.010	0.30	0.40	--	0.030	0.023	0.010	0.016	10	--
19...	0.080	0.050	1.0	0.90	--	0.120	0.071	0.100	0.050	90	--
30...	0.040	0.040	0.30	0.30	1.9	0.030	0.020	0.030	0.020	<10	--
NOV											
13...	--	0.010	0.50	0.40	--	0.040	0.024	--	0.015	10	--
28...	0.030	0.040	0.50	0.30	--	0.090	0.011	0.020	0.006	<10	--
DEC											
17...	--	0.140	0.50	0.50	--	0.050	0.026	--	0.020	20	--
JAN 1991											
09...	--	--	--	--	--	--	--	--	--	--	--
10...	--	0.220	0.80	0.80	--	0.130	0.033	--	0.025	70	--
12...	--	0.110	0.80	0.60	--	0.180	0.050	--	0.044	190	--
17...	--	0.100	0.50	0.70	--	0.090	0.043	--	0.021	80	--
FEB											
11...	--	0.050	0.20	--	--	0.050	--	--	<0.010	--	--
MAR											
12...	0.110	0.050	0.30	0.40	1.4	0.020	0.010	<0.010	0.008	<10	--
APR											
10...	--	0.070	0.50	0.40	--	0.040	0.003	--	0.021	20	--
MAY											
08...	--	0.080	0.50	0.50	--	0.050	0.029	--	0.015	50	--
15...	0.070	0.090	0.70	--	1.6	0.070	0.040	0.050	0.030	30	--
JUN											
06...	--	0.060	0.60	0.50	--	0.090	0.038	--	0.031	30	--
06...	--	0.060	0.50	0.30	--	0.090	0.027	--	0.021	<10	--
10...	--	0.060	--	0.90	--	--	--	--	0.020	<10	<1
18...	--	0.170	0.90	0.80	--	0.110	0.049	--	0.032	60	--
19...	--	0.190	1.2	0.70	--	0.130	0.044	--	0.022	60	--
20...	--	0.160	0.90	0.70	--	0.110	0.043	--	0.022	70	--
JUL											
10...	--	0.040	0.70	0.40	--	0.040	0.038	--	0.030	30	--
27...	--	0.110	0.90	0.60	--	0.140	0.076	--	0.048	110	--
27...	--	0.110	0.80	0.60	--	0.150	0.080	--	0.049	110	--
28...	--	0.020	1.2	0.50	--	0.170	0.051	--	0.026	120	--
29...	--	0.090	0.70	0.60	--	0.110	0.050	--	0.020	150	--
AUG											
15...	0.020	0.020	0.40	0.40	1.5	0.050	0.030	0.030	0.024	10	--
SEP											
06...	--	<0.010	0.30	0.40	--	0.040	0.019	--	0.023	<10	--

01491000 CHOPTANK RIVER NEAR GREENSBORO, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	BORON, DIS-SOLVED (UG/L AS B)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)
OCT 1990										
04...	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--
30...	<1	66	<0.5	--	<1.0	<1	<3	2	210	<1
NOV										
13...	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--
DEC										
17...	--	--	--	--	--	--	--	--	--	--
JAN 1991										
09...	--	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--	--
FEB										
11...	--	--	--	--	--	--	--	--	--	--
MAR										
12...	<1	62	<0.5	--	1.0	<1	<3	2	110	1
APR										
10...	--	--	--	--	--	--	--	--	--	--
MAY										
08...	--	--	--	--	--	--	--	--	--	--
15...	<1	63	<0.5	--	<1.0	2	<3	3	1100	1
JUN										
06...	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--
10...	<1	62	<0.5	10	<1.0	<5	<3	<10	210	<10
18...	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--
JUL										
10...	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--	--	--	--
AUG										
15...	<1	76	<0.5	--	1.0	<1	<3	1	530	<1
SEP										
06...	--	--	--	--	--	--	--	--	--	--

01491000 CHOPTANK RIVER NEAR GREENSBORO, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)
OCT 1990										
04...	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--
30...	5	46	<0.1	<10	3	<1	<1.0	120	<6	34
NOV										
13...	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--
DEC										
17...	--	--	--	--	--	--	--	--	--	--
JAN 1991										
09...	--	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--	--
FEB										
11...	--	--	--	--	--	--	--	--	--	--
MAR										
12...	<4	57	<0.1	<10	3	<1	<1.0	100	<6	19
APR										
10...	--	--	--	--	--	--	--	--	--	--
MAY										
08...	--	--	--	--	--	--	--	--	--	--
15...	<4	80	<0.1	<10	3	<1	<1.0	100	<6	11
JUN										
06...	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--
10...	<4	41	<0.1	<10	<10	<1	<1.0	100	<6	4
18...	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--
JUL										
10...	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--	--	--	--
AUG										
15...	<4	35	<0.1	<10	4	<1	<1.0	110	<6	13
SEP										
06...	--	--	--	--	--	--	--	--	--	--

01491000 CHOPTANK RIVER NEAR GREENSBORO, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	CARBON, ORGANIC TOTAL (MG/L AS C)	HARD-NESS TOTAL (MG/L AS CACO3)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)	ALA-CHLOR (LASSO) WATER DISSOLV (UG/L)	AMETRYN WATER, DISS, REC, (UG/L)	ATRA-ZINE, WATER, DISS, REC (UG/L)	METO-LACHLOR WATER DISSOLV (UG/L)	METRI-BUZIN SENCOR WATER DISSOLV (UG/L)	PROP-AZINE SED, BOT MAT REC (UG/L)
OCT 1990										
04...	3.1	--	--	--	--	--	--	--	--	--
19...	7.9	--	--	--	--	--	--	--	--	--
30...	3.5	52	--	--	<0.0	<0.05	<0.05	0.1	<0.0	<0.05
NOV										
13...	4.3	--	--	--	--	--	--	--	--	--
28...	4.4	--	--	--	--	--	--	--	--	--
DEC										
17...	4.7	--	--	--	--	--	--	--	--	--
JAN 1991										
09...	--	--	--	--	--	--	--	--	--	--
10...	8.0	--	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--	--	--
17...	7.5	--	--	--	--	--	--	--	--	--
FEB										
11...	3.1	--	--	--	--	--	--	--	--	--
MAR										
12...	--	41	--	--	--	--	--	--	--	--
APR										
10...	5.4	--	--	--	--	--	--	--	--	--
MAY										
08...	6.2	--	--	--	--	--	--	--	--	--
15...	--	37	--	--	--	--	--	--	--	--
JUN										
06...	6.0	--	--	--	--	--	--	--	--	--
06...	5.6	--	--	--	--	--	--	--	--	--
10...	--	38	5.2	0.05	<0.0	<0.05	0.71	0.7	<0.0	<0.05
18...	9.2	--	--	--	--	--	--	--	--	--
19...	9.1	--	--	--	--	--	--	--	--	--
20...	7.8	--	--	--	--	--	--	--	--	--
JUL										
10...	4.7	--	--	--	--	--	--	--	--	--
27...	10	--	--	--	--	--	--	--	--	--
27...	9.6	--	--	--	--	--	--	--	--	--
28...	11	--	--	--	--	--	--	--	--	--
29...	13	--	--	--	--	--	--	--	--	--
AUG										
15...	4.3	43	--	--	--	--	--	--	--	--
SEP										
06...	3.0	--	--	--	--	--	--	--	--	--

01491000 CHOPTANK RIVER NEAR GREENSBORO, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

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 1990					
04...	1030	16	2	0.09	--
19...	1000	130	71	25	--
30...	1130	26	31	2.2	94
NOV					
13...	1215	26	13	0.91	--
28...	1100	23	17	1.1	--
DEC					
17...	1000	39	6	0.63	--
JAN 1991					
09...	1300	200	40	22	--
10...	1230	580	53	83	93
12...	1100	800	48	104	96
17...	1115	456	23	28	--
FEB					
11...	1440	110	4	1.2	--
MAR					
12...	1200	96	23	6.0	--
APR					
10...	1030	138	7	2.6	--
MAY					
08...	1315	151	6	2.4	--
15...	1245	96	6	1.6	--
JUN					
06...	1245	47	5	0.63	--
18...	1215	382	3	3.1	--
19...	1100	331	32	29	--
20...	1100	256	12	8.3	--
JUL					
10...	1045	52	4	0.56	--
27...	1400	824	14	31	--
27...	1600	870	14	33	--
28...	0930	1040	26	73	--
29...	1200	425	11	13	--
AUG					
15...	1245	36	2	0.19	95
SEP					
06...	1340	25	1	0.07	--

01491000 CHOPTANK RIVER NEAR GREENSBORO, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CELSIUS
DAILY INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	162	169	176	163	140	140	102	103	112	139	111	157
2	---	---	176	168	---	134	106	106	146	148	---	167
3	159	169	---	162	141	138	111	103	140	124	135	173
4	161	---	168	156	142	140	110	110	142	141	144	171
5	158	170	166	156	142	136	119	108	132	160	144	166
6	---	167	170	---	145	137	120	105	153	158	148	170
7	158	168	174	---	142	133	122	98	152	145	151	---
8	165	164	175	151	142	133	122	104	151	140	150	---
9	162	171	175	167	148	133	122	100	152	150	142	176
10	160	167	173	118	141	---	125	102	155	140	142	176
11	163	171	177	106	142	130	125	106	138	131	151	167
12	165	171	180	92	141	135	125	104	136	132	154	175
13	165	171	177	84	145	130	127	101	150	144	153	180
14	---	168	177	98	---	127	127	106	120	148	157	172
15	167	176	176	114	---	125	127	121	153	150	157	174
16	167	179	161	120	146	125	123	---	130	154	152	182
17	171	170	170	117	148	124	114	135	138	---	154	191
18	168	180	165	107	138	117	---	133	108	155	153	175
19	141	180	164	115	140	108	122	138	108	141	153	188
20	165	177	168	122	170	106	122	145	109	158	---	184
21	---	177	171	126	141	111	117	140	118	101	156	184
22	158	173	171	129	144	116	---	---	97	---	---	---
23	---	174	174	135	136	109	96	138	120	160	---	191
24	---	174	164	134	112	109	97	140	138	165	160	190
25	163	174	168	140	141	---	99	140	132	129	162	181
26	163	174	179	142	140	93	98	---	125	146	160	177
27	164	168	179	---	---	115	101	140	149	92	168	178
28	168	167	163	147	135	115	97	132	120	55	168	181
29	172	---	169	140	---	117	99	110	149	75	160	---
30	167	170	---	140	---	116	103	140	---	88	160	---
31	166	---	170	140	---	104	---	149	---	---	157	---

WATER TEMPERATURE, DEGREES CELSIUS
DAILY INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14.5	11.5	7.0	6.0	4.0	7.0	12.0	19.0	27.0	25.5	23.5	24.0
2	---	---	8.0	5.0	---	11.0	10.5	19.0	25.0	24.5	---	21.0
3	16.0	14.0	---	5.0	5.0	14.0	9.0	18.0	22.0	25.0	25.5	20.5
4	16.0	---	10.5	3.5	5.5	14.0	11.0	16.0	20.5	24.0	26.0	22.0
5	15.5	14.0	6.5	3.5	6.5	10.0	13.0	16.0	23.0	24.0	24.5	22.0
6	---	14.0	4.0	---	9.0	10.0	13.0	19.0	19.0	25.0	23.0	20.5
7	18.5	11.0	4.5	---	10.0	11.0	15.0	18.0	19.0	25.0	24.0	---
8	19.0	10.0	5.5	2.0	9.0	9.0	18.0	17.0	18.0	24.0	24.0	---
9	20.0	8.0	4.5	3.5	7.0	7.0	20.0	19.0	22.5	24.5	24.0	22.0
10	19.5	8.5	4.0	3.0	6.5	---	20.0	19.5	24.0	24.0	24.5	22.5
11	21.5	10.0	4.5	3.5	5.5	7.0	14.0	19.0	25.5	25.5	24.0	22.0
12	22.0	9.0	4.5	4.0	4.0	6.0	14.0	21.0	26.0	25.0	24.0	22.0
13	20.0	8.0	7.0	5.5	3.0	6.5	13.0	23.5	24.0	25.5	23.0	21.0
14	---	7.0	5.5	4.5	---	5.5	12.0	24.0	25.0	25.5	24.0	20.0
15	21.0	8.0	4.5	5.0	---	5.0	12.0	23.0	24.0	25.0	29.0	20.0
16	18.0	8.5	5.5	6.0	1.0	5.5	16.5	---	26.0	25.5	24.0	21.0
17	18.0	7.0	4.5	8.0	1.5	7.0	15.5	22.5	27.0	---	24.0	23.0
18	19.0	7.0	7.0	7.0	4.0	10.0	---	22.0	24.0	25.0	25.0	21.0
19	16.0	6.0	9.0	6.0	6.0	10.0	13.0	18.0	22.0	24.0	25.0	23.0
20	16.0	5.0	6.0	7.5	10.0	9.5	12.0	18.0	24.0	26.5	---	20.0
21	---	6.0	8.0	6.0	11.0	12.0	12.0	17.0	23.5	24.0	24.0	18.0
22	15.5	5.0	10.0	3.0	11.0	12.0	---	---	24.0	---	---	---
23	---	5.0	13.0	1.0	8.0	10.0	11.0	21.5	23.0	27.0	---	17.5
24	---	8.5	13.0	2.0	6.5	12.0	15.0	22.0	23.0	26.0	24.5	17.0
25	15.0	8.5	6.0	2.0	7.0	---	14.0	23.0	22.5	26.0	24.0	18.5
26	14.0	8.5	4.0	2.5	7.0	9.5	15.5	---	21.5	26.0	24.0	19.0
27	11.0	11.5	2.5	---	---	14.0	20.0	25.5	22.5	23.5	24.0	17.0
28	10.5	13.0	2.5	5.0	5.0	15.0	20.0	25.5	25.0	22.0	23.5	15.0
29	10.0	---	4.5	5.0	---	15.0	17.5	25.0	26.5	22.5	24.0	---
30	9.5	9.0	---	6.5	---	12.0	17.0	25.5	---	23.5	25.5	---
31	11.0	---	7.5	7.0	---	9.0	---	26.0	---	---	25.5	---

01491000 CHOPTANK RIVER NEAR GREENSBORO, MD--Continued

SUSPENDED-SEDIMENT, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	OCTOBER MEAN CONCENTRATION (MG/L)	OCTOBER LOAD (TONS/DAY)	NOVEMBER MEAN CONCENTRATION (MG/L)	NOVEMBER LOAD (TONS/DAY)	DECEMBER MEAN CONCENTRATION (MG/L)	DECEMBER LOAD (TONS/DAY)	JANUARY MEAN CONCENTRATION (MG/L)	JANUARY LOAD (TONS/DAY)	FEBRUARY MEAN CONCENTRATION (MG/L)	FEBRUARY LOAD (TONS/DAY)	MARCH MEAN CONCENTRATION (MG/L)	MARCH LOAD (TONS/DAY)
1	1	.05	3	.19	4	.24	11	4.3	4	1.3	3	.72
2	1	.05	3	.19	4	.24	11	3.3	3	.92	2	.48
3	1	.05	3	.19	4	.25	10	2.4	3	.80	3	.79
4	1	.04	3	.19	5	.47	9	2.0	3	.80	6	2.0
5	1	.04	3	.18	6	.68	7	1.4	4	1.2	5	1.8
6	1	.04	2	.11	4	.37	7	1.4	4	1.2	4	1.3
7	1	.04	2	.11	4	.30	6	1.3	4	1.2	4	1.3
8	1	.04	3	.16	5	.36	6	1.5	3	.99	4	1.3
9	1	.04	2	.11	5	.35	42	35	4	1.3	3	.92
10	1	.04	2	.14	4	.27	53	79	4	1.2	3	.85
11	1	.04	3	.27	3	.20	26	28	5	1.5	2	.55
12	1	.04	2	.14	3	.20	46	111	5	1.4	3	.78
13	1	.04	3	.20	3	.19	39	97	5	1.3	2	.50
14	1	.06	3	.19	4	.26	25	31	5	1.5	4	1.2
15	1	.06	3	.19	5	.39	13	10	6	1.9	6	2.5
16	1	.05	3	.19	5	.67	10	7.2	7	2.5	6	2.7
17	1	.04	4	.25	5	.57	19	23	6	1.5	5	1.9
18	2	.13	4	.26	4	.43	17	20	4	.80	7	3.1
19	41	14	4	.25	3	.31	11	8.3	2	.55	19	15
20	7	2.1	5	.31	4	.38	7	4.4	4	1.8	16	12
21	4	.55	4	.26	4	.39	6	3.4	4	1.5	10	5.6
22	4	.37	4	.25	5	.57	5	2.6	2	.47	8	3.8
23	6	.60	4	.26	5	.57	6	2.8	4	.97	10	5.3
24	9	1.1	5	.35	9	2.0	6	2.6	5	1.4	20	19
25	5	.51	3	.20	8	1.8	4	1.7	5	1.4	17	16
26	3	.25	3	.19	9	1.5	5	1.9	4	1.1	11	7.5
27	3	.23	4	.26	9	1.3	5	1.9	4	1.1	8	4.5
28	3	.19	5	.34	10	2.2	5	1.9	4	1.0	7	3.7
29	3	.20	5	.32	14	4.5	5	1.9	---	---	7	3.8
30	2	.13	4	.26	13	4.1	4	1.4	---	---	12	10
31	3	.19	---	---	11	3.9	3	1.1	---	---	18	23
TOTAL	---	21.31	---	6.51	---	29.96	---	494.7	---	34.60	---	153.89

DAY	APRIL MEAN CONCENTRATION (MG/L)	APRIL LOAD (TONS/DAY)	MAY MEAN CONCENTRATION (MG/L)	MAY LOAD (TONS/DAY)	JUNE MEAN CONCENTRATION (MG/L)	JUNE LOAD (TONS/DAY)	JULY MEAN CONCENTRATION (MG/L)	JULY LOAD (TONS/DAY)	AUGUST MEAN CONCENTRATION (MG/L)	AUGUST LOAD (TONS/DAY)	SEPTEMBER MEAN CONCENTRATION (MG/L)	SEPTEMBER LOAD (TONS/DAY)
1	12	11	5	2.0	7	.66	2	.19	4	1.1	4	.24
2	9	6.1	6	2.3	4	.33	1	.09	3	.66	2	.12
3	7	4.0	8	2.9	8	1.1	2	.21	3	.54	1	.06
4	6	3.0	6	2.0	6	1.1	3	.30	3	.48	1	.06
5	6	2.8	5	1.5	5	.85	3	.31	2	.29	1	.06
6	7	3.2	8	2.6	5	.63	3	.32	1	.13	1	.06
7	7	3.0	11	4.3	5	.57	2	.19	2	.23	1	.06
8	8	3.3	6	2.4	4	.42	6	1.0	2	.21	1	.05
9	7	2.8	7	2.6	3	.28	4	.80	3	.46	1	.05
10	7	2.7	7	2.3	3	.25	3	.41	4	1.1	1	.05
11	9	3.2	7	2.1	3	.23	2	.22	4	.87	1	.05
12	8	2.7	7	1.9	3	.19	1	.10	3	.45	1	.05
13	6	1.9	7	1.8	3	.21	1	.09	2	.25	1	.05
14	6	2.2	8	2.1	3	.18	1	.09	1	.11	2	.11
15	5	2.0	8	2.1	3	.19	1	.08	1	.12	1	.06
16	5	2.2	8	1.9	5	.32	2	.12	1	.12	1	.06
17	6	2.5	8	1.6	6	.44	2	.11	1	.11	1	.06
18	7	2.7	6	1.2	42	29	2	.11	1	.10	1	.10
19	6	2.1	7	1.3	28	25	2	.09	1	.11	1	.09
20	5	1.7	6	1.1	15	9.9	2	.09	1	.12	1	.09
21	7	3.1	6	.97	7	2.4	4	.18	1	.15	1	.07
22	16	15	6	.94	6	1.3	3	.19	1	.12	1	.06
23	15	15	6	.96	6	1.2	1	.06	1	.10	1	.05
24	13	9.7	5	.74	4	.78	1	.05	1	.09	1	.06
25	14	11	6	.81	4	.67	3	.23	1	.09	1	.08
26	13	10	6	.78	3	.42	4	1.1	1	.08	2	.31
27	10	6.1	5	.59	3	.40	22	27	1	.08	2	.28
28	8	4.1	4	.52	3	.37	25	53	1	.08	1	.10
29	8	3.6	4	.50	4	.45	11	12	1	.07	1	.08
30	6	2.5	5	.55	3	.32	6	3.2	2	.12	1	.07
31	---	---	4	.41	---	---	4	1.4	2	.12	---	---
TOTAL	---	145.2	---	49.77	---	80.16	---	103.33	---	8.66	---	2.69

TOTAL LOAD FOR YEAR: 1130.78 TONS.

01492000 BEAVERDAM BRANCH AT MATTHEWS, MD

WATER-QUALITY RECORDS

LOCATION.--Lat 38°48'41", long 75°58'15", Talbot County, Hydrologic Unit 01060005, on left bank 50 ft upstream from bridge on State Highway 328, 1.0 mi west of Matthews, 1.2 mi upstream from mouth, and 6.0 mi northeast of Easton.

DRAINAGE AREA--5.85 mi^2.

PERIOD OF RECORD.--Water years 1974-78, October 1990 to September 1991.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (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)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
JUN 1991											
10...	1630	0.40	204	6.8	21.5	34.0	767	4.8	54	21	5.5

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	BICAR-BONATE WATER WH 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)	BROMIDE DIS-SOLVED (MG/L AS BR)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)
JUN 1991											
10...	7.0	3.1	42	51	18	20	0.20	0.040	16	128	2.47

DATE	NITRO-GEN, NITRITE DIS-SOLVED (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 ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ANTI-MONY, DIS-SOLVED (UG/L AS SB)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)
JUN 1991										
10...	0.030	2.50	0.100	0.40	<0.010	20	<1	1	78	<0.5

DATE	BORON, DIS-SOLVED (UG/L AS B)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)
JUN 1991										
10...	10	<1.0	<5	<3	<10	670	<10	<4	97	<0.1

DATE	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)	HARD-NESS TOTAL (MG/L AS CACO3)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)
JUN 1991										
10...	<10	<10	<1	<1.0	160	<6	7	75	5.8	0.04

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.--22.3 mi^2.

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 National Geodetic Vertical Datum of 1929.

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

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)
Jan. 12	1400	*224	*3.66	No other peak greater than base discharge.			

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	11	10	42	23	18	45	22	11	8.9	8.4	5.6
2	10	11	10	37	23	19	37	21	11	11	7.4	5.1
3	11	11	32	36	23	21	32	19	12	11	7.2	4.8
4	12	11	40	31	23	30	28	18	14	11	6.8	5.7
5	13	11	23	26	23	26	28	18	14	11	6.6	7.4
6	9.5	10	11	24	23	23	28	43	12	10	6.1	5.3
7	9.6	9.6	9.0	20	24	26	27	58	11	11	5.5	6.7
8	9.4	9.7	9.1	19	24	24	26	34	12	12	6.1	6.5
9	9.5	9.6	9.6	31	24	21	25	26	11	10	15	6.7
10	9.7	14	9.6	121	24	20	24	23	10	9.5	14	6.5
11	9.8	13	9.6	66	24	18	22	20	10	9.2	9.0	5.9
12	12	11	10	165	24	17	21	18	10	9.4	7.9	5.4
13	9.6	10	9.4	121	23	18	23	19	9.1	19	7.9	4.6
14	10	9.6	9.2	68	24	26	32	19	7.6	11	8.0	7.4
15	10	9.5	9.7	51	24	36	34	17	7.7	8.8	8.3	8.1
16	9.7	9.8	9.6	49	24	29	37	16	7.6	8.7	8.0	7.1
17	10	10	12	71	24	24	29	16	6.7	8.6	7.4	8.0
18	16	10	14	58	23	40	26	16	25	8.2	7.1	27
19	25	10	17	48	14	62	24	15	16	7.6	8.9	12
20	13	10	19	44	6.5	41	23	15	12	6.3	10	11
21	11	10	16	44	26	31	46	14	11	6.3	11	8.6
22	11	10	13	44	24	28	82	14	12	7.1	7.8	7.9
23	14	11	14	42	22	46	53	14	13	7.5	7.3	8.4
24	18	11	19	39	21	79	41	14	12	5.3	7.3	9.1
25	13	11	20	32	20	51	48	12	11	11	8.2	27
26	11	10	20	29	21	37	35	13	10	11	7.1	30
27	11	10	20	28	20	35	29	12	9.3	11	6.8	15
28	11	10	20	24	19	34	26	12	8.6	11	6.4	11
29	11	10	21	23	---	38	23	10	8.4	9.4	5.8	9.8
30	11	10	23	22	---	80	23	11	9.5	9.1	6.0	8.9
31	11	---	48	23	---	68	---	11	---	9.3	5.0	---
TOTAL	362.8	313.8	516.8	1478	617.5	1066	977	590	334.5	300.2	244.3	292.5
MEAN	11.7	10.5	16.7	47.7	22.1	34.4	32.6	19.0	11.1	9.68	7.88	9.75
MAX	25	14	48	165	26	80	82	58	25	19	15	30
MIN	9.4	9.5	9.0	19	6.5	17	21	10	6.7	5.3	5.0	4.6
CFSM	.52	.47	.75	2.14	.99	1.54	1.46	.85	.50	.43	.35	.44
IN.	.61	.52	.86	2.47	1.03	1.78	1.63	.98	.56	.50	.41	.49

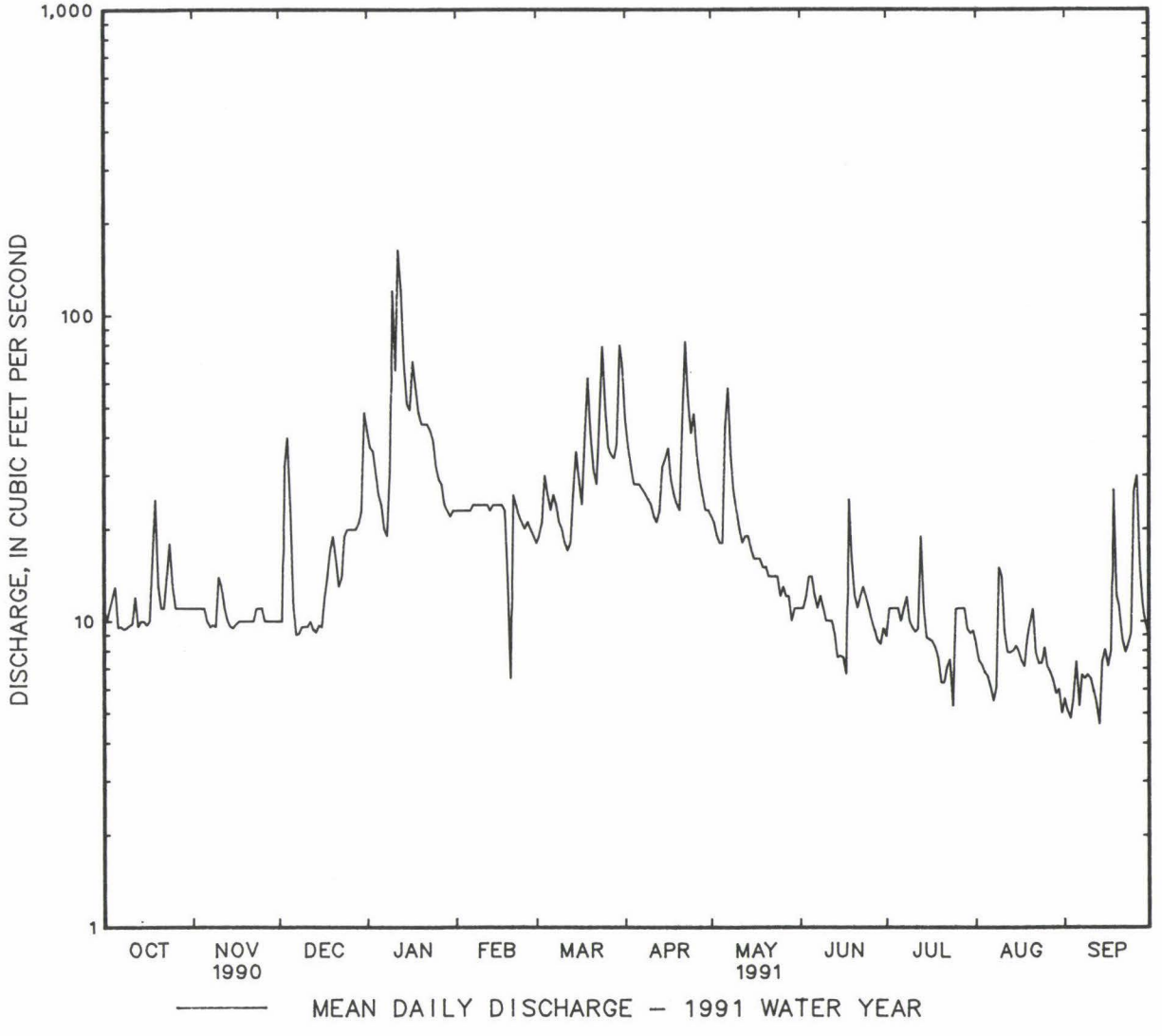
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1948 - 1991, BY WATER YEAR (WY)

MEAN	14.6	17.4	24.6	32.5	36.7	40.9	35.8	26.5	20.5	16.7	17.0	14.6
MAX	91.5	65.4	67.2	83.7	83.7	97.1	109	66.8	80.7	52.5	62.5	92.1
(WY)	1972	1972	1973	1978	1961	1958	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 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1948 - 1991	
ANNUAL TOTAL	9031.87		7093.4			
ANNUAL MEAN	24.7		19.4		24.7	
HIGHEST ANNUAL MEAN					51.8	1972
LOWEST ANNUAL MEAN					7.08	1966
HIGHEST DAILY MEAN	309	May 30	165	Jan 12	685	Sep 13 1960
LOWEST DAILY MEAN	.87	Feb 10	4.6	Sep 13	.10	Jun 9 1965
ANNUAL SEVEN-DAY MINIMUM	9.5	Dec 7	5.4	Aug 29	.14	Jun 8 1965
INSTANTANEOUS PEAK FLOW	403	May 30	224	Jan 12	a1060	Sep 12 1960
INSTANTANEOUS PEAK STAGE	4.40	May 30	3.66	Jan 12	7.17	Sep 12 1960
INSTANTANEOUS LOW FLOW	.48	(b)	.15	Feb 20	.00	(c)
ANNUAL RUNOFF (CFSM)	1.11		.87		1.11	
ANNUAL RUNOFF (INCHES)	15.07		11.83		15.02	
10 PERCENT EXCEEDS	43		37		47	
50 PERCENT EXCEEDS	20		12		16	
90 PERCENT EXCEEDS	10		7.4		7.2	

a From rating curve extended above 600 ft^3/s.
b Feb. 9, 10.
c 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.

WATER-DISCHARGE RECORDS

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

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1.76 ft above National Geodetic Vertical Datum of 1929.

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

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)
Jan. 12	0800	276	a4.89	June 18	1245	*571	*6.41
Mar. 23	2115	261	4.67				

a Backwater from high tide.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.4	6.2	6.8	25	9.2	7.8	13	9.6	7.6	5.7	5.8	5.5
2	5.3	6.2	6.8	12	9.1	8.7	11	8.9	7.1	9.2	5.5	4.8
3	5.1	6.2	8.2	9.4	9.2	13	10	8.7	7.6	7.6	5.5	4.9
4	6.5	6.2	24	8.3	9.4	25	9.6	8.7	13	7.0	5.4	4.9
5	8.0	6.1	17	8.0	9.4	16	9.9	8.6	8.5	7.0	5.3	5.8
6	6.4	6.1	9.7	8.2	9.7	10	10	31	7.9	7.0	5.0	5.4
7	5.6	5.8	7.9	11	14	13	9.7	27	7.8	11	5.1	5.2
8	5.5	6.0	7.5	11	13	9.2	9.2	12	7.3	21	5.3	5.0
9	5.4	5.9	7.2	68	11	8.3	9.1	9.5	7.1	8.4	62	4.8
10	5.4	21	7.2	64	9.7	8.4	9.0	8.5	6.7	6.4	83	4.9
11	5.7	18	7.0	36	9.4	8.2	8.3	8.0	6.6	6.5	15	4.8
12	5.7	9.1	7.0	158	8.7	8.0	8.1	7.8	6.7	6.1	6.1	4.7
13	6.8	7.2	7.2	42	9.7	8.2	9.8	7.7	6.9	7.8	5.8	4.5
14	6.7	6.8	7.1	24	18	13	17	11	6.8	7.3	5.5	7.8
15	6.1	6.7	15	14	11	14	14	8.5	6.5	6.0	6.1	6.0
16	5.6	6.8	16	18	8.0	12	13	7.5	6.7	5.8	6.4	4.8
17	5.7	7.3	10	24	8.1	9.7	9.9	8.1	7.3	5.5	5.5	6.1
18	13	7.4	12	17	9.2	25	9.4	9.2	224	5.4	5.3	19
19	31	6.7	10	12	11	26	9.5	8.3	64	5.4	5.9	6.7
20	12	6.6	8.0	12	12	12	9.3	8.0	19	5.3	6.0	7.7
21	7.1	6.7	13	13	10	9.5	27	7.8	9.1	6.0	7.3	5.4
22	5.8	6.8	13	11	9.2	9.1	34	7.9	6.8	6.8	5.8	4.8
23	10	7.4	14	9.0	8.6	100	15	7.5	6.9	5.8	5.4	5.0
24	11	7.3	43	9.9	8.4	70	19	7.7	7.3	5.4	5.4	5.7
25	7.4	7.0	24	9.7	10	19	21	7.7	6.4	16	5.6	40
26	6.6	6.7	13	9.2	12	13	12	7.7	6.2	28	5.6	37
27	6.1	6.6	8.4	9.8	8.4	13	10	7.3	5.9	29	5.5	9.9
28	6.3	7.0	14	11	7.7	12	9.7	7.3	5.9	9.3	5.5	5.5
29	6.0	7.0	19	11	---	18	9.2	7.2	6.1	6.5	5.4	5.1
30	6.0	6.8	36	11	---	45	9.9	7.1	6.0	6.6	5.4	5.0
31	6.1	---	45	11	---	22	---	8.2	---	6.2	5.2	---
TOTAL	235.3	227.6	444.0	697.5	283.1	586.1	375.6	300.0	501.7	277.0	317.6	246.7
MEAN	7.59	7.59	14.3	22.5	10.1	18.9	12.5	9.68	16.7	8.94	10.2	8.22
MAX	31	21	45	158	18	100	34	31	224	29	83	40
MIN	5.1	5.8	6.8	8.0	7.7	7.8	8.1	7.1	5.9	5.3	5.0	4.5
CFSM	.60	.60	1.13	1.77	.80	1.49	.99	.76	1.32	.70	.81	.65
IN.	.69	.67	1.30	2.04	.83	1.72	1.10	.88	1.47	.81	.93	.72

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 1991, BY WATER YEAR (WY)

MEAN	7.31	9.01	11.7	13.4	13.9	13.2	10.8	9.47	13.5	8.87	8.75	7.93
MAX	32.3	30.7	37.8	45.6	47.1	26.8	29.5	20.6	113	26.9	27.8	32.4
(WY)	1972	1973	1984	1978	1979	1978	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

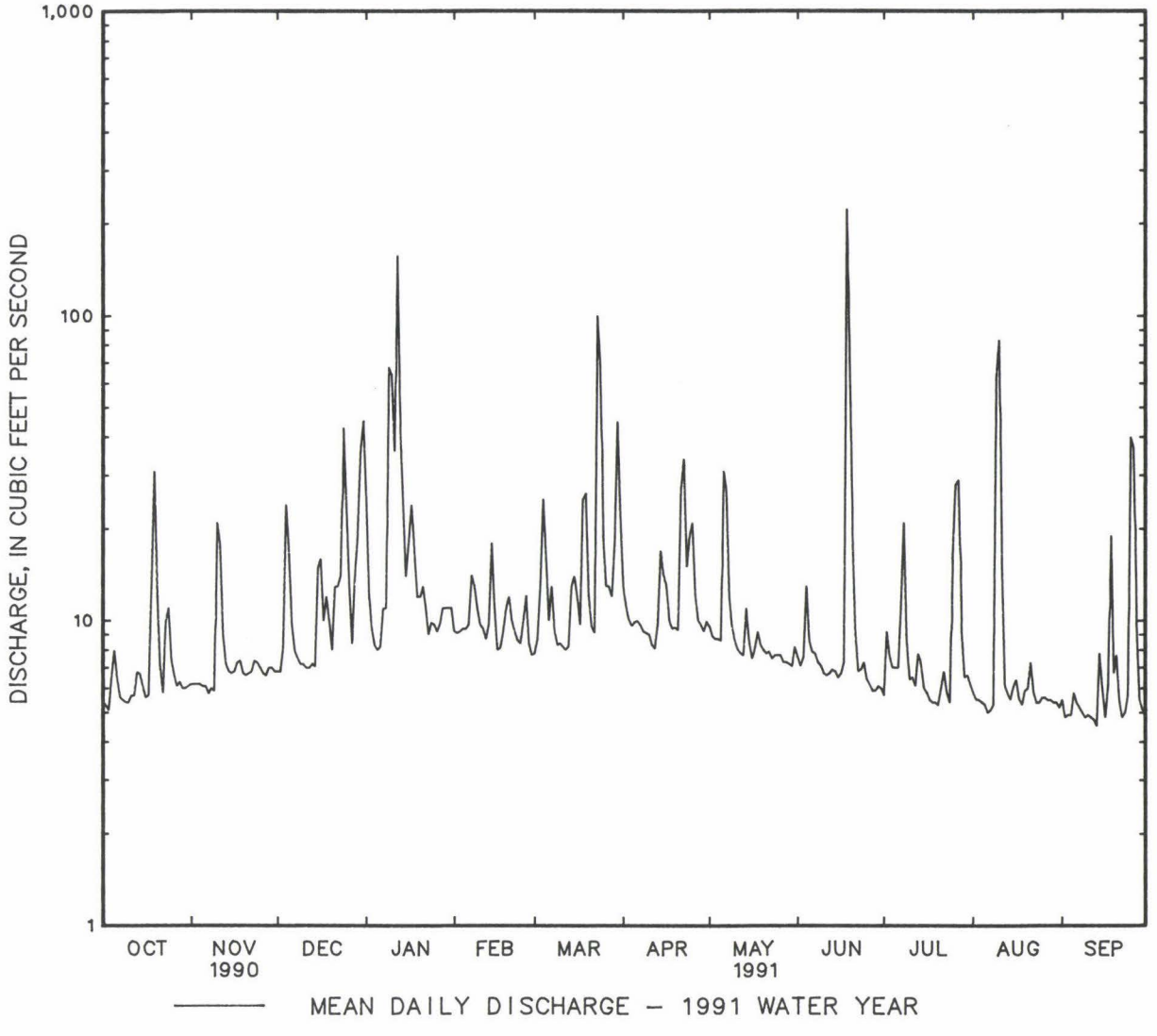
SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1951 - 1991	
ANNUAL TOTAL	4507.8		4492.2			
ANNUAL MEAN	12.4		12.3		10.7	
HIGHEST ANNUAL MEAN					24.2	1972
LOWEST ANNUAL MEAN					3.67	1966
HIGHEST DAILY MEAN	154	Jul 13	224	Jun 18	2810	Jun 22 1972
LOWEST DAILY MEAN	5.1	Oct 3	4.5	Sep 13	.70	(b)
ANNUAL SEVEN-DAY MINIMUM	5.4	Sep 27	4.8	Sep 7	.71	Sep 7 1966
INSTANTANEOUS PEAK FLOW	359	May 29	571	Jun 18	c7500	Jun 22 1972
INSTANTANEOUS PEAK STAGE	5.34	May 29	6.41	Jun 18	13.07	Jun 22 1972
INSTANTANEOUS LOW FLOW	4.9	Oct 3	4.1	(d)	.60	(f)
ANNUAL RUNOFF (CFSM)	.97		.97		.84	
ANNUAL RUNOFF (INCHES)	13.20		13.16		11.40	
10 PERCENT EXCEEDS	19		20		16	
50 PERCENT EXCEEDS	8.4		8.0		6.2	
90 PERCENT EXCEEDS	6.0		5.4		3.2	

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 Sept. 2, 13.

f Aug. 28, 29, 1966.



01493500 MORGAN CREEK NEAR KENNEDYVILLE, MD--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1973-80, October 1990 to September 1991.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (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)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
NOV 1990												
05...	1030	6.1	157	7.0	12.0	24.0	--	7.4	--	14	5.1	6.7
MAR 1991												
06...	1000	7.1	164	7.0	8.0	10.0	756	10.0	85	14	4.9	6.6
MAY												
30...	1400	5.8	168	6.5	25.0	35.5	760	6.6	80	16	5.5	7.4

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT WH TOT IT FIELD MG/L AS CACO3	BICAR-BONATE WATER WH 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)	BROMIDE DIS-SOLVED (MG/L AS BR)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)
NOV 1990											
05...	6.3	42	51	4.6	18	<0.10	<0.010	10	99	1.93	0.070
MAR 1991											
06...	5.0	34	42	12	15	<0.10	<0.010	7.7	101	2.97	0.030
MAY											
30...	4.0	49	60	3.3	16	0.10	0.010	11	101	1.77	0.030

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 DIS. (MG/L AS N)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ANTI-MONY, DIS-SOLVED (UG/L AS SB)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	BORON, DIS-SOLVED (UG/L AS B)	CADMIUM DIS-SOLVED (UG/L AS CD)
NOV 1990											
05...	2.00	0.150	0.70	0.020	<10	<1	<1	49	<0.5	20	<1.0
MAR 1991											
06...	3.00	0.160	0.80	0.010	100	<1	<1	48	<0.5	20	<1.0
MAY											
30...	1.80	0.060	0.60	<0.010	<10	<1	<1	43	<0.5	20	<1.0

DATE	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)
NOV 1990											
05...	<5	<3	<10	51	<10	<4	190	<0.1	<10	<10	<1
MAR 1991											
06...	<5	<3	<10	770	<10	<4	220	<0.1	<10	<10	<1
MAY											
30...	<5	<3	<10	31	<10	<4	230	<0.1	<10	<10	<1

DATE	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137)	RADON 222 TOTAL (PCI/L)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90)	HARD-NESS TOTAL (MG/L AS CACO3)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)
NOV 1990											
05...	<1.0	63	<6	13	<0.4	6.4	<80	5.4	56	4.0	--
MAR 1991											
06...	<1.0	62	<6	<3	--	--	<80	--	55	4.4	--
MAY											
30...	<1.0	79	<6	10	--	--	--	--	63	4.3	0.03

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 National Geodetic Vertical Datum of 1929. Prior to May 17, 1946, nonrecording gage at bridge 100 ft upstream at same datum.

REMARKS.--Records good except those for estimated daily discharges (ice effect), which are fair. Slight diurnal fluctuation caused by mills upstream from station. 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. 12	0615	*1,360	*5.37	No peak greater than base discharge.			

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	35	34	95	63	52	82	64	34	25	21	17
2	28	35	34	72	61	60	80	61	33	25	19	16
3	27	34	61	63	61	94	73	59	33	28	18	16
4	28	34	365	58	60	245	71	56	33	28	29	16
5	30	34	89	54	59	117	71	55	32	27	20	23
6	27	38	55	55	63	82	73	115	32	27	18	23
7	26	39	47	67	84	104	69	119	32	71	17	20
8	26	38	43	60	76	75	65	68	31	51	17	18
9	26	38	41	105	65	68	64	62	30	28	39	17
10	26	162	39	102	62	66	63	59	29	24	120	17
11	26	89	38	110	59	62	58	56	28	24	27	18
12	28	46	37	651	56	60	57	54	30	23	22	17
13	31	42	37	165	57	60	63	62	30	95	21	16
14	31	40	36	95	88	71	80	60	28	37	20	22
15	28	39	52	80	70	85	88	51	27	27	21	22
16	27	39	74	170	57	76	89	48	42	24	22	19
17	26	39	44	186	57	65	70	48	88	23	20	26
18	36	38	67	101	58	176	65	49	58	22	18	29
19	117	37	68	86	66	115	62	47	60	21	23	25
20	36	36	48	81	73	81	61	45	37	21	162	25
21	33	35	62	97	64	71	239	44	33	21	53	20
22	32	36	90	80	60	70	194	44	31	21	26	18
23	69	42	66	e75	56	217	97	43	33	21	22	18
24	141	44	235	72	54	155	108	42	33	20	21	19
25	44	38	87	e68	55	96	130	41	29	20	21	108
26	38	37	60	e66	55	82	83	40	28	29	20	56
27	36	36	52	65	53	99	74	39	26	27	20	28
28	36	36	60	65	52	89	70	38	26	22	20	22
29	35	37	68	64	---	80	67	37	25	21	19	21
30	34	35	244	65	---	118	68	36	24	23	19	20
31	35	---	285	84	---	93	---	35	---	21	18	---
TOTAL	1193	1308	2618	3257	1744	2984	2534	1677	1035	897	933	732
MEAN	38.5	43.6	84.5	105	62.3	96.3	84.5	54.1	34.5	28.9	30.1	24.4
MAX	141	162	365	651	88	245	239	119	88	95	162	108
MIN	26	34	34	54	52	52	57	35	24	20	17	16
CFSM	.73	.83	1.61	2.00	1.18	1.83	1.61	1.03	.66	.55	.57	.46
IN.	.84	.93	1.85	2.30	1.23	2.11	1.79	1.19	.73	.63	.66	.52

e Estimated

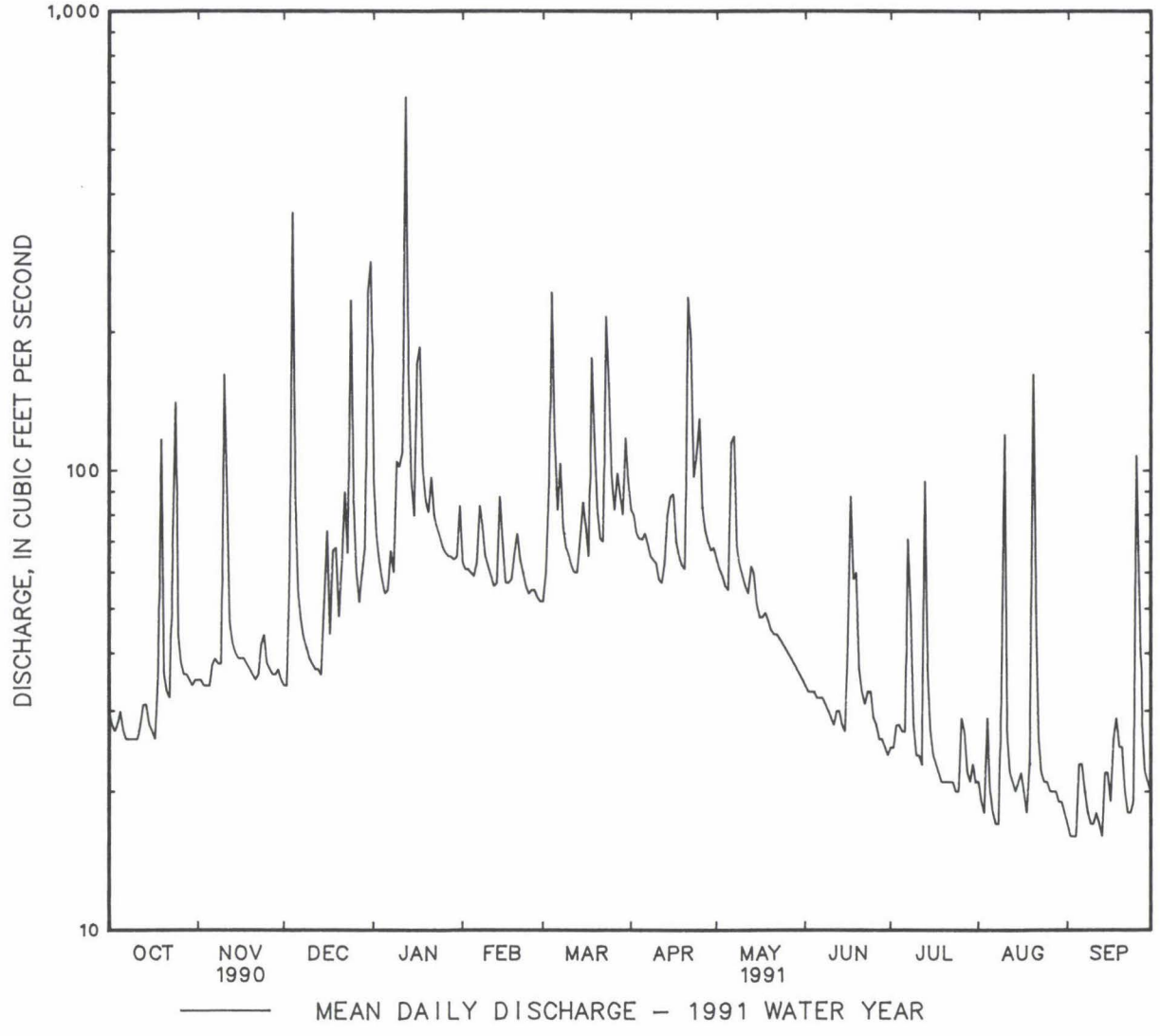
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1932 - 1991, BY WATER YEAR (WY)

MEAN	41.2	54.9	66.6	84.6	99.7	96.9	89.6	77.7	60.3	59.0	53.7	44.2
MAX	133	115	152	283	236	225	189	160	216	248	241	134
(WY)	1972	1973	1984	1979	1936	1936	1983	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 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1932 - 1991	
ANNUAL TOTAL	25761		20912			
ANNUAL MEAN	70.6		57.3		69.1	
HIGHEST ANNUAL MEAN					109	1972
LOWEST ANNUAL MEAN					35.4	1966
HIGHEST DAILY MEAN	658	May 29	651	Jan 12	3070	Jun 22 1972
LOWEST DAILY MEAN	26	(a)	16	(b)	4.8	(c)
ANNUAL SEVEN-DAY MINIMUM	26	Oct 6	17	Aug 29	4.9	Sep 7 1966
INSTANTANEOUS PEAK FLOW	2010	May 29	1360	Jan 12	d10600	Jul 5 1937
INSTANTANEOUS PEAK STAGE	6.01	May 29	5.37	Jan 12	f14.50	Jul 5 1937
INSTANTANEOUS LOW FLOW	26	(g)	14	(h)	i4.5	Jan 21 1955
ANNUAL RUNOFF (CFSM)	1.34		1.09		1.31	
ANNUAL RUNOFF (INCHES)	18.22		14.79		17.85	
10 PERCENT EXCEEDS	109		95		114	
50 PERCENT EXCEEDS	59		44		47	
90 PERCENT EXCEEDS	33		21		20	

a Oct. 7-11, 17.
b Sept. 2-4, 13.
c Sept. 8-10, 1966.
d From rating curve extended above 1,700 ft^3/s on basis of velocity-area and conveyance studies.
f From floodmarks.
g Oct. 3, 4, 6-12, 16-18.
h Aug. 8, 18, Sept. 12.
i 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 which were partly estimated (probes out of water for short periods during extreme low tides), which are fair. Interruption of the daily specific conductance and temperature record was caused by equipment malfunction. 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): Maximum, 19,900 microsiemens, Oct. 26, 1982; minimum, 117 microsiemens, July 21-23, 28, 1984.
WATER TEMPERATURE (water years 1982-85, 1987-91): Maximum, 33.0°C, Aug. 6, 1988; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 10,900 microsiemens, Mar. 16, 1982; minimum, 162 microsiemens, Mar. 11-13.
WATER TEMPERATURE: Maximum, 31.1°C, July 23; minimum, 0.0°C, Feb. 16, 17.

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	1420	1140	1250	984	785	879	555	484	525	342	e308	e326
2	1340	1240	1270	893	676	772	502	465	495	325	291	310
3	1400	1260	1300	875	604	708	3430	394	1110	361	e291	e341
4	1300	1120	1220	712	567	664	2510	1030	1520	343	326	338
5	1240	1080	1150	712	621	675	1050	465	770	343	309	326
6	1140	1040	1100	729	638	687	588	392	484	326	e309	e318
7	1120	999	1070	818	529	643	410	356	381	344	292	313
8	1100	939	1020	566	456	498	462	392	420	432	e309	e380
9	1080	898	955	1410	474	545	480	426	455	518	413	442
10	899	775	841	1160	e493	e745	497	390	476	535	466	497
11	817	755	789	780	456	669	443	355	409	863	e518	e597
12	866	736	820	654	327	423	443	301	360	3110	863	2350
13	829	773	811	636	e254	e417	336	283	312	2760	1430	1970
14	810	773	793	492	e363	e418	318	e265	e290	2580	1970	2410
15	810	773	794	418	272	337	317	282	291	2230	e969	e1720
16	882	736	797	309	272	287	299	247	274	2080	1770	1890
17	736	607	672	290	272	281	333	246	285	2010	1700	1870
18	625	294	468	1860	e272	e554	281	228	257	1700	953	1350
19	717	276	397	4110	1520	2150	245	210	221	1110	694	879
20	496	367	422	2660	1490	2070	280	245	262	764	556	608
21	385	312	351	1790	1330	1520	262	221	243	574	295	492
22	349	293	315	1450	1240	1340	255	221	242	591	312	516
23	348	275	299	1360	1150	1280	255	221	230	661	539	617
24	366	275	309	1150	790	992	256	221	226	593	e453	e529
25	403	275	331	878	e629	e763	375	e239	e323	471	e366	e425
26	2020	256	480	699	540	624	307	239	264	454	400	432
27	5610	1990	2710	664	592	634	256	239	248	436	366	405
28	4490	1400	2580	610	521	566	358	239	280	401	331	368
29	1730	1330	1480	522	451	488	429	358	400	367	313	339
30	1400	1080	1210	591	e485	e539	446	342	406	349	314	337
31	1110	803	971	---	---	---	342	e274	e310	367	297	324
MONTH	5610	256	935	4110	254	772	3430	210	412	3110	291	775

e Estimated

01495900 ELK RIVER NEAR TOWN POINT, MD--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	490	e297	e374	225	205	219	3090	2290	2860	2020	1900	1970
2	332	279	317	246	205	227	2560	2140	2370	2030	1750	1910
3	315	263	303	246	206	226	2230	1750	2030	1860	1450	1710
4	333	280	307	247	226	239	2040	1380	1780	1500	1350	1450
5	298	263	283	247	227	231	1550	540	1250	1370	1220	1300
6	280	263	270	227	206	220	1590	767	1070	1440	1150	1310
7	263	245	258	228	186	209	871	602	766	1380	1090	1200
8	280	245	265	250	186	222	850	519	633	1320	894	1100
9	299	264	277	221	201	214	830	373	611	1030	744	873
10	299	264	282	222	181	204	789	373	582	789	681	756
11	299	240	280	182	e162	e179	1080	311	661	904	574	715
12	360	220	258	182	162	171	851	519	678	772	420	626
13	340	261	283	224	162	190	707	415	515	688	444	583
14	261	241	253	6700	183	1100	2340	436	892	713	446	535
15	261	241	246	10700	5460	8020	4710	1520	2740	513	335	419
16	322	221	245	10900	7240	8630	3030	1720	2210	405	358	383
17	282	201	239	9040	6210	7290	2080	1790	1960	428	362	396
18	221	201	215	7770	5590	6340	3700	1870	2420	408	340	365
19	222	202	216	5870	4070	5140	4720	2810	3920	1840	341	1070
20	222	202	205	4700	2910	3780	4310	3180	3820	945	757	826
21	202	e202	e202	3810	2860	3400	4660	3580	4110	759	645	698
22	203	182	199	3470	2920	3180	4450	2520	3680	673	394	558
23	203	e183	e196	5900	3290	4470	2830	2020	2650	629	372	485
24	203	183	196	5900	3480	4760	2820	2200	2480	443	374	404
25	204	183	194	3500	2890	3240	2440	2180	2300	378	259	335
26	204	183	199	3770	3150	3380	2490	2050	2210	380	284	337
27	245	183	208	3550	2930	3250	2220	1630	1980	335	263	307
28	225	204	212	3180	1850	2560	1870	1610	1730	311	240	271
29	---	---	---	2360	1930	2100	2200	1720	1980	340	265	284
30	---	---	---	2590	2060	2280	2230	1910	2090	487	269	308
31	---	---	---	3330	2650	3050	---	---	---	319	246	291
MONTH	490	182	249	10900	162	2540	4720	311	1970	2030	240	767

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	421	271	312	4130	3770	3910	6290	5700	6030	e5530	e4940	e5120
2	376	274	317	3920	3750	3860	6070	5530	5830	e5910	e5460	e5770
3	453	301	368	3840	3750	3800	5590	5320	5450	6210	5180	5910
4	738	354	486	4740	3620	3920	5420	5070	5200	6630	6010	6410
5	5680	621	2790	4520	4020	4180	e5780	e4740	e5180	6530	5630	6260
6	4640	3340	3780	4670	4140	4300	e6320	e5780	e6140	---	---	---
7	3390	2840	3070	e4740	4170	e4400	6230	e4800	e5280	---	---	---
8	3080	2860	2950	4470	e4230	e4280	4960	4630	4860	---	---	---
9	3080	2850	2920	4380	e4210	e4320	4850	4400	4670	---	---	---
10	3050	2890	2960	4350	4130	4290	5830	4090	4860	---	---	---
11	2970	2840	2910	4240	4120	4180	4240	4000	4160	---	---	---
12	2850	2720	2790	4230	4090	4180	4170	4060	4120	---	---	---
13	2820	2670	2750	4230	3790	4120	4130	e3970	e4050	---	---	---
14	2860	2620	2750	4160	3860	4110	4130	e3910	e4070	---	---	---
15	4220	2650	3030	4570	4050	4190	4030	3830	3980	---	---	---
16	2960	2790	2890	6020	4100	4420	3910	3800	3850	---	---	---
17	3230	2780	2890	4480	4180	4330	e4060	e3740	e3860	---	---	---
18	5500	2860	3500	4180	3740	3900	e4800	e4060	e4580	---	---	---
19	6730	5020	5890	3790	3570	3650	4820	4660	4720	---	---	---
20	6560	5170	5620	3570	e3050	e3360	5060	4740	4900	---	---	---
21	5460	4670	4960	3400	e3160	e3280	5330	4910	5180	---	---	---
22	5140	4360	4690	3370	e3210	e3270	5200	4840	5120	---	---	---
23	5240	4500	4670	3340	3260	3290	5320	4860	5110	---	---	---
24	7090	5250	5870	3390	e3310	e3350	5320	4850	5130	---	---	---
25	5530	4660	5120	3440	3360	3400	5430	4920	5130	---	---	---
26	4970	4550	4830	3520	3390	3460	6210	4920	5450	---	---	---
27	4780	4360	4660	3490	3380	3460	5720	5210	5440	---	---	---
28	4580	3850	4360	4610	e3320	e3870	5740	5340	5590	6810	6470	6630
29	5740	3810	4190	5770	4070	4760	5540	5120	5390	6620	6220	6500
30	4050	3760	3890	7480	5560	6400	5420	4930	5200	6280	e6150	e6210
31	---	---	---	6650	6000	6340	5370	5100	5160	---	---	---
MONTH	7090	271	3410	7480	3050	4080	6320	3740	4960	---	---	---

e Estimated

01495900 ELK RIVER NEAR TOWN POINT, MD--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	20.9	18.6	19.8	12.6	11.3	11.9	7.6	6.0	6.8	4.4	2.7	3.5
2	19.9	18.7	19.4	13.2	11.3	12.2	7.9	6.5	7.2	4.8	3.6	4.2
3	20.3	17.1	18.9	13.4	11.4	12.5	8.2	5.7	6.9	4.5	3.9	4.2
4	19.6	18.9	19.3	13.3	11.7	12.6	8.7	7.0	8.1	3.9	2.5	3.2
5	19.9	17.6	18.8	13.8	11.9	12.8	7.0	4.7	5.7	3.6	2.2	3.0
6	20.7	18.5	19.6	13.1	11.7	12.4	5.8	4.3	5.1	4.1	3.6	3.8
7	21.2	19.0	20.1	12.3	10.9	11.6	6.5	5.2	5.8	4.0	.5	2.6
8	21.6	19.8	20.7	11.5	9.0	10.4	6.4	5.6	6.0	1.9	.3	.6
9	22.0	20.6	21.3	10.9	9.1	10.0	6.1	4.8	5.5	4.0	1.9	2.9
10	22.2	20.7	21.5	11.8	10.4	11.1	6.6	5.4	5.9	3.9	2.7	3.3
11	21.4	21.1	21.2	10.4	8.8	9.7	5.4	3.7	4.6	3.3	1.8	2.4
12	22.5	21.0	21.7	9.1	6.9	8.1	5.3	4.1	4.7	4.0	3.2	3.8
13	23.1	21.6	22.2	8.0	5.8	6.7	6.0	4.5	5.2	3.8	2.6	3.1
14	23.5	21.8	22.5	7.6	4.2	5.8	5.0	2.8	3.9	3.5	1.9	2.8
15	22.4	20.7	21.9	8.3	6.4	7.3	4.4	3.9	4.1	4.0	2.2	3.0
16	21.5	19.0	20.4	9.1	7.1	8.1	5.6	4.4	5.0	4.0	3.3	3.7
17	21.3	19.5	20.6	8.5	6.6	8.1	5.5	2.8	4.7	4.3	3.4	3.8
18	20.7	18.4	20.2	6.8	4.1	5.7	6.6	5.2	5.7	3.7	2.8	3.3
19	18.4	15.2	16.3	8.2	5.7	6.7	6.4	5.7	6.1	4.1	2.2	3.2
20	16.6	14.0	15.4	7.9	7.1	7.5	5.9	3.8	5.1	4.9	3.5	4.2
21	16.5	14.2	15.6	7.6	6.3	7.0	6.4	5.5	5.9	4.6	2.2	3.8
22	16.8	15.7	16.3	7.7	6.3	7.1	7.5	6.3	6.7	2.2	.2	.8
23	17.0	16.5	16.7	7.8	7.3	7.5	9.0	7.5	8.2	2.4	1.0	1.6
24	17.0	15.6	16.4	7.6	6.6	7.1	9.1	4.3	7.6	2.3	.6	1.9
25	16.2	14.8	15.6	8.1	6.9	7.5	4.3	3.0	3.6	.6	.2	.3
26	14.8	12.7	13.6	9.2	7.2	8.1	4.5	3.4	3.9	1.6	.2	.8
27	15.7	12.4	14.2	9.3	8.0	8.6	3.5	.3	1.9	1.9	.3	1.0
28	15.4	11.9	13.8	9.4	8.0	8.7	3.1	.3	1.3	3.1	1.4	2.1
29	12.0	10.3	11.1	9.6	6.9	8.7	4.3	3.4	3.9	3.1	1.3	2.1
30	12.2	10.2	11.1	7.1	4.6	6.0	6.5	4.3	5.2	3.4	2.1	2.7
31	12.4	11.0	11.7	---	---	---	6.4	3.6	5.0	3.1	1.3	2.4
MONTH	23.5	10.2	18.0	13.8	4.1	8.9	9.1	.3	5.3	4.9	.2	2.7
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	1.8	.2	1.0	6.4	3.7	5.0	10.9	9.2	10.0	18.5	15.9	17.1
2	3.1	1.3	2.0	7.8	5.7	6.6	10.6	8.6	9.6	18.2	16.6	17.3
3	4.1	1.9	2.9	9.0	6.7	7.8	11.9	7.4	9.9	18.2	15.7	16.8
4	5.1	.5	3.4	8.5	6.7	7.9	12.5	9.5	11.1	19.1	15.2	17.1
5	5.4	2.3	4.3	8.8	6.1	7.4	11.4	10.5	11.0	19.5	16.8	18.2
6	5.2	4.7	4.9	8.2	7.2	7.7	13.9	10.7	12.5	18.9	17.7	18.1
7	5.4	4.8	5.1	8.8	6.5	7.9	14.6	12.0	13.2	20.4	17.4	18.8
8	6.0	4.7	5.2	8.1	5.3	6.6	16.1	12.8	14.1	21.3	18.0	19.5
9	6.3	4.5	5.3	8.1	4.3	6.3	17.1	14.2	15.4	20.3	18.0	19.1
10	6.0	4.3	5.2	8.3	6.0	7.0	17.9	13.9	16.1	22.0	18.4	20.0
11	5.0	3.1	4.4	6.3	3.4	4.7	15.7	11.3	13.3	21.5	18.6	20.0
12	3.5	.8	2.2	6.6	2.6	4.5	16.0	10.7	13.4	22.0	18.9	20.4
13	4.3	2.7	3.5	5.6	4.4	4.9	14.3	12.2	13.2	23.6	20.5	22.0
14	5.4	4.1	4.7	5.1	3.8	4.3	12.8	10.4	11.6	23.7	21.5	22.5
15	4.8	1.7	3.6	5.9	4.7	5.2	12.5	11.8	12.2	25.4	21.9	23.4
16	2.2	.0	.5	7.1	4.6	5.7	14.7	11.9	13.2	24.9	22.4	23.6
17	1.8	.0	.8	8.0	5.3	6.4	16.2	13.3	14.4	24.1	23.0	23.5
18	2.3	.8	1.7	6.9	6.3	6.5	14.2	12.8	13.5	23.6	21.5	22.8
19	3.5	1.9	2.5	7.8	6.4	6.9	13.5	12.3	13.0	22.7	20.6	21.5
20	4.4	3.2	3.9	8.6	6.3	7.5	12.7	11.7	12.3	22.7	20.2	21.4
21	4.8	2.5	3.7	9.0	7.3	8.2	11.8	11.2	11.6	23.3	20.6	21.9
22	5.7	3.6	4.4	8.8	7.9	8.3	12.1	11.1	11.6	24.5	21.6	22.9
23	5.9	2.2	4.1	8.0	7.4	7.6	14.0	11.0	12.4	26.1	22.5	24.2
24	4.9	2.8	3.7	8.8	7.6	8.0	13.7	12.4	12.9	25.7	23.0	24.2
25	5.1	3.5	4.2	9.3	7.6	8.4	16.1	11.8	13.9	26.7	23.4	24.9
26	4.9	3.6	4.2	9.9	7.6	8.7	16.6	13.7	15.1	27.6	24.8	26.1
27	4.3	2.3	3.4	10.1	8.7	9.3	17.8	14.7	16.2	27.7	25.1	26.4
28	5.2	3.1	4.1	12.7	9.8	11.0	18.2	16.1	16.9	28.5	26.1	27.3
29	---	---	---	11.3	10.6	11.0	16.3	15.1	15.7	29.4	26.2	27.6
30	---	---	---	10.9	8.8	9.7	17.3	15.3	16.2	28.9	26.8	27.9
31	---	---	---	11.5	8.0	9.8	---	---	---	29.7	27.4	28.5
MONTH	6.3	.0	3.5	12.7	2.6	7.3	18.2	7.4	13.2	29.7	15.2	22.1

01495900 ELK RIVER NEAR TOWN POINT, MD--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	29.2	27.3	28.3	28.5	26.4	27.5	27.9	25.6	26.9	26.7	23.2	25.6
2	28.4	25.7	27.3	27.6	26.7	27.2	28.6	26.3	27.5	27.0	25.1	26.0
3	28.4	26.4	27.4	26.9	25.6	26.5	29.3	26.8	28.0	26.6	24.3	25.3
4	27.2	19.0	24.9	25.9	25.0	25.6	28.5	26.6	27.6	26.0	24.4	25.1
5	25.1	20.2	22.8	25.7	24.9	25.3	28.4	25.9	27.0	27.2	24.5	25.6
6	24.7	23.4	24.1	28.3	25.2	26.3	28.2	25.2	26.6	25.3	24.4	24.8
7	26.7	23.0	24.6	26.8	26.0	26.4	27.3	25.2	26.3	26.4	23.7	25.0
8	26.5	23.4	24.9	27.6	25.7	26.4	28.4	25.3	26.7	26.3	24.1	25.3
9	27.3	23.8	25.5	28.9	25.5	27.1	26.8	25.4	25.9	26.7	24.6	25.7
10	27.4	24.5	25.8	26.9	25.8	26.4	27.1	24.8	26.0	25.7	24.9	25.3
11	27.4	24.9	26.0	28.1	25.1	26.6	26.5	24.6	25.7	---	---	---
12	26.7	25.0	25.7	28.7	25.6	27.1	27.4	24.7	26.1	---	---	---
13	26.2	23.4	24.7	27.9	26.2	27.0	28.0	25.3	26.7	---	---	---
14	26.9	22.6	24.9	28.1	26.3	27.2	27.5	26.0	26.9	---	---	---
15	27.2	24.6	25.9	28.4	25.4	26.9	27.2	26.0	26.6	---	---	---
16	27.9	25.9	26.9	28.9	25.8	27.3	27.8	25.3	26.6	---	---	---
17	28.6	26.4	27.5	28.9	26.5	27.6	28.2	26.1	27.0	---	---	---
18	26.8	22.2	24.5	29.5	26.9	28.2	28.2	26.1	27.1	---	---	---
19	24.6	22.5	23.8	29.7	27.5	28.7	28.5	26.0	27.2	---	---	---
20	27.4	24.1	25.5	30.3	27.9	29.0	27.1	25.8	26.5	---	---	---
21	28.7	25.3	27.0	31.0	28.4	29.5	28.1	25.3	26.5	---	---	---
22	27.0	25.0	26.4	30.7	28.6	29.6	28.2	25.2	26.7	---	---	---
23	24.7	22.3	23.4	31.1	28.5	29.6	28.1	25.6	26.8	---	---	---
24	26.7	23.2	24.9	30.7	28.1	29.4	28.6	25.8	27.1	---	---	---
25	26.9	24.2	25.5	29.3	28.4	28.8	26.9	25.2	26.2	---	---	---
26	26.8	24.2	25.6	29.6	27.6	28.3	27.2	24.6	25.9	---	---	---
27	27.2	24.7	26.1	27.4	26.0	26.5	27.5	25.1	26.4	20.4	15.8	19.2
28	28.0	25.5	26.7	28.3	25.0	26.7	28.4	25.9	27.0	20.3	14.0	18.8
29	29.1	26.5	27.8	26.8	25.1	25.8	29.2	26.8	27.8	21.0	18.8	19.8
30	29.4	27.2	28.3	26.6	24.3	25.6	29.4	27.3	28.3	20.3	13.6	17.5
31	---	---	---	27.5	25.3	26.3	29.1	26.6	28.3	---	---	---
MONTH	29.4	19.0	25.8	31.1	24.3	27.3	29.4	24.6	26.8	---	---	---

01496200 PRINCIPIO CREEK NEAR PRINCIPIO FURNACE, MD

LOCATION.--Lat 39°37'34", long 76°02'27", Cecil County, Hydrologic Unit 02060002, on left bank, 55 ft downstream from bridge on Belvedere Road, 3.5 mi north of Principio Furnace, and 4.9 mi upstream from mouth.

DRAINAGE AREA.--9.03 mi^2.

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

GAGE.--Water-stage recorder. Elevation of gage is 215 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

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)
Oct. 18	1830	375	4.49	Jan. 12	0200	*631	*5.29
Dec. 4	0315	324	4.30				

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.8	5.5	5.0	17	9.9	7.8	13	8.8	4.7	2.9	2.4	1.4
2	4.4	5.5	5.1	14	10	9.1	12	8.2	4.6	3.9	2.2	1.4
3	4.2	5.5	22	12	10	13	11	7.9	4.5	3.6	2.0	1.4
4	4.7	5.4	104	11	9.8	42	11	7.6	4.5	3.5	2.1	1.4
5	5.0	5.3	14	10	9.7	15	11	7.5	4.4	3.5	2.1	3.4
6	4.5	6.0	9.9	11	10	12	11	19	4.5	3.6	2.0	1.9
7	4.3	5.5	8.5	15	14	17	10	12	4.3	7.6	2.0	1.9
8	4.3	5.4	8.0	13	11	10	9.6	8.6	4.2	5.0	1.8	1.7
9	4.5	5.5	7.7	15	10	9.5	9.6	8.1	4.0	3.7	9.2	1.6
10	4.4	60	7.2	20	9.6	9.4	9.1	7.9	3.8	3.3	3.7	1.6
11	5.0	12	7.0	32	9.2	8.6	8.4	7.4	3.7	3.1	2.3	1.6
12	6.5	8.2	6.9	176	8.6	8.3	8.3	7.3	4.1	2.8	1.9	1.5
13	6.4	7.2	7.0	27	9.2	8.5	9.8	7.4	3.9	17	1.8	1.5
14	5.9	6.5	6.4	17	16	11	12	7.2	3.5	5.5	1.8	4.2
15	5.1	6.4	18	16	10	14	16	6.8	3.5	3.6	2.0	2.2
16	4.6	6.2	12	51	8.9	10	12	6.5	4.9	3.2	1.8	1.8
17	4.6	6.5	8.5	32	8.5	9.0	9.7	6.7	7.1	3.0	1.6	1.9
18	49	6.0	16	17	9.1	43	9.2	7.5	6.1	2.7	1.5	2.1
19	11	5.9	14	15	10	16	8.7	7.1	5.0	2.6	3.6	2.4
20	5.9	5.7	9.4	14	11	11	8.7	6.7	4.7	2.6	8.5	2.9
21	5.4	5.6	22	24	9.2	10	31	6.5	4.2	2.4	3.3	2.1
22	5.3	5.7	18	14	8.9	10	27	6.0	4.1	3.4	2.1	1.9
23	41	7.4	15	e12	8.2	59	12	5.7	4.5	4.5	1.9	1.9
24	14	6.4	63	12	8.2	23	24	5.6	4.3	2.7	2.1	2.0
25	7.7	5.6	15	11	8.2	15	15	5.5	3.7	2.7	2.1	16
26	6.3	5.6	11	e11	8.1	13	11	5.3	3.4	3.1	1.8	7.1
27	6.0	5.5	10	11	8.1	22	10	5.2	3.3	3.2	1.8	2.9
28	5.9	5.5	13	11	8.0	14	9.6	5.1	3.2	2.7	1.7	2.6
29	5.6	5.4	14	11	---	13	9.3	5.0	3.0	2.8	1.6	2.2
30	5.5	5.1	94	12	---	23	9.4	5.0	2.9	2.9	1.6	2.0
31	5.6	---	44	13	---	14	---	4.9	---	2.7	1.5	---
TOTAL	257.4	238.0	615.6	677	271.4	500.2	368.4	226.0	126.6	119.8	77.8	80.5
MEAN	8.30	7.93	19.9	21.8	9.69	16.1	12.3	7.29	4.22	3.86	2.51	2.68
MAX	49	60	104	176	16	59	31	19	7.1	17	9.2	16
MIN	4.2	5.1	5.0	10	8.0	7.8	8.3	4.9	2.9	2.4	1.5	1.4
CFSM	.92	.88	2.20	2.42	1.07	1.79	1.36	.81	.47	.43	.28	.30
IN.	1.06	.98	2.54	2.79	1.12	2.06	1.52	.93	.52	.49	.32	.33

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1967 - 1991, BY WATER YEAR (WY)

MEAN	7.11	9.75	15.2	17.0	17.0	16.4	15.6	14.4	12.0	9.13	8.54	7.17
MAX	18.9	24.9	35.5	48.8	35.4	43.7	38.3	34.9	47.6	49.4	44.9	21.0
(WY)	1972	1973	1984	1978	1979	1978	1983	1989	1972	1975	1967	1979
MIN	2.74	3.41	5.03	4.66	8.38	5.65	5.94	5.06	2.96	2.03	2.28	1.17
(WY)	1987	1982	1981	1981	1980	1981	1985	1986	1986	1986	1986	1986

01496200 PRINCIPIO CREEK NEAR PRINCIPIO FURNACE, MD--Continued

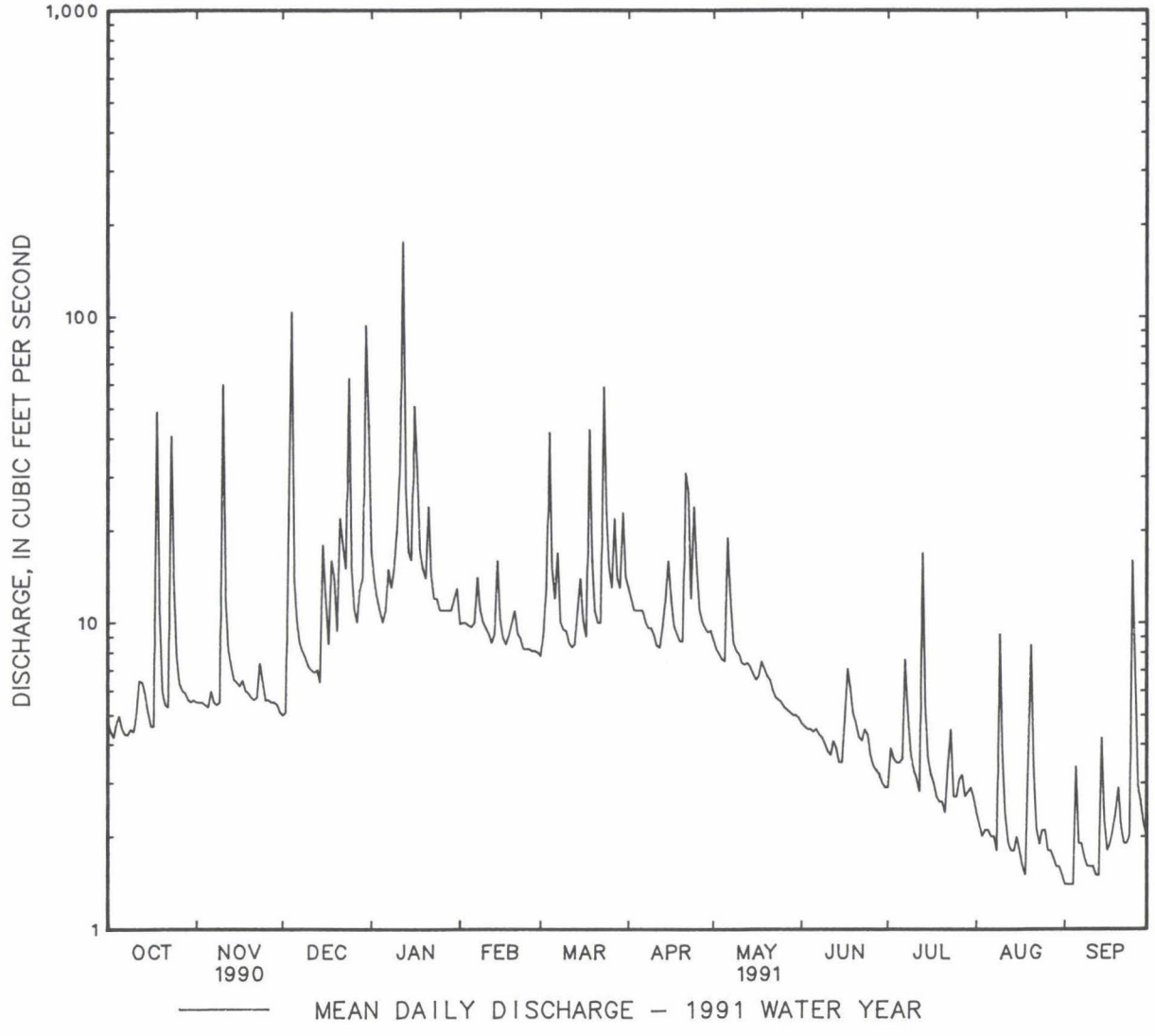
SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1967 - 1991	
ANNUAL TOTAL	4937.1		3558.7			
ANNUAL MEAN	13.5		9.75		12.3	
HIGHEST ANNUAL MEAN					20.8	1975
LOWEST ANNUAL MEAN					5.66	1981
HIGHEST DAILY MEAN	167	May 29	176	Jan 12	933	Jun 22 1972
LOWEST DAILY MEAN	4.2	Oct 3	1.4	(a)	.86	Sep 15 1986
ANNUAL SEVEN-DAY MINIMUM	4.5	Oct 2	1.5	Aug 29	.91	Sep 12 1986
INSTANTANEOUS PEAK FLOW	660	May 29	631	Jan 12	b7060	Aug 4 1969
INSTANTANEOUS PEAK STAGE	5.37	May 29	5.29	Jan 12	9.26	Aug 4 1969
INSTANTANEOUS LOW FLOW	4.2	(c)	1.4	(d)	.79	Sep 16 1986
ANNUAL RUNOFF (CFSM)	1.50		1.08		1.37	
ANNUAL RUNOFF (INCHES)	20.34		14.66		18.55	
10 PERCENT EXCEEDS	23		16		19	
50 PERCENT EXCEEDS	8.9		6.7		7.4	
90 PERCENT EXCEEDS	5.1		2.1		3.0	

a Sept. 1, 2, 3, 4.

b From rating curve extended above 600 ft^3/s on basis of slope-area measurements at gage heights 8.89 and 9.26 ft.

c Oct. 2, 3, 4, 7, 8.

d Sept. 1-4, 13, 14.



01578310 SUSQUEHANNA RIVER AT CONOWINGO, MD

LOCATION.--Lat 39°39'31", long 76°10'28", Harford County, Hydrologic Unit 02050306, at downstream side of Conowingo Dam, 1.0 mi southwest of Conowingo, and 9.9 mi upstream from mouth.

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

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Datum of gage is 5.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharge. 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, 262,000 ft^3/s, October 26, gage height, 23.03 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN DAILY VALUES

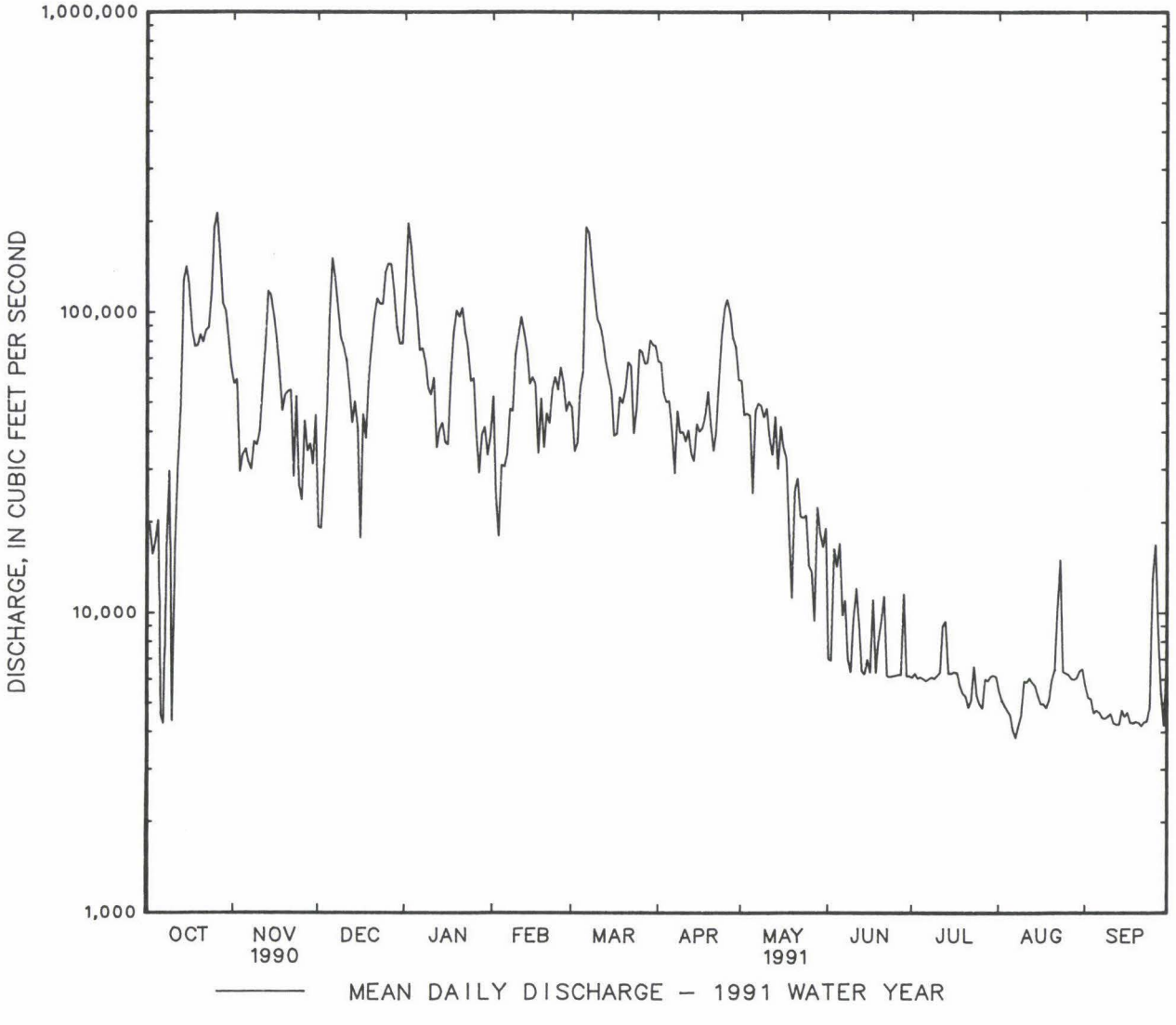
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19800	57600	19300	120000	52800	48300	68400	59200	7010	6080	5460	5660
2	19600	59800	19100	199000	24400	34300	67700	45500	6920	6290	5100	5210
3	15600	29400	29900	164000	18000	36900	53600	46100	16400	6030	4900	5160
4	17200	33800	47400	125000	31200	57000	50200	45500	14200	6100	4710	4610
5	20400	34900	100000	102000	30800	63300	50700	24900	17100	6030	4560	4730
6	4550	31700	152000	74700	33700	193000	40400	47100	9860	5930	4050	4660
7	4270	30000	129000	76200	47900	184000	29300	49900	11000	6010	3810	4470
8	16300	37300	102000	67900	46900	142000	47100	49000	6970	6100	4210	4440
9	29800	36100	81100	55600	73100	114000	39700	44600	6330	6040	4550	4520
10	4350	40500	76900	53100	84900	94300	40100	48000	9580	6180	5930	4610
11	16600	56800	69400	60700	97200	90700	37300	37800	12100	6340	5880	4300
12	31800	77900	56300	35300	85900	81400	40700	33400	9100	9060	6070	4250
13	47900	118000	42900	41100	74600	68200	33600	45100	6390	9370	5860	4250
14	129000	114000	50700	43100	57500	61100	32000	30100	6230	6310	5710	4750
15	143000	97200	41500	37000	60800	55200	42700	41900	7000	6280	5270	4510
16	122000	80400	17700	36300	57500	38800	40100	34900	6330	6350	4970	4660
17	87100	64000	46000	62500	33900	39500	41300	32700	11100	6320	4960	4310
18	77400	47000	38100	86600	51900	52400	45100	18100	6300	5730	4820	4300
19	77800	53200	61000	102000	35300	49900	54600	11200	8110	5390	5110	4340
20	84700	54600	78700	96800	46200	55900	42800	25700	9280	5280	6000	4310
21	79900	55100	98400	104000	42600	68400	34500	28100	11400	4830	6450	4210
22	87600	28300	112000	86000	55900	66200	40700	20900	6160	5120	10400	4330
23	89400	52200	107000	76700	61000	39500	60800	20700	6130	6650	15100	4360
24	117000	26600	107000	58800	55500	47800	85700	21100	6160	5280	6340	4860
25	192000	23700	137000	60200	65400	75500	104000	14300	6180	4960	6290	13000
26	215000	43700	146000	38700	58300	74000	111000	13700	6220	4800	6210	16900
27	157000	34400	145000	29100	46700	67000	100000	9330	6230	6040	6020	8550
28	107000	36600	117000	39500	50500	67600	82000	22500	11600	5940	5990	5370
29	101000	31100	89000	41700	---	81400	76800	18400	6120	6150	6070	4210
30	81100	45700	78600	33400	---	78000	59500	16500	6160	6200	6420	7080
31	65100	---	78800	39000	---	77500	---	19200	---	6130	6510	---
TOTAL	2261270	1531600	2474800	2246000	1480400	2303100	1652400	975430	259670	189320	183730	164920
MEAN	72940	51050	79830	72450	52870	74290	55080	31470	8656	6107	5927	5497
MAX	215000	118000	152000	199000	97200	193000	111000	59200	17100	9370	15100	16900
MIN	4270	23700	17700	29100	18000	34300	29300	9330	6120	4800	3810	4210
CFSM	2.69	1.88	2.95	2.67	1.95	2.74	2.03	1.16	.32	.23	.22	.20
IN.	3.10	2.10	3.40	3.08	2.03	3.16	2.27	1.34	.36	.26	.25	.23

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1968 - 1991, BY WATER YEAR (WY)

MEAN	24880	35910	49670	38760	55880	72190	74740	50170	38890	20790	13150	16440
MAX	81800	73170	104700	101200	115800	142800	138700	108200	208000	59050	28820	88450
(WY)	1977	1978	1973	1979	1984	1979	1970	1989	1972	1972	1984	1975
MIN	5557	9803	14630	7164	13050	28320	36670	23900	8656	6107	5927	4737
(WY)	1970	1981	1990	1981	1980	1969	1988	1982	1991	1991	1991	1980

01578310 SUSQUEHANNA RIVER AT CONOWINGO, MD--Continued

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1968 - 1991	
ANNUAL TOTAL	17633450		15722640			
ANNUAL MEAN	48310		43080		40840	
HIGHEST ANNUAL MEAN					61090	1978
LOWEST ANNUAL MEAN					26570	1981
HIGHEST DAILY MEAN	215000	Oct 26	215000	Oct 26	1120000	Jun 24 1972
LOWEST DAILY MEAN	4270	Oct 7	3810	Aug 7	269	Jul 13 1969
ANNUAL SEVEN-DAY MINIMUM	13300	Sep 7	4310	Sep 17	1810	Sep 24 1980
INSTANTANEOUS PEAK FLOW	262000	Oct 26	262000	Oct 26	1130000	Jun 24 1972
INSTANTANEOUS PEAK STAGE	23.03	Oct 26	23.03	Oct 26	36.83	Jun 24 1972
INSTANTANEOUS LOW FLOW	886	Jan 13	857	Feb 3	144	Mar 2 1969
ANNUAL RUNOFF (CFSM)	1.78		1.59		1.51	
ANNUAL RUNOFF (INCHES)	24.21		21.58		20.47	
10 PERCENT EXCEEDS	95800		99000		85400	
50 PERCENT EXCEEDS	36500		36100		27900	
90 PERCENT EXCEEDS	15200		4960		5690	



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 current year.
WATER TEMPERATURE: June 1979 to April 1981, July 1984 to current year.
SUSPENDED-SEDIMENT DISCHARGE: October 1979 to April 1981, July 1984 to current year.
REMARKS.--Water temperatures are measured daily in field by local observer at time of sampling. Missing water temperature and conductance data during periods when observer failed to take samples.
COOPERATION.--Some chemical data were collected by the U. S. Geological Survey and analyzed by the Pennsylvania Department of Environmental Resources Laboratory **(PADER)**.
EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE (water years 1980, 1985-89, 1991): 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): 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, 1991.
SEDIMENT LOAD: Maximum daily, 197,000 tons, Mar. 16, 17, 1986; minimum daily, 4.4 tons, Feb. 10, 1985.
EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 475 microsiemens, Aug. 31, 1991; minimum daily, 100 microsiemens, May 1, 1991.
WATER TEMPERATURE: Maximum daily, 30.0°C, July 28-31, Aug. 1, 2, 6; minimum daily, 2.0°C, Jan. 8.
SEDIMENT CONCENTRATION: Maximum daily mean, 150 mg/L, Oct. 28; minimum daily mean, 1 mg/L, May 27, 28, 30.
SEDIMENT LOAD: Maximum daily, 43,300 tons, Oct. 28; minimum daily, 25 tons, May 27.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (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 1990												
15...	1300	174000	153	--	22.0	23.0	--	--	--	--	--	--
16...	1100	125000	162	6.8	18.0	19.0	771	--	8.9	93	--	--
17...	1100	78300	185	6.7	18.0	19.0	772	--	9.3	97	--	--
19...	1120	77200	175	6.4	16.0	15.0	765	--	9.2	93	--	--
26...	1130	257000	136	6.5	13.0	12.0	760	38	11.2	107	--	--
NOV												
15...	1210	97600	175	6.9	7.0	7.0	773	--	13.5	110	--	--
DEC												
06...	1135	164000	220	6.8	7.0	17.0	765	--	14.0	115	--	--
07...	1140	131000	155	6.7	6.0	14.0	768	--	13.6	108	--	--
12...	1130	79400	175	6.8	6.0	18.0	768	--	13.2	105	--	--
#12...	1135	79400	175	6.8	6.0	18.0	768	--	13.2	105	--	--
26...	1200	147000	163	6.7	6.0	13.0	778	--	12.9	101	--	--
27...	1200	143000	148	7.2	5.0	2.0	786	--	13.3	101	--	--
JAN 1991												
02...	1230	169000	192	7.4	4.0	10.0	773	--	14.3	108	--	--
#02...	1235	170000	192	7.4	4.0	10.0	773	--	14.3	108	--	--
03...	1110	181000	161	6.8	4.0	12.0	774	--	14.2	107	--	--
15...	1100	55300	260	6.9	3.0	12.0	771	3.6	14.0	103	210	320
FEB												
12...	1130	81000	220	6.8	5.0	5.0	769	--	12.8	99	--	--
#12...	1135	81000	220	6.8	5.0	5.0	769	--	12.8	99	--	--
MAR												
06...	1200	233000	215	7.1	8.0	18.0	756	--	12.2	104	--	--
07...	1130	201000	150	--	8.0	15.0	752	--	12.3	105	--	--
21...	1100	72500	205	6.7	8.0	15.0	766	8.0	12.8	108	--	--
APR												
10...	1230	67400	201	6.9	14.0	23.0	759	--	11.2	109	--	--
24...	1030	73500	234	7.2	12.0	15.0	758	--	12.5	117	--	--
#24...	1035	73500	234	7.2	12.0	15.0	758	--	12.5	117	--	--
MAY												
08...	1000	66300	194	--	18.0	23.0	773	3.2	12.0	125	49	11
22...	1120	9700	210	7.2	23.0	25.0	768	--	9.3	108	--	--
JUN												
05...	1010	9900	254	7.5	28.0	28.0	765	--	4.1	52	--	--
#05...	1015	9900	254	7.5	28.0	28.0	765	--	4.1	52	--	--
*19...	1015	5400	260	7.3	27.0	22.0	766	--	3.4	43	--	--
*19...	1020	5400	260	7.3	27.0	22.0	766	--	3.4	43	--	--
JUL												
10...	1025	6200	332	6.9	29.0	28.0	762	2.0	7.2	94	--	--
*24...	0930	5900	370	--	29.0	27.0	761	--	5.7	74	--	--
*24...	0931	5900	370	--	29.0	27.0	761	--	5.7	74	--	--
#24...	0936	5900	370	--	29.0	27.0	761	--	5.7	--	--	--
#24...	0937	5900	370	--	29.0	27.0	761	--	5.7	--	--	--
AUG												
21...	1035	6500	395	7.4	28.0	26.0	763	--	5.5	70	--	--
SEP												
*11...	1030	4400	390	7.2	27.0	27.0	763	0.60	5.6	70	--	--
*11...	1035	4400	390	7.4	27.0	27.0	763	--	5.6	70	--	--

\# Samples analyzed by PADER.
* Duplicate samples collected for quality assurance purposes.

01578310 SUSQUEHANNA RIVER AT CONOWINGO, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

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 WH TOT FET FIELD MG/L AS CACO3	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)
OCT 1990											
15...	--	--	--	--	--	--	--	--	--	--	4.9
16...	--	--	--	--	28	--	--	--	--	--	5.0
17...	--	--	--	--	35	--	--	--	--	--	4.5
19...	--	--	--	--	36	--	--	--	--	--	5.2
26...	14	3.6	3.6	2.0	31	29	35	20	5.9	<0.10	5.5
NOV											
15...	--	--	--	--	37	--	--	--	--	--	4.7
DEC											
06...	--	--	--	--	47	--	--	--	--	--	3.8
07...	--	--	--	--	33	--	--	--	--	--	4.3
12...	--	--	--	--	35	--	--	--	--	--	5.0
12...	--	--	--	--	35	--	--	--	--	--	--
26...	--	--	--	--	38	--	--	--	--	--	5.5
27...	--	--	--	--	32	--	--	--	--	--	5.2
JAN 1991											
02...	--	--	--	--	51	--	--	--	--	--	5.5
02...	--	--	--	--	51	--	--	--	--	--	--
03...	--	--	--	--	28	--	--	--	--	--	4.9
15...	24	6.7	8.3	1.5	47	47	57	35	13	<0.10	5.9
FEB											
12...	--	--	--	--	35	--	--	--	--	--	4.5
12...	--	--	--	--	35	--	--	--	--	--	--
MAR											
06...	--	--	--	--	45	--	--	--	--	--	3.3
07...	--	--	--	--	--	--	--	--	--	--	3.8
21...	22	6.0	7.4	1.3	44	43	52	32	11	<0.10	4.3
APR											
10...	--	--	--	--	43	--	--	--	--	--	2.4
24...	--	--	--	--	49	--	--	--	--	--	2.0
24...	--	--	--	--	49	--	--	--	--	--	--
MAY											
08...	20	5.5	6.6	1.5	--	--	--	32	17	<0.10	0.79
22...	--	--	--	--	42	--	--	--	--	--	--
JUN											
05...	--	--	--	--	54	--	--	--	--	--	1.8
05...	--	--	--	--	54	--	--	--	--	--	--
19...	--	--	--	--	49	--	--	--	--	--	2.3
19...	--	--	--	--	49	--	--	--	--	--	2.1
JUL											
10...	31	10	15	2.6	51	34	41	60	31	0.10	1.9
24...	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--
AUG											
21...	--	--	--	--	60	--	--	--	--	--	1.7
SEP											
11...	35	13	20	3.4	59	51	62	91	31	0.20	1.9
11...	--	--	--	--	59	51	--	--	--	--	--

01578310 SUSQUEHANNA RIVER AT CONOWINGO, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	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 TOTAL (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)
OCT 1990												
15...	--	--	1.19	--	0.010	--	1.20	--	0.050	0.70	0.50	0.050
16...	--	--	1.29	--	0.009	--	1.30	--	0.040	0.50	0.60	0.060
17...	--	--	1.19	--	0.009	--	1.20	--	0.050	0.40	0.50	0.070
19...	--	--	1.09	--	0.010	--	1.10	--	0.060	0.60	0.60	0.070
26...	83	79	1.19	0.030	0.007	1.30	1.20	0.070	0.050	0.60	0.40	0.070
NOV												
15...	--	--	1.09	0.010	0.010	--	1.10	--	0.070	0.40	0.50	0.030
DEC												
06...	--	--	1.19	0.030	0.011	--	1.20	--	0.080	0.50	0.50	0.080
07...	--	--	1.49	0.010	0.012	--	1.50	--	0.060	0.40	<0.20	0.090
12...	--	--	1.29	0.020	0.007	--	1.30	--	0.070	0.40	0.20	0.030
12...	--	--	--	--	--	1.30	1.30	0.060	0.060	0.38	0.23	0.040
26...	--	--	1.39	0.010	0.008	--	1.40	--	0.070	0.50	0.30	0.080
27...	--	--	1.39	<0.010	0.006	--	1.40	--	0.080	0.40	0.40	0.010
JAN 1991												
02...	--	--	1.40	<0.010	0.005	--	1.40	--	0.100	0.50	0.40	0.040
02...	--	--	--	--	--	1.45	1.45	0.180	0.180	1.3	1.2	0.060
03...	--	--	1.20	<0.010	0.004	--	1.20	--	0.090	0.40	0.40	0.050
15...	129	132	1.99	0.020	0.010	2.10	2.00	0.110	0.110	0.50	0.30	<0.010
FEB												
12...	--	--	1.29	--	0.010	--	1.30	--	0.060	0.30	0.20	0.070
12...	--	--	--	--	--	1.39	1.39	0.080	0.070	0.32	0.30	0.050
MAR												
06...	--	--	1.29	--	0.012	--	1.30	--	0.040	0.70	0.20	0.050
07...	--	--	0.990	--	0.010	--	1.00	--	0.080	0.30	0.40	0.030
21...	110	118	1.49	0.020	0.013	1.50	1.50	0.060	0.050	0.30	0.20	0.030
APR												
10...	--	--	1.18	--	0.017	--	1.20	--	0.040	0.40	0.20	0.020
24...	--	--	1.18	--	0.020	--	1.20	--	0.020	0.50	<0.20	0.050
24...	--	--	--	--	--	1.19	1.19	0.300	0.020	0.34	<0.20	0.060
MAY												
08...	87	110	0.783	0.020	0.007	0.830	0.790	0.020	0.020	0.50	0.20	0.040
22...	--	--	--	--	--	--	--	--	--	<0.20	--	<0.010
JUN												
05...	--	--	0.753	--	0.027	--	0.780	--	0.270	1.4	0.60	0.030
05...	--	--	--	--	--	0.750	0.750	0.260	0.260	0.60	0.60	0.040
19...	--	--	0.751	--	0.189	--	0.940	--	0.110	0.50	0.40	0.030
19...	--	--	0.751	--	0.189	--	0.940	--	0.110	0.50	0.40	0.030
JUL												
10...	178	205	0.836	0.120	0.104	0.970	0.940	0.060	0.040	0.30	0.40	0.020
24...	--	--	0.851	--	0.149	--	1.00	--	0.060	0.90	0.40	0.030
24...	--	--	0.852	--	0.148	--	1.00	--	0.060	0.70	0.40	0.030
24...	--	--	--	--	--	1.10	1.10	0.130	0.130	0.50	0.46	0.040
24...	--	--	--	--	--	1.10	1.10	0.120	0.150	0.54	0.54	0.040
AUG												
21...	--	--	0.712	--	0.108	--	0.820	--	0.060	0.50	0.40	0.050
SEP												
11...	221	278	0.758	0.110	0.102	0.890	0.860	0.100	0.110	0.50	--	0.030
11...	--	--	--	--	--	--	--	--	--	--	0.50	--

01578310 SUSQUEHANNA RIVER AT CONOWINGO, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO TOTAL (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)
OCT 1990												
15...	0.019	--	0.012	50	<1	--	--	--	--	<1	--	--
16...	0.022	--	0.011	30	<1	--	--	--	--	<1	--	1
17...	0.016	--	0.010	20	<1	--	--	--	--	<1	--	2
19...	0.019	--	0.011	30	--	--	--	--	--	--	--	--
26...	0.015	0.050	0.014	50	--	1	--	25	<0.5	--	<1.0	--
NOV												
15...	0.018	--	0.008	50	<1	--	--	--	--	<1	--	3
DEC												
06...	0.029	--	0.022	50	<1	--	--	--	--	<1	--	3
07...	0.020	--	0.009	30	<1	--	--	--	--	<1	--	2
12...	--	--	0.004	30	<1	--	--	--	--	<1	--	1
12...	0.030	--	0.002	--	--	--	--	--	--	--	--	--
26...	0.016	--	0.011	70	<1	--	--	--	--	<1	--	3
27...	0.010	--	0.008	60	<1	--	--	--	--	<1	--	2
JAN 1991												
02...	0.009	--	0.001	20	<1	--	--	--	--	<1	--	2
02...	0.030	--	0.002	--	--	--	--	--	--	--	--	--
03...	0.004	--	<0.001	40	<1	--	--	--	--	<1	--	1
15...	0.013	0.020	0.009	20	<1	--	--	--	--	<1	--	8
FEB												
12...	0.003	--	<0.001	20	--	--	--	--	--	--	--	--
12...	0.030	--	0.003	--	--	--	--	--	--	--	--	--
MAR												
06...	0.005	--	<0.001	40	<1	--	--	--	--	<1	--	4
07...	0.006	--	0.005	20	<1	--	--	--	--	<1	--	<1
21...	0.014	<0.010	0.008	20	--	<1	--	29	<0.5	--	1.0	--
APR												
10...	0.002	--	<0.001	60	--	--	--	--	--	--	--	--
24...	0.024	--	0.001	30	<1	--	<100	--	--	<1	--	2
24...	0.020	--	0.010	--	--	--	--	--	--	--	--	--
MAY												
08...	0.006	<0.010	0.001	70	<1	<1	<100	23	<0.5	<1	<1.0	6
22...	--	--	--	--	<1	--	<100	--	--	<1	--	<1
JUN												
05...	0.011	--	0.002	<20	<1	--	<100	--	--	<1	--	3
05...	0.020	--	0.005	--	--	--	--	--	--	--	--	--
19...	0.003	--	<0.001	<10	<1	--	100	--	--	<1	--	2
19...	0.003	--	<0.001	<10	<1	--	<100	--	--	<1	--	3
JUL												
10...	0.001	<0.010	<0.001	<10	<1	--	<100	--	--	<1	--	5
24...	0.005	--	<0.001	--	--	--	--	--	--	--	--	--
24...	0.013	--	<0.001	--	--	--	--	--	--	--	--	--
24...	0.020	--	0.002	--	--	--	--	--	--	--	--	--
24...	0.020	--	0.002	--	--	--	--	--	--	--	--	--
AUG												
21...	0.010	--	0.004	20	<1	--	100	--	--	<1	--	3
SEP												
11...	0.006	0.020	<0.001	<10	<1	<1	100	36	0.8	<1	<1.0	1
11...	--	--	--	<10	<1	--	<100	--	--	<1	--	<1

01578310 SUSQUEHANNA RIVER AT CONOWINGO, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)	LITHIUM TOTAL RECOVERABLE (UG/L AS LI)	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)
OCT 1990												
15...	2	--	8	3	--	--	5	<1	--	--	--	--
16...	<1	--	4	2	--	--	3	<1	--	--	--	--
17...	<1	--	4	2	--	--	3	<1	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--	--
26...	<1	<3	--	1	--	67	--	<1	--	<4	--	98
NOV												
15...	<1	--	4	2	--	--	2	<1	--	--	--	--
DEC												
06...	1	--	5	3	--	--	4	1	--	--	--	--
07...	1	--	5	2	--	--	3	1	--	--	--	--
12...	<1	--	5	2	--	--	3	1	--	--	--	--
12...	--	--	--	--	--	--	--	--	--	--	--	--
26...	<1	--	4	3	--	--	3	<1	--	--	--	--
27...	<1	--	2	2	--	--	5	<1	--	--	--	--
JAN 1991												
02...	1	--	4	2	--	--	3	1	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--	--
03...	<1	--	7	2	--	--	3	<1	--	--	--	--
15...	<1	--	6	1	--	--	2	1	--	--	--	--
FEB												
12...	--	--	--	--	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--	--	--	--	--
MAR												
06...	1	--	4	1	--	--	3	<1	--	--	--	--
07...	<1	--	5	1	--	--	5	1	--	--	--	--
21...	<1	<3	--	1	--	60	--	<1	--	4	--	170
APR												
10...	--	--	--	--	--	--	--	--	--	--	--	--
24...	<1	--	3	1	690	--	4	1	<10	--	150	--
24...	--	--	--	--	--	--	--	--	--	--	--	--
MAY												
08...	<1	<3	3	1	530	33	3	<1	<10	4	180	11
22...	--	--	3	--	220	--	2	--	<10	--	130	--
JUN												
05...	<1	--	4	2	290	--	5	<1	<10	--	190	--
05...	--	--	--	--	--	--	--	--	--	--	--	--
19...	<1	--	3	2	180	--	2	<1	<10	--	120	--
19...	<1	--	6	2	210	--	13	<1	<10	--	130	--
JUL												
10...	<1	--	5	2	260	--	17	<1	<10	--	110	--
24...	--	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--	--
AUG												
21...	<1	--	3	3	320	--	2	2	<10	--	100	--
SEP												
11...	<1	<3	5	2	160	11	<1	<1	<10	10	110	39
11...	1	--	6	2	180	--	<1	<1	<10	--	110	--

01578310 SUSQUEHANNA RIVER AT CONOWINGO, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	MERCURY DIS-SOLVED (UG/L AS HG)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, TOTAL RECOV-ERABLE (UG/L AS SR)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)
OCT 1990												
15...	--	<0.10	--	--	5	<1	--	<1	--	--	--	--
16...	--	<0.10	--	8	3	<1	--	<1	--	--	--	--
17...	--	<0.10	--	7	1	<1	--	<1	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--	--
26...	<0.1	--	<10	--	2	--	<1	--	<1.0	--	74	<6
NOV												
15...	--	<0.10	--	6	4	<1	--	<1	--	--	--	--
DEC												
06...	--	<0.10	--	7	4	<1	--	<1	--	--	--	--
07...	--	<0.10	--	6	4	<1	--	<1	--	--	--	--
12...	--	<0.10	--	7	3	<1	--	<1	--	--	--	--
12...	--	--	--	--	--	--	--	--	--	--	--	--
26...	--	<0.10	--	8	4	<1	--	<1	--	--	--	--
27...	--	<0.10	--	6	4	<1	--	<1	--	--	--	--
JAN 1991												
02...	--	<0.10	--	7	5	<1	--	<1	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--	--
03...	--	1.0	--	7	4	<1	--	<1	--	--	--	--
15...	--	0.10	--	12	5	<1	--	<1	--	--	--	--
FEB												
12...	--	--	--	--	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--	--	--	--	--
MAR												
06...	--	<0.10	--	8	4	<1	--	<1	--	--	--	--
07...	--	<0.10	--	8	3	<1	--	<1	--	--	--	--
21...	<0.1	--	<10	--	3	--	<1	--	<1.0	--	100	<6
APR												
10...	--	--	--	--	--	--	--	--	--	--	--	--
24...	--	<0.10	--	6	2	<1	--	<1	--	120	--	--
24...	--	--	--	--	--	--	--	--	--	--	--	--
MAY												
08...	0.2	<0.10	<10	3	2	<1	<1	<1	<1.0	100	97	<6
22...	--	<0.10	--	4	--	<1	--	<1	--	120	--	--
JUN												
05...	--	0.10	--	4	1	<1	--	<1	--	150	--	--
05...	--	--	--	--	--	--	--	--	--	--	--	--
19...	--	<0.10	--	2	2	<1	--	<1	--	140	--	--
19...	--	<0.10	--	8	1	<1	--	<1	--	140	--	--
JUL												
10...	--	<0.10	--	10	<1	<1	--	<1	--	190	--	--
24...	--	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--	--
AUG												
21...	--	0.20	--	3	2	<1	--	<1	--	220	--	--
SEP												
11...	<0.1	0.10	<10	2	2	<1	<1	<1	<1.0	220	240	<6
11...	--	<0.10	--	3	2	<1	--	<1	--	240	--	--

01578310 SUSQUEHANNA RIVER AT CONOWINGO, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90)	URANIUM NATURAL DIS-SOLVED (UG/L AS U)	CARBON, ORGANIC TOTAL (MG/L AS C)	HARD-NESS TOTAL (MG/L AS CACO3)
OCT 1990												
15...	--	<10	--	--	--	--	--	--	--	--	5.7	--
16...	20	<10	--	--	--	--	--	--	--	--	5.4	--
17...	<10	<10	--	--	--	--	--	--	--	--	4.4	--
19...	--	--	--	--	--	--	--	--	--	--	4.9	--
26...	--	5	--	--	--	--	--	--	--	--	7.0	50
NOV												
15...	<10	<10	--	--	--	--	--	--	--	--	4.2	--
DEC												
06...	20	10	--	--	--	--	--	--	--	--	4.1	--
07...	10	<10	--	--	--	--	--	--	--	--	4.7	--
12...	10	10	--	--	--	--	--	--	--	--	2.9	--
12...	--	--	--	--	--	--	--	--	--	--	2.4	--
26...	50	10	--	--	--	--	--	--	--	--	4.0	--
27...	10	<10	--	--	--	--	--	--	--	--	3.7	--
JAN 1991												
02...	20	<10	--	--	--	--	--	--	--	--	2.9	--
02...	--	--	--	--	--	--	--	--	--	--	2.2	--
03...	20	<10	--	--	--	--	--	--	--	--	3.1	--
15...	50	20	--	--	--	--	--	--	--	--	2.1	88
FEB												
12...	--	--	--	--	--	--	--	--	--	--	2.4	--
12...	--	--	--	--	--	--	--	--	--	--	2.4	--
MAR												
06...	20	<10	--	--	--	--	--	--	--	--	2.9	--
07...	20	<10	--	--	--	--	--	--	--	--	4.0	--
21...	--	3	<0.6	<0.6	2.1	<0.6	0.06	<0.6	1.6	0.10	1.9	80
APR												
10...	--	--	--	--	--	--	--	--	--	--	2.5	--
24...	<10	<10	--	--	--	--	--	--	--	--	2.7	--
24...	--	--	--	--	--	--	--	--	--	--	2.4	--
MAY												
08...	<10	5	--	--	--	--	--	--	--	--	3.4	73
22...	<10	--	--	--	--	--	--	--	--	--	2.5	--
JUN												
05...	<10	<10	--	--	--	--	--	--	--	--	2.5	--
05...	--	--	--	--	--	--	--	--	--	--	2.5	--
19...	<10	<10	--	--	--	--	--	--	--	--	2.8	--
19...	<10	<10	--	--	--	--	--	--	--	--	2.5	--
JUL												
10...	20	<10	--	--	--	--	--	--	--	--	2.6	120
24...	--	--	--	--	--	--	--	--	--	--	2.6	--
24...	--	--	--	--	--	--	--	--	--	--	2.7	--
24...	--	--	--	--	--	--	--	--	--	--	3.2	--
24...	--	--	--	--	--	--	--	--	--	--	3.0	--
AUG												
21...	<10	<10	--	--	--	--	--	--	--	--	2.7	--
SEP												
11...	<10	9	1.3	<0.6	4.2	<0.6	0.02	<0.6	3.2	0.16	--	140
11...	<10	<10	--	--	--	--	--	--	--	--	3.0	--

01578310 SUSQUEHANNA RIVER AT CONOWINGO, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	NAPHTHALENES, POLYCHLOR. TOTAL (UG/L)	TRIFLURALIN TOTAL RECOVER (UG/L)	PCB, TOTAL (UG/L)	ALACHLOR TOTAL RECOVER (UG/L)	ALDRIN, TOTAL (UG/L)	AMETRYNE TOTAL	ATRAZINE, TOTAL (UG/L)	CHLORDANE, TOTAL (UG/L)	CYANAZINE TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)
OCT 1990												
15...	<0.10	<0.10	<0.1	<0.10	<0.010	<0.10	0.10	<0.1	<0.10	<0.010	<0.010	<0.010
16...	--	--	--	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--	--	--
NOV												
15...	<0.10	<0.10	<0.1	<0.10	<0.010	<0.10	<0.10	<0.1	<0.10	<0.010	<0.010	<0.010
DEC												
06...	--	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--	--
JAN 1991												
02...	--	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--	--	--	--
FEB												
12...	--	--	--	--	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--	--	--	--	--
MAR												
06...	<0.10	<0.10	<0.1	<0.20	<0.010	<0.10	<0.10	<0.1	<0.20	<0.010	<0.010	<0.010
07...	<0.10	<0.10	<0.1	<0.20	<0.010	<0.10	<0.10	<0.1	<0.20	<0.010	<0.010	<0.010
21...	--	--	--	--	--	--	--	--	--	--	--	--
APR												
10...	--	--	--	--	--	--	--	--	--	--	--	--
24...	<0.10	<0.10	<0.1	<0.20	<0.010	<0.10	<0.10	<0.1	<0.20	<0.010	<0.010	<0.010
24...	--	--	--	--	--	--	--	--	--	--	--	--
MAY												
08...	<0.10	<0.10	<0.1	<0.20	<0.010	<0.10	<0.10	<0.1	<0.20	<0.010	<0.010	<0.010
22...	<0.10	<0.10	<0.1	<0.20	<0.010	<0.10	0.20	<0.1	<0.20	<0.010	<0.010	<0.010
JUN												
05...	<0.10	<0.10	<0.1	<0.10	<0.010	<0.10	0.10	<0.1	<0.20	<0.010	<0.010	<0.010
05...	--	--	--	--	--	--	--	--	--	--	--	--
19...	<0.10	<0.10	<0.1	<0.20	<0.010	<0.10	0.20	<0.1	0.30	<0.010	<0.010	<0.010
19...	<0.10	<0.10	<0.1	<0.20	<0.010	<0.10	0.20	<0.1	0.30	<0.010	<0.010	<0.010
JUL												
10...	--	<0.10	--	<0.10	--	<0.10	0.20	--	<0.20	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--	--
AUG												
21...	--	<0.10	--	<0.10	--	<0.10	0.10	--	<0.20	--	--	--
SEP												
11...	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	<0.10	--	<0.10	--	<0.10	<0.10	--	<0.20	--	--	--

01578310 SUSQUEHANNA RIVER AT CONOWINGO, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	DI-AZINON, TOTAL (UG/L)	DICAMBA (MED-IBEN) (BAN-VEL D) TOTAL (UG/L)	DI-ELDRIN TOTAL (UG/L)	DI-SYSTON TOTAL (UG/L)	ENDO-SULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ETHION, TOTAL (UG/L)	HEPTA-CHLOR, TOTAL (UG/L)	HEPTA-CHLOR EPOXIDE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	MALA-THION, TOTAL (UG/L)	METHO-MYL TOTAL (UG/L)
OCT 1990												
15...	<0.01	--	<0.010	<0.01	<0.010	<0.010	<0.01	<0.010	<0.010	<0.010	<0.01	<0.5
16...	--	--	--	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--	--	--
NOV												
15...	<0.01	--	<0.010	<0.01	<0.010	<0.010	<0.01	<0.010	<0.010	<0.010	<0.01	<0.5
DEC												
06...	--	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--	--
JAN 1991												
02...	--	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--	--	--	--
FEB												
12...	--	--	--	--	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--	--	--	--	--
MAR												
06...	<0.01	--	<0.010	<0.01	<0.010	<0.010	<0.01	<0.010	<0.010	<0.010	<0.01	<0.5
07...	<0.01	--	<0.010	<0.01	<0.010	<0.010	<0.01	<0.010	<0.010	<0.010	<0.01	<0.5
21...	--	--	--	--	--	--	--	--	--	--	--	--
APR												
10...	--	--	--	--	--	--	--	--	--	--	--	--
24...	<0.01	<0.01	<0.010	<0.01	<0.010	<0.010	<0.01	<0.010	<0.010	<0.010	<0.01	<0.5
24...	--	--	--	--	--	--	--	--	--	--	--	--
MAY												
08...	<0.01	<0.01	<0.010	<0.01	<0.010	<0.010	<0.01	<0.010	<0.010	<0.010	<0.01	<0.5
22...	<0.01	<0.01	<0.010	<0.01	<0.010	<0.010	<0.01	<0.010	<0.010	<0.010	<0.01	<0.5
JUN												
05...	<0.01	<0.01	<0.010	<0.01	<0.010	<0.010	<0.01	<0.010	<0.010	<0.010	<0.01	<0.5
05...	--	--	--	--	--	--	--	--	--	--	--	--
19...	<0.01	<0.01	<0.010	<0.01	<0.010	<0.010	<0.01	<0.010	<0.010	<0.010	<0.01	<0.5
19...	<0.01	<0.01	<0.010	<0.01	<0.010	<0.010	<0.01	<0.010	<0.010	<0.010	<0.01	<0.5
JUL												
10...	--	--	--	--	--	--	--	--	--	--	--	<0.5
24...	--	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--	--
AUG												
21...	--	--	--	--	--	--	--	--	--	--	--	<0.5
SEP												
11...	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--

01578310 SUSQUEHANNA RIVER AT CONOWINGO, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	METH-OXY-CHLOR, TOTAL (UG/L)	METHYL PARA-THION, TOTAL (UG/L)	METHYL TRI-THION, TOTAL (UG/L)	METOLA-CHLOR WATER WHOLE TOT.REC (UG/L)	METRI-BUZIN WATER WHOLE TOT.REC (UG/L)	MIREX, TOTAL (UG/L)	PARA-THION, TOTAL (UG/L)	PER-THANE TOTAL (UG/L)	PHORATE TOTAL (UG/L)	DEF TOTAL (UG/L)	PICLO-RAM (TOR-DON) (AMDON) TOTAL (UG/L)	PROME-TRYNE TOTAL (UG/L)
OCT 1990												
15...	<0.01	<0.01	<0.01	<0.1	<0.1	<0.01	<0.01	<0.1	<0.01	<0.01	--	<0.1
16...	--	--	--	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--	--	--
NOV												
15...	<0.01	<0.01	<0.01	<0.1	<0.1	<0.01	<0.01	<0.1	<0.01	<0.01	--	<0.1
DEC												
06...	--	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--	--
JAN 1991												
02...	--	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--	--	--	--
FEB												
12...	--	--	--	--	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--	--	--	--	--
MAR												
06...	<0.01	<0.01	<0.01	<0.2	<0.1	<0.01	<0.01	<0.1	<0.01	<0.01	--	<0.1
07...	<0.01	<0.01	<0.01	<0.2	<0.1	<0.01	<0.01	<0.1	<0.01	<0.01	--	<0.1
21...	--	--	--	--	--	--	--	--	--	--	--	--
APR												
10...	--	--	--	--	--	--	--	--	--	--	--	--
24...	<0.01	<0.01	<0.01	<0.2	<0.1	<0.01	<0.01	<0.1	<0.01	<0.01	--	<0.1
24...	--	--	--	--	--	--	--	--	--	--	--	--
MAY												
08...	<0.01	<0.01	<0.01	<0.2	<0.1	<0.01	<0.01	<0.1	<0.01	<0.01	<0.01	<0.1
22...	<0.01	<0.01	<0.01	<0.2	<0.1	<0.01	<0.01	<0.1	<0.01	<0.01	<0.01	<0.1
JUN												
05...	<0.01	<0.01	<0.01	<0.1	<0.1	<0.01	<0.01	<0.1	<0.01	<0.01	<0.01	<0.1
05...	--	--	--	--	--	--	--	--	--	--	--	--
19...	<0.01	<0.01	<0.01	<0.2	<0.1	<0.01	<0.01	<0.1	<0.01	<0.01	<0.01	<0.1
19...	<0.01	<0.01	<0.01	<0.2	<0.1	<0.01	<0.01	<0.1	<0.01	<0.01	<0.01	<0.1
JUL												
10...	--	--	--	<0.1	<0.1	--	--	--	--	--	--	<0.1
24...	--	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--	--
AUG												
21...	--	--	--	<0.1	<0.1	--	--	--	--	--	--	<0.1
SEP												
11...	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	<0.2	<0.1	--	--	--	--	--	--	<0.1

01578310 SUSQUEHANNA RIVER AT CONOWINGO, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	PROME-TONE TOTAL (UG/L)	PRO-PAZINE TOTAL (UG/L)	PROPHAM TOTAL (UG/L)	TOX-APHENE, TOTAL (UG/L)	TOTAL TRI-THION (UG/L)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SEVIN, TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	SIMA-ZINE TOTAL (UG/L)	SIME-TRYNE TOTAL (UG/L)
OCT 1990												
15...	<0.1	<0.10	<0.5	<1	<0.01	--	--	--	<0.50	--	<0.10	<0.1
16...	--	--	--	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--	--	--
NOV												
15...	<0.1	<0.10	<0.5	<1	<0.01	--	--	--	<0.50	--	<0.10	<0.1
DEC												
06...	--	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--	--
JAN 1991												
02...	--	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--	--	--	--
FEB												
12...	--	--	--	--	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--	--	--	--	--
MAR												
06...	<0.2	<0.10	<0.5	<1	<0.01	--	--	--	<0.50	--	<0.10	<0.1
07...	<0.2	<0.10	<0.5	<1	<0.01	--	--	--	<0.50	--	<0.10	<0.1
21...	--	--	--	--	--	--	--	--	--	--	--	--
APR												
10...	--	--	--	--	--	--	--	--	--	--	--	--
24...	<0.2	<0.10	<0.5	<1	<0.01	<0.01	<0.01	--	<0.50	<0.01	<0.10	<0.1
24...	--	--	--	--	--	--	--	--	--	--	--	--
MAY												
08...	<0.2	<0.10	<0.5	<1	<0.01	<0.01	<0.01	<0.01	<0.50	<0.01	<0.10	<0.1
22...	<0.2	<0.10	<0.5	<1	<0.01	0.03	<0.01	<0.01	<0.50	<0.01	0.10	<0.1
JUN												
05...	<0.2	<0.10	<0.5	<1	<0.01	<0.01	<0.01	<0.01	<0.50	<0.01	0.10	<0.1
05...	--	--	--	--	--	--	--	--	--	--	--	--
19...	<0.2	<0.10	<0.0	<1	<0.01	0.01	<0.01	<0.01	<0.50	<0.01	0.10	<0.1
19...	<0.2	<0.10	<0.0	<1	<0.01	0.05	<0.01	<0.01	<0.50	<0.01	0.10	<0.1
JUL												
10...	<0.2	<0.10	<0.5	--	--	--	--	--	<0.50	--	<0.10	<0.1
24...	--	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--	--
AUG												
21...	<0.2	<0.10	<0.5	--	--	--	--	--	<0.50	--	<0.10	<0.1
SEP												
11...	--	--	--	--	--	--	--	--	--	--	--	--
11...	<0.2	<0.10	--	--	--	--	--	--	--	--	<0.10	<0.1

01578310 SUSQUEHANNA RIVER AT CONOWINGO, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
RADIOCHEMICAL ANALYSES

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90)
SEP 1990								
06...	1100	41000	0.5	<0.4	2.5	<0.4	<0.4	1.9

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
RADIOCHEMICAL ANALYSES

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90)	URANIUM NATURAL DIS-SOLVED (UG/L AS U)
MAR 1991										
21...	1100	72500	<0.6	<0.6	2.1	<0.6	0.06	<0.6	1.6	0.10
SEP										
11...	1030	4400	1.3	<0.6	4.2	<0.6	0.02	<0.6	3.2	0.16

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
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 1990					
15...	1300	174000	47	22100	99
16...	1100	125000	39	13100	99
17...	1100	78300	23	4860	98
19...	1120	77200	24	5000	99
26...	1130	257000	76	52700	99
NOV					
15...	1210	97600	34	8960	98
DEC					
06...	1135	164000	33	14600	97
07...	1140	131000	39	13700	99
12...	1130	79400	12	2570	98
26...	1200	147000	40	15900	98
27...	1200	143000	30	11600	98
JAN 1991					
02...	1230	169000	37	16900	95
03...	1110	181000	37	18100	95
15...	1100	55300	8	1190	90
FEB					
12...	1130	81000	15	3280	97
MAR					
06...	1200	233000	33	20800	100
07...	1130	201000	56	30400	99
21...	1100	72500	13	2540	99
APR					
10...	1230	67400	8	1460	--
24...	1030	73500	24	4760	78
MAY					
08...	1000	66300	14	2510	98
22...	1120	9700	6	157	98
JUN					
05...	1010	9900	8	214	99
19...	1015	5400	7	102	83
JUL					
10...	1025	6200	4	67	93
24...	0930	5900	4	64	97
AUG					
21...	1035	6500	6	105	92
SEP					
11...	1030	4400	6	71	90

01578310 SUSQUEHANNA RIVER AT CONOWINGO, MD--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	274	154	213	166	212	199	175	100	240	310	430	464
2	274	---	213	156	233	187	125	138	238	240	426	456
3	273	172	213	153	233	175	---	152	245	310	406	456
4	268	168	217	165	235	167	---	120	225	260	438	454
5	262	179	224	142	231	191	---	170	250	325	409	458
6	263	182	219	149	246	195	---	170	255	280	421	429
7	263	190	171	152	227	142	---	181	210	---	432	450
8	265	197	143	158	222	115	---	184	240	330	445	450
9	261	---	150	135	262	119	---	169	260	265	---	442
10	261	---	161	178	261	130	201	198	260	320	450	449
11	261	---	161	181	225	134	---	201	265	330	---	430
12	262	---	162	198	195	139	---	200	---	330	440	441
13	275	---	163	198	172	132	200	199	270	270	439	441
14	288	---	170	204	159	160	212	192	270	340	446	440
15	201	175	176	237	159	170	212	199	220	340	431	434
16	160	---	178	219	172	170	121	201	230	340	455	406
17	183	---	177	244	---	135	215	200	280	290	427	415
18	171	---	191	261	---	142	220	---	275	280	427	429
19	162	---	201	237	---	192	218	200	280	345	456	408
20	170	---	214	237	---	192	212	198	275	350	456	428
21	168	---	214	238	---	180	210	200	265	360	462	421
22	172	---	196	201	178	210	212	200	290	---	431	428
23	162	---	184	209	184	210	206	201	260	408	467	428
24	163	---	197	198	200	210	211	215	290	409	461	437
25	171	---	197	186	188	205	195	225	285	411	469	437
26	142	---	158	198	204	210	171	220	250	408	470	434
27	139	---	147	200	201	210	163	190	295	407	449	437
28	132	---	148	173	199	200	176	220	245	413	443	453
29	136	---	149	170	---	200	161	230	300	430	443	448
30	---	---	149	212	---	170	119	220	240	426	459	453
31	149	---	149	211	---	190	---	240	---	416	475	---

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21.0	14.0	9.0	5.0	3.5	7.0	10.0	15.0	26.0	27.0	30.0	28.0
2	21.0	---	9.0	5.5	3.5	7.0	11.0	15.0	26.0	27.0	30.0	28.0
3	20.0	15.0	9.0	6.0	3.5	7.0	---	15.0	26.0	28.0	29.0	28.0
4	20.0	17.0	9.0	6.0	4.0	7.0	---	16.0	26.0	28.0	29.0	28.0
5	20.0	15.0	10.0	3.0	4.0	7.0	---	---	25.0	27.0	29.0	27.0
6	20.0	15.0	9.0	4.0	5.0	7.0	---	---	25.0	27.0	30.0	27.0
7	20.0	15.0	8.0	3.0	5.0	6.0	---	---	26.0	---	29.0	27.0
8	19.5	15.0	6.0	2.0	5.0	7.0	---	18.0	26.0	28.0	29.0	27.0
9	20.0	---	5.0	3.0	5.0	5.0	---	18.0	26.0	28.0	---	29.0
10	21.0	---	6.0	4.0	5.0	6.0	14.0	18.0	27.0	28.0	29.0	27.0
11	21.0	---	5.0	3.0	4.0	6.0	---	18.0	27.0	28.0	---	27.0
12	21.0	---	6.0	4.0	5.0	6.0	---	19.0	---	27.0	28.0	27.0
13	21.0	---	4.0	4.0	6.0	6.0	15.0	19.0	27.0	27.0	28.0	26.0
14	20.0	---	---	3.0	5.0	6.0	15.0	19.0	27.0	27.0	28.0	27.0
15	18.0	7.0	4.0	3.0	4.0	6.0	14.0	19.0	26.0	28.0	28.0	26.0
16	16.0	---	4.0	4.5	3.0	6.0	15.0	19.0	27.0	27.0	28.0	27.0
17	16.0	---	4.0	4.0	---	7.0	14.0	19.0	27.0	27.0	28.0	27.0
18	17.0	---	4.0	5.0	---	6.0	13.0	---	25.0	27.0	28.0	27.0
19	15.0	---	4.0	4.0	---	6.0	13.0	19.0	26.0	28.0	28.0	27.0
20	14.0	---	4.0	4.0	---	8.0	14.0	19.0	26.0	29.0	28.0	25.0
21	14.0	---	4.0	5.0	---	9.0	14.0	19.5	27.0	28.0	28.0	25.0
22	14.0	---	5.0	4.0	3.0	9.0	14.0	20.0	27.0	---	28.0	24.0
23	13.0	---	6.0	3.5	6.0	9.0	14.0	23.0	26.0	29.0	28.0	24.0
24	12.0	---	5.0	4.0	7.0	9.5	13.0	23.0	26.0	29.0	28.0	24.0
25	12.0	---	5.0	3.0	7.0	9.0	13.0	24.0	27.0	29.0	28.0	24.0
26	12.0	---	5.0	3.0	7.0	10.0	13.5	24.0	27.0	30.0	28.0	24.0
27	11.0	---	4.0	3.0	7.0	10.0	14.0	24.0	27.0	29.0	28.0	23.0
28	16.0	---	6.0	3.0	7.0	11.0	15.0	24.0	27.0	30.0	28.0	23.0
29	16.0	---	5.0	3.0	---	11.0	15.0	25.0	26.0	30.0	28.0	22.0
30	---	---	5.0	3.0	---	10.0	15.0	26.0	27.0	30.0	28.0	23.0
31	14.0	---	5.0	3.0	---	10.0	---	26.0	---	30.0	28.0	---

01578310 SUSQUEHANNA RIVER AT CONOWINGO, MD--Continued

SEDIMENT, SUSPENDED CONCENTRATION (MG/L), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	12	642	21	3270	11	573	9	2920	8	1140	12	1560
2	12	635	18	2910	9	464	14	7520	12	791	12	1110
3	15	632	16	1270	8	646	18	7970	9	437	8	797
4	19	882	14	1280	8	1020	20	6750	7	590	10	1540
5	12	661	13	1220	15	4050	34	9360	15	1250	12	2050
6	13	160	13	1110	31	12700	17	3430	7	637	32	16700
7	11	127	16	1300	38	13200	13	2670	12	1550	56	27800
8	13	572	14	1410	35	9640	11	2020	20	2530	66	25300
9	11	885	14	1360	29	6350	9	1350	11	2170	46	14200
10	10	117	e15	1640	22	4570	9	1290	12	2750	33	8400
11	10	448	e22	3370	18	3370	9	1480	22	5770	27	6610
12	11	944	e31	6520	14	2130	9	858	16	3710	23	5050
13	15	1940	e44	14000	13	1510	9	999	13	2620	20	3680
14	22	7660	e40	12300	18	2460	7	815	14	2170	16	2640
15	45	17400	e34	8920	12	1340	8	799	12	1970	12	1790
16	38	12500	e32	6950	9	430	9	882	9	1400	10	1050
17	24	5640	e29	5010	8	994	7	1180	9	824	11	1170
18	21	4390	e23	2920	8	823	12	2810	8	1120	10	1410
19	24	5040	e19	2730	13	2140	26	7160	8	762	9	1210
20	22	5030	e16	2360	13	2760	25	6530	7	873	9	1360
21	24	5180	e15	2230	15	3990	24	6740	5	575	12	2220
22	22	5200	e14	1070	18	5440	16	3720	6	906	13	2320
23	20	4830	e13	1830	18	5200	14	2900	11	1810	20	2130
24	23	7270	e12	862	19	5490	13	2060	8	1200	23	2970
25	45	23300	e12	768	23	8510	13	2110	12	2120	16	3260
26	60	34800	e11	1300	38	15000	11	1150	21	3310	23	4600
27	75	31800	e11	1020	31	12100	24	1890	18	2270	28	5070
28	150	43300	e11	1090	25	7900	11	1170	15	2050	15	2740
29	55	15000	e12	1010	90	21600	7	788	---	---	25	5490
30	30	6570	e11	1360	95	20200	8	721	---	---	16	3370
31	30	5270	---	---	30	6380	8	842	---	---	18	3770
TOTAL	---	248825	---	94390	---	182980	---	92884	---	49305	---	163367
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	15	2770	11	1760	7	132	12	197	8	118	7	107
2	19	3470	11	1350	6	112	4	68	8	110	11	155
3	22	3180	16	1990	8	354	5	81	3	40	13	181
4	20	2710	18	2210	9	345	5	82	5	64	9	112
5	18	2460	15	1010	8	369	6	98	3	37	5	64
6	16	1750	18	2290	10	266	12	192	3	33	3	38
7	13	1030	15	2020	11	327	13	211	4	41	7	84
8	12	1530	18	2380	13	245	7	115	5	57	8	96
9	9	965	18	2170	12	205	5	82	5	61	6	73
10	8	866	17	2200	10	259	4	67	5	80	4	50
11	10	1010	14	1430	14	457	4	68	5	79	6	70
12	13	1430	14	1260	18	442	5	122	5	82	15	172
13	15	1360	14	1700	18	311	10	253	8	127	6	69
14	14	1210	13	1060	13	219	6	102	8	123	7	90
15	13	1500	10	1130	12	227	4	68	8	114	7	85
16	14	1520	12	1130	15	256	6	103	4	54	12	151
17	16	1780	11	971	11	330	5	85	4	54	8	93
18	12	1460	10	489	8	136	3	46	3	39	6	70
19	14	2060	11	333	6	131	4	58	4	55	5	59
20	15	1730	14	971	10	251	5	71	6	97	8	93
21	12	1120	12	910	11	339	7	91	6	104	11	125
22	17	1870	7	395	9	150	7	97	8	225	13	152
23	41	6730	10	559	10	166	4	72	6	245	17	200
24	23	5320	14	798	9	150	4	57	12	205	13	171
25	19	5340	13	502	10	167	5	67	4	68	11	386
26	33	9890	2	74	5	84	5	65	9	151	9	411
27	17	4590	1	25	6	101	5	82	6	98	12	277
28	16	3540	1	61	6	188	7	112	8	129	18	261
29	15	3110	2	99	10	165	8	133	5	82	12	136
30	10	1610	1	45	14	233	8	134	4	69	14	268
31	---	---	2	104	---	---	10	166	6	105	---	---
TOTAL	---	78911	---	33426	---	7117	---	3245	---	2946	---	4299

TOTAL LOAD FOR YEAR: 961695 TONS.

e Estimated

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.

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

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

GAGE.--Water-stage recorder. Concrete control since Sept. 7, 1938. Datum of gage is 250.40 ft above National Geodetic Vertical Datum of 1929 (Baltimore City bench mark).

REMARKS.--Records good. Prior to 1965, some regulation at low flow by mills upstream from station. Several measurments 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.--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)
Nov. 10	1530	*2,720	*7.14	No other peak greater than base discharge.			

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	75	85	83	209	155	120	160	126	79	54	39	31
2	71	83	83	185	151	133	153	121	77	57	37	30
3	68	82	127	171	150	133	146	120	77	59	34	30
4	70	82	585	160	148	214	144	117	75	58	34	31
5	73	81	201	151	147	156	147	115	73	62	33	76
6	69	89	149	155	155	140	148	154	72	63	30	47
7	67	82	133	183	172	145	143	148	72	75	30	44
8	67	79	123	159	158	131	138	121	70	79	32	37
9	83	78	117	152	148	125	137	117	68	61	37	35
10	73	911	113	150	145	123	134	116	66	55	95	34
11	71	281	108	168	141	121	128	111	65	54	46	35
12	100	158	105	455	135	117	125	109	65	52	39	33
13	130	130	105	258	137	120	131	113	64	70	37	32
14	111	115	100	204	199	135	150	119	61	61	36	59
15	81	108	146	189	169	149	187	107	60	53	36	47
16	73	105	155	357	139	149	168	102	60	49	36	38
17	71	112	118	349	141	137	143	102	85	47	33	35
18	136	104	150	255	136	276	136	104	86	45	31	36
19	265	99	137	228	146	197	130	98	79	43	38	82
20	101	96	118	218	155	161	130	96	72	43	197	46
21	88	93	151	254	139	148	166	95	67	42	91	38
22	84	92	154	207	135	147	219	94	69	41	51	35
23	368	101	151	e190	129	303	157	93	71	40	43	35
24	246	98	281	184	126	254	158	93	70	38	40	37
25	130	93	172	173	128	190	160	90	64	37	39	321
26	109	89	150	171	127	171	140	88	61	44	38	92
27	98	88	141	166	123	194	136	85	58	53	37	58
28	95	88	153	167	122	179	132	86	57	43	36	50
29	89	88	152	163	---	163	129	83	55	43	35	46
30	86	84	385	165	---	196	130	81	54	48	34	44
31	86	---	334	186	---	171	---	81	---	43	33	---
TOTAL	3334	3874	5180	6382	4056	5098	4405	3285	2052	1612	1407	1594
MEAN	108	129	167	206	145	164	147	106	68.4	52.0	45.4	53.1
MAX	368	911	585	455	199	303	219	154	86	79	197	321
MIN	67	78	83	150	122	117	125	81	54	37	30	30
CFSM	1.14	1.37	1.77	2.18	1.53	1.74	1.56	1.12	.72	.55	.48	.56
IN.	1.31	1.53	2.04	2.51	1.60	2.01	1.74	1.29	.81	.64	.55	.63

e Estimated.

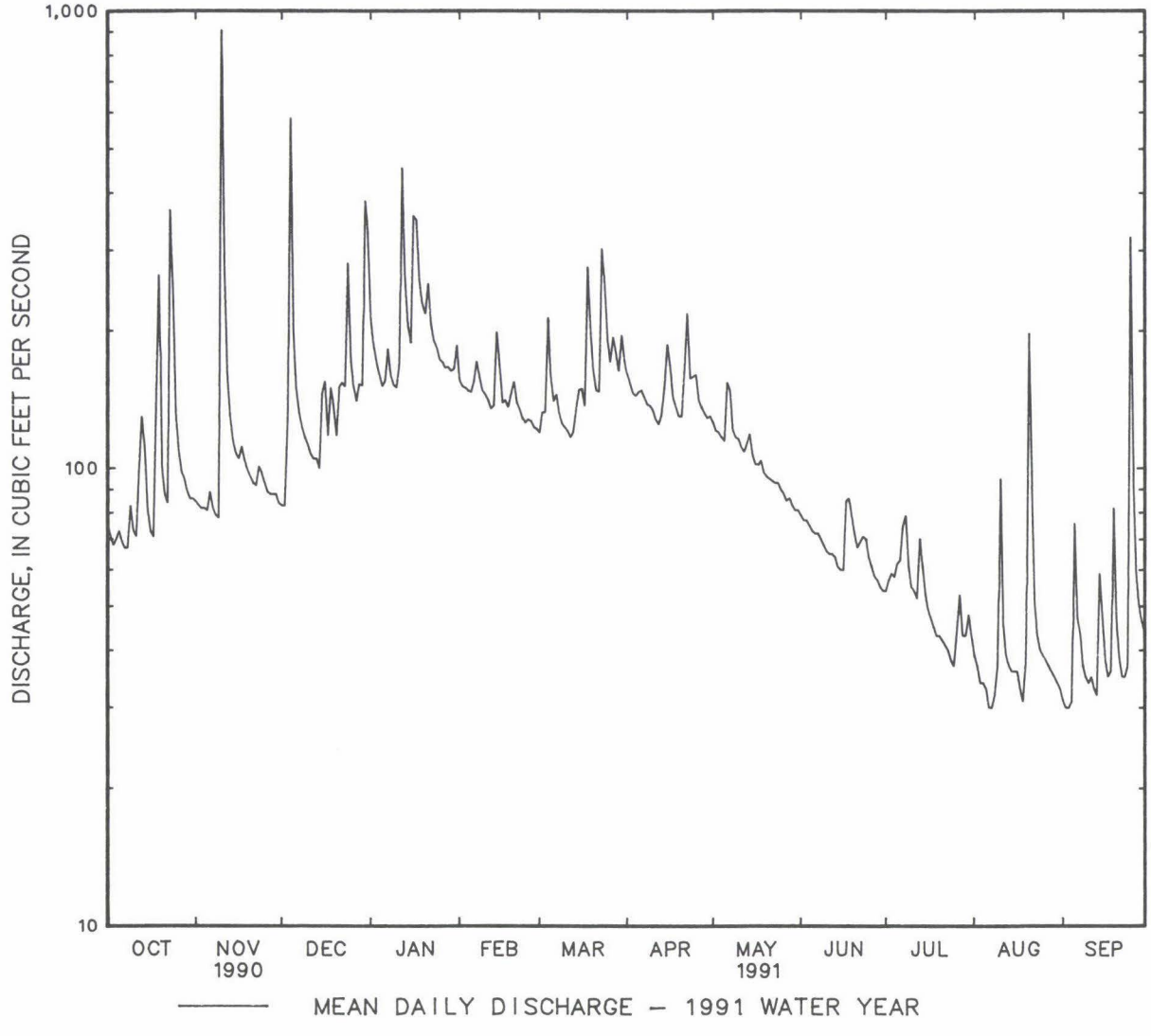
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1927 - 1991, BY WATER YEAR (WY)

MEAN	83.4	101	113	138	163	162	166	150	126	106	96.8	88.5
MAX	317	266	286	398	415	395	379	421	576	279	362	345
(WY)	1980	1927	1984	1979	1979	1978	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 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1927 - 1991	
ANNUAL TOTAL	50216		42279			
ANNUAL MEAN	138		116		124	
HIGHEST ANNUAL MEAN					224	1972
LOWEST ANNUAL MEAN					58.2	1966
HIGHEST DAILY MEAN	911	Nov 10	911	Nov 10	6610	Jun 22 1972
LOWEST DAILY MEAN	67	Aug 4	30	(a)	8.6	(b)
ANNUAL SEVEN-DAY MINIMUM	69	Oct 2	32	Aug 29	9.0	Sep 7 1966
INSTANTANEOUS PEAK FLOW	3950	Jul 14	2720	Nov 10	13600	cAug 23 1933
INSTANTANEOUS PEAK STAGE	8.86	Jul 14	7.14	Nov 10	17.70	dAug 23 1933
INSTANTANEOUS LOW FLOW	66	(f)	30	(g)	8.0	(h)
ANNUAL RUNOFF (CFSM)	1.46		1.23		1.32	
ANNUAL RUNOFF (INCHES)	19.79		16.66		17.87	
10 PERCENT EXCEEDS	196		186		208	
50 PERCENT EXCEEDS	116		104		93	
90 PERCENT EXCEEDS	81		38		45	

a Aug. 6, 7, Sep. 2, 3.
b Sept. 11, 12 1966.
c 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.
d From floodmarks.
f Aug. 3, 4, 5, Oct. 3, 7, 8.
g Aug. 6, 7, Sept. 2, 3, 4.
h Dec. 16, 1930, Jan. 26, 1939, result of regulation.



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.

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

GAGE.--Water-stage recorder. Elevation of gage is 195 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good below 200 ft^3/s and fair above except those for Oct. 7 to Nov. 26 (backwater from beaverdam), Jan. 23, 26, Mar. 18-23, July 12-24 (missing record), which are also fair. Several measurements of water temperature were made during the year.

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)
Nov. 10	1400	Unknown	a*4.29	No peak greater than base discharge.			

a Backwater from beaverdam.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	40	e40	38	76	62	51	64	48	27	16	14	9.9
2	35	e40	38	67	61	58	59	45	26	23	12	10
3	34	e39	95	62	61	60	57	44	26	21	12	11
4	39	e39	290	58	60	118	56	42	26	20	11	11
5	40	e39	74	55	60	69	56	42	24	20	9.7	24
6	38	e42	57	59	66	62	56	63	25	21	10	15
7	e36	e40	52	73	71	64	55	54	24	56	10	13
8	e35	e38	49	63	64	56	53	45	24	31	11	12
9	e40	e38	47	63	61	54	52	43	23	21	31	11
10	e36	e400	46	63	59	52	50	42	22	19	20	9.9
11	e36	e110	44	101	58	51	48	40	22	19	15	10
12	e45	e70	44	311	55	49	48	40	22	e18	11	9.3
13	e60	e55	44	108	58	51	53	39	20	e45	11	9.0
14	e46	49	41	83	84	62	62	40	20	e25	11	26
15	e40	e48	86	75	65	68	83	37	20	e18	12	15
16	e35	e46	67	159	56	63	67	36	20	e16	12	13
17	e35	e48	52	121	56	56	56	42	26	e15	9.8	16
18	e75	e46	69	85	57	e160	53	40	34	e14	9.5	16
19	e60	e44	56	76	62	e90	50	36	26	e14	21	13
20	e46	e42	49	73	63	e70	51	35	24	e14	169	13
21	e40	e40	75	92	57	e65	92	34	23	e13	34	11
22	e38	e40	67	72	56	e60	85	34	22	e13	20	11
23	e260	e44	82	e69	53	e300	61	34	24	e13	16	11
24	e100	e42	135	66	53	99	74	34	23	e13	15	12
25	e65	e40	66	64	53	72	62	32	21	12	14	87
26	e55	e40	57	e64	52	66	55	31	19	26	15	33
27	e48	39	54	63	51	77	52	29	19	20	14	18
28	e46	40	69	64	51	67	51	31	18	15	14	15
29	e44	40	67	63	---	64	50	29	17	16	13	14
30	e42	38	227	66	---	87	50	29	16	17	12	14
31	e42	---	134	71	---	69	---	28	---	15	12	---
TOTAL	1631	1716	2371	2585	1665	2390	1761	1198	683	619	601.0	493.1
MEAN	52.6	57.2	76.5	83.4	59.5	77.1	58.7	38.6	22.8	20.0	19.4	16.4
MAX	260	400	290	311	84	300	92	63	34	56	169	87
MIN	34	38	38	55	51	49	48	28	16	12	9.5	9.0
CFSM	1.51	1.64	2.20	2.40	1.71	2.22	1.69	1.11	.65	.57	.56	.47
IN.	1.74	1.83	2.53	2.76	1.78	2.55	1.88	1.28	.73	.66	.64	.53

e Estimated

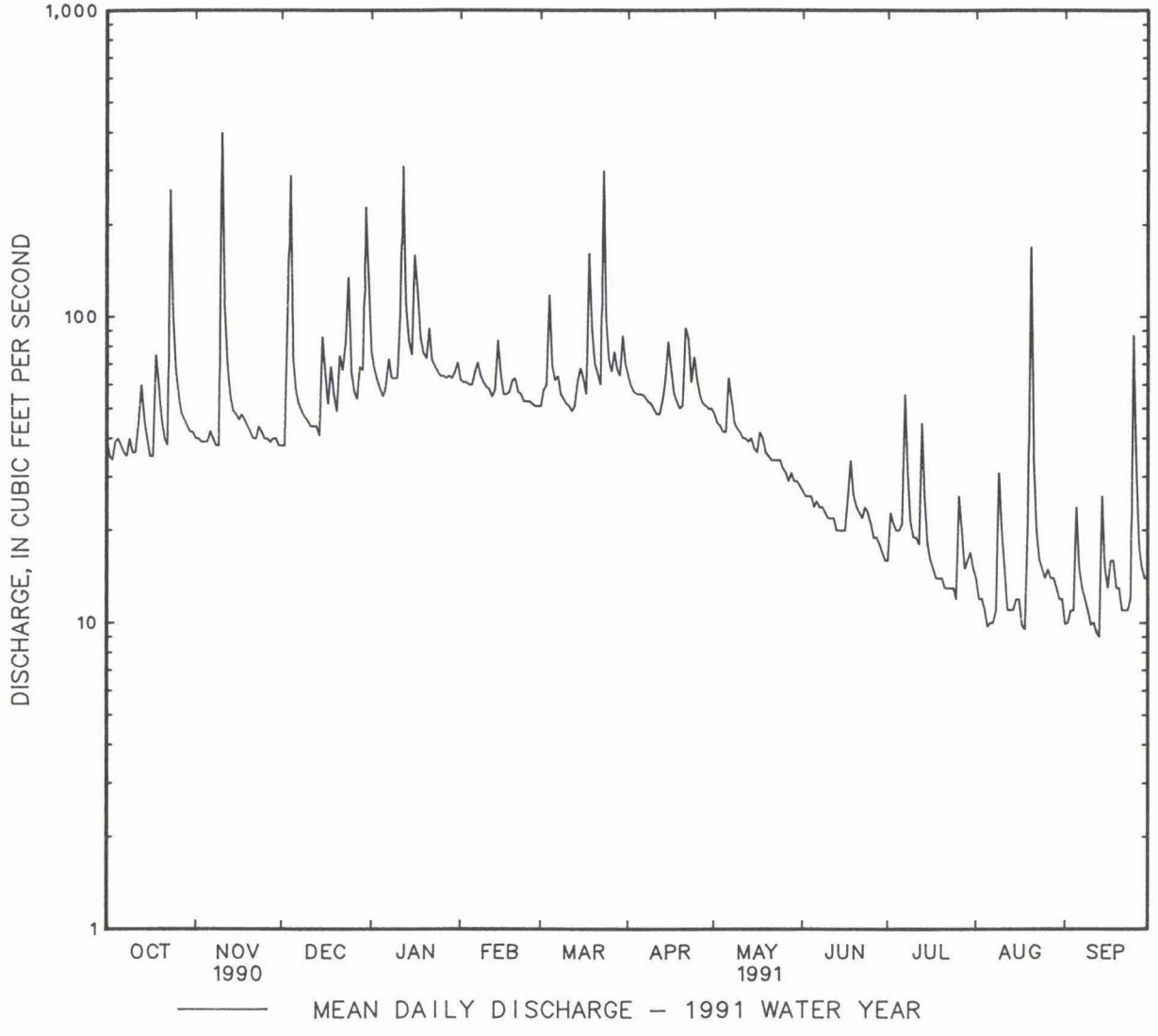
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1967 - 1991, BY WATER YEAR (WY)

MEAN	35.6	44.2	53.4	60.3	69.4	62.2	62.6	61.4	54.6	47.6	40.6	42.9
MAX	94.0	86.2	118	150	151	138	134	162	204	133	137	140
(WY)	1980	1972	1984	1979	1979	1978	1983	1989	1972	1975	1971	1975
MIN	13.4	12.5	18.2	16.9	29.6	22.5	28.8	17.9	12.9	11.3	11.6	10.4
(WY)	1970	1982	1981	1981	1969	1981	1969	1969	1969	1986	1981	1986

01581700 WINTERS RUN NEAR BENSON, MD--Continued

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1967 - 1991	
ANNUAL TOTAL	23226		17713.1			
ANNUAL MEAN	63.6		48.5		52.6	
HIGHEST ANNUAL MEAN					86.0	1972
LOWEST ANNUAL MEAN					22.9	1981
HIGHEST DAILY MEAN	412	Aug 6	400	Nov 10	3000	Jun 22 1972
LOWEST DAILY MEAN	33	Aug 4	9.0	Sep 13	6.7	(b)
ANNUAL SEVEN-DAY MINIMUM	36	Jul 29	11	Sep 7	7.9	Jun 30 1969
INSTANTANEOUS PEAK FLOW	2260	Jul 14	UNKNOWN	Nov 10	7600	Jun 22 1972
INSTANTANEOUS PEAK STAGE	6.37	Jul 14	4.29	Nov 10	11.60	Jun 22 1972
INSTANTANEOUS LOW FLOW	32	(c)	7.9	Aug 7	d3.0	Jan 10 1982
ANNUAL RUNOFF (CFSM)	1.83		1.39		1.51	
ANNUAL RUNOFF (INCHES)	24.83		18.93		20.52	
10 PERCENT EXCEEDS	100		75		86	
50 PERCENT EXCEEDS	46		43		38	
90 PERCENT EXCEEDS	38		13		16	

b Aug. 28, 29, 1981.
c Aug. 2, 3, 4, 5.
d Result of freezeup.



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.

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

GAGE.--Water-stage recorder. Elevation of gage is 195 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good below 200 ft^3/s and fair above except those for Oct. 7 to Nov. 26 (backwater from beaverdam), Jan. 23, 26, Mar. 18-23, July 12-24 (missing record), which are also fair. Several measurements of water temperature were made during the year.

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)
Nov. 10	1400	Unknown	a*4.29	No peak greater than base discharge.			

a Backwater from beaverdam.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	40	e40	38	76	62	51	64	48	27	16	14	9.9
2	35	e40	38	67	61	58	59	45	26	23	12	10
3	34	e39	95	62	61	60	57	44	26	21	12	11
4	39	e39	290	58	60	118	56	42	26	20	11	11
5	40	e39	74	55	60	69	56	42	24	20	9.7	24
6	38	e42	57	59	66	62	56	63	25	21	10	15
7	e36	e40	52	73	71	64	55	54	24	56	10	13
8	e35	e38	49	63	64	56	53	45	24	31	11	12
9	e40	e38	47	63	61	54	52	43	23	21	31	11
10	e36	e400	46	63	59	52	50	42	22	19	20	9.9
11	e36	e110	44	101	58	51	48	40	22	19	15	10
12	e45	e70	44	311	55	49	48	40	22	e18	11	9.3
13	e60	e55	44	108	58	51	53	39	20	e45	11	9.0
14	e46	49	41	83	84	62	62	40	20	e25	11	26
15	e40	e48	86	75	65	68	83	37	20	e18	12	15
16	e35	e46	67	159	56	63	67	36	20	e16	12	13
17	e35	e48	52	121	56	56	56	42	26	e15	9.8	16
18	e75	e46	69	85	57	e160	53	40	34	e14	9.5	16
19	e60	e44	56	76	62	e90	50	36	26	e14	21	13
20	e46	e42	49	73	63	e70	51	35	24	e14	169	13
21	e40	e40	75	92	57	e65	92	34	23	e13	34	11
22	e38	e40	67	72	56	e60	85	34	22	e13	20	11
23	e260	e44	82	e69	53	e300	61	34	24	e13	16	11
24	e100	e42	135	66	53	99	74	34	23	e13	15	12
25	e65	e40	66	64	53	72	62	32	21	12	14	87
26	e55	e40	57	e64	52	66	55	31	19	26	15	33
27	e48	39	54	63	51	77	52	29	19	20	14	18
28	e46	40	69	64	51	67	51	31	18	15	14	15
29	e44	40	67	63	---	64	50	29	17	16	13	14
30	e42	38	227	66	---	87	50	29	16	17	12	14
31	e42	---	134	71	---	69	---	28	---	15	12	---
TOTAL	1631	1716	2371	2585	1665	2390	1761	1198	683	619	601.0	493.1
MEAN	52.6	57.2	76.5	83.4	59.5	77.1	58.7	38.6	22.8	20.0	19.4	16.4
MAX	260	400	290	311	84	300	92	63	34	56	169	87
MIN	34	38	38	55	51	49	48	28	16	12	9.5	9.0
CFSM	1.51	1.64	2.20	2.40	1.71	2.22	1.69	1.11	.65	.57	.56	.47
IN.	1.74	1.83	2.53	2.76	1.78	2.55	1.88	1.28	.73	.66	.64	.53

e Estimated

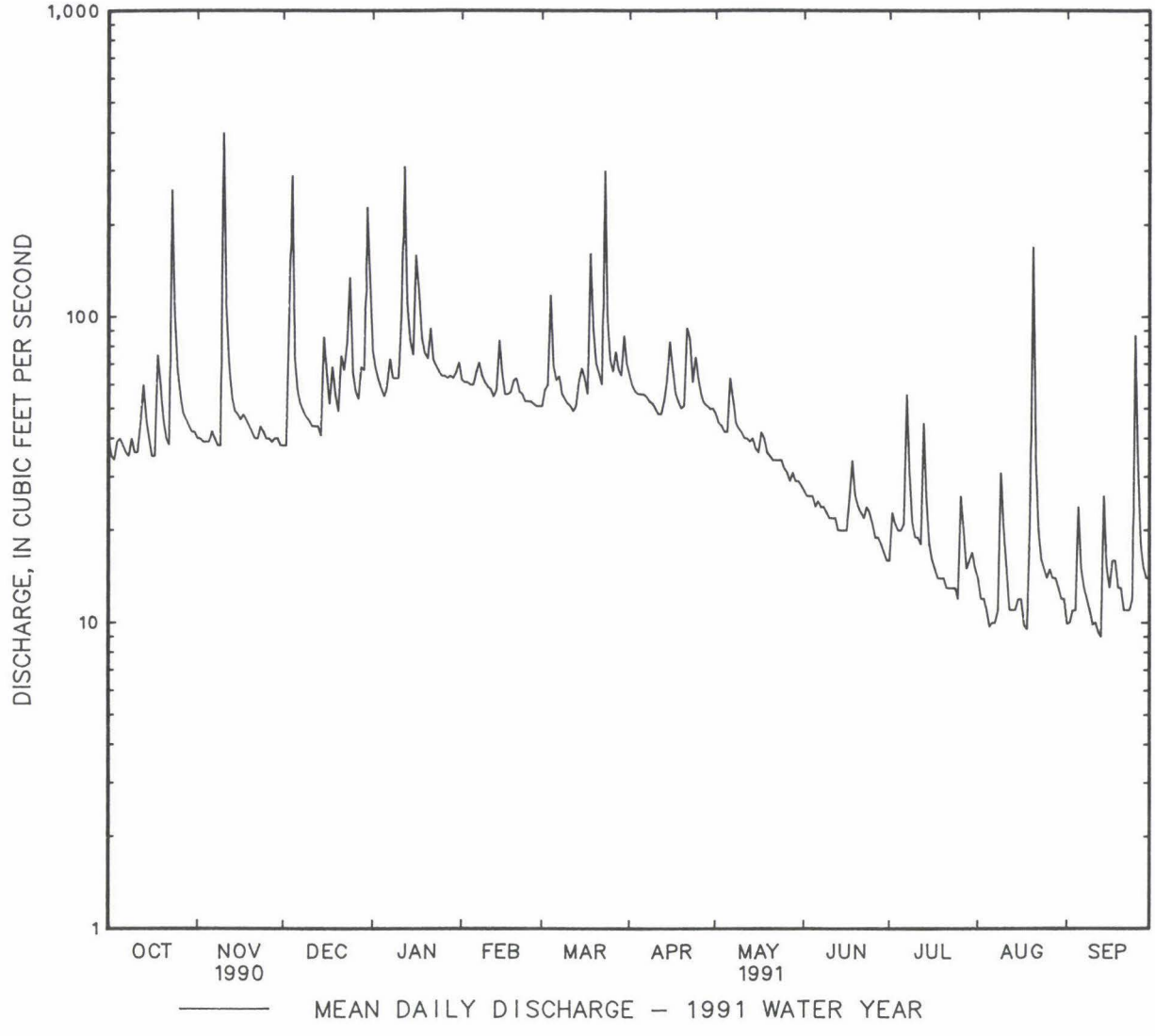
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1967 - 1991, BY WATER YEAR (WY)

MEAN	35.6	44.2	53.4	60.3	69.4	62.2	62.6	61.4	54.6	47.6	40.6	42.9
MAX	94.0	86.2	118	150	151	138	134	162	204	133	137	140
(WY)	1980	1972	1984	1979	1979	1978	1983	1989	1972	1975	1971	1975
MIN	13.4	12.5	18.2	16.9	29.6	22.5	28.8	17.9	12.9	11.3	11.6	10.4
(WY)	1970	1982	1981	1981	1969	1981	1969	1969	1969	1986	1981	1986

01581700 WINTERS RUN NEAR BENSON, MD--Continued

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1967 - 1991	
ANNUAL TOTAL	23226		17713.1			
ANNUAL MEAN	63.6		48.5		52.6	
HIGHEST ANNUAL MEAN					86.0	1972
LOWEST ANNUAL MEAN					22.9	1981
HIGHEST DAILY MEAN	412	Aug 6	400	Nov 10	3000	Jun 22 1972
LOWEST DAILY MEAN	33	Aug 4	9.0	Sep 13	6.7	(b)
ANNUAL SEVEN-DAY MINIMUM	36	Jul 29	11	Sep 7	7.9	Jun 30 1969
INSTANTANEOUS PEAK FLOW	2260	Jul 14	UNKNOWN	Nov 10	7600	Jun 22 1972
INSTANTANEOUS PEAK STAGE	6.37	Jul 14	4.29	Nov 10	11.60	Jun 22 1972
INSTANTANEOUS LOW FLOW	32	(c)	7.9	Aug 7	d3.0	Jan 10 1982
ANNUAL RUNOFF (CFSM)	1.83		1.39		1.51	
ANNUAL RUNOFF (INCHES)	24.83		18.93		20.52	
10 PERCENT EXCEEDS	100		75		86	
50 PERCENT EXCEEDS	46		43		38	
90 PERCENT EXCEEDS	38		13		16	

b Aug. 28, 29, 1981.
c Aug. 2, 3, 4, 5.
d Result of freezeup.



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.

PERIOD OF RECORD.--June 1944 to current year.

REVISED RECORDS.--WSP 111: 1944(M), 1945-47(P). WDR MD-DE-85-1: 1984(P).

GAGE.--Water-stage recorders. Elevation of gage is 305 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good. Slight diurnal fluctuation at low flow caused by mill upstream from station. Several measurements of water temperature were made during the year.

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)
Nov. 10	1415	*1,470	*5.06	No other peak greater than base discharge.			

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	38	47	47	114	81	65	85	67	40	34	22	17
2	35	46	46	102	80	71	82	65	40	35	20	16
3	34	45	115	95	80	72	78	65	41	36	19	16
4	36	45	272	88	78	111	77	62	39	36	20	18
5	38	44	108	83	78	80	79	61	38	37	18	46
6	35	52	85	87	84	76	79	91	38	36	17	26
7	34	45	75	104	91	78	77	75	37	42	18	24
8	34	44	69	87	83	71	75	65	39	38	20	21
9	48	43	65	86	79	68	74	63	42	33	27	20
10	37	424	62	85	77	67	72	62	41	32	43	20
11	41	123	59	97	75	66	68	59	41	31	22	20
12	49	81	58	222	72	64	67	57	41	29	20	19
13	79	70	58	128	74	66	72	63	40	39	19	18
14	57	63	56	106	111	74	82	66	38	31	19	66
15	43	59	95	100	88	81	103	57	37	29	20	28
16	39	58	80	193	76	78	86	54	39	27	19	24
17	38	60	67	165	75	72	76	53	60	26	17	24
18	182	57	87	127	75	157	73	54	90	25	15	27
19	109	56	75	115	81	103	71	52	54	24	23	52
20	57	55	66	110	84	87	71	51	47	24	118	28
21	50	52	84	128	75	81	96	51	42	24	48	24
22	47	52	81	103	73	81	111	50	41	24	27	23
23	246	58	88	100	69	181	84	50	46	23	24	23
24	116	55	153	94	68	128	92	49	43	21	22	25
25	74	52	94	89	69	104	85	47	40	22	21	238
26	61	51	84	88	69	95	77	46	38	29	21	53
27	57	50	78	86	67	108	74	44	37	28	21	36
28	55	49	88	90	66	95	72	46	36	24	20	31
29	51	48	87	86	---	89	71	43	35	27	19	29
30	49	47	191	88	---	102	71	43	35	28	19	27
31	49	---	165	97	---	89	---	42	---	25	18	---
TOTAL	1918	2031	2838	3343	2178	2760	2380	1753	1275	919	776	1039
MEAN	61.9	67.7	91.5	108	77.8	89.0	79.3	56.5	42.5	29.6	25.0	34.6
MAX	246	424	272	222	111	181	111	91	90	42	118	238
MIN	34	43	46	83	66	64	67	42	35	21	15	16
CFSM	1.17	1.28	1.73	2.04	1.47	1.68	1.50	1.07	.80	.56	.47	.65
IN.	1.35	1.43	2.00	2.35	1.53	1.94	1.67	1.23	.90	.65	.55	.73

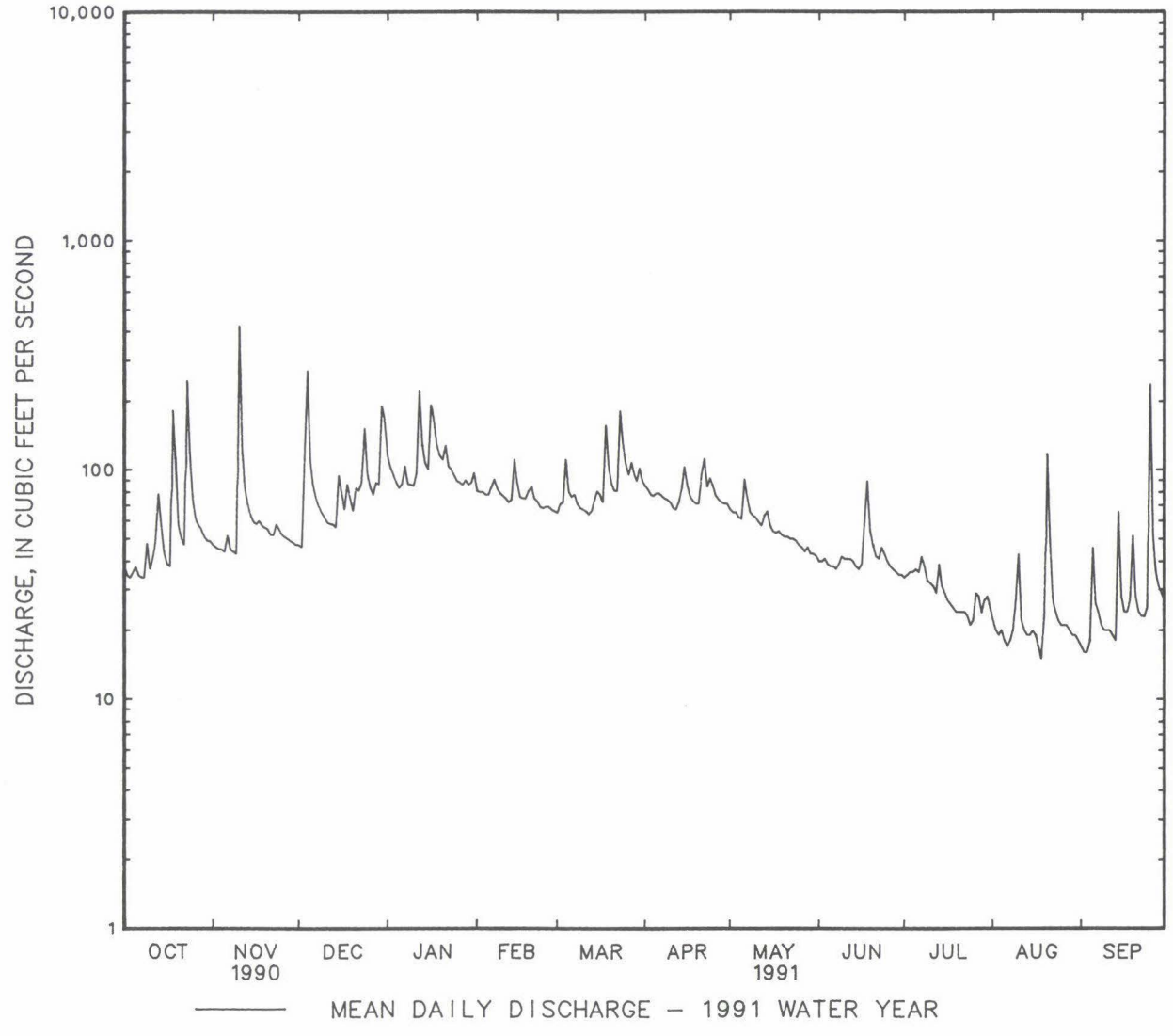
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1944 - 1991, BY WATER YEAR (WY)

MEAN	45.7	54.7	63.3	74.6	88.5	87.9	89.4	83.7	71.2	58.1	47.9	48.5
MAX	203	129	145	180	187	184	194	202	353	158	159	227
(WY)	1980	1972	1973	1979	1979	1978	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 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1944 - 1991	
ANNUAL TOTAL	26366		23210			
ANNUAL MEAN	72.2		63.6		67.8	
HIGHEST ANNUAL MEAN					132	1972
LOWEST ANNUAL MEAN					31.8	1966
HIGHEST DAILY MEAN	424	Nov 10	424	Nov 10	4730	Jun 22 1972
LOWEST DAILY MEAN	34	Oct 3	15	Aug 18	4.5	Sep 11 1966
ANNUAL SEVEN-DAY MINIMUM	35	Oct 2	18	Aug 29	4.8	Sep 6 1966
INSTANTANEOUS PEAK FLOW	1470	Nov 10	1470	Nov 10	a8280	Jun 22 1972
INSTANTANEOUS PEAK STAGE	5.06	Nov 10	5.06	Nov 10	18.54	Jun 22 1972
INSTANTANEOUS LOW FLOW	31	Oct 7	14	(b)	1.9	Aug 29 1966
ANNUAL RUNOFF (CFSM)	1.37		1.20		1.28	
ANNUAL RUNOFF (INCHES)	18.54		16.32		17.41	
10 PERCENT EXCEEDS	108		102		115	
50 PERCENT EXCEEDS	62		57		52	
90 PERCENT EXCEEDS	40		23		25	

a From rating curve extended above 1,300 ft^3/s on basis of contracted-opening measurement of peak flow.
b Aug. 18, 19.



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.--December 1982 to current year.

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

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 250 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good. 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, 2,080 ft^3/s, Nov. 10, gage height, 7.54 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	132	144	140	401	272	205	270	209	149	101	95	75
2	128	143	140	338	251	214	258	204	149	105	92	75
3	126	140	217	305	249	220	242	198	149	106	89	75
4	129	138	651	278	245	303	234	186	147	106	90	123
5	132	136	388	256	243	264	235	180	144	107	128	329
6	128	155	281	256	254	239	243	229	142	107	289	422
7	124	139	239	303	278	252	237	250	126	119	416	420
8	124	138	217	287	276	228	231	229	124	115	420	415
9	150	134	199	268	259	211	226	210	122	103	342	413
10	131	790	189	258	250	208	229	201	121	100	236	413
11	133	527	176	277	243	207	217	189	119	100	207	412
12	151	330	172	575	230	191	199	185	113	97	199	374
13	167	246	171	455	225	191	200	184	112	111	190	188
14	167	204	166	365	304	216	232	191	108	100	190	149
15	141	185	217	328	299	238	284	175	107	97	190	100
16	136	177	249	459	261	240	288	172	106	94	190	93
17	134	182	212	564	230	228	256	171	132	93	186	90
18	242	172	236	458	230	368	238	172	214	92	186	99
19	293	163	241	394	242	352	223	169	135	91	226	134
20	157	157	212	366	264	293	217	166	123	91	320	214
21	145	151	234	399	251	261	257	165	118	89	122	209
22	142	150	248	357	241	252	333	164	115	89	92	207
23	484	160	254	311	231	425	283	163	119	133	85	165
24	649	165	420	306	215	467	279	161	119	208	82	91
25	355	152	323	289	216	376	274	160	113	265	82	361
26	259	148	275	272	215	321	245	157	109	404	80	133
27	199	146	246	270	213	332	231	155	107	221	80	107
28	179	144	281	272	206	318	224	157	106	211	80	98
29	167	151	271	270	---	286	215	154	104	176	78	96
30	150	145	414	269	---	312	213	154	104	102	77	93
31	146	---	559	308	---	286	---	152	---	97	77	---
TOTAL	5900	5912	8238	10514	6893	8504	7313	5612	3756	4030	5216	6173
MEAN	190	197	266	339	246	274	244	181	125	130	168	206
MAX	649	790	651	575	304	467	333	250	214	404	420	422
MIN	124	134	140	256	206	191	199	152	104	89	77	75
(†)	20204	20143	20076	20071	20040	20020	19943	19891	19555	19255	17947	15838

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 1991, BY WATER YEAR (WY)

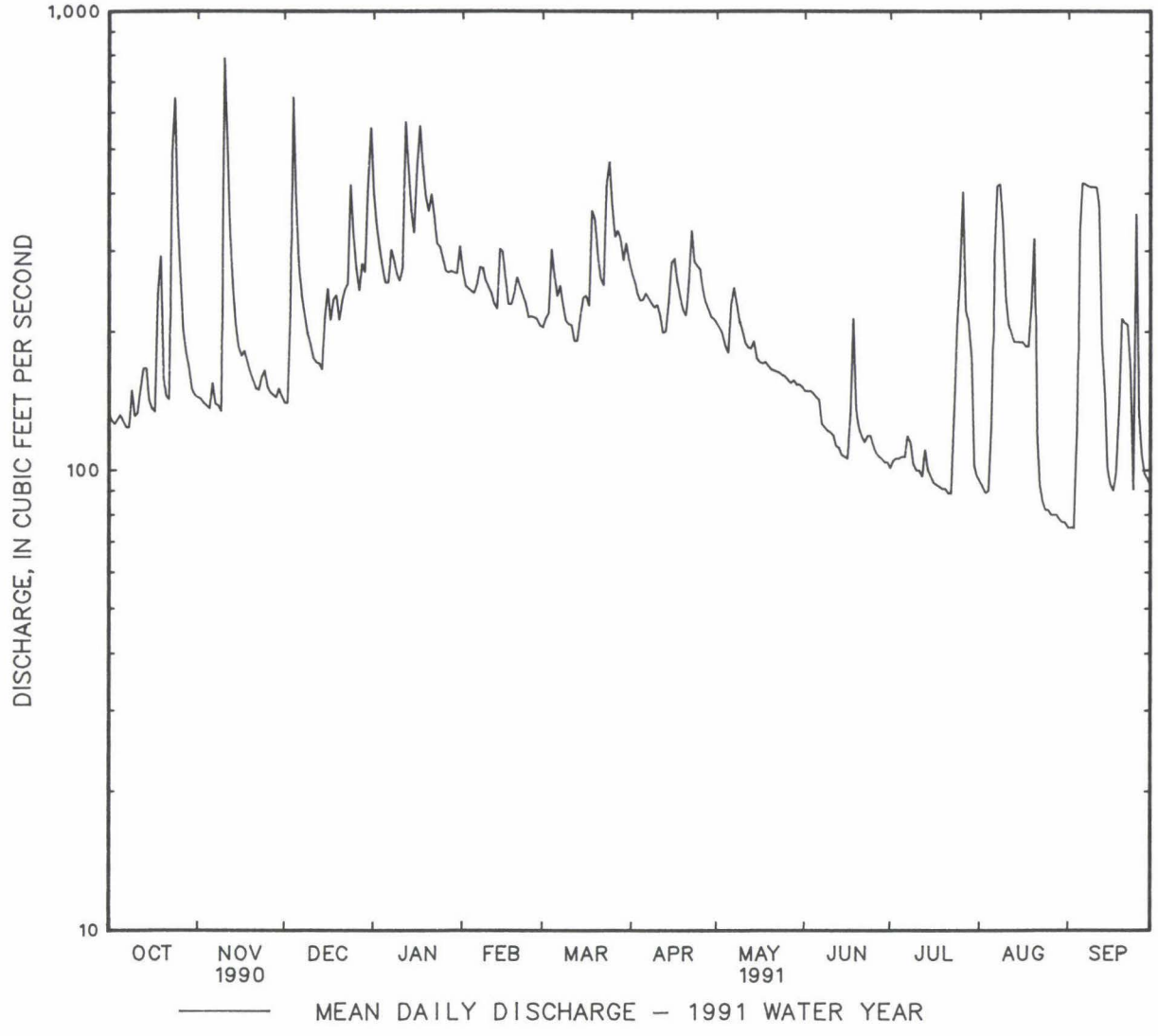
MEAN	144	161	182	190	217	194	227	268	185	176	137	139
MAX	198	211	335	339	384	338	473	476	284	280	184	227
(WY)	1990	1989	1984	1991	1984	1984	1984	1989	1989	1986	1990	1987
MIN	52.4	90.4	116	63.3	85.8	136	127	114	96.2	94.8	70.8	69.6
(WY)	1987	1987	1989	1983	1983	1987	1987	1987	1985	1985	1985	1983

† Month-end contents, in millions of gallons in Prettyboy Reservoir (contents on Sept. 30, 1990, 19,841,000,000 gal). Records provided by Baltimore Department of Public Works.

01582500 GUNPOWDER FALLS AT GLENCOE, MD--Continued

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1983 - 1991	
ANNUAL TOTAL	80025		78061			
ANNUAL MEAN	219		214		188	
HIGHEST ANNUAL MEAN					257	1984
LOWEST ANNUAL MEAN					118	1987
HIGHEST DAILY MEAN	790	Nov 10	790	Nov 10	2000	Feb 12 1985
LOWEST DAILY MEAN	120	Aug 18	75	(a)	42	(b)
ANNUAL SEVEN-DAY MINIMUM	127	Oct 2	77	Aug 28	43	Sep 14 1986
INSTANTANEOUS PEAK FLOW	2080	Nov 10	2080	Nov 10	4900	Feb 12 1985
INSTANTANEOUS PEAK STAGE	7.54	Nov 10	7.54	Nov 10	c13.20	Feb 12 1985
INSTANTANEOUS LOW FLOW	117	(d)	75	(f)	g35	Jan 4 1983
ANNUAL RUNOFF (CFSM)	1.37		1.34		1.18	
ANNUAL RUNOFF (INCHES)	18.61		18.15		15.96	

a Sept. 1-3.
b Sept. 17, 18, 1986.
c From floodmarks.
d Aug. 18, 19.
f Sept. 1-4.
g 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.

PERIOD OF RECORD.--September 1944 to current year.

REVISED RECORDS.--WSP 1502: 1945-46, 1948(M).

GAGE.--Water-stage recorder. Datum of gage is 262.78 ft above National Geodetic Vertical Datum of 1929 (Baltimore County bench mark).

REMARKS.--No estimated daily discharges. Records good except those for Aug. 20 to Sept. 6 (partial plugging of the intake), which are fair. Several measurements of water temperature were made during the year.

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)
Oct. 23	1800	1,020	4.30	Nov. 10	1545	*1,440	*5.20

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34	46	43	118	84	70	96	73	45	29	22	20
2	32	45	43	102	83	74	92	71	45	31	21	20
3	31	44	104	94	83	75	88	70	56	32	20	19
4	32	43	321	87	82	102	87	68	47	31	20	19
5	36	43	111	82	81	81	87	68	43	33	19	39
6	32	48	85	86	88	76	87	88	42	32	18	26
7	30	43	73	104	97	83	83	83	41	36	18	24
8	30	42	68	90	88	73	81	70	40	36	21	22
9	58	41	64	87	84	71	80	69	39	30	24	21
10	37	488	61	87	81	70	77	68	37	28	27	20
11	37	132	59	99	78	69	73	65	37	28	20	20
12	46	81	57	285	75	67	72	64	37	26	19	20
13	107	68	56	156	77	69	78	62	35	30	18	19
14	57	62	54	121	111	78	90	62	34	26	18	19
15	43	59	94	111	91	86	118	59	34	25	18	19
16	39	56	87	217	78	87	98	57	33	24	18	19
17	37	58	67	198	76	77	84	63	33	23	17	19
18	139	53	82	143	78	159	79	65	66	23	16	19
19	120	51	73	123	85	113	76	58	47	22	46	32
20	55	50	65	116	89	94	77	56	41	22	245	24
21	48	49	83	130	80	88	98	55	37	21	42	22
22	46	48	83	107	77	87	116	54	37	21	23	21
23	305	54	87	99	74	242	91	53	39	21	22	21
24	120	50	178	97	73	163	92	51	38	19	23	22
25	71	48	99	92	74	121	87	50	35	20	23	198
26	59	46	85	88	73	107	81	48	33	42	21	46
27	54	45	78	89	71	117	78	46	32	34	22	31
28	51	45	88	89	70	105	77	46	31	24	22	27
29	48	45	85	87	---	98	76	48	30	25	22	26
30	47	43	255	89	---	117	76	70	29	26	23	25
31	46	---	196	101	---	102	---	50	---	24	22	---
TOTAL	1927	2026	2984	3574	2281	3021	2575	1910	1173	844	910	879
MEAN	62.2	67.5	96.3	115	81.5	97.5	85.8	61.6	39.1	27.2	29.4	29.3
MAX	305	488	321	285	111	242	118	88	66	42	245	198
MIN	30	41	43	82	70	67	72	46	29	19	16	19
CFSM	1.04	1.13	1.61	1.93	1.36	1.63	1.44	1.03	.65	.46	.49	.49
IN.	1.20	1.26	1.86	2.22	1.42	1.88	1.60	1.19	.73	.53	.57	.55

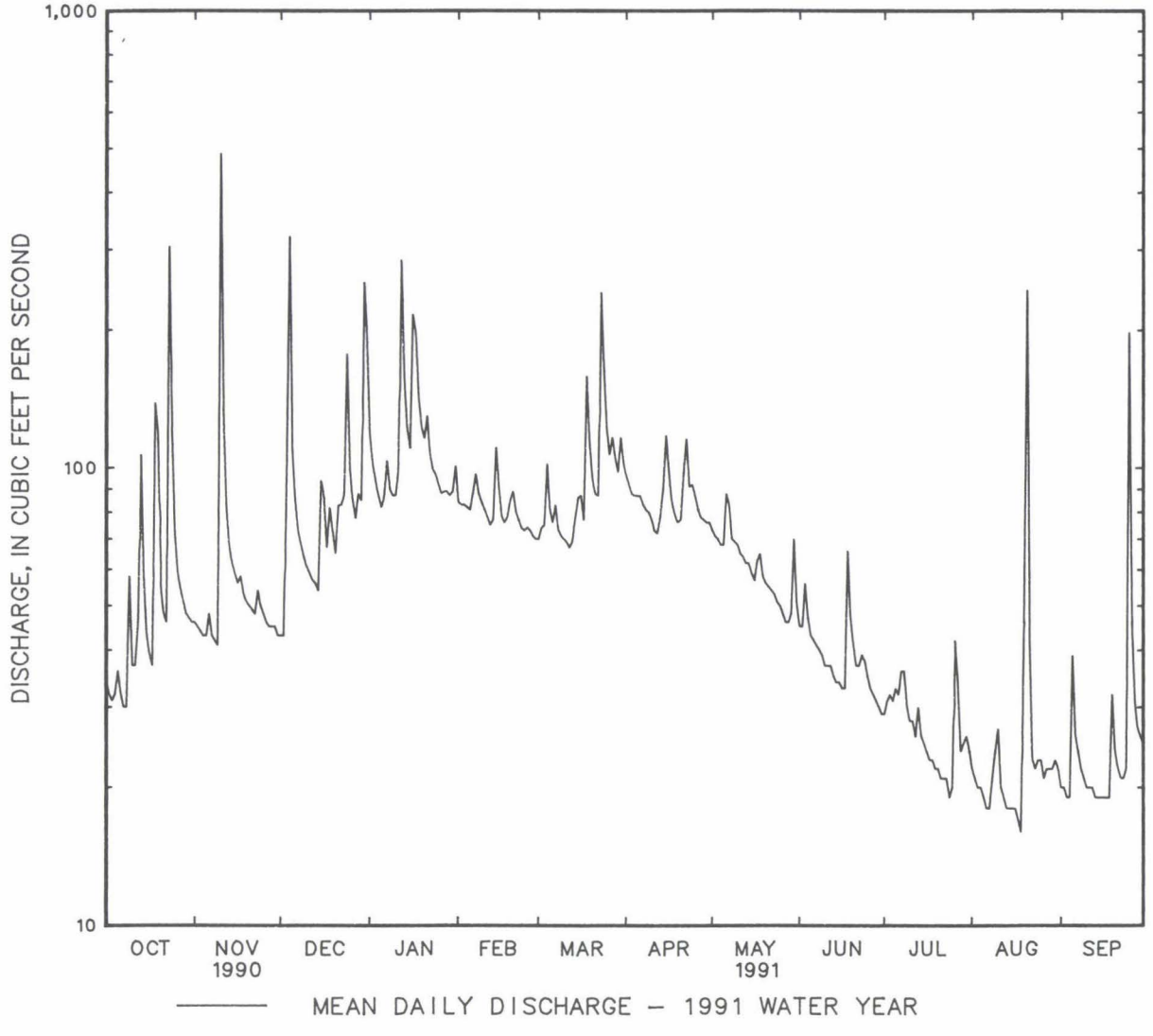
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1945 - 1991, BY WATER YEAR (WY)

MEAN	45.9	54.9	66.0	79.4	92.8	91.0	87.6	82.3	71.9	55.9	49.4	48.6
MAX	209	131	185	222	240	206	209	227	395	164	183	261
(WY)	1980	1953	1973	1979	1979	1978	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 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1945 - 1991	
ANNUAL TOTAL	27564		24089			
ANNUAL MEAN	75.5		66.0		68.7	
HIGHEST ANNUAL MEAN					138	1972
LOWEST ANNUAL MEAN					28.9	1966
HIGHEST DAILY MEAN	488	Nov 10	488	Nov 10	7000	Jun 22 1972
LOWEST DAILY MEAN	30	Oct 7	16	Aug 18	2.5	Sep 12 1966
ANNUAL SEVEN-DAY MINIMUM	32	Oct 2	17	Aug 12	3.8	Sep 6 1966
INSTANTANEOUS PEAK FLOW	1450	May 13	1440	Nov 10	a38000	Jun 22 1972
INSTANTANEOUS PEAK STAGE	5.12	May 13	5.10	Nov 10	b26.00	Jun 22 1972
INSTANTANEOUS LOW FLOW	30	(c)	16	(d)	2.4	Sep 12 1966
ANNUAL RUNOFF (CFSM)	1.26		1.10		1.15	
ANNUAL RUNOFF (INCHES)	17.15		14.99		15.60	
10 PERCENT EXCEEDS	109		107		115	
50 PERCENT EXCEEDS	67		58		52	
90 PERCENT EXCEEDS	38		21		23	

a From rating curve extended above 3,200 ft^3/s, on basis of slope-area measurement and contracted-opening measurement of peak flow.
b From floodmarks.
c Oct. 7, 8.
d Aug. 18, 19.



01583600 BEAVERDAM RUN AT COCKEYSVILLE, MD

LOCATION.--Lat 39°29'13", long 76°38'42", Baltimore County, Hydrologic Unit 02060003, on left bank 50 ft upstream from bridge on Beaverdam Run Lane, 600 ft downstream from bridge on Maryland Route 45 at Cockeysville, and 0.45 mi upstream from mouth.

DRAINAGE AREA.--20.9 mi^2.

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

REVISED RECORDS.--WDR MD-DE-88: 1983-87.

GAGE.--Water-stage recorder. Datum of gage is 239.04 ft above National Geodetic Vertical Datum of 1929. Previously operated as a low-flow site during water years 1955-59 and 1962-64 at site 600 ft upstream.

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

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)
Nov. 10	1345	*757	*5.86	Aug. 19	2130	718	5.71
July 26	1500	750	5.84				

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	20	16	41	28	25	31	23	16	11	11	10
2	15	19	16	36	28	29	29	22	16	14	9.8	11
3	15	18	82	32	28	35	27	21	40	13	9.2	11
4	22	18	129	29	28	58	27	21	17	13	10	22
5	17	18	38	29	27	29	28	21	16	13	8.9	34
6	15	25	31	32	36	30	27	50	16	13	7.7	12
7	15	18	27	45	35	30	27	26	15	24	7.3	13
8	15	17	26	32	28	26	26	24	15	15	8.1	13
9	26	18	25	35	27	26	26	23	14	11	35	10
10	16	330	24	33	26	25	26	22	14	11	17	8.2
11	21	48	24	76	26	24	25	22	14	11	9.6	8.8
12	26	27	24	131	26	25	25	21	14	9.8	10	8.6
13	38	23	24	53	31	27	36	21	12	34	8.7	8.1
14	21	22	23	42	51	44	31	20	11	12	10	9.8
15	18	21	69	38	30	37	61	20	11	10	10	10
16	17	20	31	79	26	30	33	20	12	9.4	9.3	9.4
17	16	26	26	58	26	27	29	36	13	9.0	8.6	15
18	62	19	38	45	26	108	27	23	56	8.8	8.1	13
19	34	18	26	40	31	39	25	21	19	9.2	83	13
20	21	17	24	37	28	30	26	20	16	8.8	107	12
21	19	17	51	44	27	28	57	19	15	11	20	8.6
22	20	17	31	35	26	32	37	19	15	10	15	8.5
23	140	20	57	33	26	164	27	19	16	7.6	13	8.4
24	40	17	72	31	25	55	30	18	16	7.4	12	33
25	28	17	34	30	26	39	26	18	14	7.8	12	118
26	24	17	30	30	26	33	25	17	14	99	12	23
27	23	16	28	30	25	42	24	17	13	18	11	16
28	23	16	35	29	25	32	24	16	12	13	11	14
29	20	16	39	29	---	33	24	25	12	17	11	14
30	20	16	124	32	---	56	24	23	11	14	10	12
31	20	---	66	32	---	34	---	19	---	13	11	---
TOTAL	822	911	1290	1298	798	1252	890	687	495	477.8	526.3	507.4
MEAN	26.5	30.4	41.6	41.9	28.5	40.4	29.7	22.2	16.5	15.4	17.0	16.9
MAX	140	330	129	131	51	164	61	50	56	99	107	118
MIN	15	16	16	29	25	24	24	16	11	7.4	7.3	8.1
CFSM	1.27	1.45	1.99	2.00	1.36	1.93	1.42	1.06	.79	.74	.81	.81
IN.	1.46	1.62	2.30	2.31	1.42	2.23	1.58	1.22	.88	.85	.94	.90

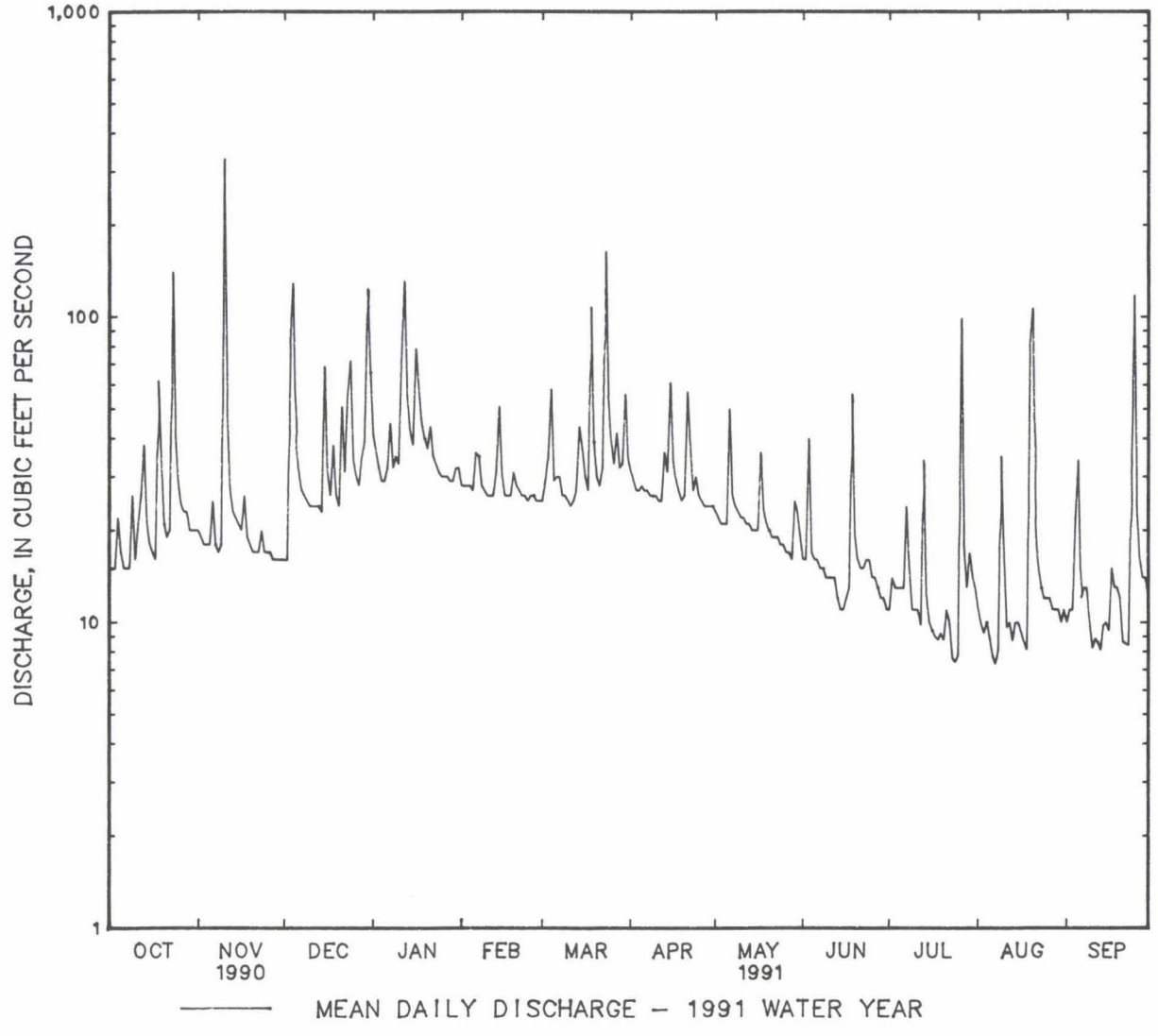
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 1991, BY WATER YEAR (WY)

MEAN	19.7	27.4	28.2	28.1	33.0	33.8	37.0	41.3	24.9	25.2	19.6	19.8
MAX	33.0	34.5	59.0	41.9	50.9	47.4	81.6	80.5	43.7	49.8	39.7	36.7
(WY)	1990	1988	1984	1991	1984	1983	1983	1989	1983	1984	1990	1987
MIN	10.4	14.8	15.0	17.0	22.7	21.4	18.5	14.5	9.23	8.94	10.0	7.29
(WY)	1983	1983	1983	1985	1987	1985	1985	1986	1986	1986	1985	1986

01583600 BEAVERDAM RUN AT COCKEYSVILLE, MD--Continued

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1983 - 1991	
ANNUAL TOTAL	12221		9954.5			
ANNUAL MEAN	33.5		27.3		28.1	
HIGHEST ANNUAL MEAN					39.0	1984
LOWEST ANNUAL MEAN					17.2	1986
HIGHEST DAILY MEAN	330	Nov 10	330	Nov 10	600	Feb 12 1985
LOWEST DAILY MEAN	14	Jul 7	7.3	Aug 7	5.5	Aug 16 1986
ANNUAL SEVEN-DAY MINIMUM	16	Sep 27	8.7	Aug 2	5.8	Aug 10 1986
INSTANTANEOUS PEAK FLOW	810	Jul 12	757	Nov 10	a3360	Jul 1 1984
INSTANTANEOUS PEAK STAGE	6.07	Jul 12	5.86	Nov 10	b12.10	Jul 1 1984
INSTANTANEOUS LOW FLOW	13	Jul 7	5.5	Aug 29	4.1	Oct 1 1986
ANNUAL RUNOFF (CFSM)	1.60		1.30		1.35	
ANNUAL RUNOFF (INCHES)	21.75		17.72		18.28	
10 PERCENT EXCEEDS	54		42		48	
50 PERCENT EXCEEDS	25		23		21	
90 PERCENT EXCEEDS	17		10		10	

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



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.

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

GAGE.--Water-stage recorder. Elevation of gage is 230 ft above National Geodetic Vertical Datum of 1929, from topographic map.

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

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)
Aug. 20	1115	*297	*3.49	No peak greater than base discharge.			

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.3	8.0	7.7	17	13	11	14	10	6.1	4.2	3.3	2.7
2	7.0	7.9	7.7	16	12	12	13	9.8	6.1	5.4	3.0	2.5
3	7.0	7.7	22	15	12	12	13	9.6	7.4	5.0	2.9	2.5
4	8.6	7.7	58	14	12	24	13	9.6	6.5	4.7	3.1	3.2
5	7.9	7.7	14	13	12	13	13	9.5	6.1	4.7	2.8	6.1
6	7.3	8.1	12	14	13	12	12	13	6.0	4.6	2.7	3.3
7	7.0	7.4	11	17	14	13	12	11	5.7	5.7	2.5	3.2
8	6.9	7.3	10	15	13	11	11	9.8	5.7	5.2	2.6	3.0
9	7.7	7.3	10	15	12	11	11	9.6	5.3	4.4	11	2.9
10	7.0	69	9.3	16	12	10	11	9.5	5.2	4.0	6.0	2.9
11	7.6	15	9.3	27	12	10	11	9.2	5.1	3.9	3.6	2.8
12	10	11	9.3	90	11	10	10	9.0	5.2	3.5	3.3	2.7
13	10	10	9.3	25	12	10	12	9.1	5.0	9.8	3.1	2.7
14	8.3	9.3	9.0	19	16	13	13	9.1	4.8	4.5	3.2	6.7
15	7.5	9.1	20	17	13	13	17	8.4	4.9	3.9	3.6	3.5
16	7.0	9.3	13	35	12	12	13	7.9	4.8	3.6	3.2	3.3
17	7.0	9.5	11	24	11	11	12	9.4	5.1	3.6	3.0	8.0
18	15	8.9	15	18	12	33	11	9.3	8.2	3.3	2.9	6.0
19	9.9	8.7	12	17	13	16	11	8.6	6.2	3.3	10	3.9
20	7.9	8.4	11	17	13	13	11	8.2	5.9	3.3	51	3.7
21	7.7	8.3	16	17	12	13	18	7.9	5.3	3.2	6.3	3.2
22	7.7	8.3	14	15	11	12	15	7.7	5.2	3.1	5.2	3.1
23	47	9.0	26	14	11	61	12	7.7	5.4	3.0	4.1	3.1
24	14	8.4	32	14	11	22	13	7.6	5.4	2.8	3.7	3.8
25	10	8.3	15	13	11	17	12	7.2	5.0	3.1	3.5	26
26	9.3	8.0	13	13	11	15	11	6.9	4.7	6.0	3.3	8.2
27	8.9	8.0	12	13	11	17	11	6.7	4.6	4.4	3.3	5.0
28	8.6	7.7	15	13	10	15	11	6.8	4.4	3.6	3.3	4.4
29	8.0	7.7	15	13	---	14	11	6.6	4.3	3.9	3.1	4.2
30	8.0	7.7	66	14	---	19	11	6.6	4.2	4.1	2.9	3.9
31	8.0	---	29	15	---	15	---	6.5	---	3.6	2.9	---
TOTAL	301.1	318.7	533.6	595	338	490	369	267.8	163.8	131.4	168.4	140.5
MEAN	9.71	10.6	17.2	19.2	12.1	15.8	12.3	8.64	5.46	4.24	5.43	4.68
MAX	47	69	66	90	16	61	18	13	8.2	9.8	51	26
MIN	6.9	7.3	7.7	13	10	10	10	6.5	4.2	2.8	2.5	2.5
CFSM	1.03	1.13	1.83	2.04	1.28	1.68	1.31	.92	.58	.45	.58	.50
IN.	1.19	1.26	2.11	2.35	1.34	1.94	1.46	1.06	.65	.52	.67	.56

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1976 - 1991, BY WATER YEAR (WY)

MEAN	8.12	8.80	11.1	14.4	14.7	14.7	14.1	13.5	10.5	9.82	8.43	8.46
MAX	25.1	18.0	26.9	38.4	39.3	28.8	35.3	28.1	17.0	28.0	26.9	32.2
(WY)	1980	1980	1984	1979	1979	1978	1983	1989	1990	1989	1978	1979
MIN	2.97	3.05	4.04	3.67	8.24	6.02	7.37	5.94	3.85	2.49	2.97	2.41
(WY)	1987	1982	1981	1981	1977	1981	1981	1986	1986	1986	1981	1986

01584050 LONG GREEN CREEK AT GLEN ARM, MD

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1976 - 1991	
ANNUAL TOTAL	5024.1		3817.3			
ANNUAL MEAN	13.8		10.5		11.4	
HIGHEST ANNUAL MEAN					18.1	1979
LOWEST ANNUAL MEAN					5.33	1981
HIGHEST DAILY MEAN	91	Aug 6	90	Jan 12	408	Jan 26 1978
LOWEST DAILY MEAN	6.9	Oct 8	2.5	(a)	1.5	Aug 15 1986
ANNUAL SEVEN-DAY MINIMUM	7.3	Oct 5	2.8	Aug 2	1.6	Aug 10 1986
INSTANTANEOUS PEAK FLOW	621	Aug 6	297	Aug 20	b3250	Jul 1 1984
INSTANTANEOUS PEAK STAGE	4.30	Aug 6	3.49	Aug 20	6.70	Jul 1 1984
INSTANTANEOUS LOW FLOW	6.7	(c)	2.5	(d)	f1.0	Jan 29 1977
ANNUAL RUNOFF (CFSM)	1.46		1.11		1.21	
ANNUAL RUNOFF (INCHES)	19.88		15.11		16.45	
10 PERCENT EXCEEDS	20		16		18	
50 PERCENT EXCEEDS	10		9.1		8.5	
90 PERCENT EXCEEDS	7.9		3.3		3.6	

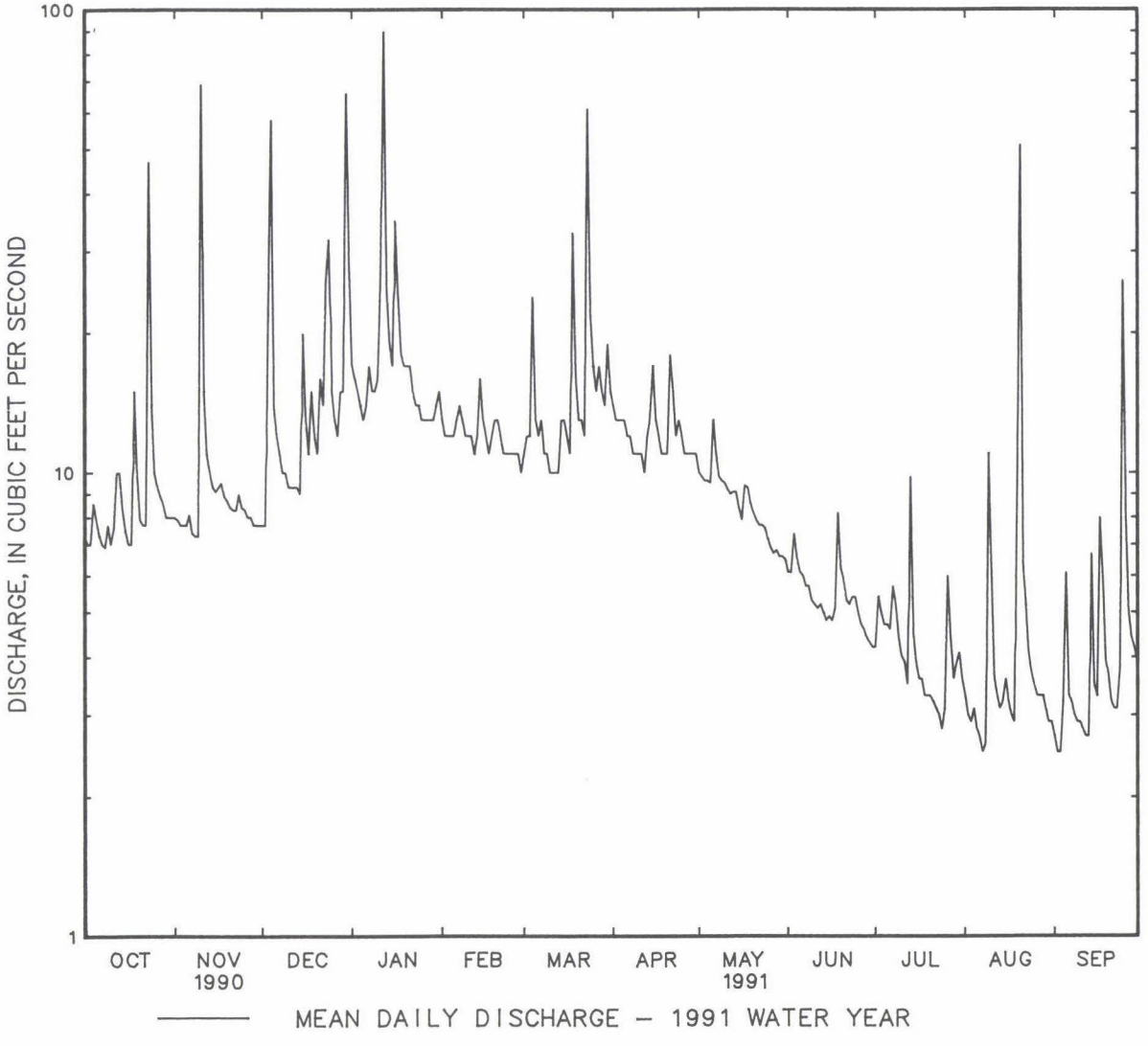
a Aug. 7, Sept. 2, 3.

b From rating curve extended above 1,300 ft^3/s.

c Oct. 7, 8.

d Aug. 6-8, Sept. 1-4.

f Result of freezeup.



01585105 HONEYGO RUN AT WHITE MARSH, MD

LOCATION.--Lat 39°22'41", long 76°25'46", Baltimore County, Hydrologic Unit 02060003, on right bank at downstream side of bridge on U. S. Highway 40, 800 ft upstream from Whitemarsh Run, 1,000 ft southwest of Ebenezer Road, and 0.3 mi northeast of Whitemarsh Blvd.

DRAINAGE AREA.--2.65 mi^2.

PERIOD OF RECORD.--August 1990 to September 1991.

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

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

PEAK DISCHARGES FOR CURRENT PERIOD.--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)
Aug. 6, 1990	1930	253	3.58	Jan. 12, 1991	0130	341	4.22
Aug. 22, 1990	0800	*500	*5.20	Sept. 17, 1991	2130	*502	*5.21

DISCHARGE, IN CUBIC FEET PER SECOND, AUGUST 1990 TO SEPTEMBER 1990
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	---	.87	1.5
2	---	---	---	---	---	---	---	---	---	---	.79	1.5
3	---	---	---	---	---	---	---	---	---	---	.74	1.4
4	---	---	---	---	---	---	---	---	---	---	.72	1.2
5	---	---	---	---	---	---	---	---	---	---	1.3	1.2
6	---	---	---	---	---	---	---	---	---	---	43	1.2
7	---	---	---	---	---	---	---	---	---	---	5.1	1.2
8	---	---	---	---	---	---	---	---	---	---	1.8	1.1
9	---	---	---	---	---	---	---	---	---	---	36	1.0
10	---	---	---	---	---	---	---	---	---	---	12	1.1
11	---	---	---	---	---	---	---	---	---	---	8.0	1.0
12	---	---	---	---	---	---	---	---	---	---	3.4	1.0
13	---	---	---	---	---	---	---	---	---	---	3.1	1.1
14	---	---	---	---	---	---	---	---	---	---	2.7	1.3
15	---	---	---	---	---	---	---	---	---	---	.89	1.2
16	---	---	---	---	---	---	---	---	---	---	.74	1.9
17	---	---	---	---	---	---	---	---	---	---	.60	1.5
18	---	---	---	---	---	---	---	---	---	---	.53	.78
19	---	---	---	---	---	---	---	---	---	---	.54	1.1
20	---	---	---	---	---	---	---	---	---	---	2.4	1.4
21	---	---	---	---	---	---	---	---	---	---	.82	.85
22	---	---	---	---	---	---	---	---	---	---	e120	4.9
23	---	---	---	---	---	---	---	---	---	---	11	1.8
24	---	---	---	---	---	---	---	---	---	---	5.2	1.2
25	---	---	---	---	---	---	---	---	---	---	5.2	1.1
26	---	---	---	---	---	---	---	---	---	---	3.5	1.1
27	---	---	---	---	---	---	---	---	---	---	2.7	1.1
28	---	---	---	---	---	---	---	---	---	---	2.3	1.1
29	---	---	---	---	---	---	---	---	---	---	2.0	1.0
30	---	---	---	---	---	---	---	---	---	---	1.7	1.2
31	---	---	---	---	---	---	---	---	---	---	1.6	---
TOTAL	---	---	---	---	---	---	---	---	---	---	281.24	40.03
MEAN	---	---	---	---	---	---	---	---	---	---	9.07	1.33
MAX	---	---	---	---	---	---	---	---	---	---	120	4.9
MIN	---	---	---	---	---	---	---	---	---	---	.53	.78
CFSM	---	---	---	---	---	---	---	---	---	---	3.42	.50
IN.	---	---	---	---	---	---	---	---	---	---	3.95	.56

e Estimated

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

MEAN	---	---	---	---	---	---	---	---	---	---	10.0	1.33
MAX	---	---	---	---	---	---	---	---	---	---	10.0	1.33
(WY)	---	---	---	---	---	---	---	---	---	---	1990	1990
MIN	---	---	---	---	---	---	---	---	---	---	10.0	1.33
(WY)	---	---	---	---	---	---	---	---	---	---	1990	1990

HONEYGO RUN AT WHITE MARSH, MD--Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.2	1.7	1.5	4.8	2.0	1.7	3.7	1.8	.80	.36	.38	.36
2	.96	1.7	1.5	3.9	2.0	2.1	3.2	1.6	.73	.53	.31	.36
3	.89	1.6	8.1	3.3	1.9	2.9	2.9	1.5	1.8	.52	.48	.36
4	3.1	1.5	21	2.9	1.8	14	2.6	1.5	.84	.52	.32	.39
5	2.3	1.5	4.3	2.8	1.8	3.9	2.6	1.5	.59	.55	.24	1.6
6	1.2	2.1	2.8	3.6	2.4	3.0	2.6	5.2	.52	.55	.20	.53
7	1.1	1.7	2.4	8.4	3.4	3.9	2.4	2.5	.52	.68	.23	.48
8	1.1	1.5	2.1	4.8	2.4	2.5	2.2	1.7	.52	.65	5.9	.36
9	1.1	1.6	2.0	6.9	2.1	2.2	2.2	1.5	.50	.39	16	.35
10	1.0	e38	2.0	6.4	2.0	2.1	2.2	1.5	.44	.30	1.2	.30
11	1.5	5.8	1.8	27	1.8	1.9	1.9	1.4	.43	.24	.65	.30
12	3.5	3.5	1.7	78	1.7	1.8	1.8	1.3	.54	1.6	.49	.30
13	7.6	2.5	1.7	7.7	1.9	1.9	2.7	1.3	.47	.47	.44	.30
14	2.2	2.2	1.6	4.9	5.7	5.6	3.5	1.3	.36	.29	.49	.49
15	1.4	2.0	13	4.1	2.5	4.2	5.0	1.2	.36	.23	.64	.50
16	1.2	1.9	4.9	11	1.8	2.6	3.2	1.0	.36	.21	.50	.42
17	1.1	2.3	2.9	6.8	1.8	2.3	2.4	2.8	.77	.19	.44	70
18	9.5	2.1	7.9	4.1	1.9	30	2.1	1.7	5.4	.19	.41	23
19	3.4	1.9	3.6	3.5	2.3	5.4	2.0	1.3	1.1	.21	3.2	6.7
20	1.7	1.9	2.6	3.2	2.5	3.5	2.0	1.1	.81	.23	5.4	4.6
21	1.5	1.7	8.9	3.7	2.0	2.9	8.2	1.0	.59	.20	.98	2.5
22	1.5	1.7	4.8	2.6	2.0	2.8	4.9	1.0	.52	.23	.63	2.1
23	31	2.6	13	2.4	1.7	e40	2.9	1.0	.71	.19	.51	1.9
24	5.0	2.0	16	2.5	1.7	9.1	3.4	.92	.73	.36	.49	2.6
25	2.6	1.8	4.2	2.2	1.7	5.1	2.6	.92	.58	3.5	.36	30
26	2.0	1.7	3.3	2.1	1.7	4.0	2.2	.90	.50	2.4	.36	6.3
27	1.8	1.7	2.7	2.2	1.7	5.2	2.0	.80	.44	.51	.36	1.8
28	1.8	1.7	5.8	2.2	1.7	3.8	2.0	.80	.44	.43	.36	1.3
29	1.7	1.7	8.1	2.1	---	5.2	1.8	.86	.43	.82	.36	1.1
30	1.7	1.6	31	2.1	---	11	1.8	1.1	.36	.46	.36	.95
31	1.7	---	14	2.7	---	4.3	---	1.5	---	.38	.36	---
TOTAL	99.35	97.2	201.2	224.9	59.9	190.9	85.0	45.50	23.16	18.39	43.05	162.25
MEAN	3.20	3.24	6.49	7.25	2.14	6.16	2.83	1.47	.77	.59	1.39	5.41
MAX	31	38	31	78	5.7	40	8.2	5.2	5.4	3.5	16	70
MIN	.89	1.5	1.5	2.1	1.7	1.7	1.8	.80	.36	.19	.20	.30
CFSM	1.21	1.22	2.45	2.74	.81	2.32	1.07	.55	.29	.22	.52	2.04
IN.	1.39	1.36	2.82	3.16	.84	2.68	1.19	.64	.33	.26	.60	2.28

e Estimated

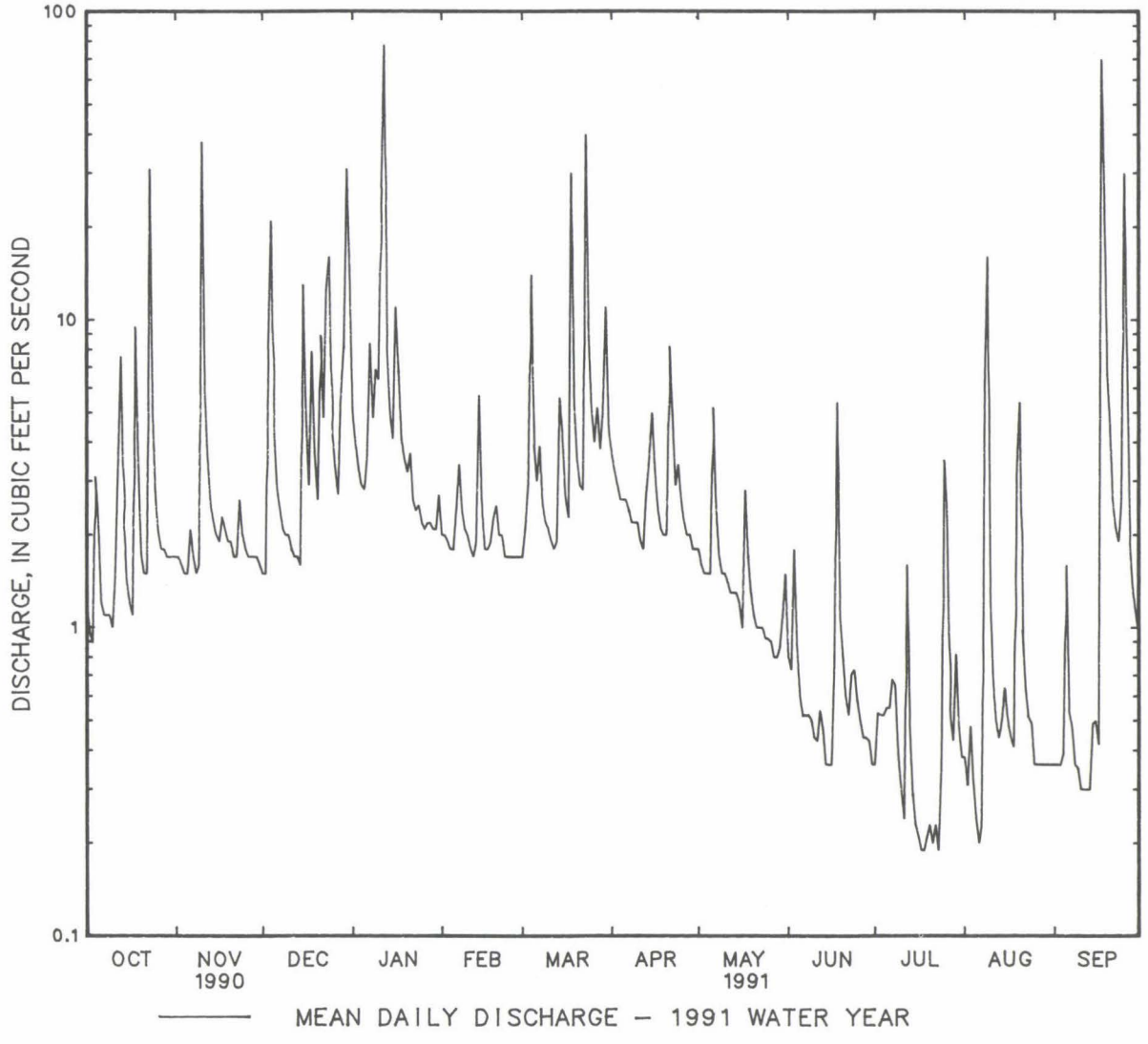
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 1991, BY WATER YEAR (WY)

MEAN	3.20	3.24	6.49	7.25	2.14	6.16	2.83	1.47	.77	.59	5.23	3.37
MAX	3.20	3.24	6.49	7.25	2.14	6.16	2.83	1.47	.77	.59	9.07	5.41
(WY)	1991	1991	1991	1991	1991	1991	1991	1991	1991	1991	1990	1991
MIN	3.20	3.24	6.49	7.25	2.14	6.16	2.83	1.47	.77	.59	1.39	1.33
(WY)	1991	1991	1991	1991	1991	1991	1991	1991	1991	1991	1991	1990

01585105 HONEYGO RUN AT WHITE MARSH, MD--Continued

SUMMARY STATISTICS	FOR 1991 WATER YEAR		WATER YEARS 1990 - 1991	
ANNUAL TOTAL	1250.80			
ANNUAL MEAN	3.43		3.43	
HIGHEST DAILY MEAN	78	Jan 12	120	Aug 22 1990
LOWEST DAILY MEAN	.19	(a)	.19	many days
ANNUAL SEVEN-DAY MINIMUM	.21	Jul 17	.21	Jul 17 1991
INSTANTANEOUS PEAK FLOW	502	Sep 17	502	Sep 17 1991
INSTANTANEOUS PEAK STAGE	5.21	Sep 17	5.21	Sep 17 1991
INSTANTANEOUS LOW FLOW	.19	(b)	.19	many days
ANNUAL RUNOFF (CFSM)	1.29		1.29	
ANNUAL RUNOFF (INCHES)	17.56		17.57	
10 PERCENT EXCEEDS	5.8		5.8	
50 PERCENT EXCEEDS	1.8		1.7	
90 PERCENT EXCEEDS	.36		.39	

a July 17, 18, 23, 1991.
b July 11, 12, 15-19, 21, 23, 24, Aug. 6, 8, 1991.



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.--September 1949 to current year.

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

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 670 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good. 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)
Oct. 18	1745	97	2.87	Aug. 20	1000	*182	*3.28
Oct. 23	1215	117	2.98				

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.34	.71	.39	2.9	4.2	3.1	1.3	2.4	.55	.79	.39	.21
2	.40	.67	.39	.93	4.0	2.8	1.3	1.4	.53	.48	.41	.22
3	.61	.63	8.0	1.3	2.6	2.6	1.4	2.1	.91	.39	.38	.24
4	1.0	.60	9.3	.80	2.5	4.8	.90	2.3	1.3	1.1	.26	.27
5	1.1	.60	2.2	.75	2.5	3.7	1.7	1.7	1.0	1.5	.25	.37
6	.83	.66	1.1	1.0	3.0	3.4	1.3	2.9	1.3	1.4	.26	.29
7	.95	.77	1.1	4.0	3.4	3.6	1.5	3.0	1.3	.82	.47	.24
8	.70	.62	.56	2.5	2.9	2.1	1.5	2.3	.52	1.3	.51	.22
9	.92	.60	.53	1.1	3.1	3.3	1.9	2.4	.86	1.2	.89	.22
10	.45	19	.53	.95	1.8	3.2	2.5	1.4	.92	1.2	.40	.23
11	.85	3.2	.49	4.0	1.7	2.9	2.4	1.0	.57	1.0	.43	.27
12	.89	1.3	.46	13	1.5	3.0	2.4	.98	1.0	.58	.25	.21
13	5.2	1.4	.46	4.4	2.0	2.3	2.9	1.8	.48	.51	.31	.21
14	1.8	.77	.46	2.3	5.5	2.9	4.1	2.5	.98	1.1	.57	.24
15	.46	.71	4.5	2.8	1.8	2.9	5.9	1.4	.59	.67	.24	.23
16	.94	.99	2.6	17	1.7	1.8	4.1	1.2	.50	.84	.22	.21
17	.76	.80	.59	9.8	1.6	3.4	2.8	2.7	.94	.88	.20	.24
18	13	.46	3.8	7.4	2.7	8.1	3.2	2.7	1.2	.61	.20	.24
19	4.2	.48	2.0	5.0	4.6	4.7	2.8	1.6	1.0	.31	1.3	.25
20	2.4	.46	.60	6.0	4.2	2.2	3.4	.92	.50	.32	19	.23
21	1.8	.46	1.1	6.6	3.8	1.9	5.4	1.0	.51	.32	1.3	.22
22	.93	.43	2.5	4.9	3.6	3.1	5.3	.63	.49	.31	.40	.20
23	35	.50	1.0	2.7	3.4	15	3.7	.91	1.0	.34	.43	.21
24	6.2	.46	8.9	2.7	2.1	6.5	2.8	.97	.69	.57	.30	.33
25	2.4	.41	4.2	2.4	1.1	3.8	2.5	1.1	.52	.29	.37	4.4
26	1.1	.47	2.1	2.9	.97	3.9	2.4	1.1	.66	.32	.41	.32
27	1.7	.50	2.3	1.6	2.4	5.4	2.5	.66	.65	.30	.27	.27
28	1.3	.61	1.3	2.1	3.1	2.8	3.1	.68	.58	.27	.38	.23
29	.62	.53	.80	2.8	---	1.9	3.2	3.1	.38	.33	.35	.22
30	1.6	.39	19	3.6	---	3.9	2.8	2.7	.39	.34	.23	.23
31	.82	---	8.8	5.5	---	.97	---	2.0	---	.38	.22	---
TOTAL	91.27	40.19	92.06	125.73	77.77	115.97	83.00	53.55	22.82	20.77	31.60	11.47
MEAN	2.94	1.34	2.97	4.06	2.78	3.74	2.77	1.73	.76	.67	1.02	.38
MAX	35	19	19	17	5.5	15	5.9	3.1	1.3	1.5	19	4.4
MIN	.34	.39	.39	.75	.97	.97	.90	.63	.38	.27	.20	.20
CFSM	.89	.41	.90	1.23	.84	1.14	.84	.53	.23	.20	.31	.12
IN.	1.03	.45	1.04	1.42	.88	1.31	.94	.61	.26	.23	.36	.13

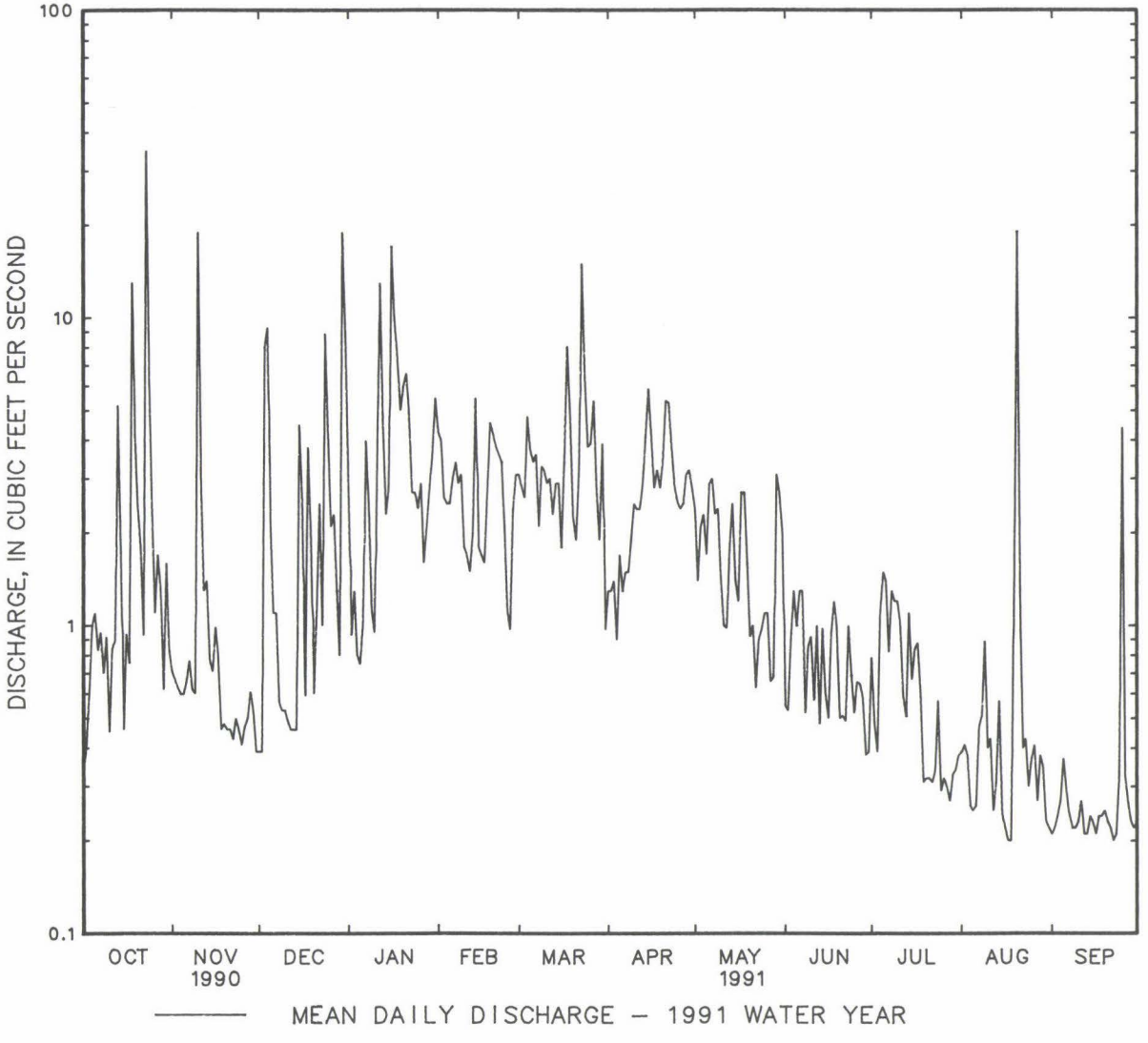
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1950 - 1991, BY WATER YEAR (WY)

MEAN	2.24	2.48	3.09	3.47	4.57	4.43	4.63	4.15	3.74	2.80	2.20	2.47
MAX	9.96	6.66	7.16	10.8	10.7	8.80	11.9	11.3	29.5	11.1	6.91	21.7
(WY)	1980	1953	1973	1978	1974	1978	1952	1952	1972	1972	1955	1975
MIN	.40	.53	1.02	.79	1.32	.77	2.02	.88	.64	.67	.36	.30
(WY)	1987	1974	1989	1981	1967	1981	1966	1986	1986	1991	1986	1977

01585500 CRANBERRY BRANCH NEAR WESTMINSTER, MD--Continued

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1950 - 1991	
ANNUAL TOTAL	1032.17		766.20			
ANNUAL MEAN	a2.83		a2.10		a3.35	
HIGHEST ANNUAL MEAN					7.82	1972
LOWEST ANNUAL MEAN					1.62	1966
HIGHEST DAILY MEAN	55	May 10	35	Oct 23	440	Jun 22 1972
LOWEST DAILY MEAN	.34	Oct 1	.20	(b)	.16	(c)
ANNUAL SEVEN-DAY MINIMUM	.38	Sep 25	.23	Sep 12	.22	Sep 8 1977
INSTANTANEOUS PEAK FLOW	533	May 10	182	Aug 20	d2220	Sep 26 1975
INSTANTANEOUS PEAK STAGE	4.36	May 10	3.28	Aug 20	7.47	Sep 26 1975
INSTANTANEOUS LOW FLOW	.29	Oct 10	.16	(f)	UNKNOWN	
ANNUAL RUNOFF (CFSM)	.86		.64		1.02	
ANNUAL RUNOFF (INCHES)	11.67		8.66		13.82	
10 PERCENT EXCEEDS	5.6		4.2		5.8	
50 PERCENT EXCEEDS	1.6		1.1		2.3	
90 PERCENT EXCEEDS	.48		.27		.91	

a Unadjusted for storage and diversions.
b Aug. 17, 18, Sept. 22.
c Oct. 29, 30, 1986.
d 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.
f Aug. 16-18.



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.

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

REVISED RECORDS.--WSP 1903: 1959-60.

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 425 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good. Slight diurnal fluctuation at low and medium flow caused by mill upstream from station. Low flow affected slightly by Cranberry Reservoir since August 1957, capacity, 113,700,000 gal. Records do not include a mean discharge of 2.90 ft^3/s diverted upstream from station for municipal supply of Westminster; sewage effluent discharged into Little Pipe Creek in Monocacy River basin. Several measurements of water temperature were made during the year.

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)
Oct. 18	1945	1,630	5.51	Nov. 10	1445	1,370	5.11
Oct. 23	1600	*2,380	*6.61	Aug. 20	1015	2,060	6.14

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	52	36	104	72	56	74	56	35	20	13	15
2	22	49	37	90	71	61	70	54	36	21	12	15
3	21	47	146	85	70	62	67	52	46	22	12	15
4	23	45	190	79	69	84	64	51	34	21	12	19
5	27	45	83	73	68	64	67	49	31	23	11	53
6	23	49	65	78	74	60	67	73	31	22	10	24
7	22	38	60	97	84	68	61	66	31	23	11	22
8	21	37	56	81	74	58	60	52	30	24	14	20
9	38	37	52	76	70	57	58	51	30	20	16	19
10	23	431	49	78	68	57	60	51	28	19	29	19
11	31	99	47	88	65	54	57	47	28	19	14	19
12	39	59	45	252	62	53	54	46	28	18	12	18
13	221	52	45	130	64	54	60	43	26	21	12	19
14	60	48	44	99	107	63	73	49	26	18	12	19
15	37	52	88	95	79	69	98	41	26	16	12	18
16	31	49	74	274	64	64	77	38	26	16	12	17
17	30	51	56	170	63	59	65	48	27	15	11	16
18	337	46	83	127	65	128	63	52	41	15	10	26
19	125	43	70	114	75	85	59	46	31	15	63	22
20	56	43	56	110	81	71	61	40	30	15	599	20
21	44	41	78	122	68	66	82	39	27	16	70	18
22	39	41	73	99	64	66	106	37	26	14	30	18
23	784	51	83	91	61	259	72	36	28	14	24	18
24	130	45	169	89	60	127	75	35	27	12	22	21
25	81	42	90	84	59	97	67	35	25	13	20	150
26	66	40	75	79	60	87	63	34	23	15	19	37
27	61	39	68	79	58	102	60	32	22	15	19	24
28	60	39	75	79	57	86	60	32	22	14	18	23
29	56	39	79	78	---	79	59	35	21	16	18	21
30	54	37	302	79	---	97	59	59	20	18	17	20
31	53	---	166	95	---	79	---	38	---	15	17	---
TOTAL	2640	1786	2640	3274	1932	2472	2018	1417	862	545	1171	765
MEAN	85.2	59.5	85.2	106	69.0	79.7	67.3	45.7	28.7	17.6	37.8	25.5
MAX	784	431	302	274	107	259	106	73	46	24	599	150
MIN	21	37	36	73	57	53	54	32	20	12	10	15
CFSM	1.50	1.05	1.50	1.87	1.22	1.41	1.19	.81	.51	.31	.67	.45
IN.	1.74	1.17	1.74	2.15	1.27	1.62	1.33	.93	.57	.36	.77	.50

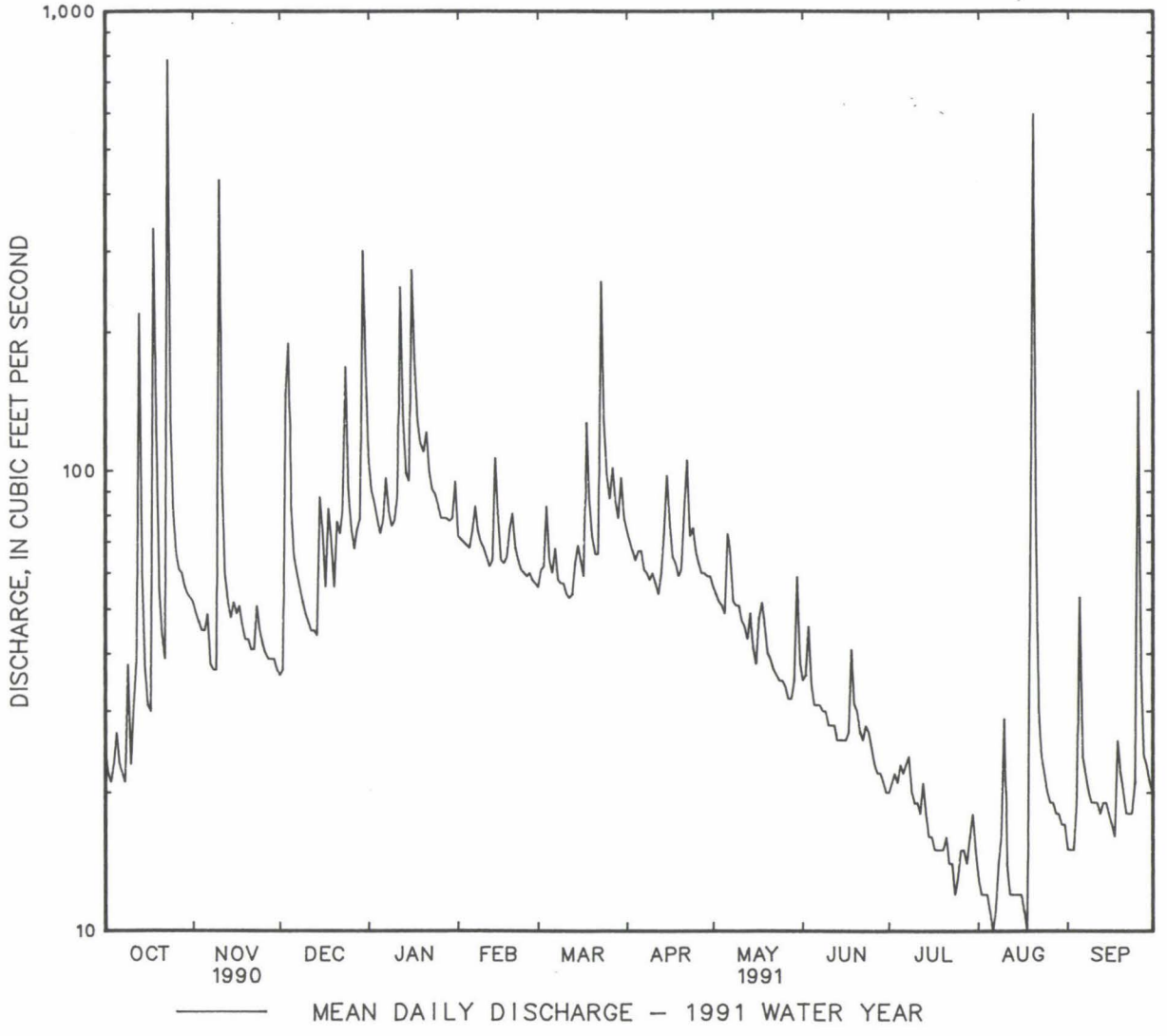
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1946 - 1991, BY WATER YEAR (WY)

MEAN	41.8	49.6	61.1	72.4	87.1	89.9	85.1	76.8	65.3	48.9	42.4	42.5
MAX	214	114	164	212	212	186	204	201	389	149	165	356
(WY)	1980	1953	1973	1979	1979	1978	1952	1952	1972	1972	1955	1975
MIN	11.8	15.8	15.5	17.6	38.8	37.1	36.3	26.3	19.5	9.72	6.91	12.4
(WY)	1964	1966	1966	1966	1967	1959	1969	1969	1969	1966	1966	1964

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

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1946 - 1991	
ANNUAL TOTAL	25716		21522			
ANNUAL MEAN	70.5		59.0		63.4	
HIGHEST ANNUAL MEAN					121	1972
LOWEST ANNUAL MEAN					30.1	1966
HIGHEST DAILY MEAN	784	Oct 23	784	Oct 23	6000	Jun 22 1972
LOWEST DAILY MEAN	21	(a)	10	(b)	3.1	(c)
ANNUAL SEVEN-DAY MINIMUM	23	Oct 2	12	Aug 1	3.5	Sep 7 1966
INSTANTANEOUS PEAK FLOW	3040	Oct 23	3040	Oct 23	d27800	Jun 22 1972
INSTANTANEOUS PEAK STAGE	7.94	Oct 23	7.94	Oct 23	f20.75	Jun 22 1972
INSTANTANEOUS LOW FLOW	3.9	Jun 30	3.5	Jul 2	1.3	(g)
ANNUAL RUNOFF (CFSM)	1.24		1.04		1.12	
ANNUAL RUNOFF (INCHES)	16.90		14.15		15.23	
10 PERCENT EXCEEDS	107		95		110	
50 PERCENT EXCEEDS	56		49		44	
90 PERCENT EXCEEDS	28		16		19	

a Oct. 3, 8.
b Aug. 6, 18.
c Sept. 10, 12, 1966.
d From rating curve extended above 4,100 ft^3/s on basis of contracted-opening measurement of peak flow.
f From high-water mark in well.
g Sept. 17, 1983 and Aug. 10, 1985, result of regulation.



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.

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

GAGE.--Water-stage recorder. Datum of gage is 428.70 ft (corrected) above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for Dec. 26, 27, Jan. 1, Apr. 21, 22 (missing or erroneous record), which are fair. Several measurements of water temperature were made during the year.

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)
Oct. 23	1345	856	3.99	Aug. 20	1215	*1,660	*5.35

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.7	13	12	e36	22	18	21	17	10	4.6	3.9	4.0
2	6.2	13	12	30	22	18	21	16	11	5.0	3.4	3.8
3	6.2	13	38	26	21	19	20	16	10	5.2	3.1	3.9
4	6.7	13	47	24	21	23	19	16	9.3	5.1	3.3	7.3
5	7.6	12	22	22	21	19	19	15	8.9	5.6	3.1	13
6	6.5	14	19	23	22	18	19	22	8.7	5.5	2.8	6.1
7	6.3	13	17	28	26	20	18	18	8.6	5.3	3.0	5.3
8	6.2	12	16	24	22	18	18	16	8.1	5.3	3.7	4.7
9	16	12	15	23	21	17	18	15	8.1	4.7	4.8	4.4
10	7.6	119	14	23	20	17	18	15	7.7	4.4	5.7	4.2
11	9.1	28	14	31	20	17	17	14	7.7	4.5	3.9	4.2
12	12	20	13	76	19	16	17	13	7.7	4.2	3.5	4.1
13	32	17	13	39	19	16	18	13	7.3	4.6	3.3	4.0
14	12	16	12	32	31	18	20	13	6.7	4.2	3.1	4.1
15	8.8	15	25	30	23	20	30	13	6.7	3.8	3.3	4.1
16	8.0	14	18	75	21	19	22	12	6.2	3.6	3.2	4.3
17	7.6	14	15	48	19	17	20	16	6.3	3.6	2.7	4.1
18	16	13	19	43	19	40	19	15	11	3.5	2.6	8.1
19	22	12	17	40	20	24	18	13	8.4	3.5	50	5.5
20	11	12	15	37	23	22	18	12	7.7	3.7	262	4.7
21	9.7	12	20	40	21	20	e25	12	6.8	3.7	15	4.0
22	9.5	12	18	31	20	20	e35	12	7.3	3.4	8.2	3.9
23	145	15	24	30	19	76	21	11	7.5	3.5	6.7	4.1
24	36	14	50	27	18	39	25	11	7.3	3.3	5.7	5.1
25	23	13	25	26	18	30	21	11	6.5	3.6	5.2	44
26	19	13	e22	25	18	26	19	10	6.2	4.1	5.0	10
27	17	13	e17	24	18	29	18	9.9	5.7	4.2	5.0	7.1
28	16	13	21	24	18	25	18	9.6	5.5	3.7	4.8	6.2
29	15	13	20	22	---	24	18	9.5	5.1	4.3	4.8	5.9
30	14	12	82	23	---	27	18	11	4.6	5.0	4.5	5.3
31	14	---	50	27	---	23	---	10	---	4.6	4.3	---
TOTAL	532.7	525	722	1009	582	735	608	417.0	228.6	133.3	443.6	199.5
MEAN	17.2	17.5	23.3	32.5	20.8	23.7	20.3	13.5	7.62	4.30	14.3	6.65
MAX	145	119	82	76	31	76	35	22	11	5.6	262	44
MIN	6.2	12	12	22	18	16	17	9.5	4.6	3.3	2.6	3.8
CFSM	1.23	1.25	1.66	2.32	1.48	1.69	1.45	.96	.54	.31	1.02	.47
IN.	1.42	1.39	1.92	2.68	1.55	1.95	1.62	1.11	.61	.35	1.18	.53

e Estimated

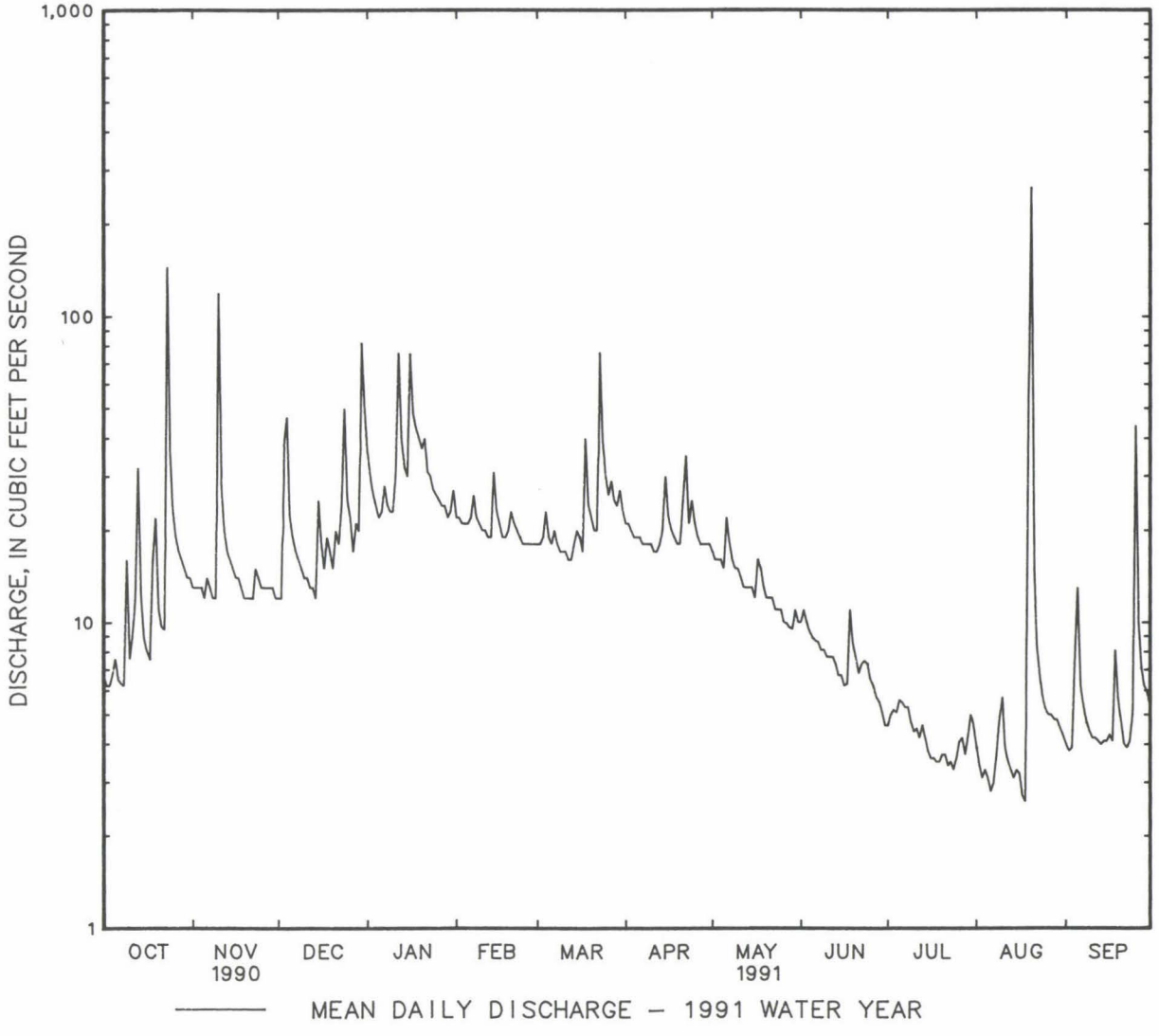
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 1991, BY WATER YEAR (WY)

MEAN	9.59	13.4	16.2	17.4	22.2	20.8	23.5	25.1	13.4	9.41	9.89	7.30
MAX	17.2	17.5	35.5	32.5	37.8	32.5	51.0	51.9	25.3	17.1	29.9	13.9
(WY)	1991	1991	1984	1991	1985	1984	1983	1989	1989	1984	1984	1987
MIN	3.73	7.75	8.20	8.41	12.7	13.8	11.9	10.1	5.50	4.30	4.01	2.78
(WY)	1987	1983	1983	1983	1989	1990	1985	1986	1986	1991	1986	1986

01586210 BEAVER RUN NEAR FINKSBURG, MD--Continued

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1983 - 1991	
ANNUAL TOTAL	6339.4		6135.7			
ANNUAL MEAN	17.4		16.8		15.7	
HIGHEST ANNUAL MEAN					24.7	1984
LOWEST ANNUAL MEAN					9.92	1986
HIGHEST DAILY MEAN	145	Oct 23	262	Aug 20	504	Feb 12 1985
LOWEST DAILY MEAN	5.9	(a)	2.6	Aug 18	2.1	(b)
ANNUAL SEVEN-DAY MINIMUM	6.2	Sep 6	3.1	Aug 12	2.2	Sep 15 1986
INSTANTANEOUS PEAK FLOW	856	Oct 23	1660	Aug 20	c2150	May 6 1989
INSTANTANEOUS PEAK STAGE	3.99	Oct 23	5.35	Aug 20	d5.70	May 6 1989
INSTANTANEOUS LOW FLOW	5.9	(f)	2.5	(g)	2.0	(h)
ANNUAL RUNOFF (CFSM)	1.24		1.20		1.12	
ANNUAL RUNOFF (INCHES)	16.84		16.30		15.19	
10 PERCENT EXCEEDS	27		28		28	
50 PERCENT EXCEEDS	14		14		12	
90 PERCENT EXCEEDS	6.9		4.1		4.9	

a Aug. 19, Sept. 9, 11, 12.
b Sept. 17, 18, 1986.
c From rating curve extended above 600 ft^3/s.
d From floodmarks.
f Aug. 18-20, Sept. 8-13.
g Aug. 18, 19.
h Sept. 12, 1983, Sept. 17, 18, 1986.



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.

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

REVISED RECORDS.--WRD MD-DE-84: 1983(P).

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 430 ft above National Geodetic Vertical Datum of 1929, from topographic map.

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

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)
Oct. 23	1500	*3,040	*7.94	Aug. 20	0915	2,900	7.79

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	24	21	72	44	33	43	31	16	10	5.9	8.1
2	12	23	21	62	44	36	39	29	20	10	5.3	7.7
3	11	23	47	56	43	37	38	28	18	11	4.9	7.7
4	13	22	71	52	42	44	37	27	17	11	5.1	18
5	14	22	40	47	42	36	37	26	16	11	5.1	27
6	12	24	33	51	47	36	37	35	16	12	4.6	13
7	11	22	30	57	51	40	36	30	16	10	4.7	12
8	11	22	29	47	44	34	35	26	15	11	5.4	10
9	27	21	27	46	42	33	34	25	14	9.3	6.8	9.9
10	14	188	26	46	41	33	34	25	14	8.8	11	9.5
11	18	56	25	60	40	32	31	24	13	8.9	6.4	9.4
12	17	38	24	126	37	31	29	23	14	8.2	5.6	8.4
13	27	33	24	79	39	32	35	23	13	8.9	5.3	8.5
14	19	30	23	65	57	36	39	23	12	8.2	5.1	8.6
15	15	28	42	63	44	39	52	21	12	7.6	5.2	8.6
16	14	28	35	141	38	36	42	20	13	7.4	5.2	8.6
17	14	28	29	106	38	33	37	28	16	7.1	4.7	8.4
18	95	26	36	89	39	71	35	25	46	6.9	4.3	14
19	41	25	33	80	44	51	33	22	19	6.8	57	11
20	21	24	28	76	45	44	35	20	17	6.7	321	9.8
21	19	24	38	77	40	41	46	19	15	6.7	23	9.2
22	18	24	37	63	39	41	54	19	14	6.2	14	8.9
23	632	27	45	60	37	127	40	18	15	6.0	12	8.9
24	71	24	86	57	36	77	44	17	15	5.6	11	14
25	44	23	52	53	36	62	39	17	14	5.8	10	49
26	35	23	46	51	36	54	36	16	13	6.2	10	16
27	30	23	40	51	35	56	35	16	12	6.3	9.8	12
28	28	23	43	52	34	50	33	16	12	5.8	9.7	11
29	26	23	43	49	---	48	33	15	11	6.8	9.6	10
30	25	22	137	51	---	55	33	15	11	7.6	8.9	10
31	25	---	99	56	---	46	---	16	---	7.0	8.6	---
TOTAL	1372	943	1310	2041	1154	1424	1131	695	469	250.8	605.2	367.2
MEAN	44.3	31.4	42.3	65.8	41.2	45.9	37.7	22.4	15.6	8.09	19.5	12.2
MAX	632	188	137	141	57	127	54	35	46	12	321	49
MIN	11	21	21	46	34	31	29	15	11	5.6	4.3	7.7
CFSM	1.58	1.12	1.51	2.35	1.47	1.64	1.35	.80	.56	.29	.70	.44
IN.	1.82	1.25	1.74	2.71	1.53	1.89	1.50	.92	.62	.33	.80	.49

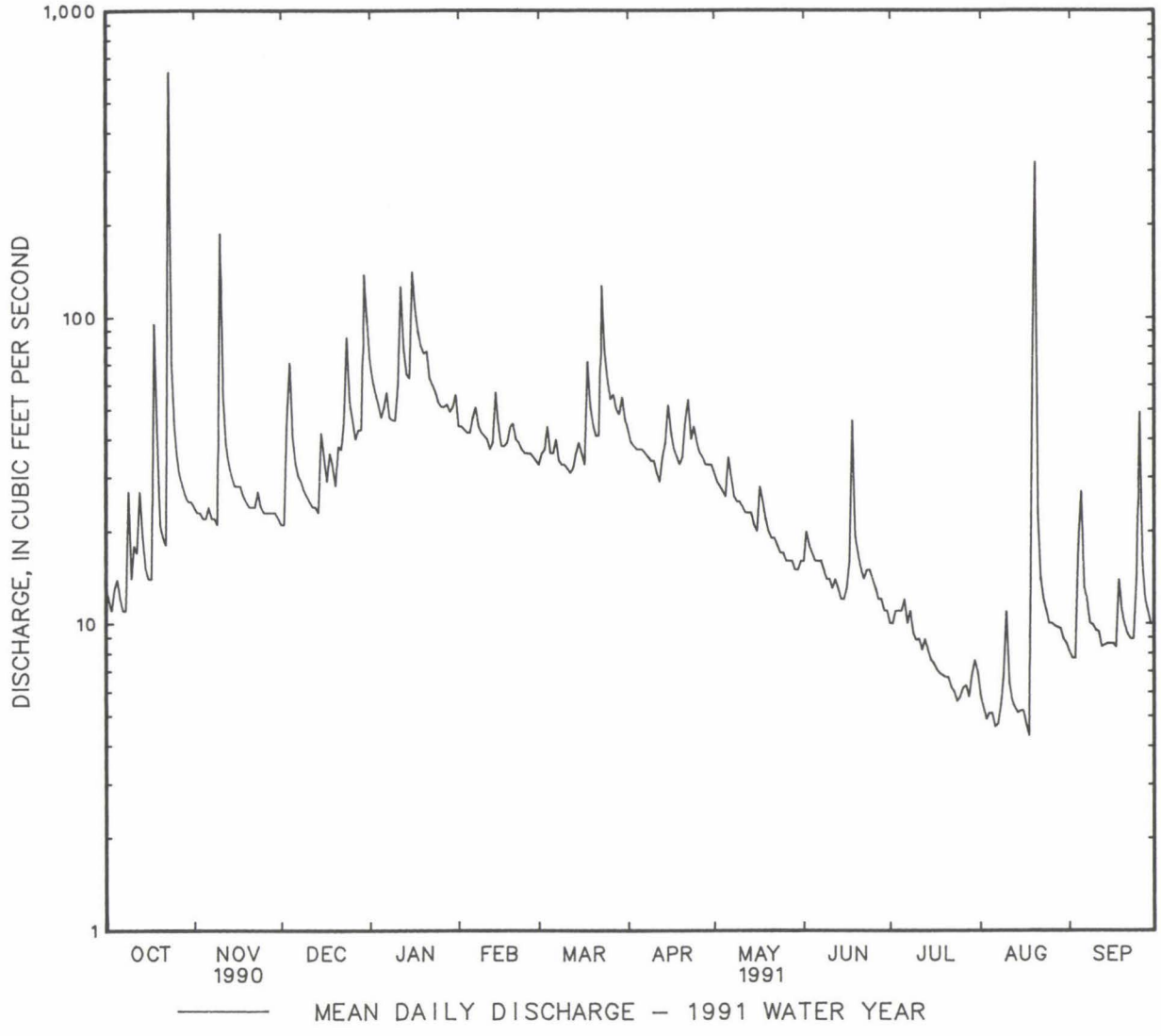
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 1991, BY WATER YEAR (WY)

MEAN	18.7	24.3	33.1	35.7	44.9	46.4	52.2	52.1	27.8	18.5	17.5	13.4
MAX	44.3	31.4	85.9	65.8	91.2	80.9	119	111	52.0	30.8	46.2	23.7
(WY)	1991	1991	1984	1991	1984	1984	1983	1989	1989	1984	1984	1987
MIN	5.69	14.1	15.5	17.4	27.2	29.1	27.0	20.5	11.5	7.47	6.48	5.15
(WY)	1987	1983	1983	1983	1989	1985	1985	1986	1986	1986	1986	1986

01586610 MORGAN RUN NEAR LOUISVILLE, MD

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1983 - 1991	
ANNUAL TOTAL	13371		11762.2			
ANNUAL MEAN	36.6		32.2		32.0	
HIGHEST ANNUAL MEAN					53.6	1984
LOWEST ANNUAL MEAN					19.5	1986
HIGHEST DAILY MEAN	632	Oct 23	632	Oct 23	1000	May 6 1989
LOWEST DAILY MEAN	11	(a)	4.3	Aug 18	4.0	(b)
ANNUAL SEVEN-DAY MINIMUM	12	Oct 2	5.0	Aug 2	4.2	Sep 17 1986
INSTANTANEOUS PEAK FLOW	3040	Oct 23	3040	Oct 23	c3400	May 6 1989
INSTANTANEOUS PEAK STAGE	7.94	Oct 23	7.94	Oct 23	d8.31	May 6 1989
INSTANTANEOUS LOW FLOW	11	(f)	4.2	Aug 18	UNKNOWN	
ANNUAL RUNOFF (CFSM)	1.31		1.15		1.14	
ANNUAL RUNOFF (INCHES)	17.76		15.63		15.52	
10 PERCENT EXCEEDS	60		55		60	
50 PERCENT EXCEEDS	28		25		24	
90 PERCENT EXCEEDS	14		7.9		9.1	

a Oct. 3, 7, 8.
b Sept. 18-20, 1986.
c From rating curve extended above 1,900 ft^3/s.
d From floodmarks.
f Oct. 3, 4, 7-9.



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 current year.

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 Aug. 14-27 (manometer malfunction), which are fair. 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.

PEAK DISCHARGE FOR CURRENT YEAR.--Peak discharge, 7,410 ft^3/s, Oct. 23, gage height, 7.88 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	67	92	72	227	e146	139	173	121	71	45	32	25
2	48	89	72	184	e140	133	165	123	90	45	28	23
3	41	84	119	161	139	144	156	118	76	47	25	23
4	46	83	417	144	137	206	148	114	73	46	26	28
5	55	90	163	131	137	157	146	111	63	46	25	106
6	47	106	118	153	149	138	146	147	62	54	22	52
7	41	98	111	198	175	184	144	137	65	53	21	38
8	39	93	103	174	165	142	e140	115	62	63	25	33
9	98	88	97	163	152	126	139	112	60	50	57	29
10	66	1110	94	166	150	125	136	113	59	43	43	28
11	60	330	93	220	141	119	127	108	58	42	34	28
12	85	230	93	677	135	114	124	105	59	39	26	27
13	164	202	91	340	136	116	132	106	58	67	23	25
14	110	227	82	241	222	148	174	130	55	44	e23	25
15	63	100	171	217	181	161	227	103	53	37	e23	26
16	56	93	200	477	142	152	211	95	54	33	e25	27
17	52	99	121	426	145	133	168	107	57	31	e25	36
18	122	95	152	296	150	374	152	130	150	30	e23	60
19	312	90	145	250	171	230	141	99	100	29	e24	52
20	97	88	123	232	197	176	140	94	77	31	e330	42
21	79	86	174	221	191	156	155	88	74	33	e125	33
22	73	80	179	191	192	155	210	85	72	29	e55	30
23	2200	86	221	173	190	733	190	81	74	28	e40	30
24	545	84	513	175	190	381	185	78	73	26	e36	37
25	204	80	239	165	197	244	187	80	63	24	e32	313
26	152	79	174	153	204	209	160	82	58	73	e30	95
27	121	76	153	156	e200	213	141	81	54	66	e30	59
28	109	76	199	157	156	198	130	80	52	37	29	48
29	99	75	193	155	---	181	125	75	51	39	29	44
30	92	72	597	154	---	245	125	83	48	43	28	41
31	93	---	499	181	---	195	---	74	---	38	26	---
TOTAL	5436	4281	5778	6958	4630	6127	4697	3175	2021	1311	1320	1463
MEAN	175	143	186	224	165	198	157	102	67.4	42.3	42.6	48.8
MAX	2200	1110	597	677	222	733	227	147	150	73	330	313
MIN	39	72	72	131	135	114	124	74	48	24	21	23
(†)	38240	38644	39192	41511	41636	42580	43308	43146	41978	39354	35940	34367
(≠)	186	189	217	224	226	210	184	211	236	222	189	184

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1944 - 1991, BY WATER YEAR (WY)

MEAN	121	144	189	218	266	284	282	257	225	153	118	139
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

e Estimated

† Month-end contents, in millions of gallons in Liberty Reservoir (contents on Sept. 30, 1990, 39,300,000,000 gal). Records provided by Baltimore Department of Public Works.

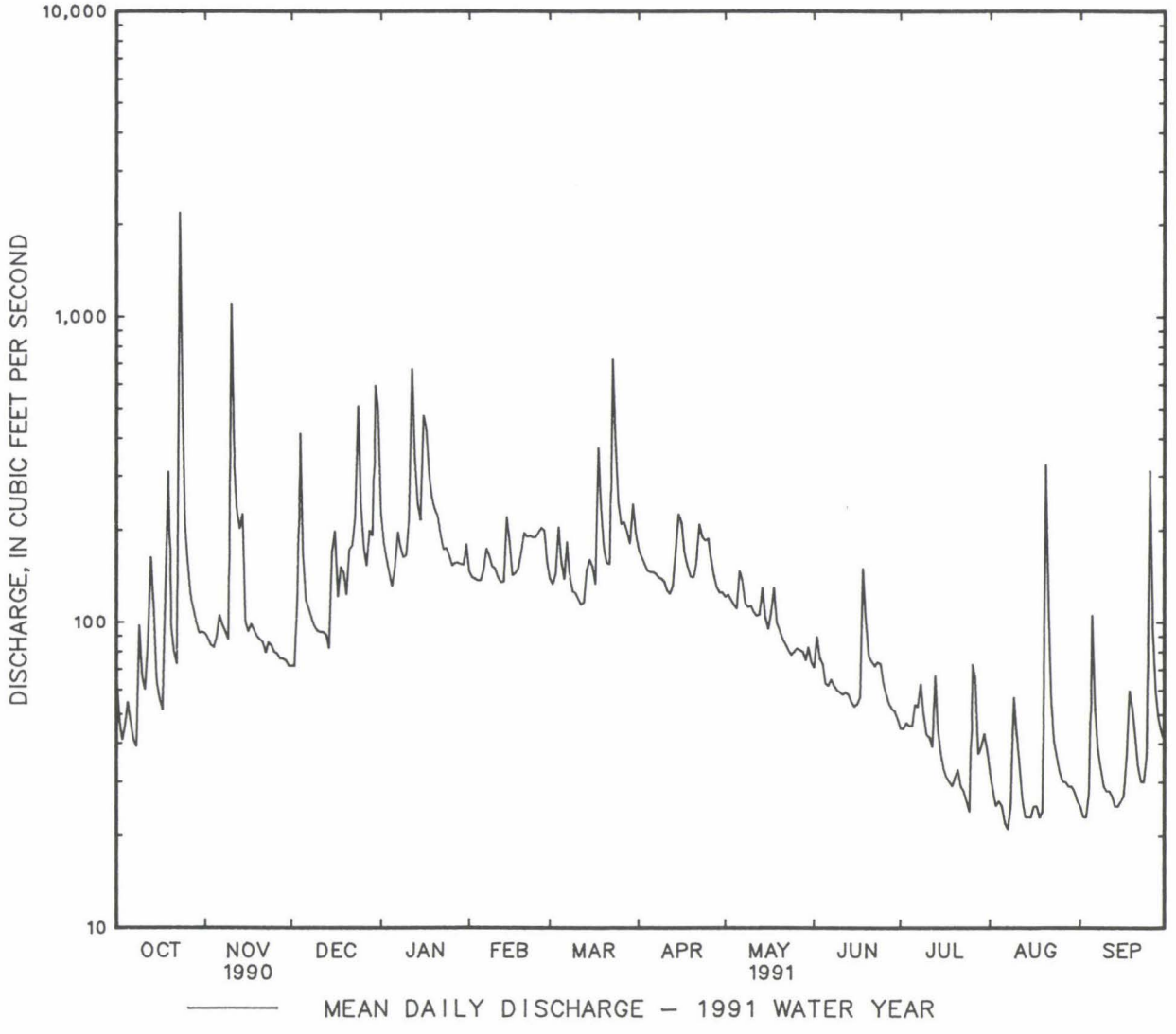
≠ Diversions, in cubic feet per second, upstream from station for municipal supply of city of Westminster; and from Liberty Reservoir for municipal supply of city of Baltimore, and for part of Carroll County. Records provided by cities of Westminster and Baltimore, respectively.

01589000 PATAPSCO RIVER AT HOLLOFIELD, MD--Continued

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1944 - 1991	
ANNUAL TOTAL	52537		47197			
ANNUAL MEAN	144		129		199	
ANNUAL MEAN DIVERSIONS≠	192		206		164	
HIGHEST ANNUAL MEAN					524	1972
LOWEST ANNUAL MEAN					64.3	1966
HIGHEST DAILY MEAN	2200	Oct 23	2200	Oct 23	30000	Jun 22 1972
LOWEST DAILY MEAN	39	Oct 8	21	Aug 7	7.9	Oct 12 1986
ANNUAL SEVEN-DAY MINIMUM	45	Oct 2	24	Aug 13	9.7	Oct 6 1986
INSTANTANEOUS PEAK FLOW	7410	Oct 23	7410	Oct 23	a80600	Jun 22 1972
INSTANTANEOUS PEAK STAGE	7.88	Oct 23	7.88	Oct 23	b31.30	Jun 22 1972
INSTANTANEOUS LOW FLOW	37	Aug 28	19	Aug 19	6.0	Sep 6 1944
10 PERCENT EXCEEDS	226		212		416	
50 PERCENT EXCEEDS	114		100		114	
90 PERCENT EXCEEDS	55		30		38	

≠ 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.

a From rating curve extended above 27,000 ft^3/s on basis of slope-area measurement of peak flow.
b From floodmarks.



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 mile southeast of State Highway 3, and 0.50 mile northwest of Glen Burnie.

DRAINAGE AREA.--4.97 mi^2.

PERIOD OF RECORD.--May 1944 to September 1952. Annual maximum, water years 1965-70. October 1983 to current year.

REVISED RECORDS.--WDR MD-DE-89-1: 1984-88.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 26.07 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good. Low flow affected by ground-water diversions from Anne Arundel County municipal well fields upstream from station. Several measurements of water temperature were made during the year.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of August 1933 reached a stage of about 14 ft.

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. 12	0015	47	2.83	Mar. 23	1330	*96	*3.74

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.6	2.7	2.7	4.9	3.7	3.4	5.7	4.1	2.4	1.5	1.3	.59
2	2.5	2.7	2.7	4.1	3.9	3.9	5.1	3.9	2.5	1.7	1.2	.58
3	2.5	2.7	3.9	3.6	3.9	4.5	4.8	3.7	2.5	1.8	1.1	.63
4	3.7	2.7	5.8	3.4	4.3	8.4	4.8	3.7	2.5	1.7	1.1	.91
5	3.4	2.7	3.3	3.2	4.1	5.1	5.2	3.7	2.4	1.8	1.0	1.8
6	2.7	2.8	2.9	3.5	4.3	4.1	4.8	7.0	2.5	1.7	.84	1.0
7	2.6	2.5	2.9	5.5	4.9	4.3	4.6	4.9	2.5	2.0	.96	.92
8	2.6	2.5	2.8	4.2	4.6	3.6	4.5	3.7	2.4	2.0	1.1	.83
9	2.7	2.9	2.7	4.4	4.3	3.6	4.5	3.7	2.3	1.8	7.9	.78
10	2.6	13	2.7	4.4	4.2	3.6	4.3	3.6	2.2	1.5	2.7	.77
11	2.7	6.1	2.7	8.7	4.0	3.5	3.8	3.3	2.2	1.5	1.4	.75
12	2.9	4.0	2.7	22	3.6	3.4	3.8	3.3	2.5	1.6	1.2	.68
13	3.3	3.6	2.7	8.7	3.9	3.7	4.9	3.3	2.1	1.8	1.2	.69
14	2.8	3.6	2.6	6.3	5.6	6.3	6.2	3.2	2.0	1.5	1.5	.74
15	2.7	3.6	5.7	5.6	4.3	5.0	6.8	3.1	2.0	1.3	1.8	.77
16	2.5	3.7	4.6	7.7	3.5	3.7	5.5	3.0	1.9	1.2	1.3	.77
17	2.5	4.0	3.1	8.0	3.5	3.6	4.7	4.5	1.9	1.2	1.1	1.6
18	5.1	3.7	3.8	5.7	4.1	11	4.4	4.1	5.3	1.1	1.0	4.2
19	4.8	3.6	3.1	5.1	4.2	6.4	4.3	3.2	4.1	1.1	1.2	1.5
20	2.8	3.6	2.8	5.1	4.3	4.5	4.5	3.1	2.5	1.1	1.9	1.3
21	2.7	3.6	4.6	5.5	3.8	4.1	7.2	3.1	2.3	1.1	2.3	.94
22	2.8	3.6	3.9	4.5	3.8	4.1	6.0	3.0	2.3	.98	1.2	.84
23	11	4.1	4.8	4.2	3.4	31	4.7	3.0	2.5	.88	1.0	.89
24	6.3	3.7	8.0	4.5	3.5	16	4.7	2.9	2.4	.73	.92	1.1
25	3.3	3.6	4.0	4.3	3.8	7.3	4.5	2.9	2.0	3.7	.88	4.4
26	3.0	3.4	3.2	4.1	3.6	6.2	4.3	2.7	1.9	2.9	.89	2.9
27	2.9	2.7	2.9	4.4	3.5	6.9	4.3	2.6	1.8	3.2	.93	1.3
28	2.9	2.8	5.0	4.6	3.5	6.0	4.2	2.6	1.8	1.8	.94	1.0
29	2.9	2.8	5.1	4.3	---	7.9	4.2	2.4	1.6	2.0	.86	.94
30	2.9	2.7	8.1	4.5	---	9.6	4.4	2.4	1.5	1.9	.77	.86
31	2.8	---	12	4.3	---	6.5	---	2.4	---	1.5	.69	---
TOTAL	103.5	109.7	127.8	173.3	112.1	201.2	145.7	106.1	70.8	51.59	44.18	36.98
MEAN	3.34	3.66	4.12	5.59	4.00	6.49	4.86	3.42	2.36	1.66	1.43	1.23
MAX	11	13	12	22	5.6	31	7.2	7.0	5.3	3.7	7.9	4.4
MIN	2.5	2.5	2.6	3.2	3.4	3.4	3.8	2.4	1.5	.73	.69	.58
CFSM	.67	.74	.83	1.12	.81	1.31	.98	.69	.47	.33	.29	.25
IN.	.77	.82	.96	1.30	.84	1.51	1.09	.79	.53	.39	.33	.28

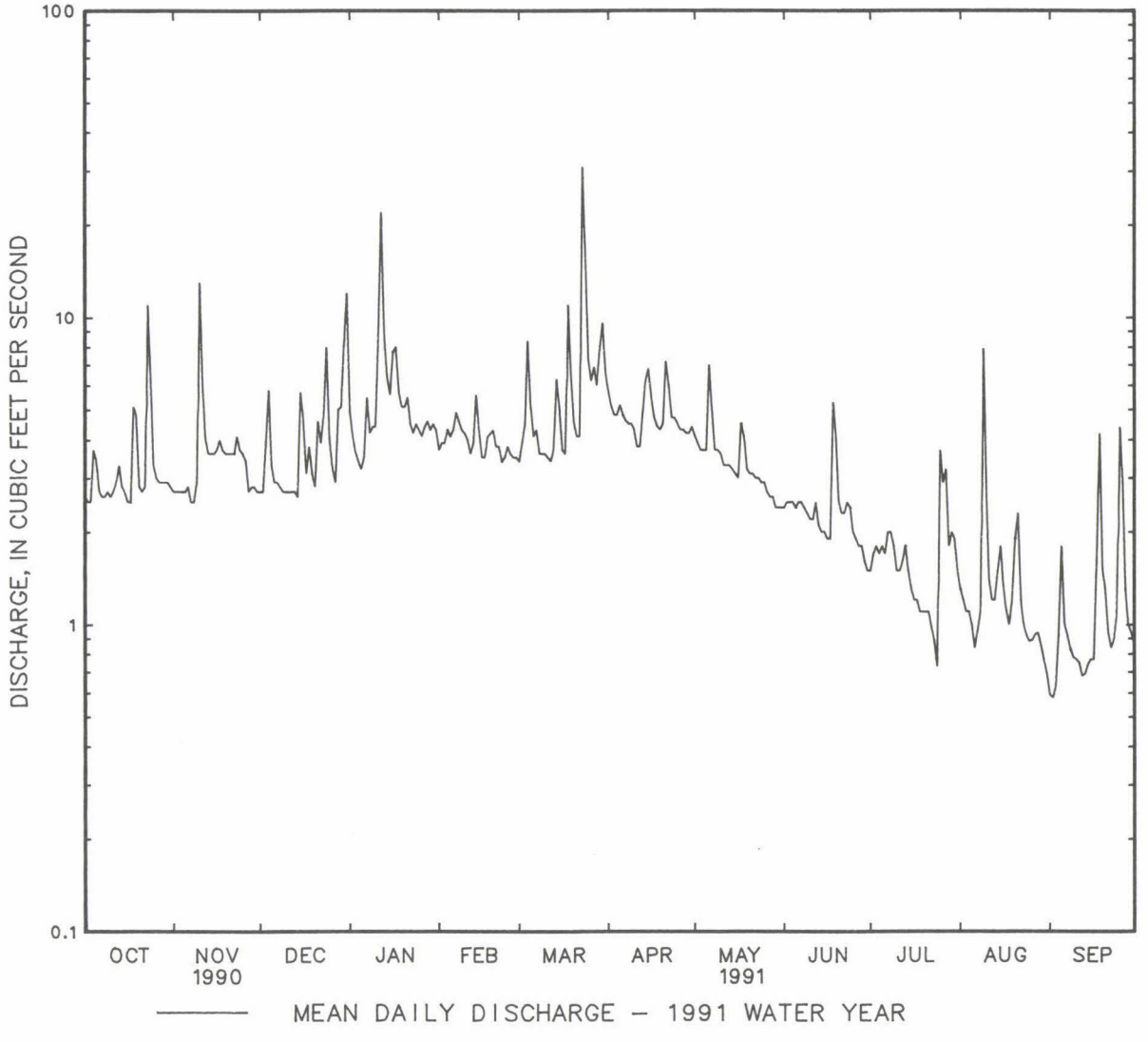
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1944 - 1991, BY WATER YEAR (WY)

MEAN	3.98	4.65	4.99	5.26	5.50	5.76	5.84	6.12	5.45	4.93	4.98	4.94
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 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1944 - 1991	
ANNUAL TOTAL	1538.1		1282.95			
ANNUAL MEAN	4.21		3.51		5.18	
HIGHEST ANNUAL MEAN					11.0	1949
LOWEST ANNUAL MEAN					.43	1986
HIGHEST DAILY MEAN	20	Jul 13	31	Mar 23	84	Aug 29 1989
LOWEST DAILY MEAN	2.5	(a)	.58	Sep 2	.01	(b)
ANNUAL SEVEN-DAY MINIMUM	2.6	Sep 7	.72	Aug 29	.01	Jul 25 1986
INSTANTANEOUS PEAK FLOW	90	Jul 12	96	Mar 23	c178	Aug 29 1989
INSTANTANEOUS PEAK STAGE	3.63	Jul 12	3.74	Mar 23	5.12	Aug 29 1989
INSTANTANEOUS LOW FLOW	2.1	Dec 27	.55	(d)	.00	(f)
ANNUAL RUNOFF (CFSM)	.85		.71		1.04	
ANNUAL RUNOFF (INCHES)	11.51		9.60		14.16	
10 PERCENT EXCEEDS	6.3		5.6		9.8	
50 PERCENT EXCEEDS	3.4		3.2		5.2	
90 PERCENT EXCEEDS	2.7		1.0		.20	

a Sept. 8, 9, 11, Oct. 2, 3, 16, 17, Nov. 7, 8.
b Many days in 1985, 1986, 1987.
c From rating curve extended above 157 ft^3/s, on basis of contracted-opening measurement at gage height 4.77 ft.
d Sept. 1-3.
f Part of each day Sept. 6, 7, 1985, July 29, Aug. 2, 1986.



01589512 SAWMILL CREEK AT CRAIN HIGHWAY AT GLEN BURNIE, MD

LOCATION.--Lat 39°10'59", long 76°36'51", Anne Arundel County, Hydrologic Unit 02060003, on right bank 150 ft downstream from bridge on Crain Highway (Maryland Route 3 Business), 250 ft upstream from bridge on Maryland Route 2 at Glen Burnie, and 650 ft upstream from mouth.

DRAINAGE AREA.--8.24 mi^2.

PERIOD OF RECORD.--October 1983 to September 1985. May 1990 to September 1991.

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

REMARKS.--Records good except those for estimated daily discharges (backwater from tide), 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.

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)
May 26, 1990	0900	155	5.63	Nov. 10, 1990	1115	155	5.63
May 29, 1990	1300	214	6.02	Jan. 12, 1991	0045	261	6.32
July 12, 1990	2100	*352	*6.88	Mar. 23, 1991	1315	*431	*7.38

DISCHARGE, IN CUBIC FEET PER SECOND, MAY 1990 TO SEPTEMBER 1990
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	e12	9.9	7.3	7.5	7.7
2	---	---	---	---	---	---	---	10	9.5	7.6	7.3	7.7
3	---	---	---	---	---	---	---	9.7	13	7.7	7.3	7.7
4	---	---	---	---	---	---	---	12	12	7.7	7.3	7.7
5	---	---	---	---	---	---	---	21	9.5	7.3	12	7.9
6	---	---	---	---	---	---	---	11	9.2	7.3	e50	7.7
7	---	---	---	---	---	---	---	9.6	9.2	7.3	18	7.7
8	---	---	---	---	---	---	---	9.0	11	7.3	9.4	7.7
9	---	---	---	---	---	---	---	8.7	10	9.1	47	e8.0
10	---	---	---	---	---	---	---	56	9.4	17	31	8.6
11	---	---	---	---	---	---	---	21	8.8	18	14	7.7
12	---	---	---	---	---	---	---	11	8.2	69	e11	7.7
13	---	---	---	---	---	---	---	15	8.3	84	e15	7.7
14	---	---	---	---	---	---	---	11	8.2	25	24	7.4
15	---	---	---	---	---	---	---	9.7	26	18	10	7.6
16	---	---	---	---	---	---	---	11	9.8	10	9.3	13
17	---	---	---	---	---	---	---	12	8.4	8.9	8.7	13
18	---	---	---	---	---	---	---	10	8.8	23	8.7	8.0
19	---	---	---	---	---	---	---	9.0	15	15	e9.2	7.7
20	---	---	---	---	---	---	---	8.7	9.8	13	19	7.7
21	---	---	---	---	---	---	---	10	8.2	29	11	7.6
22	---	---	---	---	---	---	---	9.5	e15	12	31	17
23	---	---	---	---	---	---	---	e9.0	18	9.2	17	9.8
24	---	---	---	---	---	---	---	8.7	8.8	8.5	11	7.9
25	---	---	---	---	---	---	---	8.9	8.0	8.1	12	7.6
26	---	---	---	---	---	---	---	e43	7.7	7.6	16	7.6
27	---	---	---	---	---	---	---	15	7.6	7.5	9.5	7.6
28	---	---	---	---	---	---	---	10	7.6	7.7	8.9	7.3
29	---	---	---	---	---	---	---	79	7.6	7.7	8.5	7.3
30	---	---	---	---	---	---	---	20	7.4	7.7	8.1	7.3
31	---	---	---	---	---	---	---	11	---	7.7	7.7	---
TOTAL	---	---	---	---	---	---	---	501.5	309.9	482.2	466.4	252.9
MEAN	---	---	---	---	---	---	---	16.2	10.3	15.6	15.0	8.43
MAX	---	---	---	---	---	---	---	79	26	84	50	17
MIN	---	---	---	---	---	---	---	8.7	7.4	7.3	7.3	7.3
CFSM	---	---	---	---	---	---	---	1.96	1.25	1.89	1.83	1.02
IN.	---	---	---	---	---	---	---	2.26	1.40	2.18	2.11	1.14

e Estimated

01589512 SAWMILL CREEK AT CRAIN HIGHWAY AT GLEN BURNIE, MD--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.3	6.7	7.3	12	8.2	7.3	11	8.1	5.6	4.6	4.8	3.7
2	7.2	6.4	7.3	10	8.2	8.4	10	8.0	5.6	5.3	4.1	e3.7
3	6.8	6.4	e16	9.6	8.2	12	9.7	7.7	5.6	5.3	e4.1	e3.7
4	15	6.4	e20	9.2	8.2	26	9.7	7.7	5.6	e5.3	e4.1	5.3
5	10	e6.4	9.1	8.7	8.2	10	9.9	7.7	e5.6	e5.5	4.1	11
6	7.5	7.6	7.9	9.1	9.1	8.6	9.9	21	e5.6	5.5	3.8	4.8
7	7.2	6.5	7.6	22	10	9.6	9.5	11	5.6	8.5	3.7	4.2
8	6.8	6.4	7.3	13	8.9	8.2	9.3	8.1	5.5	6.9	3.9	3.9
9	6.8	6.4	7.3	16	8.3	8.2	9.2	7.7	5.3	5.9	e40	3.8
10	6.8	64	7.3	13	8.2	8.2	9.1	7.7	5.3	5.1	8.7	3.7
11	7.7	15	7.3	43	8.2	8.2	8.7	7.6	6.1	4.8	5.2	3.7
12	9.1	9.5	7.3	78	7.9	8.2	8.2	7.5	7.2	5.3	4.7	3.7
13	9.3	8.8	7.3	17	8.4	8.8	13	7.6	5.5	e6.0	4.6	3.7
14	7.5	8.7	7.2	12	14	19	14	7.7	5.2	5.3	5.9	3.6
15	6.8	8.7	26	10	8.9	12	18	7.6	5.1	4.8	6.9	3.4
16	6.7	8.7	14	26	7.6	9.3	11	7.2	5.0	4.5	5.1	3.4
17	6.4	10	8.6	18	7.7	8.8	8.9	13	4.9	4.4	4.1	9.0
18	22	8.8	15	11	8.1	41	8.7	11	17	4.3	3.9	14
19	14	8.2	9.2	11	9.6	13	e8.5	e7.7	13	4.3	e10	7.9
20	7.3	8.2	7.8	10	9.2	9.5	8.9	7.7	6.6	4.3	e13	6.3
21	6.8	8.2	20	13	8.3	8.7	21	7.6	6.2	4.2	9.5	4.1
22	7.0	8.2	11	9.8	8.2	9.1	12	7.3	6.9	4.2	4.5	3.8
23	50	11	22	9.5	7.5	141	9.2	7.3	7.2	4.1	4.1	3.7
24	16	9.1	29	9.7	7.3	32	8.8	7.3	6.4	3.9	3.9	5.0
25	8.7	8.7	11	9.2	7.3	14	8.9	7.1	5.8	12	3.9	22
26	7.9	8.4	8.8	8.8	7.3	12	8.5	6.7	5.4	12	3.9	12
27	e7.8	7.7	8.1	8.7	7.3	16	8.5	6.4	5.3	9.2	3.9	4.9
28	e7.5	7.3	22	8.4	7.3	11	9.0	6.4	5.1	5.7	3.9	4.1
29	7.3	7.3	20	8.2	---	25	8.2	6.4	5.0	7.8	3.9	3.9
30	7.2	7.3	30	8.2	---	26	8.2	6.4	4.8	6.4	3.9	3.7
31	6.8	---	36	8.2	---	13	---	6.0	---	5.2	3.9	---
TOTAL	311.2	301.0	424.7	460.3	235.6	552.1	307.5	254.2	189.0	180.6	194.0	173.7
MEAN	10.0	10.0	13.7	14.8	8.41	17.8	10.2	8.20	6.30	5.83	6.26	5.79
MAX	50	64	36	78	14	141	21	21	17	12	40	22
MIN	6.4	6.4	7.2	8.2	7.3	7.3	8.2	6.0	4.8	3.9	3.7	3.4
CFSM	1.22	1.22	1.66	1.80	1.02	2.16	1.24	1.00	.76	.71	.76	.70
IN.	1.40	1.36	1.92	2.08	1.06	2.49	1.39	1.15	.85	.82	.88	.78

e Estimated

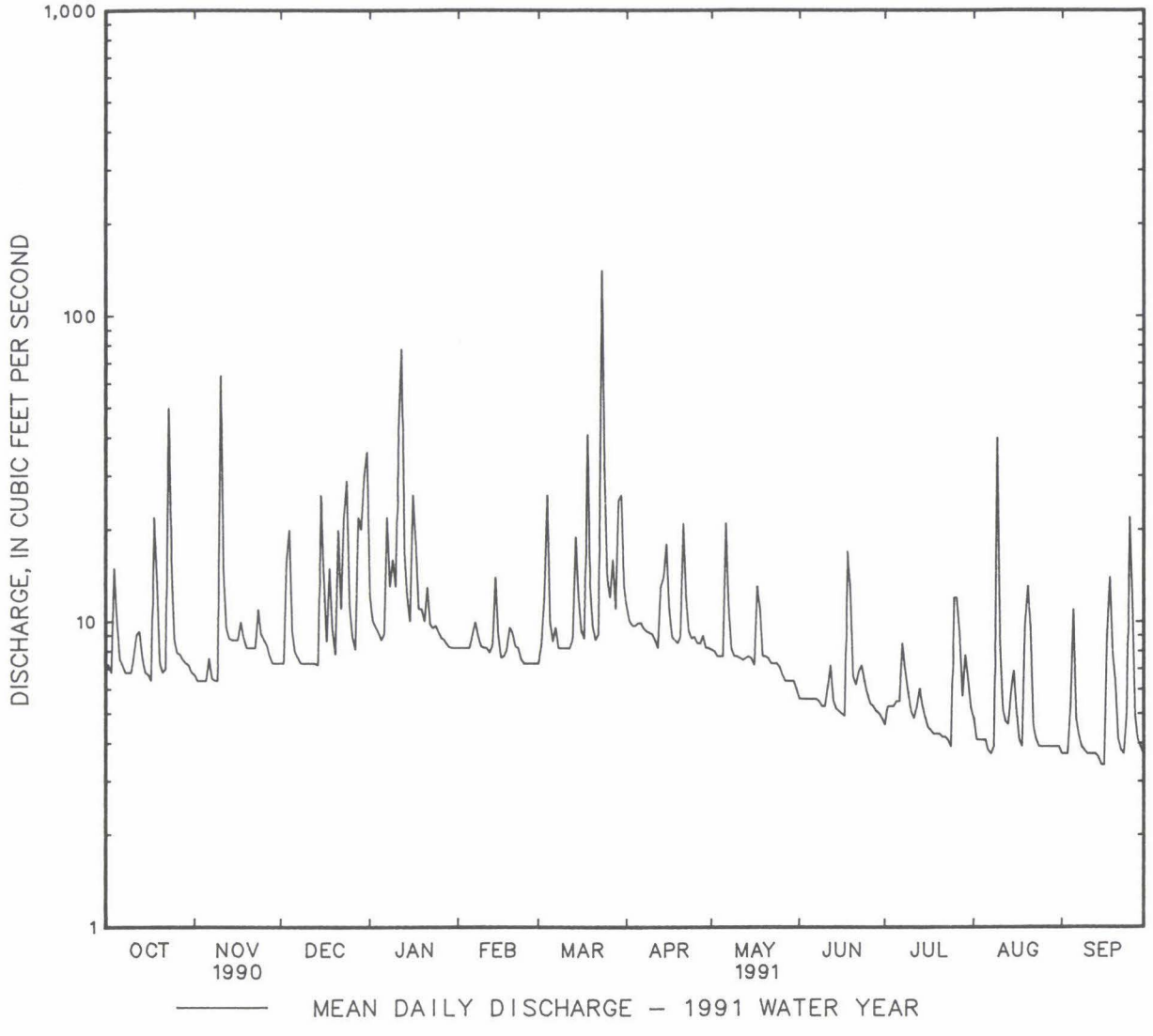
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1984 - 1991, BY WATER YEAR (WY)

MEAN	6.64	7.86	10.8	8.12	9.30	11.9	7.99	10.4	6.40	7.82	8.68	6.73
MAX	10.0	10.0	14.3	14.8	10.7	17.8	10.7	16.2	10.5	15.6	15.0	8.43
(WY)	1991	1991	1984	1991	1984	1991	1984	1990	1990	1990	1990	1990
MIN	4.89	5.53	4.24	3.41	8.41	3.63	2.96	5.65	3.34	2.41	3.07	4.42
(WY)	1984	1985	1985	1985	1991	1985	1985	1985	1985	1985	1985	1984

01589512 SAWMILL CREEK AT CRAIN HIGHWAY AT GLEN BURNIE, MD--Continued

SUMMARY STATISTICS	FOR 1991 WATER YEAR		WATER YEARS 1984 - 1991	
ANNUAL TOTAL	3583.9			
ANNUAL MEAN	9.82		7.84	
HIGHEST ANNUAL MEAN			9.82	1991
LOWEST ANNUAL MEAN			4.65	1985
HIGHEST DAILY MEAN	141	Mar 23	184	Sep 27 1985
LOWEST DAILY MEAN	3.4	(a)	1.3	Oct 8 1983
ANNUAL SEVEN-DAY MINIMUM	3.6	Sep 10	1.5	Aug 11 1985
INSTANTANEOUS PEAK FLOW	431	Mar 23	465	Sep 27 1985
INSTANTANEOUS PEAK STAGE	7.38	Mar 23	7.67	Sep 27 1985
INSTANTANEOUS LOW FLOW	3.4	(b)	UNKNOWN	
ANNUAL RUNOFF (CFSM)	1.19		.95	
ANNUAL RUNOFF (INCHES)	16.18		12.93	
10 PERCENT EXCEEDS	15		15	
50 PERCENT EXCEEDS	7.8		6.3	
90 PERCENT EXCEEDS	4.1		2.3	

a Sept. 15, 16.
b Sept. 14, 15, 16, 17.



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 National Geodetic Vertical Datum of 1929 (Washington Suburban Sanitary Commission bench mark). Prior to Aug. 14, 1946, non-recording gage at same site and datum.

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

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)
Oct. 23	1445	*2,850	*8.82	Mar. 23	1600	776	5.44
Nov. 10	1630	996	5.99				

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	24	22	80	46	32	56	35	16	9.6	7.1	4.4
2	9.3	23	22	67	45	34	53	37	17	10	6.3	3.8
3	8.6	22	31	60	44	35	50	32	23	11	6.0	3.9
4	9.9	22	72	55	43	47	48	31	17	11	6.4	4.5
5	13	21	40	52	42	37	49	30	15	12	5.8	13
6	10	24	33	60	44	36	48	39	15	16	5.1	6.6
7	9.5	22	31	69	47	45	45	37	15	14	5.2	6.0
8	9.1	21	29	57	44	36	43	31	14	19	5.9	5.7
9	21	21	27	55	41	34	43	31	13	14	9.1	5.3
10	13	325	26	55	40	33	41	31	13	12	8.2	5.7
11	20	87	25	70	38	31	38	29	12	12	6.3	5.0
12	18	53	25	215	36	31	37	27	14	11	4.5	4.4
13	18	43	25	103	38	31	45	26	12	14	4.0	4.4
14	17	38	24	80	56	36	57	25	11	11	4.0	4.5
15	13	35	52	74	44	38	80	23	11	10	3.9	4.4
16	11	33	51	230	37	34	63	22	10	9.2	4.2	4.6
17	12	33	36	138	36	32	51	32	9.7	8.8	4.0	4.2
18	101	30	47	101	38	86	47	33	49	8.3	3.6	4.5
19	58	28	43	86	44	58	44	26	20	8.1	3.3	5.4
20	22	27	35	80	46	47	46	25	16	8.0	34	5.9
21	18	26	42	75	40	43	49	23	14	7.5	12	5.2
22	17	26	42	65	38	43	57	22	14	7.2	7.2	4.7
23	1000	30	59	65	36	287	46	21	16	7.2	6.5	4.6
24	104	27	151	59	35	121	43	20	15	6.4	5.8	5.7
25	53	26	70	54	35	82	40	19	13	6.8	5.4	26
26	39	25	56	54	34	68	39	19	12	7.5	5.5	11
27	33	24	50	52	33	72	38	18	11	9.0	5.5	7.1
28	30	24	56	52	32	63	37	18	11	7.1	5.5	6.2
29	27	24	51	50	---	60	37	17	10	8.0	5.1	6.1
30	25	22	214	51	---	76	37	16	9.7	9.3	4.9	5.7
31	25	---	167	56	---	62	---	16	---	8.5	4.6	---
TOTAL	1775.4	1186	1654	2420	1132	1770	1407	811	448.4	313.5	204.9	188.5
MEAN	57.3	39.5	53.4	78.1	40.4	57.1	46.9	26.2	14.9	10.1	6.61	6.28
MAX	1000	325	214	230	56	287	80	39	49	19	34	26
MIN	8.6	21	22	50	32	31	37	16	9.7	6.4	3.3	3.8
CFSM	1.65	1.14	1.53	2.24	1.16	1.64	1.35	.75	.43	.29	.19	.18
IN.	1.90	1.27	1.77	2.59	1.21	1.89	1.50	.87	.48	.34	.22	.20

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1944 - 1991, BY WATER YEAR (WY)

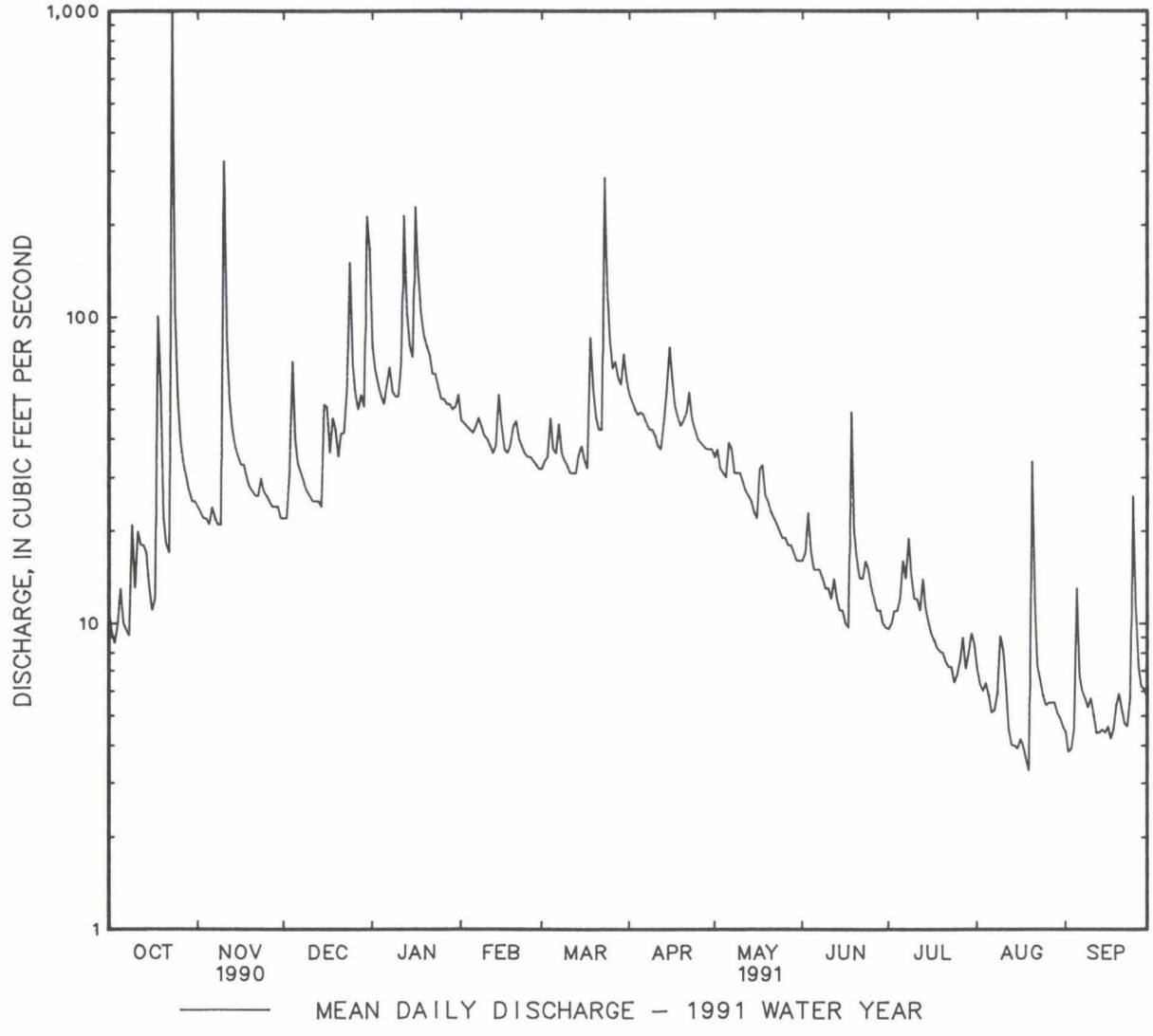
MEAN	22.0	27.8	38.7	45.6	54.9	58.5	56.6	50.0	37.0	26.7	22.2	26.8
MAX	150	82.8	106	135	152	104	150	141	206	102	120	214
(WY)	1980	1953	1949	1979	1979	1979	1952	1952	1972	1956	1971	1971
MIN	4.19	9.09	8.51	10.0	19.6	23.9	21.6	15.2	8.75	4.15	2.79	4.51
(WY)	1987	1966	1966	1966	1947	1981	1963	1963	1986	1966	1966	1986

01591000 PATUXENT RIVER NEAR UNITY, MD--Continued

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1944 - 1991	
ANNUAL TOTAL	14551.0		13310.7			
ANNUAL MEAN	39.9		36.5		38.9	
HIGHEST ANNUAL MEAN					82.3	1972
LOWEST ANNUAL MEAN					19.8	1981
HIGHEST DAILY MEAN	1000	Oct 23	1000	Oct 23	2590	Sep 26 1975
LOWEST DAILY MEAN	8.6	Oct 3	3.3	Aug 19	.20	(a)
ANNUAL SEVEN-DAY MINIMUM	9.9	Oct 2	3.9	Aug 13	.40	Sep 6 1966
INSTANTANEOUS PEAK FLOW	2890	Oct 23	2890	Oct 23	b21800	Sep 11 1971
INSTANTANEOUS PEAK STAGE	8.87	Oct 23	8.87	Oct 23	18.60	Sep 11 1971
INSTANTANEOUS LOW FLOW	8.1	Oct 4	3.2	(c)	.20	(d)
ANNUAL RUNOFF (CFSM)	1.15		1.05		1.12	
ANNUAL RUNOFF (INCHES)	15.55		14.23		15.17	
10 PERCENT EXCEEDS	62		62		70	
50 PERCENT EXCEEDS	30		26		25	
90 PERCENT EXCEEDS	12		5.7		9.0	

a Sept. 10, 11, 1966.

b From rating curve extended above 1,500 ft^3/s on basis of slope-area measurement at gage height 13.00 ft.
c Aug. 18-20.
d Sept. 10-12, 1966.



01591000 PATUXENT RIVER NEAR UNITY, MD--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 1985 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (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)
SEP 1985 04...	1015	6.5	106	8.8	20.0	28.0	1.0	<10	1.0

ALKA-LINITY WAT WH TOT FET 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 N)	NITRO-GEN, NITRITE DIS-SOLVED (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)
72	7.8	2	1.09	0.010	1.10	<0.020	0.40	0.45

PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	PHEO-PHYTIN PHYTO-PLANK-TON, ACID M. (UG/L)	CHLORO-PHYLL A PHYTO-PLANK-TON, UNCORR. (UG/L)	CHLORO-PHYLL B PHYTO-PLANK-TON, UNCORR. (UG/L)	CHLORO-PHYLL C PHYTO-PLANK-TON, UNCORR. (UG/L)
0.040	0.060	<0.010	1.5	1.8	2.02	11.2	2.31	0.015

01591000 PATUXENT RIVER NEAR UNITY, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	TEMPERATURE AIR (DEG C)	TURBIDITY (NTU)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, CHEMICAL (LOW LEVEL) (MG/L)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)
OCT 1985										
07...	1320	7.6	111	7.5	12.5	17.0	--	10.2	--	--
DEC										
10...	1330	23	114	8.1	4.5	11.0	5.1	--	17	1.6
JAN 1986										
06...	1150	16	105	6.8	2.0	7.5	4.9	13.7	--	--
FEB										
19...	0945	86	153	6.6	3.5	6.0	--	12.9	--	--
MAR										
03...	1159	37	105	6.3	3.0	6.0	8.9	13.9	--	--
APR										
01...	0950	27	86	6.7	12.0	19.5	11	11.3	--	--
14...	1130	24	101	7.8	16.0	19.0	7.1	--	10	--
MAY										
12...	0935	17	91	7.1	14.0	15.0	15	9.6	--	--
13...	1330	17	100	7.5	16.0	19.0	12	--	--	1.5
JUN										
12...	1000	8.5	102	--	21.5	30.0	39	--	10	1.2
16...	1225	8.1	93	7.4	23.0	28.0	43	8.3	--	--
JUL										
14...	1210	5.9	93	6.8	23.5	29.0	34	7.9	--	--
15...	1230	4.3	95	7.8	22.0	27.5	24	--	<10	0.9
AUG										
12...	1100	5.5	104	7.9	20.0	22.5	23	--	<10	0.5
13...	1405	4.9	98	6.6	21.0	26.0	17	9.6	--	--
SEP										
08...	0840	5.9	100	6.7	16.5	13.0	33	8.9	--	--
16...	1545	3.4	99	7.1	17.5	25.0	18	--	<10	0.5

DATE	COLIFORM, TOTAL, IMMED. MEM.FIL (COLS./ 100 ML)	ALKALINITY WAT WH TOT FET FIELD MG/L AS CACO3	SILICA, DISSOLVED (MG/L AS SIO2)	RESIDUE TOTAL AT 105 DEG. C, SUSPENDED (MG/L)	NITROGEN, NITRATE DISSOLVED (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (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)
OCT 1985										
07...	--	27	8.8	<1	1.50	0.005	1.50	0.030	0.40	0.40
DEC										
10...	--	--	8.4	26	2.59	0.010	2.60	<0.010	0.45	0.20
JAN 1986										
06...	430	--	--	4	2.60	0.004	2.60	0.020	0.42	--
FEB										
19...	--	--	--	42	2.48	0.020	2.50	0.170	0.78	--
MAR										
03...	1500	--	--	4	2.99	0.011	3.00	0.030	0.35	--
APR										
01...	2300	--	--	9	2.28	0.016	2.30	<0.020	0.40	--
14...	--	17	6.0	1	2.09	0.011	2.10	0.020	0.18	0.20
MAY										
12...	930	--	--	6	--	--	1.90	0.040	0.50	--
13...	--	20	6.6	6	--	--	--	0.030	0.42	0.30
JUN										
12...	--	--	9.2	27	1.69	0.013	1.70	0.048	0.40	0.35
16...	930	--	--	31	1.49	0.013	1.50	0.054	0.45	--
JUL										
14...	23000	--	--	5	1.29	0.011	1.30	0.040	0.40	--
15...	--	--	8.2	8	1.29	0.008	1.30	0.036	0.35	0.30
AUG										
12...	--	27	7.9	5	1.19	0.008	1.20	0.002	0.60	0.47
13...	2300	--	--	6	1.19	0.009	1.20	0.028	0.40	--
SEP										
08...	4300	--	--	6	1.39	0.010	1.40	0.020	0.48	--
16...	--	27	8.8	2	1.29	0.005	1.30	0.016	0.30	0.30

01591000 PATUXENT RIVER NEAR UNITY, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	PHEO-PHYTIN PHYTO-PLANK-TON, ACID M. (UG/L)	CHLORO-PHYLL A PHYTO-PLANK-TON, UNCORR. (UG/L)	CHLORO-PHYLL B PHYTO-PLANK-TON, UNCORR. (UG/L)	CHLORO-PHYLL C PHYTO-PLANK-TON, UNCORR. (UG/L)
OCT 1985									
07...	0.070	0.070	<0.010	1.7	2.2	--	--	--	--
DEC									
10...	0.050	0.030	<0.010	2.6	2.6	0.195	0.854	0.196	0.366
JAN 1986									
06...	0.050	--	0.020	1.4	--	0.144	1.29	--	--
FEB									
19...	0.140	--	0.060	4.4	--	2.15	3.71	--	--
MAR									
03...	0.070	--	0.010	1.5	--	0.067	0.872	--	--
APR									
01...	0.030	--	<0.010	1.5	--	1.50	4.67	--	--
14...	0.030	0.030	0.010	1.4	1.4	1.00	1.80	0.136	0.867
MAY									
12...	0.050	--	0.010	1.8	--	1.40	1.53	--	--
13...	0.040	0.030	0.010	2.1	1.9	0.748	1.80	0.177	0.260
JUN									
12...	0.060	0.060	0.004	2.0	2.0	2.74	2.98	0.263	0.472
16...	0.120	--	0.023	1.6	--	1.89	2.14	--	--
JUL									
14...	0.100	--	0.054	2.8	--	1.60	1.60	--	--
15...	0.060	0.050	<0.004	1.8	2.5	1.68	2.02	0.359	1.10
AUG									
12...	0.060	0.040	0.010	2.0	1.6	2.16	4.60	0.332	0.080
13...	0.070	--	0.016	1.9	--	1.56	2.74	--	--
SEP									
08...	0.170	--	0.020	2.3	--	1.61	1.66	--	--
16...	0.070	0.040	0.006	2.1	2.0	1.38	1.13	0.032	0.00

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 1985				
07...	1320	7.6	15	0.31
DEC				
10...	1330	23	4	0.25
APR 1986				
14...	1130	24	25	1.6
MAY				
13...	1330	17	12	0.56
JUN				
12...	1000	8.5	35	0.81
JUL				
15...	1230	4.3	31	0.36
AUG				
12...	1100	5.5	25	0.38
SEP				
16...	1545	3.4	7	0.07

01591000 PATUXENT RIVER NEAR UNITY, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	ENDING DATE	ENDING TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (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 1986											
14...	1220	--	--	5.9	89	6.6	15.5	22.0	16	9.2	--
23...	1130	--	--	3.8	99	7.0	12.0	19.5	1.6	--	<10
NOV											
17...	1130	--	--	8.6	114	7.6	7.0	14.0	8.9	12.3	--
18...	1345	--	--	8.5	104	7.3	7.5	--	8.0	--	<10
DEC											
08...	1145	--	--	24	110	6.6	6.0	11.0	14	12.4	--
22...	0930	--	--	19	64	6.7	0.0	-4.0	--	--	<10
JAN 1987											
05...	1125	--	--	26	138	8.0	2.0	2.0	--	13.5	--
12...	1100	--	--	26	125	7.5	1.0	4.0	8.2	--	14
12...	1105	--	--	26	--	--	--	--	7.6	--	<10
20...	1600	--	--	81	--	--	--	--	3.3	--	<10
20...	1625	--	--	81	--	--	--	--	--	--	<10
20...	1645	--	--	80	--	--	--	--	12	--	64
FEB											
19...	1200	--	--	25	--	--	--	--	4.8	--	<10
25...	1100	--	--	31	115	7.5	1.5	7.0	--	13.5	--
MAR											
11...	1240	--	--	37	109	7.0	4.5	4.0	--	14.0	--
17...	1100	--	--	30	107	6.8	4.0	5.0	6.9	--	<10
17...	1105	--	--	30	--	--	--	--	--	--	--
APR											
06...	0100	--	--	110	--	--	--	--	--	--	--
06...	0200	--	--	107	--	--	--	--	--	--	--
06...	1235	--	--	104	91	6.5	6.5	6.0	--	11.8	--
21...	1000	--	--	43	99	7.7	15.0	19.5	8.3	--	<10
21...	1005	--	--	43	--	--	--	--	9.0	--	<10
MAY											
04-05	1245	870505	1945	133	--	--	--	--	28	--	17
04...	1325	--	--	133	90	6.2	12.0	12.0	--	11.8	--
JUN											
01...	1110	--	--	20	98	7.4	20.0	26.5	--	8.5	--
03...	1200	--	--	20	98	7.2	23.0	26.0	18	--	--
JUN											
30-30	2200	870630	2400	358	--	--	--	--	1000	--	20
JUN 30-											
JUL 01	2400	870701	1100	728	--	--	--	--	640	--	39
06...	1225	--	--	32	105	6.6	20.5	22.0	--	8.6	--
14...	0955	--	--	21	107	7.1	23.5	28.5	--	--	--
AUG											
03...	1210	--	--	9.2	100	6.7	25.0	29.0	--	8.6	--
13...	0845	--	--	6.9	100	7.6	19.0	18.5	7.4	--	<10
13...	0915	--	--	6.9	100	7.6	20.0	19.0	6.0	--	<10
SEP											
01...	1220	--	--	6.2	102	7.3	19.5	22.0	--	8.9	--
13...	1145	--	--	64	119	7.2	20.0	23.5	100	--	30
13...	1245	--	--	60	--	6.3	20.0	24.0	23	--	<10
15...	2230	--	--	85	--	--	--	--	56	--	<10
15...	2330	--	--	117	--	--	--	--	21	--	<10
16...	0030	--	--	117	--	--	--	--	15	--	<10
16...	1230	--	--	38	123	7.4	19.5	25.5	67	--	19
16...	1300	--	--	38	123	7.4	19.5	25.5	66	--	18

01591000 PATUXENT RIVER NEAR UNITY, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, TOTAL, IMMED. MEM.FIL (COLS./ 100 ML)	ALKA-LINITY WAT WH TOT FET 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 N)	NITRO-GEN, NITRITE DIS-SOLVED (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)
OCT 1986										
14...	--	23000	--	--	32	1.19	0.009	1.20	0.064	0.55
23...	1.4	--	26	<0.21	3	1.39	0.006	1.40	0.024	0.25
NOV										
17...	--	4300	--	--	7	1.69	0.006	1.70	0.024	0.20
18...	2.0	--	24	10	11	1.80	0.004	1.80	0.016	0.25
DEC										
08...	--	7500	--	--	2	2.29	0.010	2.30	0.028	0.33
22...	1.1	--	17	--	1	2.19	0.009	2.20	0.072	0.33
JAN 1987										
05...	--	2300	--	--	<1	2.59	0.010	2.60	0.060	0.30
12...	1.7	--	15	7.6	2	2.49	0.007	2.50	0.024	0.20
12...	1.7	--	--	8.3	4	--	0.007	--	0.020	0.23
20...	--	--	--	13	<1	1.22	0.028	1.25	0.108	0.38
20...	--	--	--	13	<1	--	0.026	--	0.096	0.44
20...	--	--	--	12	10	0.722	0.018	0.740	0.076	1.0
FEB										
19...	1.6	--	--	7.3	<1	2.99	0.009	3.00	0.008	0.15
25...	--	230	--	--	6	2.79	0.008	2.80	0.016	0.25
MAR										
11...	--	930	--	--	4	2.89	0.007	2.90	<0.008	0.23
17...	3.2	--	12	7.3	3	3.00	0.005	3.00	<0.008	0.10
17...	--	--	--	--	--	--	--	--	--	--
APR										
06...	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--
06...	--	23000	--	--	21	2.19	0.008	2.20	0.064	0.50
21...	1.9	--	16	5.8	4	2.19	0.006	2.20	0.010	0.30
21...	1.5	--	--	5.8	4	2.29	0.007	2.30	0.012	0.30
MAY										
04-05	--	--	--	14	28	1.40	0.004	1.40	0.016	0.50
04...	--	43000	--	--	82	1.79	0.012	1.80	0.032	0.75
JUN										
01...	--	4300	--	--	17	2.39	0.013	2.40	0.052	0.50
03...	0.6	--	18	8.5	18	2.09	0.012	2.10	0.032	0.45
JUN										
30-30	--	--	--	5.6	2090	2.07	0.028	2.10	0.360	7.0
JUN 30-										
JUL 01	--	--	--	6.3	964	1.87	0.030	1.90	0.300	4.5
06...	--	2300	--	--	28	2.19	0.012	2.20	0.028	0.45
14...	--	--	21	--	--	--	--	--	--	--
AUG										
03...	--	2300	--	--	6	2.09	0.013	2.10	0.020	0.50
13...	1.6	--	24	7.7	<1	1.90	0.005	1.90	0.008	0.25
13...	1.4	--	24	7.7	<1	1.90	0.005	1.90	<0.008	0.25
SEP										
01...	--	4300	--	--	<1	1.79	0.013	1.80	<0.012	0.45
13...	--	--	25	5.4	113	1.58	0.020	1.60	0.144	1.7
13...	--	--	--	11	58	1.69	0.007	1.70	0.012	1.9
15...	--	--	--	9.8	67	1.79	0.006	1.80	0.024	0.90
15...	--	--	--	10	15	1.89	0.006	1.90	0.032	0.50
16...	--	--	--	10	20	1.89	0.012	1.90	0.040	0.40
16...	2.0	--	27	4.9	54	1.97	0.027	2.00	0.086	1.2
16...	2.2	--	27	4.9	52	1.98	0.025	2.00	0.088	1.2

01591000 PATUXENT RIVER NEAR UNITY, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

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)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	PHEOPHYTIN PHYTOPLANKTON, ACID M. (UG/L)	CHLOROPHYLL A PHYTOPLANKTON, UNCORR. (UG/L)	CHLOROPHYLL B PHYTOPLANKTON, UNCORR. (UG/L)	CHLOROPHYLL C PHYTOPLANKTON, UNCORR. (UG/L)
OCT 1986										
14...	--	0.060	--	0.014	3.6	--	0.609	1.37	--	--
23...	0.15	0.080	0.050	<0.004	1.6	1.6	0.404	1.01	M0.00	0.00
NOV										
17...	--	0.040	--	0.014	2.1	--	0.120	--	--	--
18...	0.20	0.040	0.040	0.007	1.9	2.0	0.120	0.368	0.061	0.256
DEC										
08...	--	0.040	--	0.024	1.3	--	1.18	1.90	--	--
22...	0.48	0.060	--	0.010	6.3	9.9	--	0.498	0.038	0.00
JAN 1987										
05...	--	0.060	--	0.016	1.7	--	0.020	0.411	0.047	0.235
12...	<0.10	0.040	0.020	0.008	1.5	1.5	--	0.077	0.00	0.00
12...	0.15	0.040	0.030	0.008	1.5	1.4	0.120	1.45	0.00	0.00
20...	0.36	0.020	0.020	0.014	1.5	1.3	--	--	--	--
20...	0.30	0.040	0.010	<0.004	--	2.3	--	--	--	--
20...	0.40	0.060	0.040	<0.004	18	15	--	--	--	--
FEB										
19...	0.15	0.040	0.030	<0.004	1.5	1.7	--	1.07	0.00	0.00
25...	--	0.050	--	0.026	1.4	--	0.082	1.72	0.00	0.321
MAR										
11...	--	0.040	--	<0.004	1.3	--	--	0.794	0.006	0.00
17...	0.15	0.050	0.010	0.006	1.6	1.3	0.030	1.68	0.124	0.101
17...	--	--	--	--	--	--	0.135	1.75	0.005	0.00
APR										
06...	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--
06...	--	0.080	--	0.028	2.8	--	0.561	1.09	0.032	0.00
21...	0.25	0.050	0.030	0.004	4.4	5.9	1.68	3.08	0.427	2.29
21...	0.25	0.050	0.040	<0.004	1.8	1.8	1.17	3.06	0.545	2.20
MAY										
04-05	0.20	0.140	0.020	0.010	2.9	2.2	--	--	--	--
04...	--	0.180	--	0.044	4.5	--	4.43	13.4	0.737	1.83
JUN										
01...	--	0.090	--	0.022	3.0	--	2.94	2.64	0.290	0.315
03...	0.25	0.050	0.040	<0.004	2.0	2.8	2.07	2.74	0.177	0.00
JUN										
30-30	1.2	2.30	0.100	0.040	26	6.9	--	--	--	--
JUN 30-										
JUL 01	1.0	1.20	0.150	0.102	20	7.6	--	--	--	--
06...	--	0.120	--	0.038	2.9	--	0.699	1.30	0.059	0.00
14...	--	--	--	--	--	--	1.17	1.96	0.858	3.64
AUG										
03...	--	0.080	--	0.038	1.7	--	0.801	1.84	0.117	0.134
13...	0.20	0.040	0.040	<0.004	<1.0	<1.0	1.92	2.80	0.135	0.123
13...	0.20	0.050	0.050	<0.004	1.2	<1.0	--	--	--	--
SEP										
01...	--	0.050	--	0.014	1.5	--	1.51	2.05	0.120	0.083
13...	0.90	--	--	0.200	10	8.0	4.96	6.43	1.38	0.00
13...	0.20	0.130	0.040	0.018	<1.0	<1.0	--	--	--	--
15...	0.30	0.170	0.040	0.008	1.6	1.1	--	--	--	--
15...	0.30	0.080	0.040	0.010	<1.0	<1.0	--	--	--	--
16...	0.30	0.060	0.060	0.010	<1.0	<1.0	--	--	--	--
16...	0.75	0.310	0.180	0.150	6.6	5.9	2.74	6.08	1.14	0.656
16...	0.78	0.310	0.190	0.130	6.7	7.4	--	--	--	--

01591000 PATUXENT RIVER NEAR UNITY, MD--Continued

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
OCT 1986				
23...	1130	3.8	35	0.36
NOV				
18...	1345	8.5	10	0.24
DEC				
22...	0930	19	3	0.16
JAN 1987				
12...	1100	26	3	0.23
20...	1600	81	1	0.22
20...	1625	81	1	0.22
20...	1645	80	15	3.3
MAR				
17...	1100	30	4	0.33
APR				
06...	0100	110	68	20
06...	0200	107	700	202
21...	1000	43	16	1.9
MAY				
04-05	1245	133	36	13
JUN				
03...	1200	20	24	1.3
JUL				
14...	0955	21	14	0.78
AUG				
13...	0845	6.9	12	0.22
SEP				
13...	1145	64	117	20
15...	2230	85	140	32
15...	2330	117	32	10
16...	1230	38	57	5.9
18...	0100	61	63	10
18...	0300	136	19	7.0

01591000 PATUXENT RIVER NEAR UNITY, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	ENDING DATE	ENDING TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	SPE-CIFIC CON-DUCT-ANCE LAB (US/CM)	PH (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 1987												
05...	1100	--	--	16	142	--	7.4	10.0	--	--	11.2	--
21...	1135	--	--	31	101	--	6.4	11.0	13.0	2.3	--	12
21...	1215	--	--	29	101	--	6.4	11.0	13.0	55	--	<10
NOV												
16...	1130	--	--	27	120	--	7.9	7.0	11.0	--	12.5	--
24...	1145	--	--	23	103	--	7.1	4.5	12.5	1.7	--	<10
29...	1345	--	--	287	--	--	--	--	--	--	--	19
29...	1545	--	--	746	--	--	--	--	--	--	--	<10
29...	1705	--	--	917	--	--	--	--	--	--	--	42
29...	1812	--	--	1010	--	--	--	--	--	--	--	32
29...	1915	--	--	975	--	--	--	--	--	--	--	12
29...	2027	--	--	743	--	--	--	--	--	--	--	<10
DEC												
14...	1150	--	--	27	130	--	7.6	4.0	5.0	--	13.8	--
16...	1115	--	--	53	108	--	7.2	4.0	2.5	6.5	--	<10
16...	1120	--	--	53	107	--	7.2	4.0	2.5	6.7	--	<10
JAN 1988												
12...	1210	--	--	29	120	--	6.5	0.5	3.0	3.0	14.8	--
19...	1030	--	--	41	--	--	--	--	--	13	--	20
19...	1035	--	--	41	--	108	--	--	--	12	--	23
FEB												
22...	1220	--	--	48	115	--	7.2	1.0	7.0	6.5	15.3	--
29...	1000	--	--	41	98	94	7.0	2.0	2.5	2.6	--	<10
29...	1005	--	--	41	101	93	7.0	2.0	2.5	3.0	--	<10
MAR												
15...	1120	--	--	37	100	--	6.7	4.5	3.0	4.0	12.5	--
21...	1000	--	--	33	98	94	6.9	3.5	-2.0	3.0	--	<10
APR												
11...	1150	--	--	46	110	--	7.2	10.5	13.0	4.0	11.9	--
25...	0930	--	--	34	88	88	7.3	9.0	11.0	3.3	--	<10
25...	0935	--	--	34	88	79	7.2	9.0	11.0	2.9	--	<10
MAY												
09...	1135	--	--	58	100	--	7.3	14.0	19.5	9.0	10.4	--
23...	1130	--	--	91	92	88	7.1	16.0	25.5	14	--	<10
MAY												
23-24	2108	880524	0324	957	--	255	--	--	--	200	--	<10
JUN												
06...	1155	--	--	47	100	--	7.5	17.0	24.0	6.5	9.7	--
30...	0900	--	--	17	99	100	--	16.0	16.5	6.7	--	<10
30...	0915	--	--	17	98	98	--	16.0	16.5	7.0	--	<10
JUL												
05...	1145	--	--	15	105	--	7.3	20.0	29.0	7.6	9.6	--
28...	1215	--	--	36	118	108	7.5	22.0	23.5	20	--	26
AUG												
08...	1100	--	--	14	111	--	7.5	22.5	--	3.5	8.8	--
22...	1145	--	--	12	106	101	7.3	18.5	20.0	4.6	--	<10
SEP												
06...	1130	--	--	18	126	--	7.4	16.5	17.5	9.7	9.1	--
26...	1115	--	--	16	112	--	7.2	14.5	17.0	6.5	--	14

01591000 PATUXENT RIVER NEAR UNITY, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, TOTAL, IMMED. MEM.FIL (COLS./ 100 ML)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	ALKA-LINITY WAT WH TOT FET 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 N)	NITRO-GEN, NITRITE DIS-SOLVED (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)
OCT 1987											
05...	--	3900	--	--	--	<1	2.59	0.006	2.60	0.012	0.40
21...	1.7	--	--	17	6.6	4	2.49	0.009	2.50	<0.008	0.43
21...	<0.5	--	--	18	6.6	4	2.39	0.009	2.40	<0.008	0.45
NOV											
16...	--	4300	--	--	--	2	1.89	0.008	1.90	0.024	0.35
24...	1.0	--	--	18	7.3	1	2.40	0.005	2.40	<0.008	0.35
29...	--	--	--	--	9.6	--	1.90	0.099	2.00	0.012	3.9
29...	--	--	--	--	9.6	--	2.48	0.017	2.50	0.028	4.5
29...	--	--	--	--	2.5	--	1.38	0.018	1.40	0.092	9.6
29...	--	--	--	--	3.4	--	1.49	0.015	1.50	0.056	12
29...	--	--	--	--	9.0	--	2.09	0.013	2.10	0.024	2.6
29...	--	--	--	--	9.6	--	2.88	0.023	2.90	0.012	1.3
DEC											
14...	--	1500	--	--	--	8	2.89	0.008	2.90	0.016	0.55
16...	1.5	--	--	19	7.5	4	2.39	0.008	2.40	0.100	0.60
16...	0.1	--	--	17	7.5	5	2.39	0.008	2.40	0.104	0.55
JAN 1988											
12...	--	1500	15	--	--	<1	3.39	0.009	3.40	--	0.25
19...	3.5	--	--	--	6.2	6	2.39	0.012	2.40	--	0.80
19...	3.3	--	--	--	6.2	6	2.36	0.140	2.50	--	0.90
FEB											
22...	--	1500	23	--	--	11	2.89	0.009	2.90	0.024	0.35
29...	0.9	--	--	15	7.6	<1	2.99	0.006	3.00	0.008	0.25
29...	0.5	--	--	14	5.6	<1	2.99	0.007	3.00	0.012	0.30
MAR											
15...	--	930	23	--	--	2	2.89	0.006	2.90	0.008	0.20
21...	2.2	--	--	13	6.8	<1	2.99	0.008	3.00	0.100	0.20
APR											
11...	--	230	230	--	--	3	2.19	0.013	2.20	0.012	0.35
25...	1.1	--	--	17	6.0	3	2.29	0.008	2.30	0.020	0.45
25...	0.9	--	--	16	6.0	<1	2.29	0.008	2.30	0.016	0.40
MAY											
09...	--	4300	1500	--	--	10	1.99	0.012	2.00	--	0.50
23...	<0.5	--	--	16	7.9	23	2.29	0.006	2.30	0.024	0.50
MAY											
23-24	--	--	--	--	11	262	1.09	0.007	1.10	0.028	1.9
JUN											
06...	--	2300	230	--	--	10	2.60	0.004	2.60	<0.008	0.40
30...	0.9	--	--	--	8.1	14	2.59	0.007	2.60	0.024	0.65
30...	0.7	--	--	--	<0.21	13	2.69	0.007	2.70	0.024	0.50
JUL											
05...	--	230	93	--	--	11	2.69	0.006	2.70	0.028	0.40
28...	<0.5	--	--	25	7.5	29	2.39	0.010	2.40	0.026	0.75
AUG											
08...	--	--	--	--	--	10	2.09	0.009	2.10	0.012	0.60
22...	0.9	--	--	23	8.3	11	2.09	0.007	2.10	0.024	0.50
SEP											
06...	--	1100000	460000	--	--	3	1.78	0.015	1.80	0.052	0.80
26...	<0.5	--	--	22	7.9	<1	2.26	0.036	2.30	0.012	0.60

01591000 PATUXENT RIVER NEAR UNITY, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, TOTAL (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)	PHEOPHYTIN PHYTOPLANKTON, ACID M. (UG/L)	CHLOROPHYLL A PHYTOPLANKTON, UNCORR. (UG/L)	CHLOROPHYLL B PHYTOPLANKTON, UNCORR. (UG/L)	CHLOROPHYLL C PHYTOPLANKTON, UNCORR. (UG/L)
OCT 1987											
05...	--	--	0.060	--	0.016	1.4	--	0.382	1.56	0.282	0.783
21...	0.30	--	0.050	0.030	0.014	3.2	3.3	1.96	3.74	0.171	0.845
21...	0.35	--	0.050	0.090	0.010	3.1	3.7	--	--	--	--
NOV											
16...	--	--	0.060	--	0.008	2.3	--	0.397	1.32	0.436	1.42
24...	0.55	--	<0.010	0.040	0.006	0.7	0.8	--	1.01	0.00	0.00
29...	0.45	--	1.40	0.050	0.006	7.8	6.7	--	--	--	--
29...	0.50	--	1.40	0.080	0.030	4.9	3.3	--	--	--	--
29...	0.90	--	2.90	0.100	0.048	28	10	--	--	--	--
29...	1.0	--	3.20	0.090	0.032	22	12	--	--	--	--
29...	0.80	--	0.800	0.050	0.014	5.8	4.3	--	--	--	--
29...	0.50	--	0.320	0.040	0.010	3.0	2.5	--	--	--	--
DEC											
14...	--	--	0.030	--	0.012	0.6	--	0.160	1.21	0.053	0.026
16...	0.60	--	0.070	0.100	0.050	1.6	1.6	0.823	2.30	0.194	0.454
16...	0.65	--	0.080	0.040	0.026	1.7	1.7	--	--	--	--
JAN 1988											
12...	--	3.7	0.030	--	0.006	1.0	--	0.200	0.600	0.00	0.00
19...	0.70	3.2	0.140	0.090	0.083	1.7	2.1	1.00	2.60	0.200	0.800
19...	0.65	3.4	0.140	0.120	0.078	2.5	2.4	--	--	--	--
FEB											
22...	--	3.3	0.040	--	0.024	--	--	0.200	0.800	0.00	0.200
29...	0.02	3.3	0.010	<0.010	0.006	--	--	--	1.00	0.00	0.200
29...	0.30	3.3	0.010	0.020	0.004	--	--	--	--	--	--
MAR											
15...	--	3.1	0.030	--	0.006	0.6	--	0.200	1.40	0.200	0.600
21...	0.20	3.2	0.020	0.020	0.006	1.9	1.5	--	2.00	0.00	0.00
APR											
11...	--	2.6	0.050	--	0.018	1.6	--	2.00	8.20	0.200	1.60
25...	0.35	2.8	0.070	0.070	0.008	1.0	1.2	1.60	3.20	0.200	0.00
25...	0.35	2.7	0.060	0.080	0.004	2.0	1.3	--	--	--	--
MAY											
09...	--	2.5	0.060	--	--	2.1	--	1.00	1.80	0.00	0.00
23...	0.30	2.8	0.070	0.050	0.014	1.7	1.7	1.20	1.60	0.200	1.00
MAY											
23-24	1.0	3.0	0.440	0.050	0.022	4.8	5.2	--	--	--	--
JUN											
06...	--	3.0	0.040	--	0.008	1.4	--	--	--	--	--
30...	0.40	3.3	0.060	0.040	0.008	1.1	1.1	1.80	2.20	0.00	0.00
30...	0.40	3.2	0.050	0.040	0.006	1	1.2	--	--	--	--
JUL											
05...	--	3.1	0.080	--	0.056	1.6	--	2.20	2.20	1.80	6.80
28...	0.50	3.2	0.130	0.040	0.021	2.5	3.3	2.80	4.00	0.600	0.00
AUG											
08...	--	2.7	0.050	--	0.010	1.9	--	0.800	4.00	0.600	0.00
22...	0.50	2.6	0.060	0.040	0.014	2.2	2.1	1.00	2.60	0.200	0.00
SEP											
06...	--	2.6	0.130	--	0.078	3.7	--	2.20	3.80	0.800	1.60
26...	0.40	2.9	0.070	0.050	0.014	2.4	2.6	--	1.20	0.800	1.40

01591000 PATUXENT RIVER NEAR UNITY, MD--Continued

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
OCT 1987				
21...	1135	31	4	0.34
NOV				
24...	1145	23	3	0.18
29...	1345	287	625	484
29...	1545	746	583	1170
29...	1705	917	2200	5450
29...	1812	1010	1230	3350
29...	1915	975	445	1170
29...	2027	743	325	652
DEC				
16...	1115	53	8	1.1
JAN 1988				
19...	1030	41	19	2.1
FEB				
29...	1000	41	2	0.22
MAR				
21...	1000	33	5	0.44
APR				
25...	0930	34	6	0.56
MAY				
23...	1130	91	28	6.9
MAY				
23-24	2108	957	596	1540
JUN				
03...	0800	58	12	1.9
JUL				
23...	1750	386	839	875
28...	1215	36	43	4.2

01591000 PATUXENT RIVER NEAR UNITY, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989

DATE	TIME	ENDING DATE	ENDING TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	SPE-CIFIC CON-DUCT-ANCE LAB (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TEMPER-ATURE AIR (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)
OCT 1988											
03...	1025	--	--	13	99	--	7.5	16.0	18.0	2.6	8.9
20...	1130	--	--	9.5	99	--	7.2	9.0	13.0	1.9	--
20...	1145	--	--	9.5	101	--	7.2	9.0	13.0	2.2	--
NOV											
14...	1100	--	--	17	112	--	7.8	7.0	8.0	3.5	12.2
17...	1010	--	--	33	77	--	7.9	9.0	10.0	11	--
29...	1355	--	--	27	108	--	7.1	6.5	8.0	7.4	--
DEC											
05...	1100	--	--	15	105	--	7.8	3.5	3.0	4.2	13.3
20...	1400	--	--	14	91	94	6.8	4.5	12.5	--	13.0
21...	1130	--	--	15	96	87	6.5	0.5	7.0	6.6	--
JAN 1989											
17...	1125	--	--	41	110	--	7.3	2.5	9.5	6.2	13.7
18...	1230	--	--	35	107	--	7.0	3.0	11.0	4.3	--
FEB											
13...	1120	--	--	20	98	--	7.9	0.0	3.0	3.7	14.6
16...	1300	--	--	45	112	112	7.1	5.5	6.0	11	--
21...	2400	--	--	74	--	--	--	--	--	270	--
22...	0200	--	--	68	--	--	--	--	--	87	--
22...	0400	--	--	65	--	--	--	--	--	44	--
22...	0600	--	--	62	--	--	--	--	--	33	--
22...	0800	--	--	67	--	--	--	--	--	27	--
22...	1000	--	--	82	--	--	--	--	--	19	--
22...	1200	--	--	105	--	--	--	--	--	14	--
22...	1400	--	--	156	--	--	--	--	--	13	--
MAR											
06...	1120	--	--	87	107	--	7.7	5.5	4.0	39	12.7
15...	1250	--	--	39	107	--	6.8	9.0	23.0	4.1	--
MAR											
24-24	1400	890324	1600	589	--	--	--	--	--	7.0	--
APR											
03...	1110	--	--	61	100	--	6.9	8.5	12.0	8.2	11.4
20...	1030	--	--	42	99	--	8.5	10.5	13.0	5.0	--
26...	1120	--	--	32	94	96	7.0	11.5	--	--	11.9
MAY											
01...	1100	--	--	30	98	--	7.9	15.0	16.5	6.0	10.0
17...	1545	--	--	146	108	--	6.7	15.5	25.0	--	--
JUN											
12...	1120	--	--	40	103	--	7.5	16.5	24.5	6.8	9.2
12...	1130	--	--	40	--	--	--	--	--	7.0	--
12...	1135	--	--	40	108	--	6.9	20.0	24.0	6.6	--
JUL											
06...	1350	--	--	72	--	--	--	19.0	--	34	--
10...	1205	--	--	32	105	--	6.5	21.5	28.5	9.0	8.9
24...	1015	--	--	27	92	--	6.7	21.0	27.0	9.4	--
AUG											
14...	1030	--	--	21	84	--	7.8	19.0	24.0	4.0	--
14...	1035	--	--	21	--	--	--	--	--	5.0	--
14...	1140	--	--	21	103	--	7.3	20.0	26.0	5.6	9.0
SEP											
11...	1120	--	--	12	97	--	7.7	21.0	29.0	4.6	9.1
11...	1310	--	--	12	89	94	6.7	19.5	31.5	--	7.8
11...	1405	--	--	12	93	--	7.3	21.0	29.5	5.6	--

01591000 PATUXENT RIVER NEAR UNITY, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989

DATE	OXYGEN DEMAND, CHEMICAL (LOW LEVEL) (MG/L)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, TOTAL, IMMED. MEM.FIL (COLS./ 100 ML)	COLIFORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	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 FET FIELD MG/L AS CACO3	ALKALINITY WAT WH TOT IT FIELD MG/L AS CACO3	SULFATE DISSOLVED (MG/L AS SO4)
OCT 1988											
03...	--	--	930	930	--	--	--	--	--	--	--
20...	--	3.0	--	--	--	--	--	--	22	--	--
20...	--	2.9	--	--	--	--	--	--	23	--	--
NOV											
14...	--	--	15000	930	--	--	--	--	--	--	--
17...	14	--	--	--	--	--	--	--	--	--	--
29...	<10	2.4	--	--	--	--	--	--	20	--	--
DEC											
05...	--	--	93	4	--	--	--	--	--	--	--
20...	--	--	--	--	6.4	2.9	5.1	1.2	--	15	11
21...	10	1.3	--	--	--	--	--	--	--	--	--
JAN 1989											
17...	--	--	2100	150	--	--	--	--	--	--	--
18...	--	3.0	--	--	--	--	--	--	15	--	--
FEB											
13...	--	--	930	43	--	--	--	--	--	--	--
16...	14	2.5	--	--	--	--	--	--	15	--	--
21...	34	--	--	--	--	--	--	--	--	--	--
22...	10	--	--	--	--	--	--	--	--	--	--
22...	<10	--	--	--	--	--	--	--	--	--	--
22...	<10	--	--	--	--	--	--	--	--	--	--
22...	<10	--	--	--	--	--	--	--	--	--	--
22...	<10	--	--	--	--	--	--	--	--	--	--
22...	<10	--	--	--	--	--	--	--	--	--	--
22...	<10	--	--	--	--	--	--	--	--	--	--
MAR											
06...	--	--	--	--	--	--	--	--	--	--	--
15...	<10	3.0	--	--	--	--	--	--	13	--	--
MAR											
24-24	<10	--	--	--	--	--	--	--	--	--	--
APR											
03...	--	--	2300	150	--	--	--	--	--	--	--
20...	<10	--	--	--	--	--	--	--	15	--	--
26...	--	--	--	--	6.6	3.1	5.3	1.2	--	20	3.8
MAY											
01...	--	--	930	43	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	15	--	--
JUN											
12...	--	--	--	--	--	--	--	--	--	--	--
12...	<10	1.7	--	--	--	--	--	--	--	--	--
12...	<10	1.6	--	--	--	--	--	--	17	--	--
JUL											
06...	<10	--	--	--	--	--	--	--	--	--	--
10...	--	--	2100	93	--	--	--	--	--	--	--
24...	--	<0.5	--	--	--	--	--	--	29	--	--
AUG											
14...	<10	<0.5	--	--	--	--	--	--	18	--	--
14...	<10	<0.5	--	--	--	--	--	--	--	--	--
14...	--	--	2300	230	--	--	--	--	--	--	--
SEP											
11...	--	--	2300	93	--	--	--	--	--	--	--
11...	--	--	--	--	6.8	2.9	5.2	1.5	--	18	2.0
11...	--	0.7	--	--	--	--	--	--	19	--	--

01591000 PATUXENT RIVER NEAR UNITY, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989

DATE	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)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	RESIDUE TOTAL AT 105 DEG. C, SUSPENDED (MG/L)	NITROGEN, NITRATE DISSOLVED (MG/L AS N)	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 1988											
03...	--	--	--	--	--	1	2.09	0.005	--	2.10	0.004
20...	--	--	8.8	--	--	<1	1.90	0.004	--	1.90	--
20...	--	--	8.8	--	--	<1	1.90	0.004	--	1.90	--
NOV											
14...	--	--	--	--	--	3	1.79	0.007	--	1.80	0.008
17...	--	--	7.7	--	--	7	1.49	0.007	--	1.50	0.012
29...	--	--	8.6	--	--	4	1.79	0.009	--	1.80	0.012
DEC											
05...	--	--	--	--	--	2	2.29	0.007	--	2.30	0.016
20...	10	<0.10	7.2	52	53	--	--	--	2.40	--	--
21...	--	--	7.3	--	--	2	2.50	0.004	--	2.50	0.008
JAN 1989											
17...	--	--	--	--	--	4	2.39	0.008	--	2.40	0.008
18...	--	--	7.7	--	--	<1	2.59	0.006	--	2.60	0.008
FEB											
13...	--	--	--	--	--	2	2.80	0.005	--	2.80	0.008
16...	--	--	7.3	--	--	11	2.39	0.013	--	2.40	0.136
21...	--	--	13	--	--	45	--	<0.002	--	1.30	0.020
22...	--	--	14	--	--	36	--	<0.002	--	1.60	0.008
22...	--	--	14	--	--	135	--	<0.002	--	1.60	<0.008
22...	--	--	14	--	--	61	--	<0.002	--	1.60	<0.008
22...	--	--	14	--	--	54	--	<0.002	--	1.50	<0.008
22...	--	--	13	--	--	26	--	<0.002	--	1.60	<0.008
22...	--	--	13	--	--	23	1.80	0.002	--	1.80	<0.008
22...	--	--	13	--	--	20	--	<0.002	--	1.80	<0.008
MAR											
06...	--	--	--	--	--	7	2.39	0.014	--	2.40	0.072
15...	--	--	6.8	--	--	<1	2.79	0.007	--	2.80	0.016
MAR											
24-24	--	--	--	--	--	32	--	0.005	--	--	0.020
APR											
03...	--	--	--	--	--	9	2.59	0.012	--	2.60	0.008
20...	--	--	10	--	--	2	2.39	0.008	--	2.40	0.012
26...	10	0.10	5.7	60	46	--	--	--	2.30	--	--
MAY											
01...	--	--	--	--	--	4	2.29	0.010	--	2.30	0.028
17...	--	--	--	--	--	--	--	--	--	--	--
JUN											
12...	--	--	--	--	--	1	2.59	0.011	--	2.60	0.024
12...	--	--	7.9	--	--	7	2.59	0.009	--	2.60	0.028
12...	--	--	7.9	--	--	3	2.59	0.009	--	2.60	0.028
JUL											
06...	--	--	8.3	--	--	58	2.21	0.086	--	2.30	0.028
10...	--	--	--	--	--	12	2.79	0.006	--	2.80	0.020
24...	--	--	9.2	--	--	5	2.69	0.011	--	2.70	0.024
AUG											
14...	--	--	8.6	--	--	2	2.70	0.004	--	2.70	0.012
14...	--	--	8.6	--	--	2	2.70	0.004	--	2.70	0.012
14...	--	--	--	--	--	2	2.99	0.006	--	3.00	0.024
SEP											
11...	--	--	--	--	--	<1	2.39	0.008	--	2.40	0.012
11...	9.3	0.10	8.4	67	47	--	--	--	2.50	--	--
11...	--	--	8.6	--	--	4	2.49	0.008	--	2.50	0.032

01591000 PATUXENT RIVER NEAR UNITY, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989

DATE	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 1988											
03...	0.55	--	2.7	0.040	--	0.010	--	--	--	--	1.3
20...	0.30	0.25	2.2	0.030	<0.010	<0.004	--	--	--	--	2.7
20...	0.35	0.25	2.3	0.030	<0.010	<0.004	--	--	--	--	2.0
NOV											
14...	0.40	--	2.2	0.030	--	0.006	--	--	--	--	1.4
17...	1.0	0.70	2.5	0.460	0.050	<0.004	--	--	--	--	2.6
29...	0.40	0.30	2.2	0.070	0.030	0.018	--	--	--	--	2.3
DEC											
05...	0.25	--	2.6	0.040	--	0.012	--	--	--	--	1.2
20...	--	--	--	<0.010	--	--	140	75	40	34	1.2
21...	0.40	0.25	2.9	0.030	0.020	0.004	--	--	--	--	1.1
JAN 1989											
17...	0.45	--	2.9	0.080	--	0.042	--	--	--	--	1.6
18...	0.30	0.30	2.9	--	--	0.004	--	--	--	--	1.2
FEB											
13...	0.25	--	3.1	<0.010	--	0.010	--	--	--	--	--
16...	0.85	0.55	3.3	0.080	0.040	0.018	--	--	--	--	2.2
21...	3.8	0.35	5.1	0.900	0.030	0.004	--	--	--	--	19
22...	1.2	0.30	2.8	0.370	0.030	0.008	--	--	--	--	--
22...	0.70	0.30	2.3	0.170	0.030	0.008	--	--	--	--	1.0
22...	0.60	0.30	2.2	0.120	0.030	0.00	--	--	--	--	1.1
22...	0.55	0.30	2.1	0.100	0.030	0.00	--	--	--	--	1
22...	0.55	--	2.2	0.090	--	0.00	--	--	--	--	0.7
22...	0.50	3.2	2.3	0.080	0.310	0.00	--	--	--	--	0.9
22...	0.35	0.35	2.2	0.080	0.030	0.00	--	--	--	--	0.8
MAR											
06...	0.40	--	2.8	0.110	--	0.034	--	--	--	--	2.2
15...	0.35	0.35	3.2	0.030	0.030	--	--	--	--	--	1
MAR											
24-24	0.25	0.30	--	0.040	0.040	--	--	--	--	--	--
APR											
03...	0.65	--	3.3	0.250	--	0.010	--	--	--	--	1.1
20...	0.45	0.45	2.9	0.030	0.020	0.008	--	--	--	--	1.8
26...	--	--	--	0.010	--	--	220	69	40	43	1.3
MAY											
01...	0.40	--	2.7	0.050	--	0.014	--	--	--	--	1.4
17...	--	--	--	--	--	--	--	--	--	--	--
JUN											
12...	0.40	--	3.0	0.060	--	0.016	--	--	--	--	1.5
12...	0.35	0.35	3.0	0.060	0.040	0.018	--	--	--	--	1.3
12...	0.40	0.30	3.0	0.070	0.040	<0.004	--	--	--	--	1.2
JUL											
06...	0.68	0.40	3.0	0.090	0.050	0.012	--	--	--	--	2.7
10...	0.60	--	3.4	0.070	--	0.024	--	--	--	--	1.2
24...	0.30	0.15	3.0	0.060	0.060	0.010	--	--	--	--	1.3
AUG											
14...	0.35	0.20	3.1	0.050	0.030	0.010	--	--	--	--	<0.8
14...	0.35	0.20	3.1	0.040	0.040	0.010	--	--	--	--	<0.8
14...	0.45	--	3.5	0.080	--	0.034	--	--	--	--	<0.8
SEP											
11...	0.50	--	2.9	0.050	--	0.016	--	--	--	--	1.3
11...	--	--	--	0.020	--	--	270	100	30	23	1.5
11...	0.35	0.40	2.9	0.030	0.040	0.022	--	--	--	--	0.9

01591000 PATUXENT RIVER NEAR UNITY, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989

DATE	HARDNESS TOTAL (MG/L AS CACO3)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	PHEOPHYTIN PHYTOPLANKTON, ACID M. (UG/L)	CHLOROPHYLL A PHYTOPLANKTON, UNCORR. (UG/L)	CHLOROPHYLL B PHYTOPLANKTON, UNCORR. (UG/L)	CHLOROPHYLL C PHYTOPLANKTON, UNCORR. (UG/L)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 1988										
03...	--	--	1.00	1.40	0.400	0.800	--	--	--	--
20...	--	2.8	--	1.20	0.00	0.00	--	--	--	--
20...	--	2.5	--	--	--	--	--	--	--	--
NOV										
14...	--	--	0.800	5.00	0.200	1.00	--	--	--	--
17...	--	2.6	--	--	--	--	--	--	--	--
29...	--	2.3	--	3.60	0.200	0.200	--	--	--	--
DEC										
05...	--	--	0.200	1.80	0.00	0.200	--	--	--	--
20...	28	--	--	--	--	--	--	--	--	--
21...	--	1.0	--	--	--	--	--	--	--	--
JAN 1989										
17...	--	--	0.200	1.20	0.00	0.00	--	--	--	--
18...	--	1.5	0.00	1.20	0.400	1.40	--	--	--	--
FEB										
13...	--	--	0.00	1.00	0.00	0.200	--	--	--	--
16...	--	2.4	0.400	4.40	0.400	0.00	--	--	--	--
21...	--	5.9	--	--	--	--	--	--	--	--
22...	--	0.9	--	--	--	--	--	--	--	--
22...	--	0.6	--	--	--	--	--	--	--	--
22...	--	0.8	--	--	--	--	--	--	--	--
22...	--	0.8	--	--	--	--	--	--	--	--
22...	--	0.6	--	--	--	--	--	--	--	--
22...	--	0.8	--	--	--	--	--	--	--	--
22...	--	1.0	--	--	--	--	--	--	--	--
MAR										
06...	--	--	1.00	8.80	0.00	1.60	--	--	--	--
15...	--	0.9	--	2.20	0.00	0.00	--	--	--	--
MAR										
24-24	--	--	--	--	--	--	--	--	--	--
APR										
03...	--	--	0.00	1.20	0.00	0.200	--	--	--	--
20...	--	1.9	1.00	3.80	0.200	0.00	--	--	--	--
26...	29	--	--	--	--	--	--	--	--	--
MAY										
01...	--	--	1.60	3.80	0.200	0.400	--	--	--	--
17...	--	--	0.200	1.60	0.00	0.00	--	--	--	--
JUN										
12...	--	--	0.400	1.00	0.00	0.00	--	--	--	--
12...	--	1.4	0.800	1.60	0.00	0.00	--	--	--	--
12...	--	1.4	--	--	--	--	--	--	--	--
JUL										
06...	--	2.3	--	--	--	--	--	--	--	--
10...	--	--	0.00	1.00	0.00	0.00	--	--	--	--
24...	--	1.2	--	1.40	0.00	0.00	--	--	--	--
AUG										
14...	--	<0.8	0.600	1.40	0.00	0.200	--	--	--	--
14...	--	<0.8	--	--	--	--	--	--	--	--
14...	--	--	0.200	1.00	0.00	0.00	--	--	--	--
SEP										
11...	--	--	2.00	6.60	0.400	2.00	--	--	--	--
11...	29	--	--	--	--	--	<0.1	<1.0	<0.1	<0.1
11...	--	3.5	0.400	1.20	0.00	0.800	--	--	--	--

01591000 PATUXENT RIVER NEAR UNITY, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989

DATE	TIME	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
SEP 1989											
11...	1130	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1

METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIAL (UG/KG)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)
<0.1	<0.1	<0.1	<0.1	<0.1	<1	<1.0	<1.00	<0.1	<10

SUSPENDED SEDIMENT DISCHARGE

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
NOV				
17...	1010	33	9	0.79
29...	1355	27	5	0.36
DEC				
21...	1130	15	3	0.12
JAN				
18...	1230	35	2	0.19
FEB				
16...	1300	45	9	1.1
MAR				
15...	1250	39	2	0.21
APR				
20...	1030	42	7	0.80
MAY				
02...	0715	113	118	36
02...	0920	131	65	23
02...	1100	119	40	13
02...	1315	97	39	10
17...	1545	146	34	13
JUN				
12...	1130	40	13	1.4
JUL				
06...	1350	72	64	12
24...	1015	27	2850	205
AUG				
14...	1030	21	4	0.22
SEP				
11...	1405	12	3	0.10

01591000 PATUXENT RIVER NEAR UNITY, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DATE	TIME	ENDING DATE	ENDING TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (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 1989											
10...	1025	--	--	15	96	6.8	9.0	15.0	3.3	10.5	--
10...	1125	--	--	15	96	6.8	9.0	15.0	3.3	10.5	--
19...	0845	--	--	138	--	--	10.0	8.0	120	--	23
19...	0945	--	--	148	--	--	10.0	8.0	120	--	23
19...	1340	--	--	135	--	--	--	--	46	--	25
19...	1440	--	--	131	--	--	--	--	46	--	25
24...	1200	--	--	24	108	--	10.0	18.0	3.5	--	<10
24...	1300	--	--	24	108	--	10.0	18.0	3.5	--	<10
NOV											
13...	1110	--	--	20	101	6.5	8.0	12.5	4.5	12.3	--
16...	0945	--	--	346	--	--	10.5	--	500	--	26
16...	2000	--	--	143	--	--	10.5	10.0	120	--	26
20...	1045	--	--	31	100	7.4	7.0	14.0	6.2	--	<10
DEC											
11...	1110	--	--	23	102	7.7	0.5	1.5	4.3	15.2	--
20...	0945	--	--	20	100	6.5	0.0	3.0	3.7	--	11
20...	0950	--	--	20	100	6.5	0.0	-3.0	3.3	--	<10
JAN 1990											
08...	1130	--	--	30	110	7.6	1.5	2.0	4.4	13.6	--
30...	0815	--	--	165	87	7.2	7.0	9.0	260	--	20
FEB											
05...	1105	--	--	56	113	7.8	4.5	3.0	10	12.9	--
27...	1200	--	--	34	100	6.8	1.0	1.0	3.4	--	10
MAR											
05...	1025	--	--	31	100	7.4	3.5	7.0	3.0	14.5	--
MAR											
17-17	1715	900317	1915	85	--	--	--	--	210	--	10
MAR											
17-18	2015	900318	0115	71	--	--	--	--	70	--	14
MAR											
18-18	0215	900318	0715	60	--	--	--	--	23	--	<10
MAR											
18-18	0815	900318	1415	49	--	--	--	--	11	--	12
28...	1515	--	--	35	98	7.4	9.0	11.5	3.1	--	15
28...	1545	--	--	35	223	6.8	9.0	11.5	10	--	<10
APR											
02...	1030	--	--	50	99	7.6	10.0	13.0	5.6	11.9	--
25...	0945	--	--	40	96	6.7	15.0	20.0	8.3	--	<10
25...	0950	--	--	40	--	--	--	--	7.6	--	<10
MAY											
14...	0945	--	--	46	105	7.8	14.5	18.0	12	9.9	--
21...	1300	--	--	41	98	6.6	16.0	16.0	19	--	<10
21...	1305	--	--	41	--	--	--	--	20	--	12
JUN											
11...	1045	--	--	31	108	7.6	17.5	24.0	12	8.9	--
26...	1240	--	--	21	101	6.8	20.0	26.0	0.70	--	<10
JUL											
16...	1010	--	--	24	110	7.2	20.5	25.0	13	8.7	--
18...	0700	--	--	17	100	6.2	20.0	20.0	11	--	13
AUG											
13...	1020	--	--	18	110	7.3	20.5	27.0	7.0	8.8	--
28...	0715	--	--	15	103	5.8	20.0	23.0	6.5	--	--
28...	0720	--	--	15	--	--	--	--	6.7	--	--
SEP											
10...	0950	--	--	12	100	7.4	19.0	24.0	4.3	8.7	--
25...	0800	--	--	10	105	5.6	12.0	8.0	4.4	--	<10

01591000 PATUXENT RIVER NEAR UNITY, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DATE	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, TOTAL, IMMED. MEM.FIL (COLS./ 100 ML)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	ALKA-LINITY WAT WH TOT FET 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 N)	NITRO-GEN, NITRITE DIS-SOLVED (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)
OCT 1989											
10...	--	39	43	--	--	<1	2.50	0.005	2.50	0.008	0.35
10...	--	39	43	--	--	<1	2.50	0.005	2.50	0.008	0.35
19...	3.1	--	--	--	7.3	184	1.89	0.013	1.90	0.068	1.5
19...	3.1	--	--	--	7.3	184	1.89	0.013	1.90	0.068	1.5
19...	--	--	--	--	6.8	62	1.79	0.011	1.80	0.060	1.0
19...	--	--	--	--	6.8	62	1.79	0.011	1.80	0.060	1.0
24...	<0.5	--	--	--	9.2	<1	2.20	0.004	2.20	0.008	<0.10
24...	<0.5	--	--	--	9.2	<1	2.20	0.004	2.20	0.008	<0.10
NOV											
13...	--	150	230	--	--	4	2.10	0.004	2.10	--	0.30
16...	--	--	--	--	5.2	470	2.09	0.009	2.10	--	--
16...	--	--	--	--	6.4	160	3.09	0.013	3.10	--	--
20...	1.7	--	--	16	9.3	3	2.80	0.003	2.80	0.016	0.20
DEC											
11...	--	43	150	--	--	<1	2.99	0.006	3.00	0.012	0.15
20...	1.1	--	--	--	8.8	<1	0.004	0.006	0.010	0.012	0.15
20...	2.7	--	--	--	9.0	<1	3.19	0.006	3.20	0.012	0.20
JAN 1990											
08...	--	--	--	--	--	8	2.89	0.006	2.90	0.012	0.15
30...	3.9	--	--	15	5.2	335	2.39	0.009	2.40	0.232	2.0
FEB											
05...	--	--	--	--	--	14	2.99	0.012	3.00	0.400	0.85
27...	0.5	--	--	1410	7.7	2	3.29	0.007	3.30	0.012	0.70
MAR											
05...	--	--	--	--	--	2	3.19	0.007	3.20	<0.008	0.20
MAR											
17-17	--	--	--	--	12	596	1.90	0.004	1.90	0.012	1.8
MAR											
17-18	--	--	--	--	12	90	1.99	0.009	2.00	0.052	0.90
MAR											
18-18	--	--	--	--	12	50	1.99	0.007	2.00	0.052	0.45
MAR											
18-18	--	--	--	--	12	26	1.89	0.006	1.90	0.024	0.40
28...	0.5	--	--	14	6.6	5	2.79	0.015	2.80	0.012	0.20
28...	0.5	--	--	11	4.9	32	1.99	0.008	2.00	<0.008	0.20
APR											
02...	--	--	--	--	--	11	2.69	0.010	2.70	<0.008	<0.10
25...	0.5	--	--	16	--	--	--	--	--	--	0.25
25...	0.5	--	--	--	--	6	--	0.009	--	--	0.30
MAY											
14...	--	--	--	--	--	20	2.38	0.017	2.40	0.044	0.60
21...	0.6	--	--	17	--	48	--	0.012	--	0.036	0.35
21...	0.8	--	--	--	--	46	--	0.012	--	0.036	0.35
JUN											
11...	--	--	--	--	--	7	2.59	0.011	2.60	0.024	0.30
26...	1.3	--	--	18	9.4	13	2.89	0.009	2.90	0.020	0.35
JUL											
16...	--	--	--	--	--	12	2.39	0.012	2.40	0.036	0.65
18...	0.9	--	--	22	9.8	14	2.49	0.008	2.50	0.012	0.20
AUG											
13...	--	--	--	--	--	4	2.29	0.011	2.30	0.028	0.20
28...	0.5	--	--	--	9.8	16	2.30	0.004	2.30	0.016	0.15
28...	0.5	--	--	--	9.8	15	2.50	0.004	2.50	0.016	0.15
SEP											
10...	--	--	--	--	--	3	2.19	0.008	2.20	0.020	0.50
25...	0.5	--	--	22	9.0	5	2.29	0.007	2.30	0.020	0.35

01591000 PATUXENT RIVER NEAR UNITY, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DATE	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, TOTAL (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)	PHEOPHYTIN PHYTOPLANKTON, ACID M. (UG/L)	CHLOROPHYLL A PHYTOPLANKTON, UNCORR. (UG/L)	CHLOROPHYLL B PHYTOPLANKTON, UNCORR. (UG/L)	CHLOROPHYLL C PHYTOPLANKTON, UNCORR. (UG/L)
OCT 1989											
10...	--	2.9	0.070	--	0.008	1.1	--	0.200	1.00	0.00	0.00
10...	--	2.9	0.070	--	0.008	1.1	--	0.200	1.00	0.00	0.00
19...	0.55	3.4	0.310	0.070	0.052	8.9	6.8	--	--	--	--
19...	0.55	3.4	0.310	0.070	0.052	8.9	6.8	--	--	--	--
19...	--	2.8	0.190	--	0.038	8.4	7.8	--	--	--	--
19...	--	2.8	0.190	--	0.038	8.4	7.8	--	--	--	--
24...	0.20	2.3	0.050	0.020	0.008	1.1	1.2	--	0.400	0.00	0.00
24...	0.20	2.3	0.050	0.020	0.008	1.1	1.2	--	0.400	0.00	0.00
NOV											
13...	--	2.4	0.050	--	0.008	1.4	--	0.200	1.60	0.00	0.200
16...	--	--	--	--	--	15	10	--	--	--	--
16...	--	--	--	--	--	14	8.0	--	--	--	--
20...	0.15	3.0	0.050	0.020	0.004	1.3	1.7	--	0.400	0.00	0.00
DEC											
11...	--	3.2	0.020	--	<0.004	0.9	--	--	0.800	0.00	0.600
20...	0.20	0.16	<0.010	<0.010	0.004	<0.8	0.8	--	1.40	0.200	0.600
20...	0.15	3.4	0.010	0.030	0.006	0.8	0.8	--	1.20	0.00	0.200
JAN 1990											
08...	--	3.1	0.040	--	0.012	1.1	--	0.00	0.002	0.00	0.00
30...	0.85	4.4	0.600	0.100	0.078	7.7	4.8	0.004	0.009	0.001	0.00
FEB											
05...	--	3.9	0.150	--	0.090	3.0	--	0.00	0.003	0.00	0.002
27...	0.65	4.0	0.030	0.020	0.004	<0.8	0.8	--	0.00	0.00	0.00
MAR											
05...	--	3.4	0.040	--	0.004	1.2	--	0.00	0.001	0.00	0.00
MAR											
17-17	0.20	3.7	0.600	0.020	0.004	3.8	1.4	--	--	--	--
MAR											
17-18	0.40	2.9	0.220	0.030	0.012	2.9	3.1	--	--	--	--
MAR											
18-18	0.20	2.5	0.090	0.030	0.012	1.9	2.1	--	--	--	--
MAR											
18-18	0.25	2.3	0.070	0.020	0.008	1.7	2.0	--	--	--	--
28...	0.25	3.0	0.030	0.060	<0.004	1.1	1.2	--	0.001	0.00	0.00
28...	0.25	2.2	0.060	0.050	0.006	<0.8	1.4	--	--	--	--
APR											
02...	--	2.8	0.030	--	0.010	1.5	--	0.00	0.003	0.00	0.00
25...	0.28	--	0.040	0.020	<0.004	2.9	2.7	0.002	0.003	0.00	0.00
25...	0.15	--	0.040	0.030	<0.004	2.6	2.9	--	--	--	--
MAY											
14...	--	3.0	0.070	--	0.016	2.4	--	0.001	0.002	0.00	0.00
21...	--	--	0.070	--	0.008	2.7	2.7	0.003	0.003	0.00	0.00
21...	0.25	--	0.070	0.050	0.006	2.7	2.7	--	--	--	--
JUN											
11...	--	2.9	0.070	--	0.020	3.6	--	0.001	0.001	0.00	0.00
26...	0.20	3.3	0.070	0.050	0.008	1.4	1.4	0.00	0.001	0.00	0.00
JUL											
16...	--	3.1	0.110	--	0.016	2.8	--	0.00	0.003	0.00	0.00
18...	<0.20	2.7	0.050	<0.050	0.008	1.8	1.6	0.001	0.001	0.00	0.00
AUG											
13...	--	2.5	0.360	--	0.026	2.1	--	0.00	0.001	0.00	0.00
28...	0.10	2.5	0.070	0.040	0.008	1.6	1.7	0.001	0.001	0.00	0.00
28...	0.10	2.7	0.070	0.050	0.010	1.5	1.6	--	--	--	--
SEP											
10...	--	2.7	0.040	--	--	0.7	--	0.00	0.001	0.00	0.00
25...	0.25	2.7	0.040	0.040	0.004	2.1	2.2	0.00	0.001	0.00	0.00

01591000 PATUXENT RIVER NEAR UNITY, MD--Continued

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
OCT				
19...	0845	138	208	78
19...	0945	148	208	83
19...	1340	135	82	30
19...	1440	131	82	29
24...	1200	24	3	0.20
24...	1300	24	3	0.20
NOV				
16...	0945	346	937	875
16...	2000	143	149	57
20...	1045	31	4	0.33
DEC				
20...	0945	20	3	0.16
JAN				
30...	0815	165	272	121
FEB				
27...	1200	34	5	0.46
MAR				
17-18	2015	71	192	37
MAR				
28...	1515	35	5	0.48
28...	1545	35	57	5.4
APR				
25...	0945	40	12	1.3
MAY				
21...	1300	41	31	3.4
JUN				
26...	1240	21	21	1.2
JUL				
18...	0700	17	22	1.0
AUG				
28...	0715	15	13	0.54
SEP				
25...	0800	10	4	0.11

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.

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 National Geodetic Vertical Datum of 1929, from topographic map. Prior to Dec. 28, 1983, at site 800 ft upstream at datum 1.76 ft lower.

REMARKS.--Records good except those for estimated daily discharges (missing record), which are fair. Several measurments of water temperature were made during the year. Water-quality records for some prior years have been collected at this station.

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)
Oct. 23	1600	*4,340	*8.41	Mar. 23	1430	1,030	4.99
Nov. 10	1400	1,240	5.33				

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.5	16	14	36	e24	e18	31	23	13	7.4	4.5	3.2
2	7.8	15	15	31	e23	e19	29	23	16	7.4	3.7	2.7
3	7.3	15	21	29	e23	e21	28	21	14	8.2	4.0	2.7
4	8.4	15	56	28	e23	e29	28	20	12	8.1	4.5	3.3
5	9.6	15	25	26	e22	e25	28	20	12	9.1	4.3	8.6
6	8.1	17	21	32	e23	e21	28	25	11	12	3.8	3.7
7	7.9	16	19	38	e26	e28	27	24	11	11	3.1	3.7
8	7.8	15	18	33	e24	24	26	20	11	12	3.7	3.4
9	10	15	17	31	e23	22	26	21	9.9	9.6	5.7	3.2
10	8.8	266	17	31	e22	22	25	21	9.4	8.4	5.1	3.1
11	9.8	37	16	42	e21	21	23	19	9.9	8.2	4.1	3.1
12	11	24	16	113	e20	20	23	19	11	7.5	3.6	2.8
13	13	21	16	48	e20	21	27	18	9.6	10	3.5	2.9
14	12	19	15	36	e30	24	34	18	9.1	7.4	3.5	2.9
15	10	18	34	47	e25	25	48	17	8.9	6.8	3.6	3.0
16	9.5	18	28	107	e20	23	35	16	8.7	6.4	4.1	3.2
17	9.2	19	21	44	e20	22	29	23	8.7	5.9	3.3	2.9
18	49	17	28	38	e22	61	27	22	46	5.6	2.8	3.9
19	25	16	24	36	e25	34	26	19	15	5.4	2.4	3.9
20	14	16	20	35	e22	28	27	18	12	5.3	23	4.3
21	12	16	25	e32	e21	26	30	17	11	4.3	7.2	3.9
22	12	16	25	e30	e20	27	34	16	11	4.7	5.1	3.8
23	1230	18	37	e28	e19	244	28	16	12	4.8	4.6	3.8
24	54	16	73	e27	e19	54	26	15	11	4.3	4.2	4.4
25	26	16	30	e27	e19	37	24	14	10	4.7	4.1	20
26	20	15	25	e26	e19	34	24	14	9.8	5.4	4.1	7.4
27	18	15	23	e25	e19	37	23	13	9.5	6.3	3.8	5.4
28	17	15	28	e26	e18	33	23	13	8.8	4.9	3.8	4.8
29	16	15	25	e25	---	32	23	13	8.4	5.4	3.9	4.6
30	16	15	130	e25	---	42	23	13	7.9	5.8	3.4	4.4
31	16	---	74	e28	---	34	---	12	---	5.2	3.1	---
TOTAL	1683.7	767	936	1160	612	1108	833	563	357.6	217.5	143.6	133.0
MEAN	54.3	25.6	30.2	37.4	21.9	35.7	27.8	18.2	11.9	7.02	4.63	4.43
MAX	1230	266	130	113	30	244	48	25	46	12	23	20
MIN	7.3	15	14	25	18	18	23	12	7.9	4.3	2.4	2.7
CFSM	2.37	1.12	1.32	1.63	.95	1.56	1.21	.79	.52	.31	.20	.19
IN.	2.74	1.25	1.52	1.88	.99	1.80	1.35	.91	.58	.35	.23	.22

e Estimated

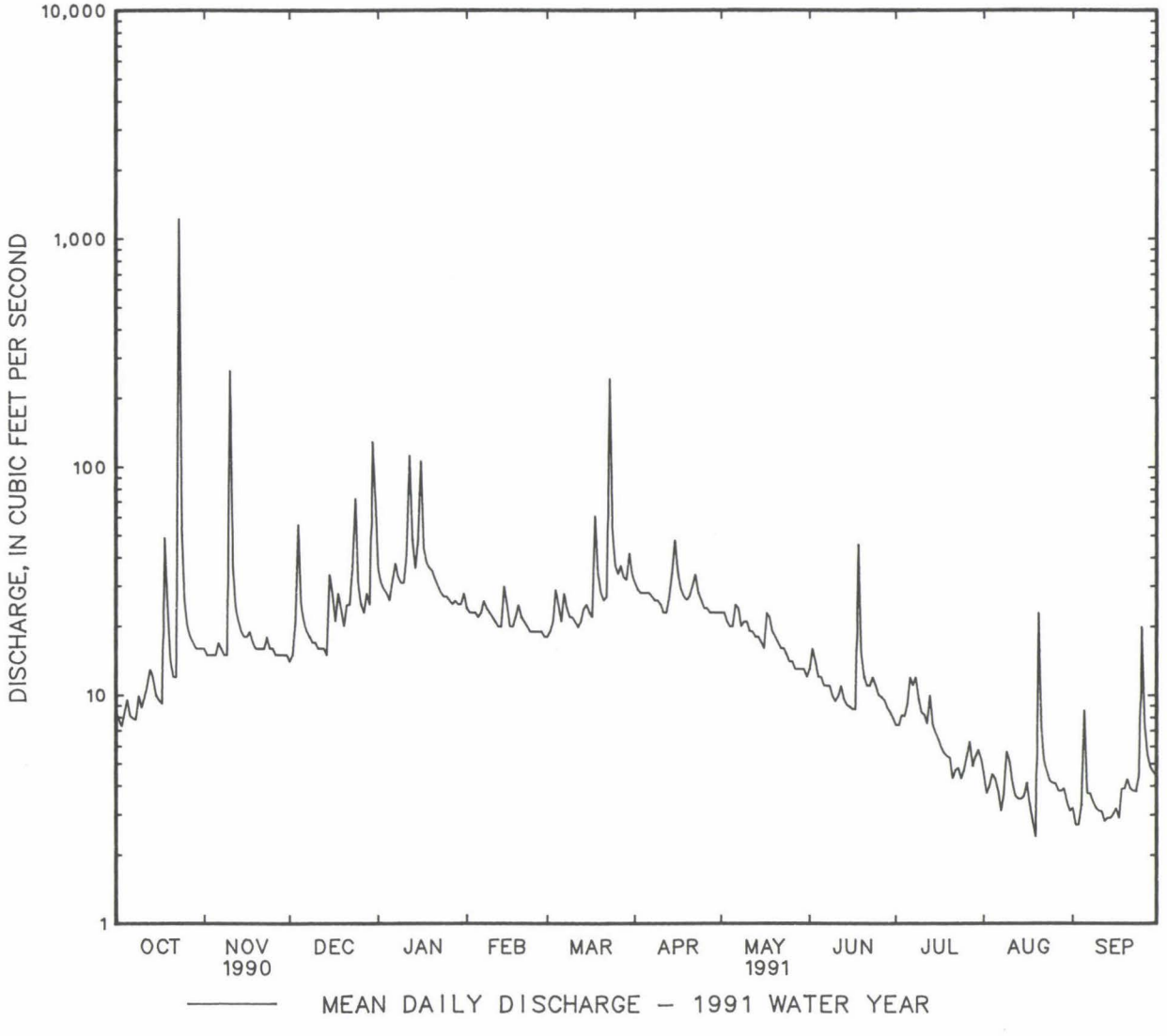
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1978 - 1991, BY WATER YEAR (WY)

MEAN	19.7	20.5	25.5	28.7	39.4	33.2	34.0	33.3	22.1	15.9	12.5	15.4
MAX	76.6	37.9	83.1	83.0	103	58.7	90.6	92.5	38.4	31.5	30.7	81.6
(WY)	1980	1980	1984	1979	1979	1984	1983	1989	1989	1978	1984	1979
MIN	3.73	5.96	9.24	8.38	20.1	14.5	14.9	14.1	6.96	4.23	4.63	4.43
(WY)	1987	1982	1982	1981	1989	1981	1985	1986	1986	1986	1991	1991

01591400 CATTAIL CREEK NEAR GLENWOOD, MD--Continued

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1978 - 1991	
ANNUAL TOTAL	9478.5		8514.4			
ANNUAL MEAN	26.0		23.3		24.7	
HIGHEST ANNUAL MEAN					42.0	1979
LOWEST ANNUAL MEAN					13.1	1981
HIGHEST DAILY MEAN	1230	Oct 23	1230	Oct 23	1400	Feb 12 1985
LOWEST DAILY MEAN	6.7	Aug 3	2.4	Aug 19	2.4	Aug 19 1991
ANNUAL SEVEN-DAY MINIMUM	7.6	Sep 8	3.0	Sep 11	2.6	Sep 16 1985
INSTANTANEOUS PEAK FLOW	a4340	Oct 23	a4340	Oct 23	a4340	Oct 23 1990
INSTANTANEOUS PEAK STAGE	8.41	Oct 23	8.41	Oct 23	b8.41	Oct 23 1990
INSTANTANEOUS LOW FLOW	5.6	(c)	1.7	Aug 19	1.7	Aug 19 1991
ANNUAL RUNOFF (CFSM)	1.13		1.02		1.08	
ANNUAL RUNOFF (INCHES)	15.40		13.83		14.67	
10 PERCENT EXCEEDS	34		34		38	
50 PERCENT EXCEEDS	20		17		17	
90 PERCENT EXCEEDS	8.9		3.9		6.3	

a From rating curve extended above 175 ft^3/s on basis of contracted-opening and flow-over-road measurement at gage.
b Aug. 3, 4.
c From floodmarks.



01591610 PATUXENT RIVER BELOW BRIGHTON DAM NEAR BRIGHTON, MD

LOCATION.--Lat 39°11'31", long 77°00'16", Montgomery County, Hydrologic Unit 02060006, on right bank at Brighton Dam, 500 ft downstream from Triadelphia Reservoir, 1.3 mi east of Brighton, and 92 mi upstream from mouth.

DRAINAGE AREA.--78.6 mi^2.

PERIOD OF RECORD.--October 1980 to current year.

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 310 ft above National Geodetic Vertical Datum of 1929, from topographic map. June 1978 to October 1980, nonrecording gage 300 ft upstream on left bank at different datum.

REMARKS.--No estimated daily discharges. Records good. Flow completely regulated by Triadelphia Reservoir, 500 ft upstream, usable capacity, 6,200,000,000 gal; no dead storage. Several measurments 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, 1,140 ft^3/s, Jan. 2, gage height, 5.31 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	54	90	94	258	122	97	95	96	48	65	67	8.4
2	50	90	96	729	97	97	94	96	48	74	58	8.5
3	57	91	96	502	97	95	243	96	48	79	12	68
4	52	90	96	92	97	97	184	96	48	27	12	73
5	52	88	96	92	97	97	317	96	48	23	68	69
6	10	88	96	91	96	94	94	96	48	12	79	92
7	10	84	96	94	96	93	94	96	47	11	74	9.9
8	58	32	96	94	96	92	94	96	46	37	64	7.8
9	37	46	96	94	96	92	85	96	44	58	89	62
10	61	49	96	94	96	93	72	96	45	79	12	83
11	54	69	96	269	97	93	96	45	72	78	12	51
12	61	94	96	223	67	93	96	10	68	48	17	33
13	10	88	96	94	40	92	97	62	69	47	51	35
14	10	58	96	94	83	92	94	50	65	94	79	8.3
15	53	59	96	179	54	92	94	50	6.9	60	92	7.9
16	56	57	96	94	97	92	94	50	6.8	103	90	35
17	54	8.7	96	95	96	91	95	50	72	69	12	24
18	65	8.8	94	380	96	94	95	50	96	73	12	8.1
19	44	61	96	548	96	94	95	48	95	88	50	8.1
20	62	68	96	250	97	94	95	50	91	10	58	8.1
21	48	96	97	96	94	93	94	51	78	9.8	71	8.1
22	67	96	96	96	88	94	94	51	9.5	67	90	8.1
23	45	96	96	96	96	95	95	51	9.5	66	71	8.1
24	542	95	97	96	96	200	96	51	59	76	44	8.4
25	483	96	96	96	96	254	96	53	82	61	12	8.5
26	215	95	96	96	97	251	96	52	80	60	68	8.0
27	89	96	96	96	97	249	96	50	81	11	73	8.1
28	90	94	96	144	97	196	96	49	82	11	59	8.7
29	90	66	96	167	---	94	96	47	33	67	77	8.6
30	90	95	96	167	---	94	96	47	9.0	79	73	8.4
31	90	---	170	168	---	94	---	48	---	77	8.3	---
TOTAL	2759	2244.5	3048	5684	2574	3588	3278	1975	1634.7	1719.8	1654.3	783.1
MEAN	89.0	74.8	98.3	183	91.9	116	109	63.7	54.5	55.5	53.4	26.1
MAX	542	96	170	729	122	254	317	96	96	103	92	92
MIN	10	8.7	94	91	40	91	72	10	6.8	9.8	8.3	7.8
(†)	6020	6160	6500	6000	5980	6260	6110	6110	5810	5160	4480	4340

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1981 - 1991, BY WATER YEAR (WY)

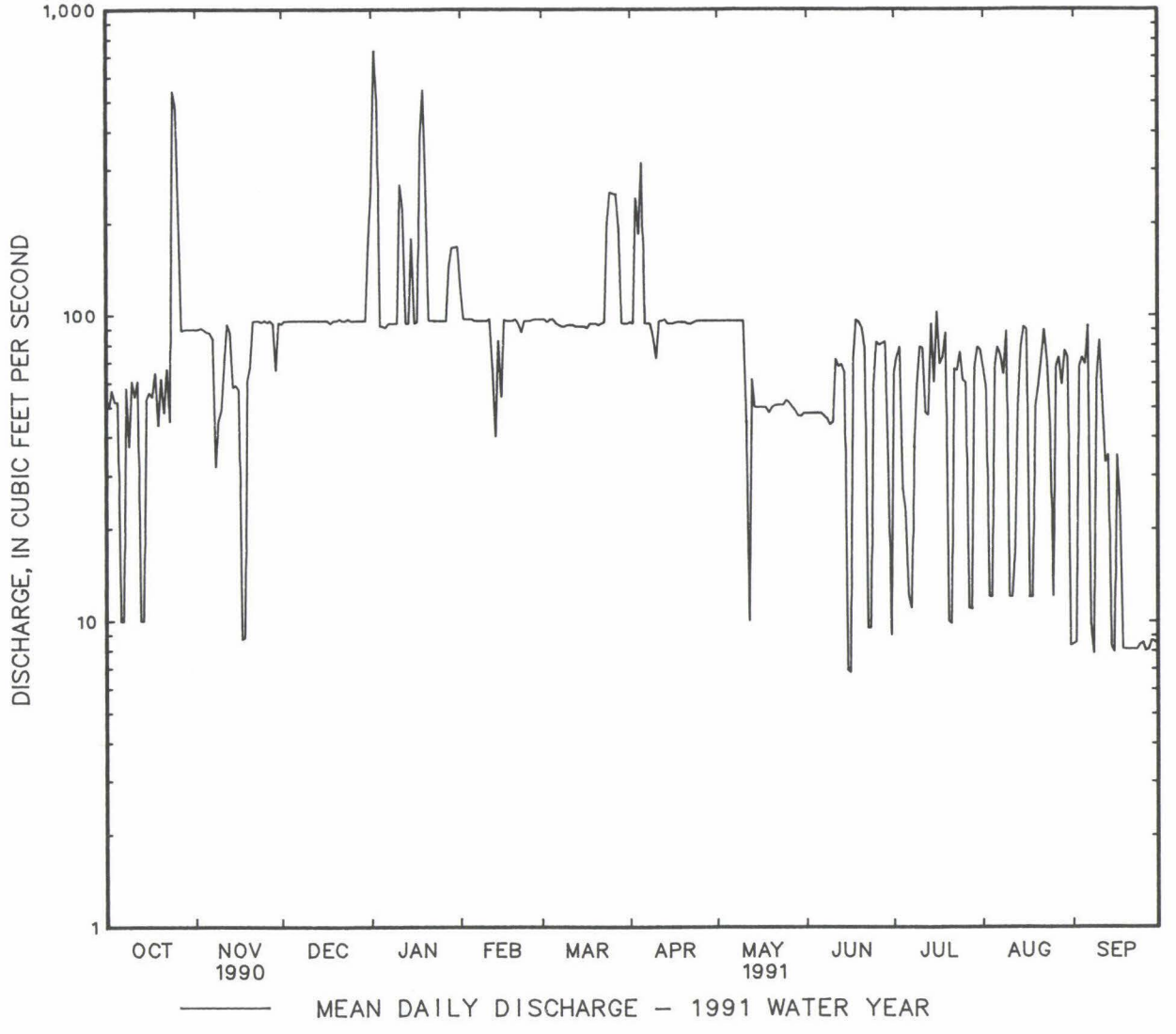
MEAN	60.8	46.8	86.5	66.5	72.1	89.5	117	100	76.9	59.8	64.0	74.8
MAX	117	82.1	373	183	142	205	261	229	170	66.9	86.4	205
(WY)	1981	1990	1984	1991	1984	1984	1983	1989	1989	1984	1982	1989
MIN	7.87	17.1	24.2	9.33	10.1	8.90	8.49	8.63	22.4	49.2	18.1	26.1
(WY)	1987	1989	1990	1982	1987	1981	1981	1981	1981	1990	1987	1991

† Month-end contents, in millions of gallons, in Triadelphia Reservoir (contents on Sept. 30, 1990, 5,610,000,000 gal). Records provided by Washington Suburban Sanitary Commission.

01591610 PATUXENT RIVER BELOW BRIGHTON DAM NEAR BRIGHTON, MD--Continued

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1981 - 1991	
ANNUAL TOTAL	27157.4		30942.4			
ANNUAL MEAN	74.4		84.8		76.3	
HIGHEST ANNUAL MEAN					134	1984
LOWEST ANNUAL MEAN					48.7	1981
HIGHEST DAILY MEAN	542	Oct 24	729	Jan 2	1730	May 6 1989
LOWEST DAILY MEAN	7.3	Mar 7	6.8	Jun 16	2.1	(a)
ANNUAL SEVEN-DAY MINIMUM	8.4	May 22	8.1	Sep 18	4.0	Oct 16 1980
INSTANTANEOUS PEAK FLOW	1000	Oct 24	1140	Jan 2	2650	May 6 1989
INSTANTANEOUS PEAK STAGE	4.82	Oct 24	5.31	Jan 2	10.26	May 6 1985
INSTANTANEOUS LOW FLOW	4.4	Jan 30	6.6	(b)	1.2	Dec 3 1985
10 PERCENT EXCEEDS	139		97		140	
50 PERCENT EXCEEDS	55		90		53	
90 PERCENT EXCEEDS	9.1		11		8.7	

a Jan. 27, 28, 1983.
b June 15, 16.



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.

PERIOD OF RECORD.--June 1978 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 320 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good except those for estimated daily discharges (missing record), which are fair. 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)
Oct. 23	1530	*2,960	*7.99	Mar. 23	1245	1,470	6.39
Nov. 10	1230	1,380	6.21				

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.9	13	14	53	26	20	42	e25	e14	5.4	3.3	2.5
2	e6.3	13	14	41	26	22	37	e25	e25	6.7	2.9	2.5
3	e5.9	13	21	36	26	24	35	e24	e20	9.8	2.7	2.5
4	e7.4	13	76	33	25	34	33	e23	14	7.1	2.6	6.1
5	e6.7	14	36	30	25	26	33	e23	10	6.9	2.5	28
6	e6.5	19	27	35	27	24	33	e28	9.3	6.9	2.3	5.5
7	e6.4	18	23	49	30	32	31	e26	8.6	6.5	4.8	4.1
8	e6.3	17	21	42	28	24	31	e23	7.6	12	2.4	3.3
9	e7.2	17	19	39	26	22	30	e23	7.2	10	23	2.9
10	e6.8	513	18	43	25	21	29	e22	6.7	6.0	7.0	2.9
11	e7.6	81	17	73	23	20	27	e21	6.4	5.8	3.8	3.0
12	e7.8	41	17	205	22	19	25	e21	7.4	4.7	3.0	2.9
13	e9.0	29	17	77	23	19	32	e20	6.6	7.0	2.8	2.7
14	e8.0	24	16	49	36	24	47	e20	5.8	5.7	2.7	2.7
15	e7.6	22	54	44	28	28	63	e19	5.7	4.5	2.7	2.8
16	e7.3	21	47	130	21	24	48	e18	5.5	4.0	2.7	2.8
17	e7.1	23	30	74	21	22	e36	e26	5.4	3.8	2.6	3.6
18	e35	20	45	48	23	79	e30	e24	25	3.6	2.4	6.4
19	e27	18	37	41	28	43	e29	e20	21	3.4	2.8	4.0
20	12	18	28	38	31	32	e30	e18	12	3.3	21	3.7
21	9.5	17	36	36	26	29	e34	e17	9.0	3.2	8.4	3.0
22	8.6	17	35	32	24	28	e38	e16	9.7	3.1	4.4	2.8
23	1130	19	48	32	22	579	e30	e15	13	3.0	3.3	2.8
24	96	18	114	30	21	108	e28	e15	11	2.8	2.9	5.4
25	39	17	42	29	21	59	e27	e14	7.7	2.8	2.7	71
26	23	17	33	29	21	46	e27	e14	6.8	5.1	2.6	21
27	18	16	29	28	21	51	e26	e13	6.4	7.4	2.5	8.8
28	16	16	36	29	21	43	e26	e13	6.1	4.1	2.5	5.5
29	14	16	36	28	---	42	e26	e12	5.9	4.4	2.5	4.4
30	13	15	182	29	---	75	e25	e12	5.6	4.8	2.4	4.1
31	13	---	158	32	---	50	---	e12	---	3.9	2.5	---
TOTAL	1574.9	1115	1326	1514	697	1669	988	602	304.4	167.7	136.7	223.7
MEAN	50.8	37.2	42.8	48.8	24.9	53.8	32.9	19.4	10.1	5.41	4.41	7.46
MAX	1130	513	182	205	36	579	63	28	25	12	23	71
MIN	5.9	13	14	28	21	19	25	12	5.4	2.8	2.3	2.5
CFSM	1.88	1.38	1.58	1.81	.92	1.99	1.22	.72	.38	.20	.16	.28
IN.	2.17	1.54	1.83	2.09	.96	2.30	1.36	.83	.42	.23	.19	.31

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1978 - 1991, BY WATER YEAR (WY)

MEAN	24.3	24.7	29.7	33.3	44.3	42.3	40.5	39.6	28.2	16.5	12.2	15.0
MAX	129	48.6	88.9	99.5	112	72.7	89.5	94.3	68.3	33.1	26.5	85.3
(WY)	1980	1980	1984	1979	1979	1984	1983	1989	1989	1978	1990	1979
MIN	2.68	7.27	11.8	9.31	24.8	18.8	19.2	15.1	6.21	4.72	3.98	3.11
(WY)	1987	1982	1981	1981	1987	1981	1985	1986	1986	1986	1987	1986

01591700 HAWLINGS RIVER NEAR SANDY SPRING, MD--Continued

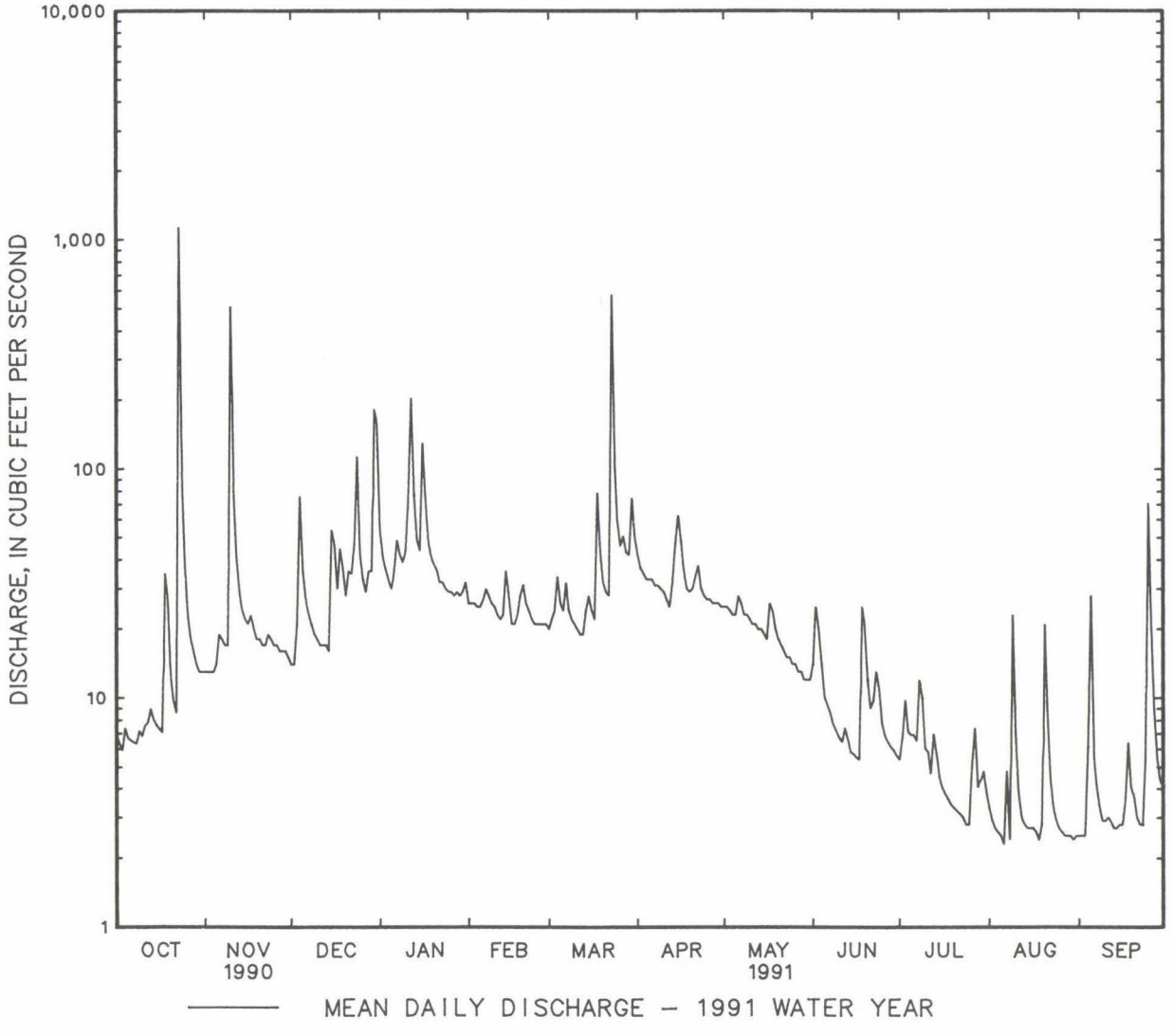
SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1978 - 1991	
ANNUAL TOTAL	11473.9		10318.4			
ANNUAL MEAN	31.4		28.3		29.0	
HIGHEST ANNUAL MEAN					48.3	1979
LOWEST ANNUAL MEAN					16.0	1986
HIGHEST DAILY MEAN	1130	Oct 23	1130	Oct 23	1500	Oct 1 1979
LOWEST DAILY MEAN	5.9	Aug 4	2.3	Aug 6	2.0	(a)
ANNUAL SEVEN-DAY MINIMUM	6.5	Oct 2	2.5	Aug 27	2.2	Oct 6 1986
INSTANTANEOUS PEAK FLOW	2960	Oct 23	2960	Oct 23	b4300	Sep 6 1979
INSTANTANEOUS PEAK STAGE	7.99	Oct 23	7.99	Oct 23	8.80	Sep 6 1979
INSTANTANEOUS LOW FLOW	5.6	(c)	2.2	Aug 7	d0.75	Jan 30 1981
ANNUAL RUNOFF (CFSM)	1.16		1.05		1.07	
ANNUAL RUNOFF (INCHES)	15.81		14.22		14.57	
10 PERCENT EXCEEDS	44		43		48	
50 PERCENT EXCEEDS	22		19		19	
90 PERCENT EXCEEDS	7.8		3.0		5.7	

a Oct. 11, 12, 1986.

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 Aug. 4, 5.

d Result of freezeup.



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 National Geodetic Vertical Datum of 1929 (levels by Washington Suburban Sanitary Commission). Prior to Oct. 1, 1955, water-stage recorder and concrete control at site 0.3 mi downstream at different datum. Oct. 1, 1955 to Sept. 30, 1956, nonrecording gage at present site at datum 1.2 ft lower. Oct. 1, 1956 to Jan. 27, 1957, nonrecording gage at present site and datum. Jan. 28, 1957 to May 3, 1972, water-stage recorder and concrete control at present site and datum. May 4, 1972 to Sept. 4, 1973, nonrecording gage at present site and datum.

REMARKS.--No estimated daily discharges. Records good. Records do not include diversion at Patuxent (formerly Willis School) filtration plant for supply of Washington Suburban Sanitary District. Flow regulated by Triadelphia Reservoir, and since March 1954 by T. Howard Duckett Reservoir, combined usable capacity, 11,800,000,000 gal; dead storage, 80,000,000 gal. Several measurements of water temperature were made during the year.

PEAK DISCHARGE FOR CURRENT YEAR.--Peak discharge, 1,040 ft^3/s, Jan. 18, gage height, 7.66 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	116	23	326	122	94	154	19	20	20	23	20
2	20	82	23	380	93	94	107	19	20	20	21	20
3	20	89	53	670	93	94	182	21	20	19	18	20
4	19	89	94	221	95	94	236	20	21	19	18	20
5	19	90	94	157	78	94	237	20	20	19	18	19
6	19	90	94	157	93	94	155	20	20	19	19	20
7	19	49	94	144	79	94	155	19	20	19	18	20
8	19	19	94	156	23	94	156	20	20	19	18	20
9	19	19	94	154	20	94	156	19	19	19	18	20
10	19	19	93	154	20	94	113	19	19	19	18	20
11	19	19	94	375	20	94	87	19	20	19	19	20
12	19	20	94	400	20	95	87	19	19	19	18	20
13	19	212	92	154	20	94	87	20	20	19	18	20
14	19	402	92	155	20	93	85	20	20	19	19	20
15	19	174	92	147	20	93	85	20	19	19	19	20
16	20	19	90	155	21	94	85	20	19	19	18	20
17	20	19	92	155	21	95	86	20	19	19	19	20
18	20	20	92	639	20	94	86	20	19	19	19	20
19	20	20	92	518	64	94	86	20	19	19	19	20
20	20	20	92	94	93	95	86	20	19	19	19	20
21	20	21	92	94	95	95	86	20	19	19	19	20
22	20	22	91	121	95	95	86	20	19	19	19	20
23	20	22	92	157	95	168	86	20	19	19	19	21
24	377	22	92	157	95	405	57	20	20	19	19	20
25	629	22	94	157	95	646	20	20	20	19	19	20
26	599	22	94	157	95	686	20	20	20	23	19	20
27	631	22	94	158	95	337	20	20	19	19	19	20
28	314	22	93	157	95	259	20	20	19	19	19	20
29	362	22	93	156	---	155	20	20	19	19	19	20
30	520	23	93	156	---	155	19	20	20	19	19	20
31	516	---	185	156	---	155	---	20	---	22	19	---
TOTAL	4396	1807	2791	6937	1795	5037	2945	614	586	598	585	600
MEAN	142	60.2	90.0	224	64.1	162	98.2	19.8	19.5	19.3	18.9	20.0
MAX	631	402	185	670	122	686	237	21	21	23	23	21
MIN	19	19	23	94	20	93	19	19	19	19	18	19
CFSM	1.07	.46	.68	1.70	.49	1.23	.74	.15	.15	.15	.14	.15
IN.	1.24	.51	.79	1.95	.51	1.42	.83	.17	.17	.17	.16	.17
(†)	10700	10860	11870	11160	11420	11690	11510	11570	10810	9950	9270	8750
(≠)	55.0	59.4	64.3	72.8	74.5	74.0	8108	82.1	84.2	60.5	44.8	43.7

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1945 - 1991, BY WATER YEAR (WY)

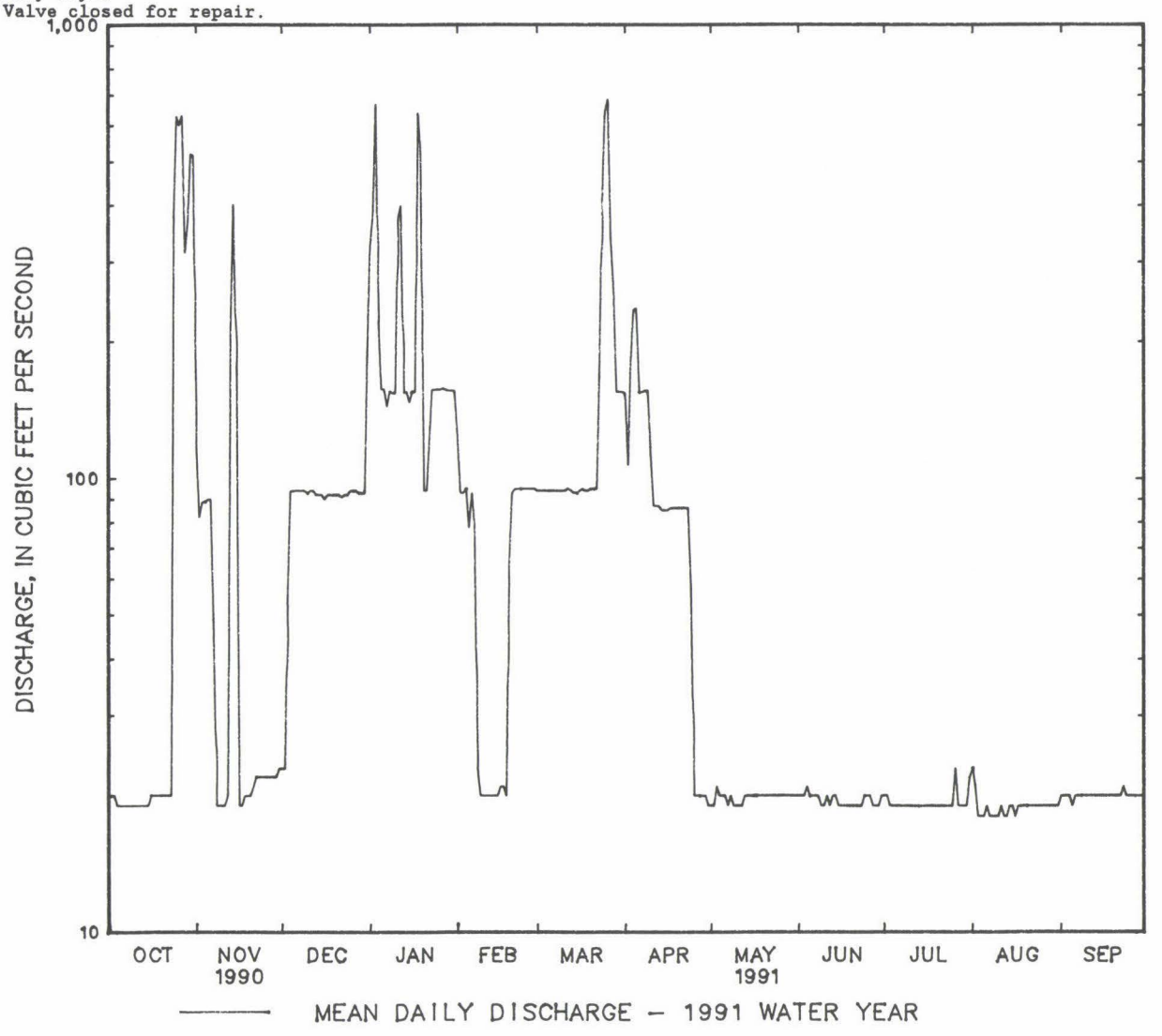
MEAN	45.6	49.9	76.9	107	119	127	136	118	90.3	62.3	50.9	66.1
MAX	379	272	390	480	462	373	444	397	822	280	226	587
(WY)	1980	1953	1984	1978	1979	1953	1952	1989	1972	1945	1971	1979
MIN	7.76	7.21	8.45	7.84	7.92	7.88	7.47	9.04	7.88	7.81	5.72	4.91
(WY)	1968	1985	1966	1966	1966	1966	1966	1985	1967	1967	1966	1966

† Combined month-end total contents, in millions of gallons, in Triadelphia and T. Howard Duckett Reservoirs (contents on Sept. 30, 1990, 11,010,000,000 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 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1945 - 1991	
ANNUAL TOTAL	31164		28691			
DIVERSIONS	≠53.7		≠66.4			
ANNUAL MEAN	85.4		78.6		87.2	
HIGHEST ANNUAL MEAN					241	1972
LOWEST ANNUAL MEAN					9.09	1966
HIGHEST DAILY MEAN	631	Oct 27	686	Mar 26	13000	Jun 22 1972
LOWEST DAILY MEAN	18	(a)	18	(b)	1.1	Jun 26 1956
ANNUAL SEVEN-DAY MINIMUM	18	Jul 3	18	Aug 3	3.7	Aug 29 1966
INSTANTANEOUS PEAK FLOW	689	Oct 25	1040	Jan 18	c26000	Jun 22 1972
INSTANTANEOUS PEAK STAGE	7.04	Oct 25	7.66	Jan 18	d25.00	Jun 22 1972
INSTANTANEOUS LOW FLOW	18	(f)	9.5	Aug 12	g.05	Jul 18 1985
ANNUAL RUNOFF (CFSM)	.65		.60		.66	
ANNUAL RUNOFF (INCHES)	8.78		8.09		8.97	
10 PERCENT EXCEEDS	194		157		188	
50 PERCENT EXCEEDS	73		20		24	
90 PERCENT EXCEEDS	19		19		11	

≠ 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.
a June 29, July 3-6, 8-11, 14, 15.
b Aug. 3-10, 12, 13, and 16.
c From rating curve extended above 6,600 ft^3/s on basis of contracted-opening measurement of peak flow.
d From floodmarks.
f Many days.
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.

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

REVISED RECORDS.--WSP 1502: 1933, 1934(M), 1939(M), 1945(M), 1948(P).

GAGE.--Water-stage recorder. Concrete control since June 20, 1946. Datum of gage is 259.26 ft above National Geodetic Vertical Datum of 1929. Prior to June 25, 1946, nonrecording gage at same site and datum.

REMARKS.--Water-discharge records good except those for estimated daily discharges (recorder malfunction), which are fair. Low flow affected by regulation from unknown source. Several measurments of water temperature were made during the year. Water-quality records for some prior years have been collected at this station.

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)
Nov. 10	1445	1,010	7.75	Mar. 23	1500	*2,060	*9.93
Jan. 12	0200	1,020	7.77				

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	15	16	71	32	23	48	28	13	6.5	8.1	5.3
2	10	15	16	54	31	32	42	30	15	6.9	7.1	4.8
3	9.5	15	81	46	31	44	38	26	14	7.2	6.3	4.5
4	21	14	296	41	31	95	37	25	14	6.9	6.3	9.1
5	22	15	68	36	30	40	37	24	11	8.1	5.8	39
6	13	22	37	46	35	34	37	59	11	8.4	4.8	12
7	11	16	55	89	46	66	35	43	11	9.1	4.3	9.4
8	10	15	78	65	37	32	34	28	10	19	4.8	7.8
9	10	15	50	60	32	28	33	26	9.7	13	126	6.9
10	10	572	38	64	30	26	33	25	9.7	8.7	36	6.2
11	11	156	30	155	29	25	29	23	10	9.3	13	6.4
12	16	36	21	547	28	24	28	22	16	12	9.2	6.0
13	68	26	20	125	31	26	46	21	11	14	7.8	5.8
14	37	22	18	70	81	78	61	23	9.3	9.2	7.3	5.5
15	16	20	158	58	40	59	89	20	8.9	6.8	7.2	5.7
16	15	19	73	178	30	41	56	19	8.6	5.7	7.8	5.9
17	14	31	31	103	28	33	39	64	8.5	4.8	6.5	e50
18	136	22	71	64	32	290	34	51	28	4.4	5.5	e40
19	112	18	40	54	45	85	32	27	28	4.1	24	e15
20	23	18	27	50	45	51	32	23	15	4.1	60	e11
21	17	17	68	55	30	42	53	21	12	4.5	47	e8.0
22	15	17	51	43	30	45	51	20	9.9	4.3	13	e7.0
23	343	24	138	55	26	877	36	18	13	4.0	9.5	e8.0
24	114	20	274	38	25	223	33	17	13	3.8	8.3	e20
25	32	18	56	36	25	69	31	16	11	5.0	7.2	e250
26	22	17	40	35	25	52	29	16	8.7	93	6.6	e50
27	19	17	34	33	24	73	28	15	8.1	35	6.0	e20
28	17	17	58	35	23	52	28	15	7.2	12	6.0	e12
29	16	17	64	34	---	66	28	14	6.8	17	5.6	e10
30	15	16	343	35	---	135	29	14	6.6	14	5.6	e9.0
31	15	---	310	44	---	61	---	12	---	9.9	5.3	---
TOTAL	1205.5	1262	2660	2419	932	2827	1166	785	358.0	370.7	477.9	650.3
MEAN	38.9	42.1	85.8	78.0	33.3	91.2	38.9	25.3	11.9	12.0	15.4	21.7
MAX	343	572	343	547	81	877	89	64	28	93	126	250
MIN	9.5	14	16	33	23	23	28	12	6.6	3.8	4.3	4.5
CFSM	1.02	1.11	2.26	2.05	.88	2.40	1.02	.67	.31	.31	.41	.57
IN.	1.18	1.24	2.60	2.37	.91	2.77	1.14	.77	.35	.36	.47	.64

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1932 - 1991, BY WATER YEAR (WY)

MEAN	26.2	36.2	43.8	51.7	60.8	61.9	58.9	49.8	38.7	29.4	27.7	31.1
MAX	107	108	119	145	147	123	160	197	265	119	130	214
(WY)	1980	1973	1973	1978	1979	1958	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 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1932 - 1991	
ANNUAL TOTAL	18017.5		15113.4			
ANNUAL MEAN	49.4		41.4		43.1	
HIGHEST ANNUAL MEAN					93.7	1972
LOWEST ANNUAL MEAN					23.3	1947
HIGHEST DAILY MEAN	572	Nov 10	877	Mar 23	4680	Jun 22 1972
LOWEST DAILY MEAN	7.6	(a)	3.8	Jul 24	.00	Sep 8 1966
ANNUAL SEVEN-DAY MINIMUM	8.9	Sep 7	4.2	Jul 18	.73	Sep 6 1966
INSTANTANEOUS PEAK FLOW	1010	Nov 10	2060	Mar 23	b12400	Jun 22 1972
INSTANTANEOUS PEAK STAGE	c8.01	Jan 1	9.93	Mar 23	d18.38	Jun 22 1972
INSTANTANEOUS LOW FLOW	6.8	Aug 5	3.3	(f)	.00	(g)
ANNUAL RUNOFF (CFSM)	1.30		1.09		1.13	
ANNUAL RUNOFF (INCHES)	17.64		14.80		15.40	
10 PERCENT EXCEEDS	113		70		71	
50 PERCENT EXCEEDS	31		24		26	
90 PERCENT EXCEEDS	11		6.7		10	

a Aug. 2, 4.

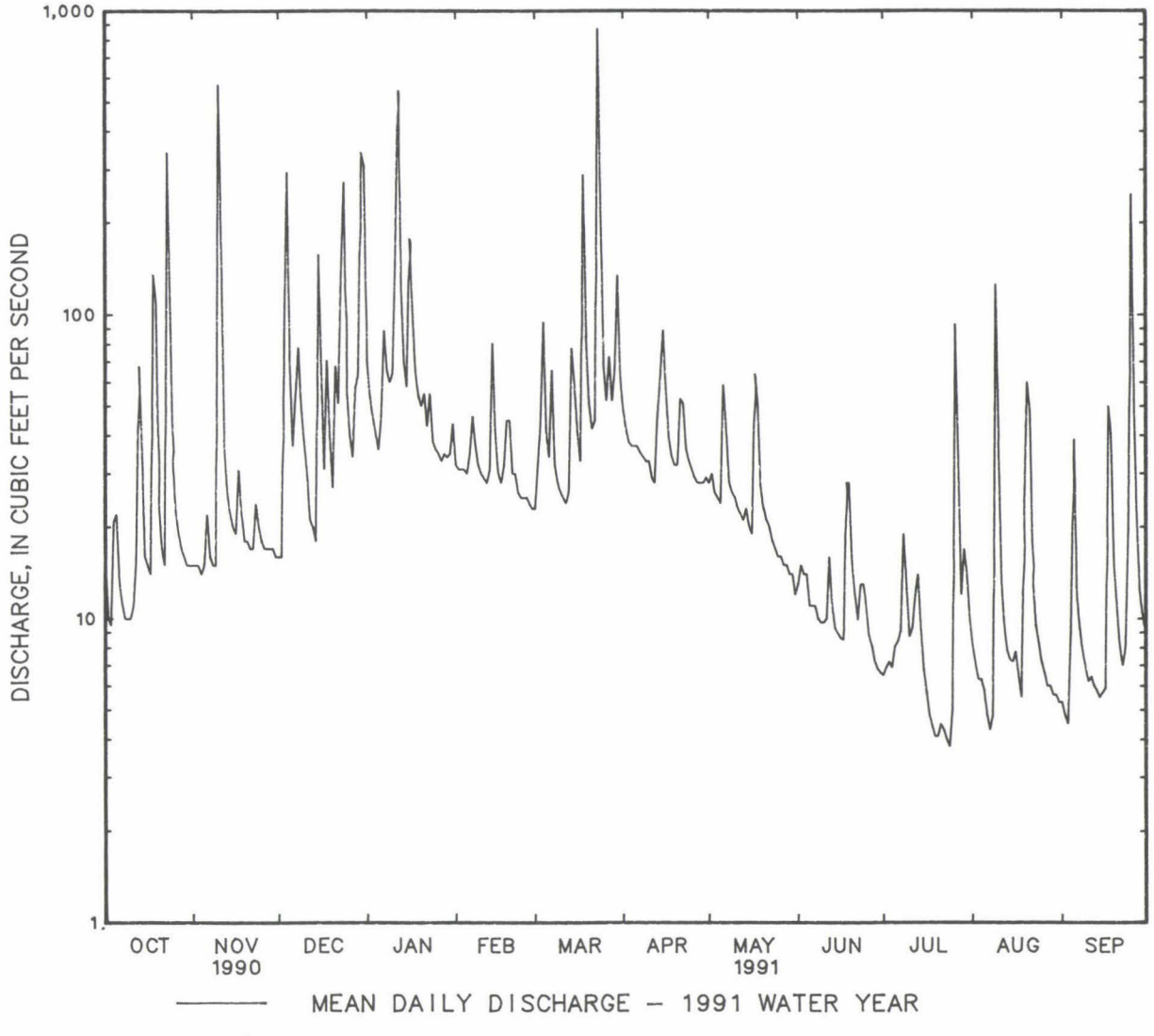
b From rating curve extended above 1,800 ft^3/s on basis of contracted-opening measurement at gage height 13.26 ft and contracted-opening and flow-over-embankment measurement at gage height 18.38 ft.

c Ice jam.

d From high-water mark in well.

f July 19, 24.

g Sept. 6-12, 1966.



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.

PERIOD OF RECORD.--August 1987 to current year.

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

GAGE.--Water-stage recorder. Elevation of gage is 275 ft above National Geodetic Vertical Datum of 1929 from topographic maps.

REMARKS.--Records good except those for estimated daily discharges (doubtful or missing record), which are fair. Several measurments of water temperature were made during the year. Water-quality records for some prior years have been collected at this station.

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)
Oct. 23	1615	1,740	5.39	Mar. 23	Unknown	*2,610	*6.41
Nov. 10	1600	2,000	5.72				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	25	30	87	50	44	e65	44	24	13	10	7.2
2	17	25	30	70	51	49	e60	44	37	14	9.2	6.9
3	16	24	48	63	51	56	e55	41	27	15	8.1	7.5
4	18	24	166	59	50	72	e55	40	25	14	8.1	10
5	22	24	65	55	50	54	e60	39	23	16	7.7	20
6	17	29	49	65	53	51	e60	61	22	18	6.8	8.8
7	16	25	44	87	59	68	e55	52	22	15	7.0	8.4
8	16	25	42	72	54	52	e54	42	21	25	8.0	7.7
9	17	24	40	67	51	49	e52	42	19	18	51	7.3
10	17	620	39	71	50	48	e55	41	18	14	19	7.1
11	19	100	37	115	48	46	e52	41	19	14	11	7.3
12	22	56	37	371	46	45	e50	38	21	13	9.4	7.1
13	28	46	37	127	49	46	e50	38	18	21	9.2	7.2
14	23	41	35	86	75	57	e60	42	16	15	8.6	7.3
15	19	39	98	80	56	62	e110	41	17	12	9.0	7.5
16	17	38	73	180	48	56	75	33	16	11	9.3	7.7
17	17	42	49	119	48	50	60	51	15	11	8.0	8.0
18	48	38	72	83	51	178	54	50	34	10	7.1	10
19	58	36	57	73	58	87	51	38	38	9.3	7.1	9.8
20	24	35	46	69	60	e64	53	37	24	9.3	36	9.6
21	22	34	66	69	52	e61	63	35	20	9.4	18	8.4
22	21	34	63	60	50	e59	69	33	19	8.6	11	8.1
23	484	37	90	61	47	e900	55	30	22	8.6	10	8.6
24	83	35	194	57	46	e250	51	29	21	7.8	9.7	13
25	42	33	73	55	47	e100	48	28	18	7.4	9.0	146
26	32	32	58	55	46	e80	48	28	17	19	8.6	23
27	29	32	53	53	45	e100	46	26	16	15	8.8	13
28	28	33	69	55	45	e85	45	26	15	11	9.2	11
29	26	32	64	54	---	e70	45	24	14	13	8.5	11
30	25	30	281	56	---	e150	46	24	14	14	7.6	11
31	25	---	230	61	---	e70	---	23	---	12	7.6	---
TOTAL	1267	1648	2335	2635	1436	3159	1702	1161	632	413.4	357.6	425.5
MEAN	40.9	54.9	75.3	85.0	51.3	102	56.7	37.5	21.1	13.3	11.5	14.2
MAX	484	620	281	371	75	900	110	61	38	25	51	146
MIN	16	24	30	53	45	44	45	23	14	7.4	6.8	6.9
CFSM	.84	1.14	1.56	1.76	1.06	2.11	1.17	.77	.44	.28	.24	.29
IN.	.97	1.27	1.80	2.03	1.10	2.43	1.31	.89	.49	.32	.27	.33

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 1991, BY WATER YEAR (WY)

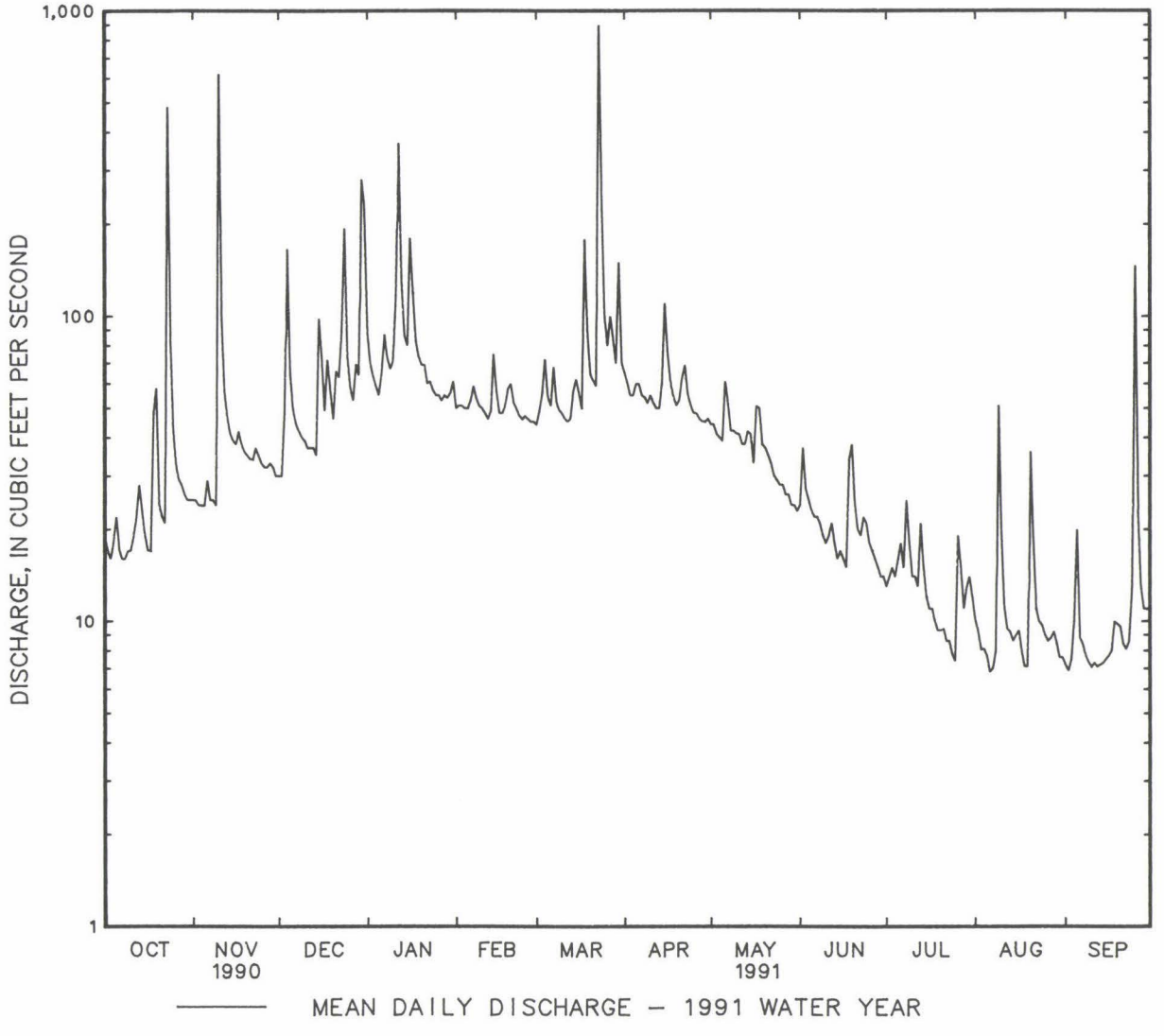
MEAN	37.0	49.6	45.8	69.1	57.3	68.5	57.9	90.6	59.7	34.9	23.2	26.1
MAX	66.6	61.0	75.3	85.0	64.6	102	75.5	169	149	71.2	39.7	42.5
(WY)	1990	1990	1991	1991	1988	1991	1990	1989	1989	1989	1990	1987
MIN	16.4	33.9	26.5	46.0	50.1	47.5	45.6	37.5	21.1	13.3	9.66	14.2
(WY)	1989	1989	1989	1989	1989	1988	1988	1991	1991	1991	1987	1991

01593710 MIDDLE PATUXENT RIVER NEAR SIMPSONVILLE, MD--Continued

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1987 - 1991	
ANNUAL TOTAL	19773		17171.5			
ANNUAL MEAN	54.2		47.0		51.6	
HIGHEST ANNUAL MEAN					63.7	1989
LOWEST ANNUAL MEAN					41.8	1988
HIGHEST DAILY MEAN	620	Nov 10	900	Mar 23	2100	May 6 1989
LOWEST DAILY MEAN	15	(a)	6.8	Aug 6	6.6	Sep 4 1987
ANNUAL SEVEN-DAY MINIMUM	17	Jul 29	7.3	Sep 9	7.3	Sep 9 1991
INSTANTANEOUS PEAK FLOW	2000	Nov 10	2610	Mar 23	b4800	May 6 1989
INSTANTANEOUS PEAK STAGE	5.72	Nov 10	6.41	Mar 23	8.84	May 6 1989
INSTANTANEOUS LOW FLOW	14	Aug 5	6.4	Aug 6	6.4	Aug 6 1991
ANNUAL RUNOFF (CFSM)	1.12		.97		1.07	
ANNUAL RUNOFF (INCHES)	15.20		13.20		14.49	
10 PERCENT EXCEEDS	81		72		79	
50 PERCENT EXCEEDS	45		37		39	
90 PERCENT EXCEEDS	19		8.8		14	

a Aug. 3, 4.

b From rating curve extended above 300 ft^3/s on the basis of slope-area measurement of peak flow.



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 National Geodetic Vertical Datum of 1929, from topographic maps. Prior to October 1958, water-stage recorder at site 400 ft downstream at same datum. October 1958 to September 1972, crest-stage gage at site 400 ft downstream on right bank at same datum. October 1975 to September 1980, water-stage recorder at site 500 ft downstream at same datum.

REMARKS.--Water-discharge records good except those for estimated daily discharges (missing record), which are fair. 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)
Oct. 23	1830	1,930	8.80	Jan. 12	0345	1,580	8.16
Nov. 10	1715	2,460	9.64	Mar. 23	1830	*3,290	*10.71

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR 1990 TO SEPTEMBER 1991
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	41	44	48	179	94	76	135	84	41	26	23	13
2	34	45	49	136	92	88	122	86	57	26	20	12
3	30	43	100	120	92	103	113	77	46	30	17	11
4	42	42	443	110	92	171	109	74	44	28	16	15
5	53	43	148	100	90	109	109	72	39	31	16	75
6	36	53	94	117	96	93	108	128	39	35	14	29
7	32	48	92	182	112	139	102	120	39	35	12	21
8	30	43	112	150	102	96	97	82	37	58	13	18
9	31	42	89	132	93	87	95	77	35	50	195	16
10	31	1040	78	141	89	84	92	78	34	34	88	14
11	32	315	70	232	86	80	84	73	33	34	32	14
12	40	113	61	891	82	78	87	70	45	38	23	14
13	94	83	60	301	85	79	110	68	36	46	21	12
14	75	70	58	181	155	135	162	71	31	41	19	13
15	40	65	212	156	108	127	211	73	31	27	19	12
16	35	64	195	345	87	110	165	63	30	21	19	13
17	35	80	95	259	84	94	118	e140	29	20	18	96
18	131	67	157	165	90	429	105	e120	65	18	15	101
19	210	60	116	141	108	189	97	e100	81	17	33	35
20	57	58	85	132	116	128	97	e78	48	16	81	36
21	44	56	138	136	93	114	126	e68	39	16	94	21
22	41	55	137	117	89	113	140	e60	35	16	31	17
23	671	64	187	109	82	1400	106	55	41	16	23	16
24	252	62	478	109	78	461	96	53	43	15	20	26
25	89	55	151	103	80	196	93	51	37	15	18	514
26	63	54	112	100	80	149	88	50	32	85	17	108
27	53	52	98	99	78	182	85	47	31	76	16	42
28	50	53	137	101	77	145	84	47	30	30	17	30
29	47	53	137	100	---	154	83	44	29	33	16	26
30	45	50	525	102	---	294	87	43	27	37	15	24
31	45	---	576	118	---	168	---	41	---	28	14	---
TOTAL	2509	2972	5038	5364	2610	5871	3306	2293	1184	998	975	1394
MEAN	80.9	99.1	163	173	93.2	189	110	74.0	39.5	32.2	31.5	46.5
MAX	671	1040	576	891	155	1400	211	140	81	85	195	514
MIN	30	42	48	99	77	76	83	41	27	15	12	11
CFSM	.82	1.01	1.65	1.76	.95	1.92	1.12	.75	.40	.33	.32	.47
IN.	.95	1.12	1.90	2.03	.99	2.22	1.25	.87	.45	.38	.37	.53

e Estimated

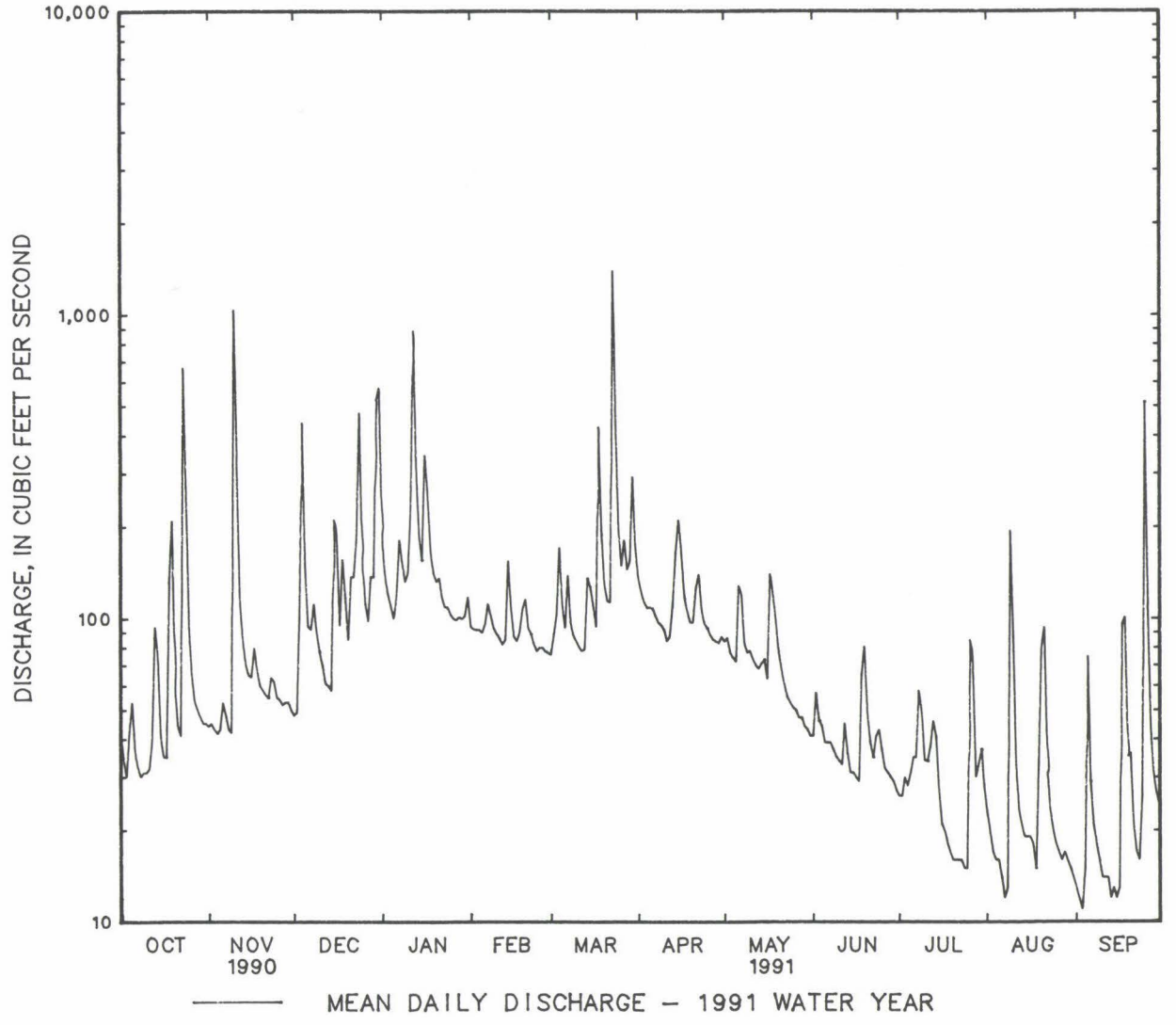
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1991, BY WATER YEAR (WY)

MEAN	73.2	92.5	112	144	141	153	138	128	94.7	76.6	64.6	67.4
MAX	336	228	260	386	375	308	351	367	294	312	315	432
(WY)	1980	1953	1978	1979	1979	1958	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 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1940 - 1991	
ANNUAL TOTAL	42069		34514			
ANNUAL MEAN	115		94.6		107	
HIGHEST ANNUAL MEAN					196	1979
LOWEST ANNUAL MEAN					59.3	1942
HIGHEST DAILY MEAN	1040	Nov 10	1400	Mar 23	5250	Sep 6 1979
LOWEST DAILY MEAN	30	Aug 4	11	Sep 3	7.0	Sep 19 1943
ANNUAL SEVEN-DAY MINIMUM	33	Oct 6	13	Sep 10	8.7	Oct 6 1986
INSTANTANEOUS PEAK FLOW	2460	Nov 10	3290	Mar 23	a35400	Jun 22 1972
INSTANTANEOUS PEAK STAGE	9.64	Nov 10	10.71	Mar 23	b25.40	Jun 22 1972
INSTANTANEOUS LOW FLOW	28	(c)	10	(d)	UNKNOWN	
ANNUAL RUNOFF (CFSM)	1.17		.96		1.09	
ANNUAL RUNOFF (INCHES)	15.90		13.05		14.81	
10 PERCENT EXCEEDS	207		156		181	
50 PERCENT EXCEEDS	89		73		71	
90 PERCENT EXCEEDS	37		18		27	

a From rating curve extended above 11,000 ft^3/s on basis of contracted-opening measurement of peak flow.
b From floodmarks.
c Aug. 5, Oct. 4.
d Sept. 3, 4.



01594000 LITTLE PATUXENT RIVER AT SAVAGE, MD--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1969, 1985 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	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)	SILICA, DIS-SOLVED (MG/L AS SIO2)
SEP 1985									
05...	1110	18	240	25.0	34.0	1.6	<10	<1.0	9.0
05...	1430	18	247	25.0	39.0	0.90	<10	<1.0	9.6

DATE	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (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)
SEP 1985								
05...	10	0.838	0.012	0.850	0.020	0.35	0.40	0.030
05...	<1	0.688	0.012	0.700	<0.020	0.35	0.42	0.030

DATE	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	PHEO-PHYTIN PHYTO-PLANK-TON, ACID M. (UG/L)	CHLORO-PHYLL A PHYTO-PLANK-TON, UNCORR. (UG/L)	CHLORO-PHYLL B PHYTO-PLANK-TON, UNCORR. (UG/L)	CHLORO-PHYLL C PHYTO-PLANK-TON, UNCORR. (UG/L)
SEP 1985								
05...	0.020	<0.010	1.7	2.0	1.62	2.91	0.305	0.199
05...	0.020	<0.010	1.6	2.1	1.56	2.58	1.43	4.46

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)
SEP 1985				
05...	1110	18	6	0.30
05...	1430	18	7	0.35

01594000 LITTLE PATUXENT RIVER AT SAVAGE, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (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)
OCT 1985									
09...	1030	28	238	8.4	14.0	22.5	--	--	1.9
DEC									
10...	0945	59	233	7.6	4.0	5.5	4.3	27	2.7
APR 1986									
14...	1500	57	261	8.5	17.0	19.0	3.8	10	--
MAY									
13...	1545	46	362	8.5	--	20.5	1.8	--	1.2
JUL									
15...	0945	22	226	8.0	22.5	27.0	15	19	1.4
AUG									
12...	1330	12	250	9.0	23.5	25.0	6.9	<10	1.2
SEP									
16...	1315	9.5	247	9.1	18.0	22.5	4.9	<10	2.8
16...	1320	9.5	--	--	--	--	4.7	<10	<0.5

DATE	ALKA-LINITY WAT WH TOT FET 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 N)	NITRO-GEN, NITRITE DIS-SOLVED (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)
OCT 1985									
09...	59	13	<1	1.22	0.080	1.30	<0.020	0.25	0.25
DEC									
10...	48	16	3	--	0.008	--	<0.020	0.03	0.02
APR 1986									
14...	46	9.0	1	1.48	0.018	1.50	0.020	0.25	0.25
MAY									
13...	60	9.0	1	--	--	--	0.020	0.40	0.30
JUL									
15...	68	10	3	0.500	0.010	0.510	0.024	0.49	0.35
AUG									
12...	63	9.6	2	0.530	0.010	0.540	0.016	0.43	0.65
SEP									
16...	69	7.3	<1	0.624	0.006	0.630	--	0.40	0.58
16...	--	7.5	<1	0.624	0.006	0.630	0.036	0.40	0.40

01594000 LITTLE PATUXENT RIVER AT SAVAGE, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	PHEO-PHYTIN PHYTO-PLANK-TON, ACID M. (UG/L)	CHLORO-PHYLL A PHYTO-PLANK-TON, UNCORR. (UG/L)	CHLORO-PHYLL B PHYTO-PLANK-TON, UNCORR. (UG/L)	CHLORO-PHYLL C PHYTO-PLANK-TON, UNCORR. (UG/L)
OCT 1985									
09...	0.040	0.030	<0.010	1.7	2.3	0.254	1.96	1.36	4.11
DEC									
10...	0.040	0.030	<0.010	2.8	2.8	1.59	1.17	0.701	2.33
APR 1986									
14...	0.030	0.030	0.010	2.2	2.1	0.853	2.92	0.188	0.282
MAY									
13...	0.030	0.020	<0.010	2.2	2.2	0.793	1.68	0.124	0.101
JUL									
15...	0.070	0.040	0.005	3.8	5.0	2.17	4.89	0.513	0.587
AUG									
12...	0.030	0.050	0.010	2.6	2.7	1.08	2.28	0.332	0.067
SEP									
16...	0.040	0.030	<0.004	2.8	--	0.898	1.73	0.219	0.00
16...	0.040	0.050	<0.004	2.8	3.7	0.943	1.60	0.243	0.353

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 1985				
09...	1030	28	11	0.83
DEC				
10...	0945	59	3	0.48
APR 1986				
14...	1500	57	3	0.47
MAY				
13...	1545	46	13	1.6
JUL				
15...	0945	22	3	0.17
AUG				
12...	1330	12	8	0.26
SEP				
16...	1315	9.5	10	0.24

01594000 LITTLE PATUXENT RIVER AT SAVAGE, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (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)
OCT 1986									
23...	0900	12	245	7.8	11.0	18.0	2.9	<10	1.8
NOV									
18...	1130	30	250	8.0	8.0	14.0	6.2	<10	8.4
18...	1135	30	--	--	--	--	5.7	<10	8.1
DEC									
16...	1300	55	247	7.9	4.5	15.0	--	<10	--
JAN 1987									
12...	1345	63	265	7.9	3.0	9.0	6.1	<10	1.9
FEB									
05...	1000	146	496	7.9	3.0	3.5	28	<10	2.5
18...	0930	74	270	7.3	2.0	8.0	4.3	<10	1.9
MAR									
17...	1330	76	250	8.5	8.0	11.0	5.0	10	2.2
APR									
21...	1530	92	224	8.4	18.0	24.5	5.6	<10	2.1
JUN									
03...	1430	42	239	8.5	25.0	26.5	5.8	--	0.5
JUL									
16...	1415	41	211	8.6	23.0	24.5	16	10	2.2
AUG									
11...	1115	16	157	8.6	21.5	20.5	4.7	<10	1.0
SEP									
14...	1100	114	181	7.9	22.5	25.5	42	17	0.8

DATE	ALKA-LINITY WAT WH TOT FET 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 N)	NITRO-GEN, NITRITE DIS-SOLVED (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)
OCT 1986									
23...	70	10	<1	1.09	0.005	1.10	0.024	0.30	0.50
NOV									
18...	59	15	<1	1.50	0.005	1.50	0.008	0.30	0.25
18...	--	15	6	1.59	0.005	1.60	0.012	0.25	0.20
DEC									
16...	--	13	<1	--	--	--	--	0.20	0.20
JAN 1987									
12...	46	15	<1	--	0.007	--	<0.008	0.20	0.18
FEB									
05...	42	--	14	0.489	0.011	0.500	0.108	0.90	0.45
18...	47	--	<1	2.29	0.006	2.30	0.016	0.30	0.25
MAR									
17...	44	13	<1	2.19	0.007	2.20	<0.008	0.20	0.18
APR									
21...	48	10	4	1.49	0.010	1.50	0.012	0.40	0.35
JUN									
03...	55	15	5	1.48	0.016	1.50	0.045	0.45	0.20
JUL									
16...	54	10	18	--	--	1.10	0.056	0.58	0.40
AUG									
11...	65	9.4	4	0.916	0.014	0.930	0.008	0.36	0.43
SEP									
14...	47	8.6	34	0.992	0.008	1.00	0.020	1.6	0.65

01594000 LITTLE PATUXENT RIVER AT SAVAGE, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	PHEO-PHYTIN PHYTO-PLANK-TON, ACID M. (UG/L)	CHLORO-PHYLL A PHYTO-PLANK-TON, UNCORR. (UG/L)	CHLORO-PHYLL B PHYTO-PLANK-TON, UNCORR. (UG/L)	CHLORO-PHYLL C PHYTO-PLANK-TON, UNCORR. (UG/L)
OCT 1986									
23...	0.070	0.060	0.004	2.4	2.9	0.763	3.17	0.217	0.075
NOV									
18...	0.040	0.030	0.005	3.5	4.9	0.689	0.575	0.00	0.00
18...	0.050	0.030	0.010	3.5	3.8	0.240	0.759	0.00	0.070
DEC									
16...	--	0.030	--	2.8	3.1	--	0.617	0.091	0.049
JAN 1987									
12...	0.040	0.030	0.008	1.5	1.5	--	1.20	0.00	0.074
FEB									
05...	0.100	0.030	0.018	3.3	2.9	0.479	3.58	0.471	0.438
18...	0.030	0.050	<0.004	--	--	--	2.36	0.151	0.727
MAR									
17...	0.020	0.010	0.006	1.7	2.1	0.299	5.13	0.659	0.297
APR									
21...	0.070	0.030	<0.004	2.4	2.7	1.74	6.36	1.42	1.38
JUN									
03...	0.040	0.030	0.005	2.5	3.2	0.644	1.74	0.102	0.071
JUL									
16...	0.080	0.060	0.032	3.3	4.2	1.84	4.37	0.628	1.75
AUG									
11...	0.050	0.060	0.008	1.7	1.9	1.53	3.13	0.584	1.26
SEP									
14...	0.480	0.420	0.026	3.9	3.6	1.36	10.4	0.170	0.00

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 1986				
23...	0900	12	4	0.14
NOV				
18...	1130	30	12	0.96
18...	1135	30	6	0.48
DEC				
16...	1300	55	3	0.43
JAN 1987				
12...	1345	63	8	1.3
FEB				
05...	1000	146	26	10
MAR				
17...	1330	76	3	0.57
APR				
21...	1530	92	12	2.9
JUN				
03...	1430	42	21	2.4
JUL				
16...	1415	41	23	2.6
AUG				
11...	1115	16	10	0.43
SEP				
14...	1100	114	39	12

01594000 LITTLE PATUXENT RIVER AT SAVAGE, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	SPE-CIFIC CON-DUCT-ANCE LAB (US/CM)	PH (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)
OCT 1987										
20...	1245	29	217	--	7.4	12.0	20.5	1.8	2	--
NOV										
24...	0930	50	248	--	8.0	4.5	15.5	2.1	<10	1.7
24...	1015	50	253	--	8.0	4.5	15.5	2.0	12	1.5
DEC										
21...	1200	94	177	--	7.9	6.0	7.0	10	<10	1.5
JAN 1988										
20...	1445	1380	--	--	--	--	--	300	36	--
20...	1500	1240	--	--	--	--	--	290	36	--
20...	1600	1160	--	--	--	--	--	250	31	--
FEB										
25...	1215	94	245	219	7.9	3.0	1.0	3.0	<10	2.5
MAR										
17...	0830	71	242	215	8.0	3.5	7.0	4.4	<10	1.6
APR										
21...	0820	74	--	--	--	--	--	2.7	<10	2.0
21...	1000	74	--	216	--	--	--	4.2	<10	--
MAY										
23...	1235	111	214	196	8.0	16.0	26.5	11	<10	<0.5
JUN										
29...	0830	30	240	34	8.0	20.0	22.0	--	10	<0.5
JUL										
27...	0900	179	--	133	--	--	--	210	41	--
AUG										
22...	1305	25	205	189	8.4	22.0	23.0	3.2	<10	1.2
22...	1320	25	205	191	8.4	22.0	23.0	2.9	<10	1.4
SEP										
26...	1230	45	189	--	8.3	17.0	20.5	6.7	18	0.1

DATE	ALKA-LINITY WAT WH TOT FET 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 N)	NITRO-GEN, NITRITE DIS-SOLVED (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)	NITRO-GEN, TOTAL (MG/L AS N)
OCT 1987										
20...	48	8.5	<1	1.49	0.008	1.50	<0.008	0.40	0.25	--
NOV										
24...	55	12	<1	1.99	0.007	2.00	0.020	0.45	0.25	--
24...	54	12	1	1.99	0.006	2.00	<0.008	0.50	0.25	--
DEC										
21...	44	11	6	1.89	0.007	1.90	<0.008	0.35	0.35	--
JAN 1988										
20...	--	2.1	626	0.820	0.020	0.840	--	3.3	1.1	--
20...	--	2.2	434	0.875	0.015	0.890	--	2.6	0.95	--
20...	--	4.7	560	0.858	0.022	0.880	--	2.5	1.1	--
FEB										
25...	46	15	<1	2.49	0.007	2.50	0.012	0.30	0.15	2.8
MAR										
17...	49	--	1	2.39	0.007	2.40	<0.008	0.25	0.20	2.7
APR										
21...	--	9.0	<1	1.59	0.012	1.60	<0.008	0.25	0.25	1.8
21...	--	8.6	2	1.59	0.012	1.60	0.024	0.35	0.35	2.0
MAY										
23...	49	15	13	1.69	0.014	1.70	0.024	0.45	0.19	2.2
JUN										
29...	58	12	2	1.99	0.013	2.00	0.020	0.30	0.30	2.3
JUL										
27...	--	7.1	202	0.724	0.016	0.740	0.040	1.3	0.70	2.1
AUG										
22...	54	10	10	1.19	0.010	1.20	0.012	0.50	0.45	1.7
22...	54	11	7	1.19	0.010	1.20	0.012	0.50	0.45	1.7
SEP										
26...	49	10	<1	1.19	0.012	1.20	<0.008	0.55	0.35	1.7

01594000 LITTLE PATUXENT RIVER AT SAVAGE, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	PHEO-PHYTIN PHYTO-PLANK-TON, ACID M. (UG/L)	CHLORO-PHYLL A PHYTO-PLANK-TON, UNCORR. (UG/L)	CHLORO-PHYLL B PHYTO-PLANK-TON, UNCORR. (UG/L)	CHLORO-PHYLL C PHYTO-PLANK-TON, UNCORR. (UG/L)
OCT 1987									
20...	0.040	0.030	<0.004	2.1	2.1	1.72	10.4	0.566	3.10
NOV									
24...	0.020	0.030	0.010	1.4	1.7	0.225	1.49	0.073	0.277
24...	<0.010	0.040	0.008	1.2	1.2	--	--	--	--
DEC									
21...	0.050	0.030	0.008	1.7	1.7	1.05	3.78	0.404	0.345
JAN 1988									
20...	1.10	0.130	0.092	17	6.3	--	--	--	--
20...	1.00	0.100	0.078	15	6.2	--	--	--	--
20...	1.00	0.150	0.120	14	6.8	--	--	--	--
FEB									
25...	0.040	0.020	0.006	1.1	1.2	--	2.40	0.00	0.400
MAR									
17...	0.030	0.020	0.004	0.7	0.8	0.400	2.60	0.00	0.200
APR									
21...	0.050	0.050	<0.004	2.6	2.8	1.80	4.40	0.200	0.600
21...	0.060	0.040	<0.004	2.7	3.2	--	--	--	--
MAY									
23...	0.070	0.040	0.014	2.8	2.7	2.20	3.20	2.00	7.60
JUN									
29...	0.040	0.040	0.010	1.7	1.7	1.40	2.20	0.00	0.00
JUL									
27...	0.360	0.050	0.022	8.5	6.7	--	--	--	--
AUG									
22...	0.040	0.030	0.004	4.1	3.0	0.600	4.80	0.200	0.00
22...	0.040	0.030	0.004	3.2	3.3	--	--	--	--
SEP									
26...	0.050	0.030	<0.004	2.4	2.6	1.60	5.20	0.400	0.400

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 1987				
20...	1245	29	2	0.16
NOV				
24...	0930	50	3	0.40
DEC				
21...	1200	94	8	2.0
JAN 1988				
20...	1445	1380	1100	4090
20...	1500	1240	900	3020
20...	1520	1270	1580	5420
20...	1530	1240	708	2370
20...	1535	1240	916	3070
20...	1540	1220	999	3280
20...	1550	1190	971	3110
20...	1600	1160	859	2700
FEB				
25...	1215	94	6	1.5
MAR				
17...	0830	71	3	0.58
APR				
21...	0820	74	11	2.2
MAY				
23...	1235	111	19	5.7
JUN				
29...	0830	30	2	0.16
JUL				
27...	0900	179	254	123

01594000 LITTLE PATUXENT RIVER AT SAVAGE, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	SPE-CIFIC CON-DUCT-ANCE LAB (US/CM)	PH (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 1988											
19...	1040	26	250	228	8.2	11.5	13.5	2.0	--	<10	2.2
NOV											
17...	1320	266	169	--	8.0	--	--	72	--	20	--
30...	0950	71	220	196	7.6	5.0	6.5	11	--	<10	<0.5
DEC											
12...	1406	42	205	256	7.1	0.5	-3.5	--	--	--	--
21...	1300	45	225	200	7.1	0.0	8.0	5.2	--	<10	<0.5
JAN 1989											
18...	1015	85	264	--	7.4	2.0	7.0	10	--	--	3.8
18...	1030	85	268	--	7.5	2.0	7.0	10	--	--	2.7
FEB											
16...	1045	157	245	238	7.6	7.0	7.0	18	--	16	2.6
22...	1220	355	--	--	--	--	--	98	--	17	--
MAR											
15...	0940	85	284	--	8.3	8.0	15.0	3.1	--	<10	2.7
APR											
20...	1315	134	220	--	8.7	12.0	10.0	8.1	--	15	<0.5
25...	1225	82	228	233	8.6	14.5	21.0	--	10.8	--	--
MAY											
24...	1130	613	150	--	8.1	19.0	25.0	330	--	20	3.4
JUN											
14...	1430	125	216	--	7.7	21.5	28.0	5.9	--	<10	2.1
JUL											
06...	1500	663	--	--	--	--	--	200	--	<10	--
17...	1130	167	175	--	8.5	24.0	24.0	22	--	<10	2.2
AUG											
16...	1500	127	229	--	8.6	25.0	31.0	7.0	--	--	3.8
19...	1215	385	--	--	--	--	--	440	--	<10	--
SEP											
11...	1305	44	331	--	8.6	24.0	33.0	2.1	--	--	1.1
12...	1125	54	222	231	7.6	20.5	27.5	--	8.4	--	--

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 WH TOT FET FIELD MG/L AS CACO3	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)
OCT 1988											
19...	--	--	--	--	66	--	--	--	--	11	--
NOV											
17...	--	--	--	--	--	--	--	--	--	7.7	--
30...	--	--	--	--	49	--	--	--	--	13	--
DEC											
12...	25	6.4	12	2.7	--	57	12	27	0.10	14	143
21...	--	--	--	--	--	--	--	--	--	11	--
JAN 1989											
18...	--	--	--	--	48	--	--	--	--	14	--
18...	--	--	--	--	45	--	--	--	--	14	--
FEB											
16...	--	--	--	--	43	--	--	--	--	11	--
22...	--	--	--	--	--	--	--	--	--	8.3	--
MAR											
15...	--	--	--	--	45	--	--	--	--	13	--
APR											
20...	--	--	--	--	43	--	--	--	--	8.6	--
25...	20	5.5	12	2.2	--	51	13	27	0.10	4.8	138
MAY											
24...	--	--	--	--	38	--	--	--	--	7.7	--
JUN											
14...	--	--	--	--	51	--	--	--	--	--	--
JUL											
06...	--	--	--	--	--	--	--	--	--	10	--
17...	--	--	--	--	47	--	--	--	--	11	--
AUG											
16...	--	--	--	--	66	--	--	--	--	14	--
19...	--	--	--	--	--	--	--	--	--	7.3	--
SEP											
11...	--	--	--	--	57	--	--	--	--	15	--
12...	23	5.7	11	2.7	--	58	9.0	23	0.10	13	144

01594000 LITTLE PATUXENT RIVER AT SAVAGE, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989

DATE	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 N)	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)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)
OCT 1988											
19...	--	2	1.49	0.007	--	1.50	--	0.35	0.35	1.8	<0.010
NOV											
17...	--	9	0.769	0.011	--	0.780	0.016	1.3	1.0	2.1	0.200
30...	--	3	1.49	0.006	--	1.50	0.012	0.45	0.35	2.0	0.020
DEC											
12...	134	--	--	--	2.10	--	--	--	--	--	0.020
21...	--	1	2.09	0.006	--	2.10	0.320	0.40	0.30	2.5	0.030
JAN 1989											
18...	--	1	1.99	0.010	--	2.00	0.144	0.50	0.45	2.5	0.040
18...	--	2	1.99	0.010	--	2.00	0.144	0.60	0.50	2.6	0.040
FEB											
16...	--	16	1.88	0.016	--	1.90	0.052	0.90	0.50	2.8	--
22...	--	11	1.29	0.014	--	1.30	0.088	1.1	0.65	2.4	0.300
MAR											
15...	--	<1	2.19	0.007	--	2.20	0.008	0.35	0.30	2.6	0.020
APR											
20...	--	5	1.39	0.008	--	1.40	0.012	0.55	0.50	2.0	0.040
25...	115	--	--	--	1.40	--	--	--	--	--	0.010
MAY											
24...	--	30	1.08	0.019	--	1.10	0.148	2.0	0.70	3.1	0.500
JUN											
14...	--	6	1.99	0.011	--	2.00	0.012	0.50	--	2.5	0.060
JUL											
06...	--	28	1.09	0.012	--	1.10	0.032	1.6	0.60	2.7	0.300
17...	--	22	1.39	0.015	--	1.40	0.036	0.45	--	1.8	0.410
AUG											
16...	--	10	--	0.008	--	--	<0.008	0.55	0.50	--	0.090
19...	--	323	1.09	0.012	--	1.10	0.108	2.2	0.70	3.3	1.00
SEP											
11...	--	3	2.09	0.010	--	2.10	0.020	0.45	0.35	2.6	0.050
12...	122	--	--	--	1.70	--	--	--	--	--	0.030

DATE	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)	CHRO-MIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	COPPER, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)
OCT 1988											
19...	<0.010	<0.004	--	--	--	--	--	--	--	--	--
NOV											
17...	0.070	0.008	--	--	--	--	--	--	--	--	--
30...	0.020	0.010	--	--	--	--	--	--	--	--	--
DEC											
12...	--	--	--	--	--	--	310	81	--	--	80
21...	0.030	<0.004	--	--	--	--	--	--	--	--	--
JAN 1989											
18...	0.040	0.010	--	--	--	--	--	--	--	--	--
18...	0.050	0.010	--	--	--	--	--	--	--	--	--
FEB											
16...	0.030	0.010	--	--	--	--	--	--	--	--	--
22...	0.050	0.016	--	--	--	--	--	--	--	--	--
MAR											
15...	0.020	--	--	--	--	--	--	--	--	--	--
APR											
20...	0.060	0.006	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	210	44	--	--	40
MAY											
24...	0.080	0.128	--	--	--	--	--	--	--	--	--
JUN											
14...	--	0.010	--	--	--	--	--	--	--	--	--
JUL											
06...	0.070	0.024	--	--	--	--	--	--	--	--	--
17...	--	0.026	--	--	--	--	--	--	--	--	--
AUG											
16...	0.060	0.014	--	--	--	--	--	--	--	--	--
19...	0.140	0.084	--	--	--	--	--	--	--	--	--
SEP											
11...	0.040	0.018	--	--	--	--	--	--	--	--	--
12...	--	--	<1	<1	6	3	120	37	3600	<10	20

01594000 LITTLE PATUXENT RIVER AT SAVAGE, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989

DATE	MANGANESE, DISSOLVED (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	HARDNESS TOTAL (MG/L AS CACO3)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	PHEOPHYTIN PHYTOPLANKTON, ACID M. (UG/L)	CHLOROPHYLL A PHYTOPLANKTON, UNCORR. (UG/L)	CHLOROPHYLL B PHYTOPLANKTON, UNCORR. (UG/L)	CHLOROPHYLL C PHYTOPLANKTON, UNCORR. (UG/L)
OCT 1988											
19...	--	--	--	--	2.2	--	2.1	1.20	2.60	0.00	0.200
NOV											
17...	--	--	--	--	5.8	--	4.9	--	--	--	--
30...	--	--	--	--	2.6	--	3.2	--	2.00	0.200	0.200
DEC											
12...	77	--	--	--	2.1	89	--	--	--	--	--
21...	--	--	--	--	1.4	--	1.5	--	--	--	--
JAN 1989											
18...	--	--	--	--	1.9	--	2.2	--	1.80	0.00	0.00
18...	--	--	--	--	2.1	--	2.3	--	--	--	--
FEB											
16...	--	--	--	--	3.1	--	2.9	--	9.20	1.00	1.40
22...	--	--	--	--	4.3	--	4.2	--	--	--	--
MAR											
15...	--	--	--	--	1.2	--	1.3	0.00	4.60	0.400	0.400
APR											
20...	--	--	--	--	3.5	--	3.6	2.20	10.0	0.800	1.20
25...	37	--	--	--	1.9	73	--	--	--	--	--
MAY											
24...	--	--	--	--	11	--	10	4.00	14.2	1.40	1.40
JUN											
14...	--	--	--	--	1.7	--	2.0	--	2.20	0.200	0.00
JUL											
06...	--	--	--	--	5.4	--	4.6	--	--	--	--
17...	--	--	--	--	1.7	--	1.2	1.60	8.40	1.20	0.600
AUG											
16...	--	--	--	--	1.6	--	1.3	1.20	7.60	0.600	0.600
19...	--	--	--	--	6.8	--	5.6	--	--	--	--
SEP											
11...	--	--	--	--	1.8	--	1.9	--	2.00	0.00	0.400
12...	8	210	<0.01	10	2.4	81	--	--	--	--	--

SUSPENDED SEDIMENT DISCHARGE

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
NOV 1988				
30...	0950	71	6	1.2
DEC				
21...	1300	45	2	0.24
JAN 1989				
18...	1015	85	3	0.69
FEB				
16...	1045	157	16	6.8
22...	1220	355	114	109
22...	1230	358	128	124
22...	1233	358	131	127
22...	1237	361	125	122
22...	1245	363	123	121
22...	1250	366	124	122
MAR				
15...	0940	85	2	0.46
APR				
20...	1315	134	12	4.3
MAY				
24...	1130	613	660	1090
JUN				
14...	1430	125	6	2.0
JUL				
06...	1500	663	894	1600
17...	1130	167	31	14
AUG				
16...	1500	127	11	3.8
19...	1215	385	610	634
SEP				
11...	1300	44	1	0.12

01594000 LITTLE PATUXENT RIVER AT SAVAGE, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DATE	TIME	ENDING DATE	ENDING TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (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)
OCT 1989										
19...	1030	--	--	912	--	--	--	--	180	22
19...	1130	--	--	901	--	--	--	--	180	22
OCT										
19-19	1435	891019	1500	816	--	--	--	--	110	22
OCT										
19-19	1535	891019	1600	781	--	--	--	--	110	22
24...	0645	--	--	99	210	7.6	9.0	6.0	4.8	11
24...	0745	--	--	99	210	7.6	9.0	6.0	4.8	11
NOV										
14...	1030	--	--	73	230	8.5	10.5	20.5	2.2	<10
14...	1035	--	--	73	--	--	--	--	2.2	<10
16...	1110	--	--	1130	--	--	10.0	--	420	21
16...	1820	--	--	1540	--	--	10.0	--	810	28
DEC										
20...	1330	--	--	150	330	7.7	0.0	2.0	5.0	<10
JAN 1990										
30...	1030	--	--	514	178	7.3	7.0	9.0	300	20
30...	1035	--	--	514	--	--	--	--	390	19
FEB										
27...	0800	--	--	101	251	7.5	1.0	0.0	4.0	<10
27...	0805	--	--	101	--	--	--	--	4.1	10
MAR										
17-17	1440	900317	1540	280	--	--	--	--	210	19
MAR										
17-17	1610	900317	1710	508	--	--	--	--	430	21
MAR										
17-17	1740	900317	1910	510	--	--	--	--	410	23
MAR										
17-17	1940	900317	2210	477	--	--	--	--	390	25
MAR										
17-18	2240	900318	0210	436	--	--	--	--	270	25
18...	0900	--	--	295	--	--	--	--	68	21
28...	0900	--	--	94	237	7.8	6.0	10.0	2.6	<10
28...	1015	--	--	94	237	7.9	6.0	10.0	3.1	<10
APR										
25...	0715	--	--	94	228	7.5	15.0	15.0	3.1	<10
MAY										
22...	0730	--	--	82	233	7.6	14.0	14.0	4.4	12
JUN										
26...	0930	--	--	52	240	7.3	21.0	28.0	1.4	12
26...	0935	--	--	52	--	--	--	--	2.2	<10
JUL										
12-12	1700	900712	2030	102	--	--	--	--	--	18
JUL										
12-13	2100	900713	0430	544	--	--	--	--	--	24
17...	0745	--	--	59	224	6.6	22.0	31.0	6.0	13
17...	0750	--	--	59	--	--	--	--	5.4	12
AUG										
09-09	1525	900809	1825	339	--	--	--	--	160	23
AUG										
09-09	1925	900809	2225	552	--	--	--	--	220	19
AUG										
09-10	2325	900810	0525	434	--	--	--	--	130	21
28...	1000	--	--	51	236	6.7	25.0	29.0	1.3	--
SEP										
26...	0900	--	--	34	228	6.4	13.0	17.0	1.3	10
26...	0905	--	--	34	--	--	--	--	1.4	<10

01594000 LITTLE PATUXENT RIVER AT SAVAGE, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DATE	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	ALKA-LINITY WAT WH TOT FET 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 N)	NITRO-GEN, NITRITE DIS-SOLVED (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)
OCT 1989										
19...	4.2	--	7.5	202	0.830	0.010	0.840	0.036	1.9	0.35
19...	4.2	--	7.5	202	0.830	0.010	0.840	0.036	1.9	0.35
OCT										
19-19	--	--	6.8	174	0.799	0.011	0.810	0.044	1.4	0.45
OCT										
19-19	--	--	6.8	174	0.799	0.011	0.810	0.044	1.4	0.45
24...	<0.5	56	17	3	2.00	0.004	2.00	0.012	0.20	0.40
24...	<0.5	56	17	3	2.00	0.004	2.00	0.012	0.20	0.40
NOV										
14...	<0.5	52	12	4	2.40	0.005	2.40	0.020	0.50	0.20
14...	0.5	--	11	3	2.19	0.006	2.20	<0.008	0.50	0.10
16...	--	--	5.3	525	0.580	0.010	0.590	--	--	--
16...	--	--	4.6	860	0.701	0.019	0.720	--	--	--
DEC										
20...	2.9	--	3.2	4	2.89	0.010	2.90	<0.008	0.20	0.20
JAN 1990										
30...	3.6	40	6.7	340	1.39	0.012	1.40	0.204	2.3	0.85
30...	3.5	--	7.1	345	1.39	0.011	1.40	0.200	1.9	0.80
FEB										
27...	0.5	49	15	6	2.79	0.008	2.80	<0.008	0.75	0.70
27...	0.5	--	15	7	2.69	0.006	2.70	<0.008	0.80	0.70
MAR										
17-17	--	--	6.4	364	1.78	0.019	1.80	0.060	2.4	0.50
MAR										
17-17	--	--	6.2	665	1.48	0.019	1.50	0.064	3.1	0.70
MAR										
17-17	--	--	6.4	620	0.878	0.022	0.900	0.108	2.8	0.65
MAR										
17-17	--	--	6.8	374	1.28	0.024	1.30	0.120	2.0	0.55
MAR										
17-18	--	--	7.5	246	1.28	0.022	1.30	0.100	1.6	0.85
18...	--	--	9.4	67	1.48	0.020	1.50	0.064	1.0	0.40
28...	0.5	50	--	4	1.89	0.009	1.90	<0.008	0.20	0.20
28...	0.5	49	--	3	2.09	0.009	2.10	<0.008	0.20	0.20
APR										
25...	0.5	54	--	<1	--	0.010	--	--	0.15	0.25
MAY										
22...	2.2	71	15	15	2.09	0.013	2.10	0.012	0.35	0.30
JUN										
26...	2.3	58	14	7	1.99	0.011	2.00	0.020	0.35	0.25
26...	2.7	--	14	2	2.19	0.010	2.20	0.012	0.25	0.25
JUL										
12-12	--	--	--	408	--	--	--	--	2.3	--
JUL										
12-13	--	--	--	606	--	--	--	--	2.9	--
17...	0.5	51	14	6	1.79	0.014	1.80	0.016	0.45	0.35
17...	0.5	--	14	7	1.79	0.011	1.80	0.016	0.50	0.30
AUG										
09-09	--	--	8.3	445	1.19	0.012	1.20	0.020	1.8	0.65
AUG										
09-09	--	--	7.7	380	0.810	0.010	0.820	0.028	1.8	0.50
AUG										
09-10	--	--	8.6	228	0.991	0.009	1.00	0.024	1.3	0.50
28...	0.5	61	14	5	1.89	0.007	1.90	0.012	0.15	<0.10
SEP										
26...	0.5	59	13	3	2.19	0.006	2.20	0.008	0.40	0.20
26...	0.5	--	13	2	1.99	0.006	2.00	0.008	0.25	0.20

01594000 LITTLE PATUXENT RIVER AT SAVAGE, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DATE	NITRO-GEN, TOTAL (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)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	PHEO-PHYTIN PHYTO-PLANK-TON, ACID M. (UG/L)	CHLORO-PHYLL A PHYTO-PLANK-TON, UNCORR. (UG/L)	CHLORO-PHYLL B PHYTO-PLANK-TON, UNCORR. (UG/L)	CHLORO-PHYLL C PHYTO-PLANK-TON, UNCORR. (UG/L)
OCT 1989										
19...	2.7	0.480	0.450	0.034	10	7.6	--	--	--	--
19...	2.7	0.480	0.450	0.034	10	7.6	--	--	--	--
OCT										
19-19	2.2	0.340	0.050	0.034	9.9	7.6	--	--	--	--
OCT										
19-19	2.2	0.340	0.050	0.034	9.9	7.6	--	--	--	--
24...	2.2	0.080	0.030	0.012	1.7	1.7	0.400	1.80	0.00	0.200
24...	2.2	0.080	0.030	0.012	1.7	1.7	0.400	1.80	0.00	0.200
NOV										
14...	2.9	0.030	0.040	<0.004	2.3	2.8	--	--	--	--
14...	2.7	0.030	0.040	<0.004	2.1	2.4	--	--	--	--
16...	--	--	--	--	13	11	--	--	--	--
16...	--	--	--	--	20	15	--	--	--	--
DEC										
20...	3.1	<0.010	<0.010	<0.004	1.2	1.1	--	2.00	0.00	0.200
JAN 1990										
30...	3.7	0.700	0.050	0.032	8.9	6.4	--	--	--	--
30...	3.3	0.600	0.040	0.032	9.7	5.9	--	--	--	--
FEB										
27...	3.6	0.040	0.020	<0.004	1.6	1.3	--	0.002	0.00	0.001
27...	3.5	0.040	0.030	<0.004	1.4	1.3	--	--	--	--
MAR										
17-17	4.2	0.430	0.010	<0.004	7.4	5.3	--	--	--	--
MAR										
17-17	4.6	0.900	0.020	<0.004	10	6.3	--	--	--	--
MAR										
17-17	3.7	0.800	0.040	<0.004	10	5.8	--	--	--	--
MAR										
17-17	3.3	0.600	0.020	<0.004	9.8	5.9	--	--	--	--
MAR										
17-18	2.9	0.380	0.030	0.042	10	7.1	--	--	--	--
18...	2.5	0.160	0.030	<0.004	7.0	5.4	--	--	--	--
28...	2.1	0.020	0.050	<0.004	1.9	2.0	0.00	0.004	0.00	0.00
28...	2.3	0.010	0.040	<0.004	1.7	1.9	--	--	--	--
APR										
25...	--	0.050	0.020	<0.004	6.9	6.8	0.001	0.005	0.00	0.001
MAY										
22...	2.5	0.080	0.050	<0.004	3.3	3.1	0.002	0.005	0.00	0.00
JUN										
26...	2.4	0.060	0.050	0.006	2.5	2.4	0.001	0.002	0.00	0.00
26...	2.5	0.070	0.050	0.004	2.6	2.3	--	--	--	--
JUL										
12-12	--	<0.400	--	--	9.3	--	--	--	--	--
JUL										
12-13	--	0.700	--	--	13	--	--	--	--	--
17...	2.3	0.060	0.070	0.012	3.1	--	0.00	0.001	0.00	0.00
17...	2.3	0.060	<0.050	0.018	2.9	--	--	--	--	--
AUG										
09-09	3.0	0.800	0.320	0.108	5.8	5.7	--	--	--	--
AUG										
09-09	2.6	0.800	0.110	0.058	4.8	5.3	--	--	--	--
AUG										
09-10	2.3	0.110	0.380	0.052	5.3	6.3	--	--	--	--
28...	2.1	0.050	<0.050	0.010	2.5	2.4	0.00	0.001	0.00	0.00
SEP										
26...	2.6	0.040	0.050	<0.004	2.8	2.6	0.00	0.001	0.00	0.00
26...	2.3	0.030	0.030	<0.004	2.9	2.9	--	--	--	--

01594000 LITTLE PATUXENT RIVER AT SAVAGE, MD--Continued

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
OCT 1989				
19...	1030	912	639	1570
19...	1130	901	639	1550
OCT				
19-19	1435	816	235	518
OCT				
19-19	1535	781	235	495
24...	0645	99	6	1.6
24...	0745	99	6	1.6
NOV				
14...	1030	73	5	0.98
16...	1110	1130	732	2230
16...	1820	1540	1120	4660
DEC				
20...	1330	150	13	5.3
JAN 1990				
30...	1030	514	416	577
FEB				
27...	0800	101	6	1.6
MAR				
17-17	1740	510	770	1060
MAR				
17-17	1940	477	466	600
MAR				
17-18	2240	436	295	347
18...	0900	295	96	77
28...	0900	94	5	1.3
28...	1015	94	8	2.0
APR				
25...	0715	94	9	2.3
MAY				
22...	0730	82	11	2.4
JUN				
26...	0930	52	8	1.1
JUL				
12-12	1700	102	447	123
JUL				
12-13	2100	544	686	1010
JUL				
13-13	0725	324	159	139
JUL				
13-14	1925	149	44	18
JUL				
14-15	1339	123	52	17
JUL				
15-15	0139	76	59	12
17...	0745	59	11	1.7
AUG				
09-09	1525	339	349	320
AUG				
09-09	1925	552	504	752
AUG				
09-10	2325	434	240	282
28...	1000	51	5	0.69
SEP				
26...	0900	34	1	0.09

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), August 1977 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 13.10 ft above National Geodetic Vertical Datum of 1929. Prior to June 27, 1977, nonrecording gage at same site and datum.

REMARKS.--No estimated daily discharges. Water-discharge records good. 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, 4,750 ft^3/s, March 24, gage height, 12.95 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	106	681	150	1140	369	250	584	215	123	92	99	73
2	111	267	151	788	303	262	507	206	133	92	99	71
3	100	202	162	694	289	296	421	193	137	99	87	71
4	100	197	622	901	289	526	514	189	128	97	81	70
5	169	197	721	613	283	474	536	183	121	94	78	136
6	129	199	339	434	273	313	529	318	115	99	76	133
7	108	208	282	589	328	362	427	351	113	97	74	93
8	104	165	290	704	287	322	407	226	112	110	75	85
9	104	132	281	551	233	283	393	195	109	159	233	81
10	102	467	260	619	221	270	391	199	108	109	428	78
11	103	1730	247	617	214	263	316	190	105	97	136	76
12	121	590	235	2180	203	254	288	185	109	92	101	73
13	165	269	227	2310	202	252	296	180	113	95	95	73
14	207	425	223	879	306	361	508	174	102	101	92	79
15	144	602	299	637	294	465	483	179	99	91	101	83
16	118	357	838	654	223	340	581	168	99	85	118	76
17	109	215	400	1080	202	298	386	179	98	80	95	77
18	167	226	371	711	215	689	333	488	121	80	86	349
19	640	188	455	828	249	1060	310	222	170	78	84	149
20	239	176	311	1060	329	472	300	188	139	77	99	147
21	152	170	374	490	306	366	332	178	118	85	234	105
22	139	168	626	398	283	337	424	165	108	80	131	90
23	425	173	385	364	269	923	340	158	123	79	96	87
24	1410	193	934	413	258	3570	306	152	131	79	89	87
25	770	171	866	395	261	1440	266	147	113	147	85	519
26	817	165	403	364	261	1020	224	144	106	130	82	534
27	828	157	335	383	257	1090	221	137	102	198	81	185
28	827	163	477	384	251	941	244	138	99	121	81	120
29	585	160	655	382	---	721	220	133	97	105	82	105
30	527	154	771	379	---	1040	218	128	95	133	79	99
31	686	---	1550	393	---	907	---	127	---	111	76	---
TOTAL	10312	9167	14240	22334	7458	20167	11305	6035	3446	3192	3453	4004
MEAN	333	306	459	720	266	651	377	195	115	103	111	133
MAX	1410	1730	1550	2310	369	3570	584	488	170	198	428	534
MIN	100	132	150	364	202	250	218	127	95	77	74	70
CFSM	.96	.88	1.32	2.07	.77	1.87	1.08	.56	.33	.30	.32	.38
IN.	1.10	.98	1.52	2.39	.80	2.16	1.21	.65	.37	.34	.37	.43

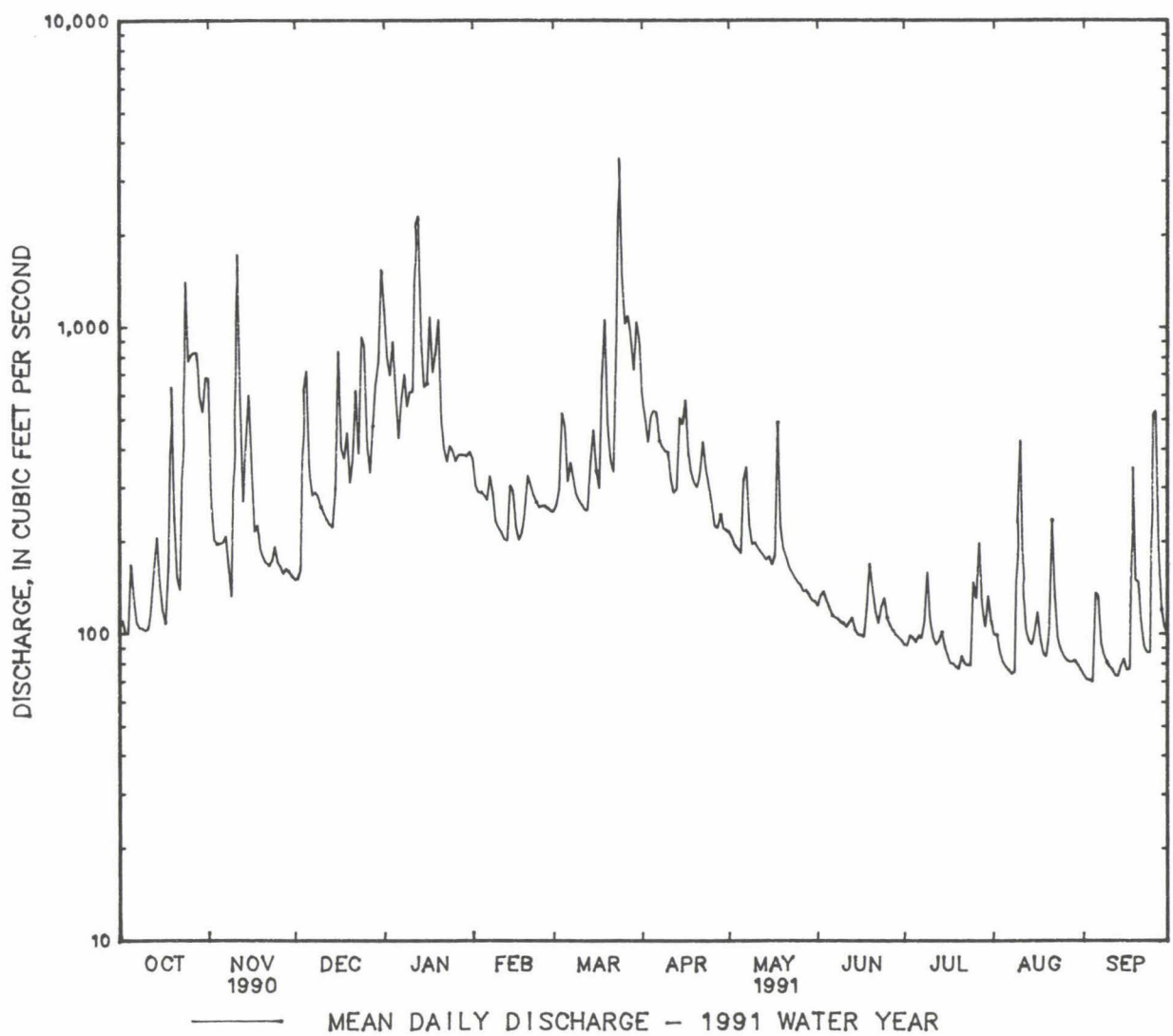
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1977 - 1991, BY WATER YEAR (WY)

MEAN	254	276	372	483	460	513	503	522	344	206	197	234
MAX	1093	459	1030	1316	1232	854	1247	1291	846	492	532	1358
(WY)	1980	1980	1984	1978	1979	1978	1983	1989	1989	1989	1979	1979
MIN	80.4	108	136	119	263	173	167	154	115	102	86.1	65.2
(WY)	1987	1982	1981	1981	1980	1981	1985	1986	1991	1986	1987	1986

01594440 PATUXENT RIVER NEAR BOWIE, MD--Continued

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1977 - 1991	
ANNUAL TOTAL	136445		115118			
ANNUAL MEAN	374		315		a365	
HIGHEST ANNUAL MEAN					637	1979
LOWEST ANNUAL MEAN					175	1981
HIGHEST DAILY MEAN	2530	May 30	3570	Mar 24	8860	Jan 27 1978
LOWEST DAILY MEAN	100	Oct 3	70	Sep 4	56	(b)
ANNUAL SEVEN-DAY MINIMUM	106	Sep 28	75	Aug 29	57	Sep 15 1986
INSTANTANEOUS PEAK FLOW	3140	May 30	4750	Mar 24	c31100	Jun 22 1972
INSTANTANEOUS PEAK STAGE	11.44	May 30	12.95	Mar 24	d27.90	Jun 22 1972
INSTANTANEOUS LOW FLOW	94	Oct 4	69	(f)	32	Aug 9 1966
ANNUAL RUNOFF (CFSM)	1.07		.91		1.05	
ANNUAL RUNOFF (INCHES)	14.59		12.31		14.25	
10 PERCENT EXCEEDS	770		683		747	
50 PERCENT EXCEEDS	282		203		214	
90 PERCENT EXCEEDS	117		86		98	

a Unadjusted.
b Sept. 17-19, 1986.
c On basis of contracted-opening measurement of peak flow.
d From floodmarks.
f Sept. 1-4.



01594440 PATUXENT RIVER NEAR BOWIE, MD--Continued
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1978-80, 1985 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Water years 1978-80, 1985 to current year.
WATER TEMPERATURE: Water years 1978-80, 1985 to current year.
SUSPENDED-SEDIMENT DISCHARGE: October 1985 to current year.

REMARKS.--Water temperatures are measured daily in field by local observer at time of sampling.

COOPERATION.--Some chemical data were collected by the U. S. Geological Survey and analyzed by the Maryland Department of Health and Mental Hygiene Laboratory Administration (DHMH).
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.
EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 959 microsiemens, Dec. 15; minimum daily, 145 microsiemens, Nov. 23, May 31.
WATER TEMPERATURE: Maximum daily, 26.5°C, Jul. 6, 9, 10; minimum daily, 1.0°C, Dec. 16, 17, 22-27.
SEDIMENT CONCENTRATION: Maximum daily mean, 248 mg/L, Sept. 25; minimum daily mean, 5 mg/L, Dec. 3, Feb. 11, 12, 17, 25, 27.
SEDIMENT LOAD: Maximum daily, 2,140 tons, Mar. 24; minimum daily, 1.5 tons, July 20.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (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)
OCT 1990										
*03...	1100	105	300	7.0	15.0	21.0	774	--	8.6	84
*03...	1105	105	300	7.0	15.0	21.0	774	--	8.6	84
15...	1000	150	263	7.1	20.0	22.0	762	--	6.7	74
24...	1210	1760	144	6.6	16.0	20.0	761	75	7.0	71
NOV										
20...	1210	184	305	6.7	8.0	19.0	770	--	11.6	97
DEC										
04...	1210	691	238	6.9	10.0	7.0	760	--	9.8	87
05...	1210	780	195	6.8	7.0	6.0	768	--	10.0	82
18...	1140	345	216	6.9	8.0	19.0	753	--	11.0	94
JAN 1991										
09...	1135	546	365	6.5	4.0	13.0	774	8.4	12.4	93
16...	1140	618	265	7.1	6.0	19.0	757	--	12.8	104
17...	1100	1220	234	6.9	6.0	15.0	762	--	10.8	87
FEB										
13...	1030	207	295	6.8	4.0	12.0	759	--	12.1	93
MAR										
04...	1135	558	228	7.0	11.0	13.0	746	--	9.3	86
*20...	1010	474	240	6.5	9.0	15.0	765	10	9.8	84
*20...	1015	474	240	6.9	9.0	15.0	765	--	9.8	84
*20...	1020	474	240	6.9	9.0	15.0	765	--	9.8	84
25...	1110	1310	160	7.2	9.0	16.0	767	--	10.0	86
APR										
09...	1140	282	215	7.0	19.0	28.0	760	--	9.0	97
16...	1140	638	216	7.2	12.0	25.0	766	--	9.6	89
#25...	1030	257	246	7.1	14.0	20.0	769	--	9.2	88
#25...	1035	257	246	7.1	14.0	20.0	769	--	9.2	88
MAY										
09...	1030	181	250	--	17.0	20.0	775	6.5	7.6	77
21...	1040	167	280	7.2	18.0	25.0	772	--	7.9	82
JUN										
04...	1040	117	295	7.3	23.0	25.0	758	--	7.3	86
21...	1025	107	282	7.5	23.0	33.0	763	--	6.8	79
JUL										
12...	1215	82	330	7.8	28.0	31.0	763	4.7	6.4	82
27...	1430	246	300	7.6	24.0	26.0	768	--	7.1	--
28...	1130	115	235	7.4	24.0	28.0	768	--	6.9	81
SEP										
12...	1035	65	330	7.9	22.0	20.0	768	2.5	6.4	73
18...	1320	620	162	7.3	24.0	29.0	765	--	6.0	71
19...	1100	140	226	7.4	23.0	29.0	764	--	6.2	72
25...	1400	718	283	7.3	20.0	24.0	756	--	6.4	71
26...	1130	480	293	7.1	20.0	21.0	757	--	6.6	73

* Duplicate samples collected for quality-assurance purposes.
\# Samples analyzed by DHMH.

01594440 PATUXENT RIVER NEAR BOWIE, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	COLIFORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNESIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTASSIUM, DIS-SOLVED (MG/L AS K)	ALKALINITY WAT WH TOT FET FIELD MG/L AS CACO3	ALKALINITY WAT DIS TOT IT FIELD MG/L AS CACO3	BICARBONATE WATER DIS IT FIELD MG/L AS HCO3	SULFATE DIS-SOLVED (MG/L AS SO4)
OCT 1990										
03...	--	--	--	--	--	--	61	--	--	--
03...	--	--	--	--	--	--	61	--	--	--
15...	--	--	--	--	--	--	55	--	--	--
24...	--	--	11	2.7	7.8	5.6	25	--	31	12
NOV										
20...	--	--	--	--	--	--	53	--	--	--
DEC										
04...	--	--	--	--	--	--	48	--	--	--
05...	--	--	--	--	--	--	35	--	--	--
18...	--	--	--	--	--	--	40	--	--	--
JAN 1991										
09...	100	140	17	4.1	48	3.7	35	--	43	15
16...	--	--	--	--	--	--	34	--	--	--
17...	--	--	--	--	--	--	32	--	--	--
FEB										
13...	--	--	--	--	--	--	52	--	--	--
MAR										
04...	--	--	--	--	--	--	45	--	--	--
20...	150	170	16	3.8	17	3.1	34	--	41	17
20...	--	--	--	--	--	--	35	--	--	--
20...	--	--	--	--	--	--	35	--	--	--
25...	--	--	--	--	--	--	30	--	--	--
APR										
09...	--	--	--	--	--	--	41	--	--	--
16...	--	--	--	--	--	--	43	--	--	--
25...	--	--	--	--	--	--	47	--	--	--
25...	--	--	--	--	--	--	47	--	--	--
MAY										
09...	70	150	20	4.5	20	4.1	--	--	--	15
21...	--	--	--	--	--	--	57	--	--	--
JUN										
04...	--	--	--	--	--	--	62	--	--	--
21...	--	--	--	--	--	--	55	--	--	--
JUL										
12...	--	--	23	4.5	28	6.0	59	59	71	20
27...	--	--	--	--	--	--	65	--	--	--
28...	--	--	--	--	--	--	44	--	--	--
SEP										
12...	220	1200	25	4.4	33	6.3	66	66	80	22
18...	--	--	--	--	--	--	38	--	--	--
19...	--	--	--	--	--	--	45	--	--	--
25...	--	--	--	--	--	--	45	--	--	--
26...	--	--	--	--	--	--	33	--	--	--

01594440 PATUXENT RIVER NEAR BOWIE, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	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)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRATE DISSOLVED (MG/L AS N)	NITROGEN, NITRITE TOTAL (MG/L AS N)	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 TOTAL (MG/L AS N)
OCT 1990											
03...	--	--	8.9	--	--	2.98	--	0.020	--	3.00	--
03...	--	--	8.9	--	--	2.98	--	0.020	--	3.00	--
15...	--	--	9.5	--	--	1.69	--	0.010	--	1.70	--
24...	15	<0.10	6.4	88	81	0.990	0.050	0.010	1.00	1.00	0.080
NOV											
20...	--	--	11	--	--	2.87	--	0.030	--	2.90	--
DEC											
04...	--	--	7.1	--	--	1.98	--	0.020	--	2.00	--
05...	--	--	7.2	--	--	1.19	--	0.010	--	1.20	--
18...	--	--	7.5	--	--	1.78	--	0.020	--	1.80	--
JAN 1991											
09...	86	0.10	7.1	222	209	1.48	0.020	0.020	1.50	1.50	0.390
16...	--	--	7.8	--	--	1.68	--	0.020	--	1.70	--
17...	--	--	6.9	--	--	1.28	--	0.020	--	1.30	--
FEB											
13...	--	--	8.8	--	--	2.78	--	0.120	--	2.90	--
MAR											
04...	--	--	4.2	--	--	1.89	--	0.110	--	2.00	--
20...	30	0.10	7.1	116	122	1.54	--	0.060	--	1.60	--
20...	--	--	6.9	--	--	1.43	--	0.070	--	1.50	--
20...	--	--	6.8	--	--	1.46	--	0.040	--	1.50	--
25...	--	--	5.4	--	--	1.26	--	0.040	--	1.30	--
APR											
09...	--	--	4.4	--	--	1.77	--	0.030	--	1.80	--
16...	--	--	6.7	--	--	1.68	--	0.020	--	1.70	--
25...	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--
MAY											
09...	29	0.20	7.7	137	142	2.85	0.050	0.050	2.80	2.90	0.140
21...	--	--	9.1	--	--	3.24	--	0.060	--	3.30	--
JUN											
04...	--	--	9.8	--	--	2.95	--	0.050	--	3.00	--
21...	--	--	9.6	--	--	3.08	--	0.020	--	3.10	--
JUL											
12...	37	0.30	8.6	179	238	3.99	0.020	0.010	4.00	4.00	0.050
27...	--	--	9.1	--	--	--	--	0.020	--	2.60	--
28...	--	--	7.9	--	--	1.88	--	0.020	--	1.90	--
SEP											
12...	36	0.40	7.5	180	254	3.09	0.010	0.010	3.00	3.10	0.040
18...	--	--	3.7	--	--	1.27	--	0.030	--	1.30	--
19...	--	--	5.5	--	--	1.58	--	0.020	--	1.60	--
25...	--	--	5.4	--	--	1.09	--	0.010	--	1.10	--
26...	--	--	6.4	--	--	1.09	--	0.010	--	1.10	--

01594440 PATUXENT RIVER NEAR BOWIE, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO TOTAL (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC DISSOLVED (UG/L AS AS)
OCT 1990										
03...	0.100	0.80	0.70	--	0.150	0.080	--	0.100	<10	--
03...	0.100	0.90	0.80	--	0.140	0.100	--	0.100	<10	--
15...	0.050	0.70	0.80	--	0.140	0.140	--	0.130	10	--
24...	0.070	1.2	0.80	2.2	0.250	0.030	0.100	0.010	190	<1
NOV										
20...	0.550	1.1	1.1	--	0.060	0.020	--	0.020	10	--
DEC										
04...	0.210	1.1	0.60	--	0.270	0.040	--	0.030	30	--
05...	0.130	0.80	0.50	--	0.190	0.040	--	0.020	70	--
18...	0.260	0.80	0.70	--	0.070	0.010	--	0.021	10	--
JAN 1991										
09...	0.400	0.60	0.80	2.1	0.060	0.010	0.020	<0.010	40	--
16...	0.240	1.0	0.80	--	0.050	0.010	--	0.020	20	--
17...	0.200	0.90	0.80	--	0.040	0.020	--	0.020	120	--
FEB										
13...	0.440	1.1	1.0	--	0.070	0.020	--	0.010	<10	--
MAR										
04...	0.160	0.80	0.50	--	0.140	0.030	--	0.020	10	--
20...	0.230	0.70	--	--	0.100	0.030	--	<0.010	50	<1
20...	0.180	0.90	0.70	--	0.100	0.040	--	<0.010	20	--
20...	0.180	0.80	0.70	--	0.090	0.040	--	<0.010	30	--
25...	0.160	0.70	0.60	--	0.110	0.030	--	0.020	<10	--
APR										
09...	0.140	0.60	0.40	--	0.070	0.030	--	0.020	20	--
16...	0.090	0.70	0.80	--	0.100	0.020	--	0.020	20	--
25...	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--
MAY										
09...	0.130	0.80	0.50	3.6	0.100	0.030	0.070	0.030	10	<1
21...	0.090	0.80	0.50	--	0.150	0.060	--	0.020	<10	--
JUN										
04...	0.090	1.3	0.60	--	0.160	0.060	--	0.060	<10	--
21...	0.070	0.90	0.50	--	0.090	0.080	--	0.050	20	--
JUL										
12...	0.050	0.70	0.80	4.7	0.160	0.050	0.100	0.080	20	--
27...	0.060	0.70	0.60	--	0.220	0.090	--	0.050	10	--
28...	0.080	0.80	0.60	--	0.150	0.080	--	0.050	<10	--
SEP										
12...	0.040	0.60	0.40	3.6	0.140	0.080	0.080	0.040	<10	1
18...	0.180	1.2	0.50	--	0.360	0.050	--	0.050	60	--
19...	0.130	0.80	0.60	--	0.180	0.070	--	0.060	30	--
25...	0.070	0.90	0.50	--	0.640	0.060	--	0.050	30	--
26...	0.060	1.1	0.90	--	0.260	0.040	--	0.040	50	--

01594440 PATUXENT RIVER NEAR BOWIE, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
OCT										
03...	--	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--	--
24...	28	<0.5	1.0	<1	<3	3	240	1	<4	140
NOV										
20...	--	--	--	--	--	--	--	--	--	--
DEC										
04...	--	--	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--
JAN										
09...	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--	--
FEB										
13...	--	--	--	--	--	--	--	--	--	--
MAR										
04...	--	--	--	--	--	--	--	--	--	--
20...	32	<0.5	<1.0	<1	<3	2	130	<1	<4	110
20...	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--
APR										
09...	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--
MAY										
09...	32	<0.5	<1.0	<1	<3	1	160	<1	4	150
21...	--	--	--	--	--	--	--	--	--	--
JUN										
04...	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--
JUL										
12...	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--
SEP										
12...	22	<0.5	<1.0	<1	<3	3	83	<1	<4	110
18...	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--

01594440 PATUXENT RIVER NEAR BOWIE, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	HARD-NESS TOTAL (MG/L AS CACO3)
OCT										
03...	--	--	--	--	--	--	--	--	3.3	--
03...	--	--	--	--	--	--	--	--	3.2	--
15...	--	--	--	--	--	--	--	--	5.4	--
24...	<0.1	<10	3	<1	<1.0	50	<6	10	7.7	39
NOV										
20...	--	--	--	--	--	--	--	--	3.6	--
DEC										
04...	--	--	--	--	--	--	--	--	6.2	--
05...	--	--	--	--	--	--	--	--	8.1	--
18...	--	--	--	--	--	--	--	--	4.3	--
JAN										
09...	--	--	--	--	--	--	--	--	3.6	59
16...	--	--	--	--	--	--	--	--	4.0	--
17...	--	--	--	--	--	--	--	--	5.5	--
FEB										
13...	--	--	--	--	--	--	--	--	3.3	--
MAR										
04...	--	--	--	--	--	--	--	--	5.2	--
20...	<0.1	<10	2	<1	<1.0	72	<6	8	--	56
20...	--	--	--	--	--	--	--	--	4.6	--
20...	--	--	--	--	--	--	--	--	4.8	--
25...	--	--	--	--	--	--	--	--	5.1	--
APR										
09...	--	--	--	--	--	--	--	--	3.6	--
16...	--	--	--	--	--	--	--	--	4.9	--
25...	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--
MAY										
09...	<0.1	<10	3	<1	<1.0	90	<6	4	4.6	69
21...	--	--	--	--	--	--	--	--	4.7	--
JUN										
04...	--	--	--	--	--	--	--	--	5.3	--
21...	--	--	--	--	--	--	--	--	4.3	--
JUL										
12...	--	--	--	--	--	--	--	--	4.3	76
27...	--	--	--	--	--	--	--	--	6.2	--
28...	--	--	--	--	--	--	--	--	6.0	--
SEP										
12...	<0.1	<10	3	<1	<1.0	78	<6	10	4.0	81
18...	--	--	--	--	--	--	--	--	15	--
19...	--	--	--	--	--	--	--	--	6.0	--
25...	--	--	--	--	--	--	--	--	8.6	--
26...	--	--	--	--	--	--	--	--	6.8	--

01594440 PATUXENT RIVER NEAR BOWIE, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

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 1990					
03...	1100	105	5	1.4	--
03...	1105	105	5	1.4	--
15...	1000	150	16	6.5	--
24...	1210	1760	153	727	95
NOV					
20...	1210	184	6	3.0	--
DEC					
04...	1210	691	83	155	--
05...	1210	780	55	116	--
18...	1140	345	15	14	--
JAN 1991					
09...	1135	546	12	18	94
17...	1100	1220	57	188	--
FEB					
13...	1030	207	6	3.4	--
MAR					
04...	1135	558	30	45	--
20...	1010	474	26	33	93
20...	1015	474	27	35	--
20...	1020	474	28	36	--
25...	1110	1310	51	180	--
APR					
09...	1140	282	14	11	--
16...	1140	638	34	59	--
MAY					
09...	1030	181	16	7.8	98
21...	1040	167	19	8.6	--
JUN					
04...	1040	117	18	5.7	--
21...	1025	107	16	4.6	--
JUL					
12...	1215	82	14	3.1	--

01594440 PATUXENT RIVER NEAR BOWIE, MD--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	296	153	269	191	222	238	190	255	307	320	333	378
2	302	213	270	185	233	240	200	252	300	330	339	370
3	301	231	269	180	236	243	211	260	280	340	334	370
4	298	222	193	156	245	211	188	259	275	335	351	372
5	312	240	185	199	239	242	188	262	306	300	356	392
6	267	220	207	209	243	232	192	237	315	340	374	296
7	281	242	215	211	242	238	201	222	320	260	378	311
8	296	251	231	546	252	222	200	231	318	325	376	351
9	296	260	217	419	258	230	201	250	310	305	335	373
10	307	238	220	570	271	235	204	260	311	285	214	369
11	305	138	220	413	260	239	212	270	275	320	270	366
12	308	191	223	427	258	239	220	270	250	330	306	375
13	307	222	226	406	274	241	222	271	318	325	332	384
14	278	162	226	249	265	234	203	270	255	335	338	374
15	259	162	213	246	233	339	212	270	295	305	342	374
16	277	216	166	241	268	285	194	270	325	275	343	355
17	291	242	195	226	281	267	205	280	325	330	326	376
18	265	255	210	226	275	182	212	191	295	300	353	223
19	188	255	195	176	268	203	220	222	310	338	357	248
20	212	267	208	162	254	219	219	252	240	330	377	334
21	243	267	202	235	239	229	220	261	290	321	254	295
22	268	274	190	243	241	231	214	268	310	300	259	326
23	198	270	201	221	226	167	212	278	245	335	311	352
24	146	257	165	227	242	---	219	280	300	368	344	356
25	154	255	175	227	245	156	231	225	305	340	357	184
26	151	268	198	216	240	115	240	291	310	280	369	227
27	146	230	207	222	240	161	248	295	330	312	365	264
28	144	280	271	213	244	183	232	260	330	271	366	303
29	192	269	450	224	---	139	250	285	330	311	372	330
30	156	269	---	221	---	176	250	275	340	350	386	353
31	153	---	---	226	---	178	---	300	---	312	375	---

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18.0	14.5	7.5	5.5	4.5	8.5	10.5	20.0	25.0	25.5	25.0	23.5
2	17.5	14.5	8.0	5.0	5.0	12.0	11.0	19.0	25.0	25.0	26.5	21.0
3	16.5	14.5	9.5	5.5	6.5	13.0	11.0	18.0	24.0	25.0	27.5	21.0
4	18.0	14.5	9.0	4.5	7.0	12.0	12.0	18.0	23.0	24.0	27.0	21.5
5	17.5	15.0	7.0	4.5	8.0	10.5	12.0	18.5	20.5	23.5	25.5	22.5
6	18.5	14.0	6.0	6.0	9.0	9.5	14.5	18.5	19.5	25.5	24.0	21.5
7	18.5	12.0	6.5	5.0	9.5	10.0	17.5	19.0	20.5	26.5	23.5	22.0
8	19.5	10.0	7.5	3.0	9.5	9.0	19.0	19.0	21.0	25.5	24.0	22.0
9	21.0	10.0	6.0	4.5	8.5	8.5	19.5	17.5	22.5	25.5	24.0	22.5
10	21.5	11.5	7.5	5.0	7.5	8.0	19.0	19.0	23.0	24.0	24.0	22.5
11	21.5	10.0	6.0	4.0	6.5	7.5	16.0	18.0	23.5	25.0	24.0	23.0
12	21.5	9.5	6.5	3.5	4.5	7.0	15.0	20.5	24.0	24.0	24.0	22.0
13	22.5	8.5	8.5	4.0	6.0	6.0	12.5	22.5	23.0	25.0	24.0	21.5
14	22.0	8.5	7.0	3.0	8.0	5.5	11.5	22.0	22.5	25.0	24.0	22.5
15	20.0	9.5	6.0	4.0	6.0	6.0	11.5	23.5	24.0	24.5	24.0	23.0
16	18.0	10.5	6.5	7.0	3.5	8.5	15.0	23.0	25.5	25.0	24.5	24.5
17	17.0	10.5	7.0	6.5	3.0	9.5	18.0	22.5	26.0	25.5	25.0	25.5
18	18.0	9.0	10.0	6.0	4.5	9.5	17.0	21.5	23.0	26.0	25.0	24.5
19	15.5	7.5	9.5	5.5	8.0	10.0	14.0	19.0	22.0	27.0	26.0	22.5
20	13.5	7.5	7.5	7.0	10.0	11.0	12.5	18.5	23.5	27.5	24.5	20.0
21	13.5	7.5	8.5	6.5	9.5	12.0	12.0	20.5	25.0	28.0	23.5	18.0
22	15.0	8.5	10.5	3.5	10.5	11.5	12.5	22.0	23.5	27.5	23.5	17.0
23	17.0	11.0	13.0	2.0	8.0	9.5	14.5	23.0	21.0	28.5	24.0	17.0
24	13.0	10.5	11.0	3.5	6.5	---	15.3	23.0	21.5	27.5	24.0	18.5
25	15.0	11.0	6.0	3.0	7.0	10.0	16.5	24.0	22.0	26.0	24.0	19.0
26	13.0	11.0	4.5	3.0	7.0	10.0	17.5	25.5	22.0	26.0	23.5	19.0
27	12.5	12.0	3.0	3.5	6.0	13.0	19.0	26.0	23.0	24.5	24.0	17.0
28	12.5	14.5	3.0	5.5	8.0	15.0	19.5	26.5	24.5	24.5	24.5	16.0
29	12.0	11.5	4.0	6.0	---	12.5	17.0	26.5	25.5	22.5	26.0	16.5
30	12.0	9.0	9.5	7.0	---	11.5	18.5	26.5	27.0	23.0	25.5	16.5
31	13.5	---	7.0	6.5	---	11.0	---	26.5	---	24.0	27.0	---

01594440 PATUXENT RIVER NEAR BOWIE, MD--Continued

SEDIMENT, SUSPENDED CONCENTRATION (MG/L), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	11	3.1	42	77	11	4.5	55	169	13	13	11	7.4
2	13	3.9	29	21	8	3.3	30	64	8	6.5	14	9.9
3	7	1.9	20	11	5	2.2	30	56	8	6.2	17	14
4	10	2.7	23	12	105	176	30	73	12	9.4	43	61
5	25	11	20	11	215	419	25	41	7	5.3	36	46
6	11	3.8	19	10	15	14	15	18	15	11	16	14
7	14	4.1	20	11	23	18	25	40	14	12	17	17
8	22	6.2	18	8.0	22	17	23	44	9	7.0	15	13
9	15	4.2	10	3.6	21	16	15	22	6	3.8	9	6.9
10	12	3.3	158	199	21	15	17	28	6	3.6	8	5.8
11	14	3.9	170	794	21	14	20	33	5	2.9	8	5.7
12	20	6.5	42	67	26	16	155	912	5	2.7	10	6.9
13	20	8.9	25	18	28	17	50	312	6	3.3	12	8.2
14	18	10	25	29	13	7.8	27	64	22	18	15	15
15	16	6.2	33	54	34	27	20	34	15	12	20	25
16	14	4.5	18	17	70	158	23	41	7	4.2	12	11
17	14	4.1	12	7.0	34	37	57	166	5	2.7	9	7.2
18	60	27	12	7.3	18	18	25	48	8	4.6	170	316
19	195	337	13	6.6	39	48	31	69	10	6.7	110	315
20	55	35	9	4.3	17	14	31	89	20	18	27	34
21	20	8.2	7	3.2	32	32	27	36	17	14	22	22
22	25	9.4	9	4.1	39	66	12	13	10	7.6	18	16
23	155	178	14	6.5	55	57	11	11	9	6.5	164	409
24	195	742	15	7.8	210	530	11	12	7	4.9	222	2140
25	125	260	21	9.7	55	129	9	9.6	5	3.5	70	272
26	60	132	21	9.4	23	25	8	7.9	6	4.2	50	138
27	35	78	19	8.1	18	16	9	9.3	5	3.5	36	106
28	36	80	28	12	24	31	12	12	6	4.1	35	89
29	60	95	36	16	24	42	13	13	---	---	39	76
30	44	63	12	5.0	50	104	10	10	---	---	65	183
31	41	76	---	---	140	586	12	13	---	---	41	100
TOTAL	---	2208.9	---	1449.6	---	2659.8	---	2469.8	---	201.2	---	4490.0
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	23	36	19	11	19	6.3	17	4.2	13	3.5	32	6.3
2	16	22	21	12	21	7.5	14	3.5	10	2.7	37	7.1
3	15	17	20	10	18	6.7	12	3.2	12	2.8	25	4.8
4	22	31	16	8.2	20	6.9	12	3.1	12	2.6	20	3.8
5	26	38	17	8.4	18	5.9	11	2.8	10	2.1	35	13
6	21	30	27	23	15	4.7	9	2.4	10	2.1	19	6.8
7	18	21	34	32	16	4.9	7	1.8	10	2.0	15	3.8
8	17	19	26	16	12	3.6	14	4.2	16	3.2	12	2.8
9	16	17	17	9.0	10	2.9	25	11	106	67	12	2.6
10	16	17	25	13	15	4.4	28	8.2	122	141	15	3.2
11	28	24	30	15	15	4.3	16	4.2	44	16	24	4.9
12	22	17	25	12	14	4.1	14	3.5	20	5.5	21	4.1
13	14	11	24	12	14	4.3	28	7.2	26	6.7	13	2.6
14	31	43	24	11	18	5.0	22	6.0	21	5.2	e10	2.1
15	23	30	21	10	13	3.5	21	5.2	15	4.1	e10	2.2
16	41	64	20	9.1	10	2.7	17	3.9	33	11	e18	3.7
17	57	59	36	17	12	3.2	10	2.2	17	4.4	e16	3.3
18	24	22	120	158	25	8.2	25	5.4	18	4.2	e225	212
19	17	14	60	36	42	19	14	2.9	18	4.1	e90	36
20	15	12	68	35	20	7.5	7	1.5	28	7.5	e35	14
21	13	12	26	12	14	4.5	9	2.1	e51	32	e16	4.5
22	21	24	44	20	20	5.8	8	1.7	e31	11	13	3.2
23	23	21	26	11	17	5.6	16	3.4	e25	6.5	21	4.9
24	17	14	16	6.6	20	7.1	29	6.2	14	3.4	25	5.9
25	11	7.9	17	6.7	23	7.0	52	21	24	5.5	248	348
26	12	7.3	13	5.1	15	4.3	34	12	49	11	115	166
27	10	6.0	14	5.2	9	2.5	48	26	60	13	30	15
28	15	9.9	16	6.0	12	3.2	32	10	35	7.7	15	4.9
29	13	7.7	19	6.8	14	3.7	25	7.1	15	3.3	20	5.7
30	16	9.4	22	7.6	19	4.9	20	7.2	22	4.7	15	4.0
31	---	---	20	6.9	---	---	13	3.9	30	6.2	---	---
TOTAL	---	663.2	---	551.6	---	164.2	---	187.0	---	402.0	---	901.2

TOTAL LOAD FOR YEAR: 16348.5 TONS.

e Estimated

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 National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Water-discharge records good above 5.0 ft^3/s and poor below except those for Oct. 9 to Dec. 17 (backwater from beaverdams) and Jan. 6-8 (missing record), which are poor.

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)
May 14	2300	*250	*8.08	No peak greater than base discharge.			

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.2	e4.9	e4.0	8.8	8.9	7.4	16	8.1	3.4	.18	.60	.23
2	2.1	e4.8	e4.4	8.4	9.3	8.2	14	7.4	3.4	.15	.48	.21
3	1.9	e4.6	e5.6	8.0	9.5	11	13	6.8	3.6	.40	.38	.18
4	3.1	e4.5	e11	7.8	9.4	18	13	6.4	3.8	.80	.38	.17
5	4.7	e4.5	e6.5	7.3	9.3	11	13	6.3	2.5	1.8	.31	.15
6	3.5	e4.4	e5.5	e7.3	9.2	9.2	13	11	2.0	3.1	.28	.08
7	2.3	e4.3	e4.8	e16	13	9.2	12	12	2.2	1.4	.25	.05
8	2.0	e4.3	e4.7	e14	12	7.9	12	7.6	1.8	13	.25	.09
9	e1.9	e4.4	e4.6	33	9.7	7.5	12	7.4	1.4	10	8.4	.04
10	e2.0	e15	e4.4	18	9.1	7.6	11	8.0	1.1	3.3	21	.02
11	e2.1	e6.0	e4.2	28	8.7	7.3	9.9	6.9	.85	2.4	4.0	.02
12	e2.2	e5.2	e4.1	81	7.9	6.9	9.6	6.1	.65	1.5	1.3	.00
13	e2.3	e4.8	e4.1	25	8.6	7.4	11	5.7	.42	1.2	.70	.01
14	e2.2	e4.8	e4.1	18	12	10	21	43	.39	1.0	.71	.01
15	e2.0	e4.8	e10	16	9.5	11	14	76	.34	.90	2.7	.01
16	e1.9	e5.6	e20	17	7.1	8.1	13	13	.33	.67	2.1	.00
17	e1.9	e6.5	e10	17	7.4	7.6	11	12	.70	.52	1.2	.00
18	e7.0	e6.0	9.2	14	9.5	30	10	16	4.2	.48	.73	.01
19	e4.5	e5.5	9.7	13	11	18	9.9	9.8	3.6	.38	.66	.00
20	e2.0	e5.4	7.4	13	12	12	10	8.4	2.5	.29	.73	.00
21	e2.2	e5.3	9.7	13	9.5	12	12	7.5	1.4	.26	3.6	.00
22	e2.4	e5.3	12	11	8.5	11	11	6.7	3.5	.27	1.7	.00
23	e20	e5.3	8.8	9.8	7.9	19	9.8	6.1	9.5	.20	.80	.00
24	e10	e5.2	15	12	7.4	18	9.8	5.3	6.5	.17	.57	.02
25	e6.5	e5.0	9.3	11	7.8	13	9.0	4.9	2.6	.43	.45	.28
26	e5.5	e4.8	7.3	9.7	8.3	12	8.7	4.5	1.1	1.1	.45	5.4
27	e5.2	e4.7	6.9	11	7.9	12	8.5	3.8	.67	3.4	.39	2.7
28	e5.0	e4.6	30	12	7.5	12	8.3	4.9	.63	3.6	.41	1.0
29	e4.9	e4.3	17	11	---	23	8.5	4.3	.35	1.4	.34	.65
30	e4.8	e3.9	12	11	---	35	8.9	3.3	.26	.91	.27	.44
31	e4.8	---	9.0	10	---	18	---	2.9	---	.68	.25	---
TOTAL	125.1	158.7	275.3	492.1	257.9	400.3	342.9	332.1	65.69	55.89	56.39	11.77
MEAN	4.04	5.29	8.88	15.9	9.21	12.9	11.4	10.7	2.19	1.80	1.82	.39
MAX	20	15	30	81	13	35	21	76	9.5	13	21	5.4
MIN	1.9	3.9	4.0	7.3	7.1	6.9	8.3	2.9	.26	.15	.25	.00
CFSM	.43	.56	.95	1.69	.98	1.38	1.22	1.14	.23	.19	.19	.04
IN.	.50	.63	1.09	1.95	1.02	1.59	1.36	1.32	.26	.22	.22	.05

e Estimated

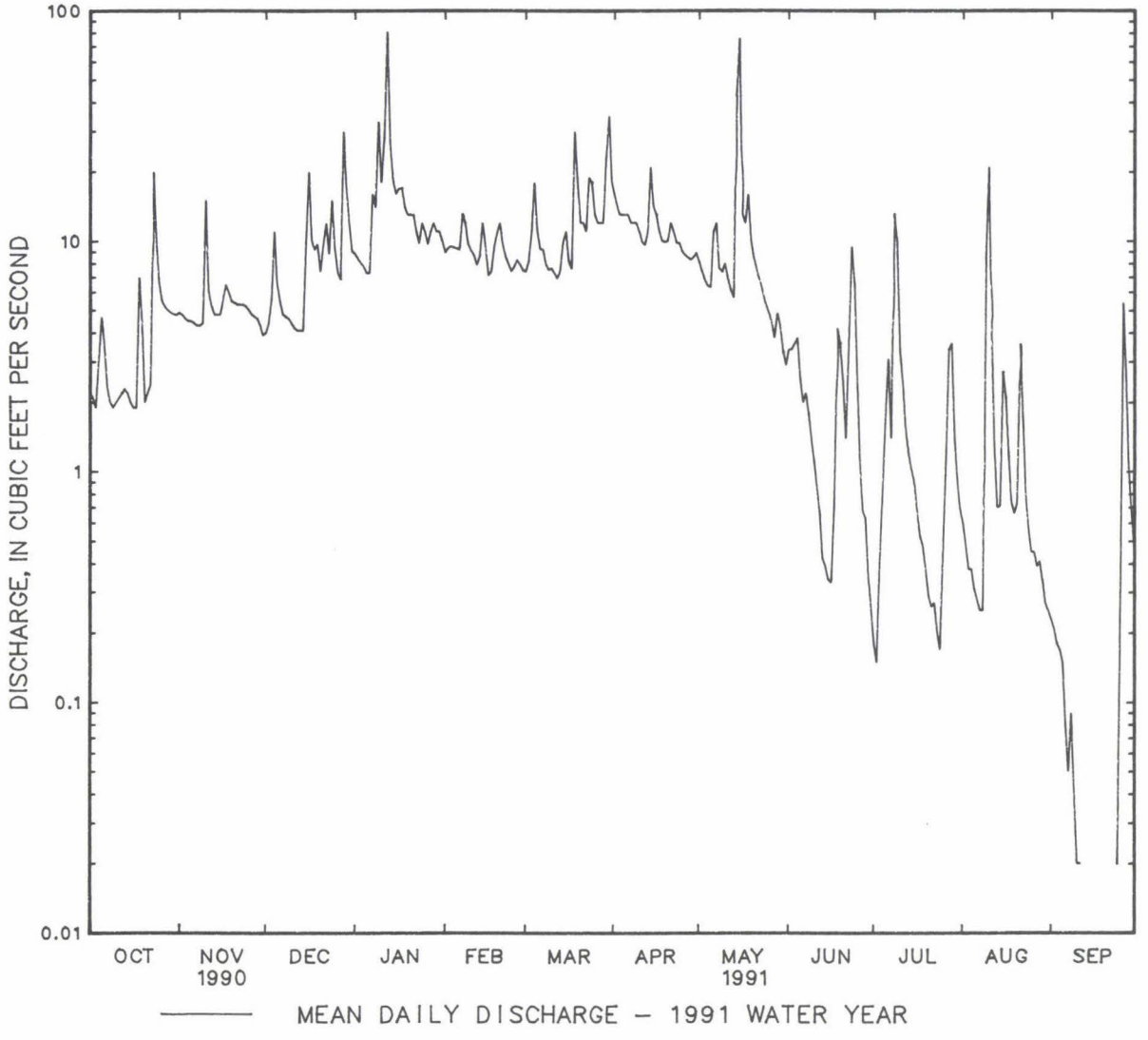
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 1991, BY WATER YEAR (WY)

MEAN	4.95	7.07	6.72	13.3	10.3	13.5	15.9	22.3	20.6	11.6	8.07	3.54
MAX	10.3	11.4	8.88	18.6	14.8	15.1	18.5	28.8	31.0	24.0	14.2	7.29
(WY)	1990	1990	1991	1990	1990	1989	1989	1990	1989	1989	1990	1989
MIN	.52	4.49	3.80	5.26	6.95	12.5	11.4	10.7	2.19	1.80	1.82	.39
(WY)	1989	1989	1989	1989	1989	1990	1991	1991	1991	1991	1991	1991

01594670 HUNTING CREEK NEAR HUNTINGTOWN, MD--Continued

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1989 - 1991	
ANNUAL TOTAL	5027.8		2574.14			
ANNUAL MEAN	13.8		7.05		11.5	
HIGHEST ANNUAL MEAN					14.7	1990
LOWEST ANNUAL MEAN					7.05	1991
HIGHEST DAILY MEAN	221	Jun 15	81	Jan 12	221	Jun 15 1990
LOWEST DAILY MEAN	1.8	Sep 26	.00	(a)	.00	(a)
ANNUAL SEVEN-DAY MINIMUM	2.1	Oct 11	.00	Sep 16	.00	Sep 16 1991
INSTANTANEOUS PEAK FLOW	568	Jun 15	250	May 14	568	Jun 15 1990
INSTANTANEOUS PEAK STAGE	9.54	Jun 15	8.08	May 14	9.54	Jun 15 1990
INSTANTANEOUS LOW FLOW	1.7	(b)	.00	(c)	.00	(c)
ANNUAL RUNOFF (CFSM)	1.47		.75		1.23	
ANNUAL RUNOFF (INCHES)	19.94		10.21		16.64	
10 PERCENT EXCEEDS	24		13		22	
50 PERCENT EXCEEDS	11		5.4		8.5	
90 PERCENT EXCEEDS	2.5		.28		.80	

a Sept. 12, 16, 17, 19-23, 1991.
b July 28, Sept. 11, 12.
c Sept. 10-24, 1991.



01594670 HUNTING CREEK NEAR HUNTINGTOWN, MD--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1986, 1988 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	TEMPERATURE AIR (DEG C)	TURBIDITY (NTU)	OXYGEN DEMAND, CHEMICAL (LOW LEVEL) (MG/L)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	ALKALINITY WAT WH TOT FET FIELD MG/L AS CACO3
OCT 1985									
17...	1030	153	7.1	16.5	17.5	--	--	--	51
MAR 1986									
11...	1315	130	--	15.0	17.5	6.3	<10	1.0	--
MAY									
14...	1815	157	7.1	14.5	16.5	23	<10	<0.5	56
JUN									
11...	2030	187	7.4	23.0	--	7.9	20	0.5	80
AUG									
13...	1400	220	7.1	22.0	24.5	85	29	8.1	79
SEP									
17...	1315	155	7.2	--	--	47	--	<0.1	--

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	RESIDUE TOTAL AT 105 DEG. C, SUSPENDED (MG/L)	NITROGEN, NITRATE DISSOLVED (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (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)
OCT 1985									
17...	16	9	0.023	0.007	0.030	0.030	0.52	0.54	0.140
MAR 1986									
11...	13	7	0.057	0.003	0.060	0.020	0.25	0.20	0.050
MAY									
14...	14	4	0.097	0.013	0.110	0.090	1.0	0.75	0.110
JUN									
11...	17	10	0.104	0.016	0.120	0.230	0.88	0.80	0.150
AUG									
13...	18	29	0.066	0.004	0.070	0.368	6.2	1.0	1.20
SEP									
17...	17	2	--	<0.002	0.040	0.208	0.67	0.55	0.170

01594670 HUNTING CREEK NEAR HUNTINGTOWN, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	PHEO-PHYTIN PHYTO-PLANK-TON, ACID M. (UG/L)	CHLORO-PHYLL A PHYTO-PLANK-TON, UNCORR. (UG/L)	CHLORO-PHYLL B PHYTO-PLANK-TON, UNCORR. (UG/L)	CHLORO-PHYLL C PHYTO-PLANK-TON, UNCORR. (UG/L)
OCT 1985								
17...	0.060	0.020	8.0	9.1	--	--	--	--
MAR 1986								
11...	0.050	0.010	3.0	2.8	--	--	--	--
MAY								
14...	0.020	<0.010	5.8	5.6	1.75	2.53	0.300	0.771
JUN								
11...	0.030	0.004	7.4	7.1	0.509	1.06	0.033	0.053
AUG								
13...	0.090	0.043	12	8.2	--	85.2	1.69	24.9
SEP								
17...	0.100	0.028	8.5	7.8	0.689	3.75	0.074	0.624

SUSPENDED SEDIMENT DISCHARGE

DATE	TIME	SEDIMENT, SUSPENDED (MG/L)
OCT 1985		
17...	1030	9
MAR 1986		
11...	1315	6
MAY		
14...	1815	29
JUN		
11...	2030	10
AUG		
13...	1400	53
SEP		
17...	1315	25

01594670 HUNTING CREEK NEAR HUNTINGTOWN, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (US/CM)	SPE-CIFIC CON-DUCT-ANCE LAB (US/CM)	PH (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 FET FIELD MG/L AS CACO3
NOV 1987										
23...	1515	151	--	6.6	4.0	14.0	18	21	3.1	28
DEC										
14...	1525	129	--	6.5	6.0	7.0	8.5	<10	0.8	18
FEB 1988										
22...	1315	123	--	7.2	5.0	12.0	5.0	10	1.1	20
MAR										
17...	1245	136	125	7.3	4.5	12.0	5.4	<10	1.1	29
APR										
26...	1230	134	124	7.3	15.5	19.5	5.6	10	0.5	32
MAY										
24...	1230	154	148	7.1	22.5	28.0	15	22	1.5	50

DATE	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 N)	NITRO-GEN, NITRITE DIS-SOLVED (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)	NITRO-GEN, TOTAL (MG/L AS N)
NOV 1987									
23...	12	21	0.016	0.004	0.020	0.048	0.85	0.95	--
DEC									
14...	--	6	0.018	0.002	0.020	0.028	0.45	0.35	--
FEB 1988									
22...	12	6	0.067	0.003	0.070	0.020	0.30	0.30	0.37
MAR									
17...	--	3	0.046	0.004	0.050	0.016	0.30	0.25	0.35
APR									
26...	10	1	0.018	0.002	0.020	0.032	0.45	0.43	0.47
MAY									
24...	16	7	0.053	0.007	0.060	0.116	0.70	0.65	0.76

01594670 HUNTING CREEK NEAR HUNTINGTOWN, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	PHEO-PHYTIN PHYTO-PLANK-TON, ACID M. (UG/L)	CHLORO-PHYLL A PHYTO-PLANK-TON, UNCORR. (UG/L)	CHLORO-PHYLL B PHYTO-PLANK-TON, UNCORR. (UG/L)	CHLORO-PHYLL C PHYTO-PLANK-TON, UNCORR. (UG/L)
NOV 1987									
23...	0.900	0.750	0.018	6.0	6.2	1.86	2.61	0.263	0.00
DEC									
14...	0.050	0.030	0.010	4.3	3.5	0.090	0.823	0.00	0.00
FEB 1988									
22...	0.030	0.030	0.010	--	--	0.200	2.00	0.00	0.00
MAR									
17...	0.035	0.030	0.008	2.1	1.9	0.400	2.60	0.00	0.00
APR									
26...	0.090	0.070	0.014	4.3	4.3	1.20	3.00	0.400	0.00
MAY									
24...	0.060	0.040	0.018	7.4	6.3	1.80	2.60	0.400	0.400

SUSPENDED SEDIMENT DISCHARGE

DATE	TIME	SEDI-MENT, SUS-PENDED (MG/L)
NOV 1987		
23...	1515	43
DEC		
14...	1525	9
FEB 1988		
22...	1315	4
MAR		
17...	1245	7
APR		
26...	1230	13
MAY		
24...	1230	15

01594670 HUNTING CREEK NEAR HUNTINGTOWN, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	SPE-CIFIC CON-DUCT-ANCE LAB (US/CM)	PH (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)
DEC 1988										
21...	1430	--	158	139	6.7	4.0	12.5	7.9	18	<0.5
MAR 1989										
14...	1200	10	155	--	7.2	--	--	5.2	<10	1.6
24...	1615	128	--	--	--	--	--	32	20	--
APR										
06...	1440	44	--	--	--	--	--	15	23	--
19...	1130	18	138	--	7.5	17.0	14.0	2.3	22	<0.5
19...	1135	18	--	--	--	--	--	4.5	21	0.7
MAY										
16...	1430	33	130	--	7.0	14.0	14.0	--	--	--
JUN										
07...	1300	169	--	--	--	20.0	23.0	78	27	--
13...	0900	17	130	--	6.6	20.0	23.0	16	17	1.1
JUL										
18...	1300	23	112	--	6.7	23.0	28.0	13	<10	<0.5
18...	1305	23	--	--	--	--	--	13	12	<0.5
AUG										
15...	1045	9.2	138	--	7.3	22.0	24.0	15	11	<0.5
SEP										
14...	0845	5.7	170	--	7.0	22.0	24.0	16	25	1.2
20...	1930	35	--	--	--	22.0	24.0	35	34	--

DATE	ALKA-LINITY WAT WH TOT FET 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 N)	NITRO-GEN, NITRITE DIS-SOLVED (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)	NITRO-GEN, TOTAL (MG/L AS N)
DEC 1988										
21...	21	13	1	--	<0.002	0.020	0.052	0.35	0.35	0.37
MAR 1989										
14...	--	9.6	2	0.105	0.005	0.110	0.020	0.30	0.55	0.41
24...	--	--	20	--	0.004	--	0.028	0.65	0.45	--
APR										
06...	--	12	2	0.037	0.003	0.040	0.012	0.75	0.50	0.79
19...	25	11	3	0.018	0.002	0.020	0.020	0.75	0.65	0.77
19...	--	11	2	--	<0.002	<0.020	0.020	0.75	0.70	0.77
MAY										
16...	29	--	--	--	--	--	--	--	--	--
JUN										
07...	--	8.3	34	0.00	0.180	0.010	0.068	1.2	0.70	1.2
13...	37	18	2	0.109	0.011	0.120	0.084	0.60	0.50	0.72
JUL										
18...	33	17	5	0.074	0.006	0.080	0.028	0.60	0.55	0.68
18...	--	17	4	--	<0.002	<0.020	0.024	0.50	0.30	0.52
AUG										
15...	46	18	1	0.394	0.006	0.400	0.064	0.65	0.45	1.0
SEP										
14...	57	18	7	0.104	0.006	0.110	0.096	0.70	0.65	0.81
20...	--	14	105	0.086	0.004	0.090	0.036	0.70	0.45	0.79

01594670 HUNTING CREEK NEAR HUNTINGTOWN, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989

DATE	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	PHEO-PHYTIN PHYTO-PLANK-TON, ACID M. (UG/L)	CHLORO-PHYLL A PHYTO-PLANK-TON, UNCORR. (UG/L)	CHLORO-PHYLL B PHYTO-PLANK-TON, UNCORR. (UG/L)	CHLORO-PHYLL C PHYTO-PLANK-TON, UNCORR. (UG/L)
DEC 1988									
21...	0.060	0.020	0.008	3.4	3.4	--	--	--	--
MAR 1989									
14...	0.020	0.020	--	3.1	3.1	--	8.40	0.00	0.400
24...	--	0.020	--	--	--	--	--	--	--
APR									
06...	0.110	0.030	0.008	--	--	--	--	--	--
19...	0.060	0.020	0.008	6.1	5.8	0.400	4.20	0.200	0.00
19...	0.060	0.020	0.006	6.3	6.5	--	--	--	--
MAY									
16...	--	--	--	--	--	1.00	4.20	0.200	0.00
JUN									
07...	0.210	0.060	0.014	13	11	--	--	--	--
13...	0.120	0.040	0.064	7.4	6.8	--	2.40	0.200	0.00
JUL									
18...	0.500	0.400	0.070	1.8	2.0	0.00	2.40	0.200	0.00
18...	0.400	0.400	0.070	3.1	1.6	--	--	--	--
AUG									
15...	0.190	0.070	0.026	6.2	6.2	--	1.60	0.200	0.200
SEP									
14...	0.100	0.050	0.008	4.0	3.2	--	--	--	--
20...	0.190	0.050	0.012	11	6.3	--	--	--	--

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)
DEC 1988				
21...	1430	1.6	4	0.02
MAR 1989				
14...	1200	10	2	0.05
24...	1615	128	63	22
APR				
06...	1440	44	37	4.4
19...	1130	18	8	0.40
MAY				
16...	1430	33	12	1.1
JUN				
07...	1300	169	131	60
13...	0900	17	14	0.66
JUL				
18...	1300	23	8	0.49
AUG				
15...	1045	9.2	2	0.05
SEP				
14...	0845	5.7	6	0.09
20...	1930	35	22	2.1

01594670 HUNTING CREEK NEAR HUNTINGTOWN, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DATE	TIME	ENDING DATE	ENDING TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (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)
OCT 1989										
25...	0800	--	--	7.6	145	6.8	7.0	5.0	10	23
25...	0805	--	--	7.6	--	--	--	--	10	24
25...	0900	--	--	7.4	145	6.8	7.0	5.0	10	23
25...	0905	--	--	7.4	--	--	--	--	10	24
NOV										
15...	0815	--	--	9.4	145	7.2	14.0	19.0	13	19
DEC										
21...	0930	--	--	7.0	165	6.6	0.0	-2.0	18	21
JAN 1990										
26...	0800	--	--	47	--	--	--	--	19	18
31...	1100	--	--	14	--	6.6	7.5	9.5	9.5	16
FEB										
28...	0900	--	--	12	135	7.7	1.0	7.0	7.6	15
MAR										
17-17	1815	900317	2045	22	139	7.3	13.5	--	31	22
MAR										
17-17	2115	900317	2145	21	133	7.5	12.5	--	25	30
MAR										
17-18	2315	900318	0215	26	125	7.2	14.0	--	22	22
MAR										
18-18	0245	900318	0545	24	122	7.1	14.5	--	23	23
29...	1415	--	--	10	191	7.2	10.0	10.0	10	20
29...	1445	--	--	10	129	7.2	10.0	10.0	9.1	19
APR										
03...	1130	--	--	50	--	--	--	--	29	24
26...	0800	--	--	11	140	6.6	18.0	28.0	8.0	11
APR										
29-29	1200	900429	1630	20	--	--	--	--	25	28
APR										
29-29	1730	900429	2130	34	--	--	--	--	20	29
APR										
29-30	2230	900430	0130	55	--	--	--	--	37	27
APR										
30-30	0230	900430	0830	61	--	--	--	--	30	27
MAY										
10-10	1630	900510	2230	69	--	--	--	--	61	21
22...	1000	--	--	14	130	7.0	14.0	11.0	17	18
JUN										
27...	0930	--	--	12	133	6.7	24.0	28.0	17	17
JUL										
19...	0700	--	--	4.5	157	6.5	22.0	26.0	19	20
JUL										
29-29	1120	900729	2145	42	--	--	--	--	--	3
AUG										
09-09	1337	900809	2337	80	--	--	--	--	78	21
AUG										
10-10	0037	900810	0337	114	--	--	--	--	74	28
AUG										
14-14	0150	900814	0650	35	--	--	--	--	58	19
AUG										
14-14	0750	900814	1250	38	--	--	--	--	60	20
AUG										
22-23	2215	900823	0215	51	--	--	--	--	74	22
AUG										
23-23	0315	900823	0715	140	--	--	--	--	110	21
AUG										
23-23	0815	900823	1515	119	--	--	--	--	51	23
29...	0615	--	--	6.6	147	5.9	23.0	23.0	20	25
SEP										
27...	0645	--	--	1.9	157	5.9	13.0	10.0	26	13

01594670 HUNTING CREEK NEAR HUNTINGTOWN, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DATE	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	ALKA-LINITY WAT WH TOT FET 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 N)	NITRO-GEN, NITRITE DIS-SOLVED (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)
OCT 1989										
25...	0.6	38	18	<1	0.048	0.002	0.050	0.044	--	0.15
25...	<0.5	--	18	<1	--	0.003	<0.020	0.040	--	0.15
25...	0.6	38	18	<1	0.048	0.002	0.050	0.044	--	0.15
25...	<0.5	--	18	<1	--	0.003	<0.020	0.040	--	0.15
NOV										
15...	1.1	39	15	4	0.047	0.003	0.050	0.024	0.50	0.35
DEC										
21...	3.0	43	3.6	4	0.123	0.007	0.130	0.160	0.40	0.30
JAN 1990										
26...	--	--	13	10	0.151	0.009	0.160	0.048	0.30	0.20
31...	0.8	33	15	1	0.112	0.008	0.120	0.040	1.9	3.7
FEB										
28...	0.5	34	16	9	0.226	0.004	0.230	0.052	0.20	0.20
MAR										
17-17	--	--	12	44	0.140	0.010	0.150	0.044	0.80	0.35
MAR										
17-17	--	--	13	35	0.151	0.009	0.160	0.052	0.75	0.50
MAR										
17-18	--	--	13	30	0.151	0.009	0.160	0.040	0.60	0.35
MAR										
18-18	--	--	14	27	0.171	0.009	0.180	0.036	0.60	0.40
29...	0.6	34	--	11	0.134	0.006	0.140	0.024	0.30	0.40
29...	0.6	35	--	10	0.124	0.006	0.130	0.024	0.30	0.45
APR										
03...	--	--	--	22	--	--	--	--	2.0	--
26...	0.5	41	--	11	--	0.004	--	--	0.30	0.10
APR										
29-29	--	--	19	76	0.187	0.013	0.200	0.052	0.90	0.40
APR										
29-29	--	--	19	46	0.142	0.008	0.150	0.056	0.75	0.30
APR										
29-30	--	--	13	64	0.139	0.011	0.150	0.028	0.80	0.50
APR										
30-30	--	--	13	46	0.124	0.006	0.130	0.036	0.70	<0.10
MAY										
10-10	--	--	14	80	0.149	0.011	0.160	0.080	0.90	0.30
22...	1.3	41	14	11	0.230	0.010	0.240	0.048	0.40	0.30
JUN										
27...	0.7	37	19	11	0.117	0.003	0.120	0.032	0.40	0.20
JUL										
19...	0.5	56	19	12	0.135	0.005	0.140	0.060	0.50	0.60
JUL										
29-29	--	--	0.64	46	0.135	0.015	0.150	0.032	--	0.35
AUG										
09-09	--	--	11	60	0.270	0.010	0.280	0.028	0.80	0.45
AUG										
10-10	--	--	9.4	28	0.214	0.006	0.220	0.024	0.65	0.40
AUG										
14-14	--	--	14	37	0.161	0.009	0.170	0.020	0.70	--
AUG										
14-14	--	--	14	32	0.124	0.006	0.130	0.024	0.65	--
AUG										
22-23	--	--	13	188	0.134	0.006	0.140	0.052	--	--
AUG										
23-23	--	--	9.8	120	0.173	0.007	0.180	0.036	--	--
AUG										
23-23	--	--	11	51	0.145	0.005	0.150	0.024	--	--
29...	0.5	50	19	11	0.087	0.003	0.090	0.060	0.40	0.35
SEP										
27...	0.5	49	--	16	0.207	0.003	0.210	0.072	0.40	0.30

01594670 HUNTING CREEK NEAR HUNTINGTOWN, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DATE	NITRO-GEN, TOTAL (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)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	PHEO-PHYTIN PHYTO-PLANK-TON, ACID M. (UG/L)	CHLORO-PHYLL A PHYTO-PLANK-TON, UNCORR. (UG/L)	CHLORO-PHYLL B PHYTO-PLANK-TON, UNCORR. (UG/L)	CHLORO-PHYLL C PHYTO-PLANK-TON, UNCORR. (UG/L)
OCT 1989										
25...	--	--	0.030	0.012	5.0	5.1	--	0.400	0.00	0.00
25...	--	--	0.020	0.008	5.5	5.0	--	--	--	--
25...	--	--	0.030	0.012	5.0	5.1	--	0.400	0.00	0.00
25...	--	--	0.020	0.008	5.5	5.0	--	--	--	--
NOV										
15...	0.55	0.070	0.020	0.022	6.5	5.9	--	0.600	0.00	0.200
DEC										
21...	0.53	0.060	<0.010	0.006	3.6	3.2	--	0.600	0.200	0.800
JAN 1990										
26...	0.46	0.110	<0.010	0.016	5.0	4.4	--	--	--	--
31...	2.0	0.080	0.030	0.006	3.8	3.9	--	0.002	0.00	0.002
FEB										
28...	0.43	0.060	0.040	0.012	3.1	1.6	0.00	0.001	0.00	0.00
MAR										
17-17	0.95	0.220	0.030	0.008	9.0	8.1	--	--	--	--
MAR										
17-17	0.91	0.190	0.030	0.012	8.7	7.5	--	--	--	--
MAR										
17-18	0.76	0.160	0.050	0.010	8.5	7.5	--	--	--	--
MAR										
18-18	0.78	0.170	0.030	0.012	8.5	7.4	--	--	--	--
29...	0.44	0.070	0.080	0.004	4.4	4.6	0.00	0.002	0.00	0.00
29...	0.43	0.070	0.050	0.004	4.7	4.7	--	--	--	--
APR										
03...	--	0.110	--	--	4.5	--	--	--	--	--
26...	--	0.070	0.030	0.016	5.3	5.0	0.001	0.004	0.00	0.00
APR										
29-29	1.1	0.220	0.020	0.006	8.6	7.8	--	--	--	--
APR										
29-29	0.90	0.190	0.020	0.006	7.9	6.8	--	--	--	--
APR										
29-30	0.95	0.290	0.100	0.036	8.9	8.1	--	--	--	--
APR										
30-30	0.83	0.240	0.020	0.006	7.9	7.0	--	--	--	--
MAY										
10-10	1.1	0.210	<0.050	0.012	8.6	6.6	--	--	--	--
22...	0.64	0.120	0.060	0.010	6.5	6.0	0.00	0.003	0.00	0.00
JUN										
27...	0.52	0.100	0.060	0.014	5.1	4.7	0.00	0.002	0.00	0.00
JUL										
19...	0.64	0.130	<0.050	0.012	6.2	5.6	0.00	0.001	0.00	0.00
JUL										
29-29	--	--	<0.050	0.010	--	7.2	--	--	--	--
AUG										
09-09	1.1	0.300	<0.050	0.014	7.2	7.0	--	--	--	--
AUG										
10-10	0.87	0.190	<0.050	0.014	7.7	7.5	--	--	--	--
AUG										
14-14	0.87	0.210	--	0.010	7.0	6.2	--	--	--	--
AUG										
14-14	0.78	0.150	--	0.010	6.9	6.0	--	--	--	--
AUG										
22-23	--	--	--	0.016	9.3	7.0	--	--	--	--
AUG										
23-23	--	--	--	0.010	9.2	7.0	--	--	--	--
AUG										
23-23	--	--	--	0.012	9.8	8.1	--	--	--	--
29...	0.49	0.110	<0.050	0.014	6.3	5.7	0.00	0.001	0.00	0.003
SEP										
27...	0.61	0.080	0.030	0.016	5.2	5.2	0.00	0.00	0.00	0.00

01594670 HUNTING CREEK NEAR HUNTINGTOWN, MD--Continued

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
OCT 1989				
25...	0800	7.6	3	0.06
25...	0900	7.4	3	0.06
NOV				
15...	0815	9.4	8	0.20
DEC				
21...	0930	7.0	6	0.11
JAN 1990				
26...	0800	47	18	2.3
31...	1100	14	4	0.15
FEB				
28...	0900	12	3	0.10
MAR				
17-17	1815	22	47	2.9
MAR				
17-17	2115	21	45	2.5
MAR				
17-18	2315	26	37	2.6
MAR				
18-18	0245	24	53	3.5
29...	1415	10	5	0.14
29...	1445	10	5	0.14
APR				
26...	0800	11	7	0.21
MAY				
10-10	1630	69	92	17
22...	1000	14	28	1.0
JUN				
27...	0930	12	19	0.63
JUL				
19...	0700	4.5	17	0.21
JUL				
29-29	1120	42	73	8.3
AUG				
10-10	0430	66	33	5.8
AUG				
12-12	0037	34	39	3.5
AUG				
12-12	0437	41	41	4.5
AUG				
14-14	0150	35	65	6.2
AUG				
14-14	0750	38	36	3.7
AUG				
22-23	2215	51	100	14
AUG				
23-23	0315	140	87	33
AUG				
23-23	0815	119	47	15
29...	0615	6.6	8	0.14
SEP				
27...	0645	1.9	8	0.04

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.--3.54 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1985 to current year.

GAGE.--Water-stage recorder and concrete block control. Elevation of gage is 50 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Water-discharge records good except those for estimated daily values (backwater from beaverdams), 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. 11	2145	*110	*3.97	No other peak greater than base discharge.			

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e1.5	1.8	1.5	3.1	3.1	2.4	4.6	2.7	2.5	.68	.53	.32
2	e1.5	1.8	1.5	2.9	3.1	3.0	4.1	2.5	1.7	.71	.47	.33
3	e1.5	1.8	1.9	2.8	3.1	4.8	3.8	2.2	2.0	.70	.41	.34
4	e1.2	1.7	4.0	2.6	3.1	5.7	3.6	2.2	1.7	.73	.39	.36
5	e1.3	1.7	2.4	2.6	3.1	3.5	3.8	2.2	1.3	.98	.34	.45
6	e1.5	1.7	2.1	2.6	3.0	3.1	3.8	5.1	1.2	.88	.30	.53
7	e1.5	1.6	1.8	5.4	4.4	3.0	3.5	3.3	1.2	.66	.35	.52
8	e1.2	1.6	1.8	4.8	3.5	2.9	3.3	2.5	1.0	3.2	.42	.39
9	e1.2	1.6	1.8	10	3.3	2.8	3.1	2.8	.99	1.3	9.0	.31
10	e1.3	4.8	1.8	5.2	3.1	2.6	3.0	2.6	.92	.88	2.5	.29
11	e1.4	2.2	1.7	25	3.0	2.5	2.8	2.2	.87	.84	.97	.29
12	1.5	1.9	1.6	17	2.9	2.4	2.7	2.1	.88	.71	.72	.27
13	1.6	1.8	1.6	6.9	2.9	2.4	4.5	1.9	.82	.84	.68	.30
14	1.5	1.9	1.6	5.6	3.8	3.5	8.7	2.1	.72	.69	.71	.31
15	1.4	1.8	7.2	4.9	3.1	3.0	5.0	2.1	.72	.61	.93	.37
16	1.3	2.0	4.0	6.2	2.6	2.6	4.3	1.8	.71	.57	.70	.39
17	1.3	2.6	2.5	5.2	2.6	2.6	3.9	4.0	.70	.53	.59	.33
18	3.2	2.3	2.6	4.5	3.1	15	3.6	3.0	.84	.44	.55	2.6
19	2.3	2.2	3.4	4.5	4.4	5.4	3.4	2.4	.94	.37	.54	.69
20	1.6	2.1	2.3	4.5	3.7	4.0	3.4	2.3	.96	.36	.96	.70
21	1.6	2.0	3.9	4.2	3.3	3.6	3.4	2.0	.83	.35	.80	.55
22	1.8	2.0	3.0	3.9	3.0	3.4	3.4	1.8	2.9	.29	.54	.49
23	13	2.0	2.7	3.7	2.6	5.1	3.3	1.7	3.7	.30	.47	.49
24	3.4	1.9	5.7	3.7	2.6	4.2	3.2	1.6	1.6	.32	.45	.95
25	2.4	1.8	2.7	3.4	2.6	3.3	3.0	1.6	1.1	.84	.45	5.1
26	2.1	1.8	2.4	3.4	2.8	3.1	2.9	1.5	.97	.71	.46	2.9
27	2.0	1.7	2.2	3.4	2.5	3.1	2.8	1.4	.90	1.2	.52	1.0
28	2.0	1.7	13	3.4	2.4	3.0	2.6	1.3	.81	.74	.53	.76
29	1.8	1.8	4.6	3.4	---	13	2.8	1.1	.76	.66	.43	.74
30	1.8	1.5	3.5	3.2	---	11	2.9	1.1	.68	.72	.38	.66
31	1.8	---	3.8	3.1	---	5.5	---	1.2	---	.64	.36	---
TOTAL	64.5	59.1	96.6	165.1	86.7	135.5	109.2	68.3	36.92	23.45	27.45	23.73
MEAN	2.08	1.97	3.12	5.33	3.10	4.37	3.64	2.20	1.23	.76	.89	.79
MAX	13	4.8	13	25	4.4	15	8.7	5.1	3.7	3.2	9.0	5.1
MIN	1.2	1.5	1.5	2.6	2.4	2.4	2.6	1.1	.68	.29	.30	.27
CFSM	.59	.56	.88	1.50	.87	1.23	1.03	.62	.35	.21	.25	.22
IN.	.68	.62	1.02	1.73	.91	1.42	1.15	.72	.39	.25	.29	.25

e Estimated

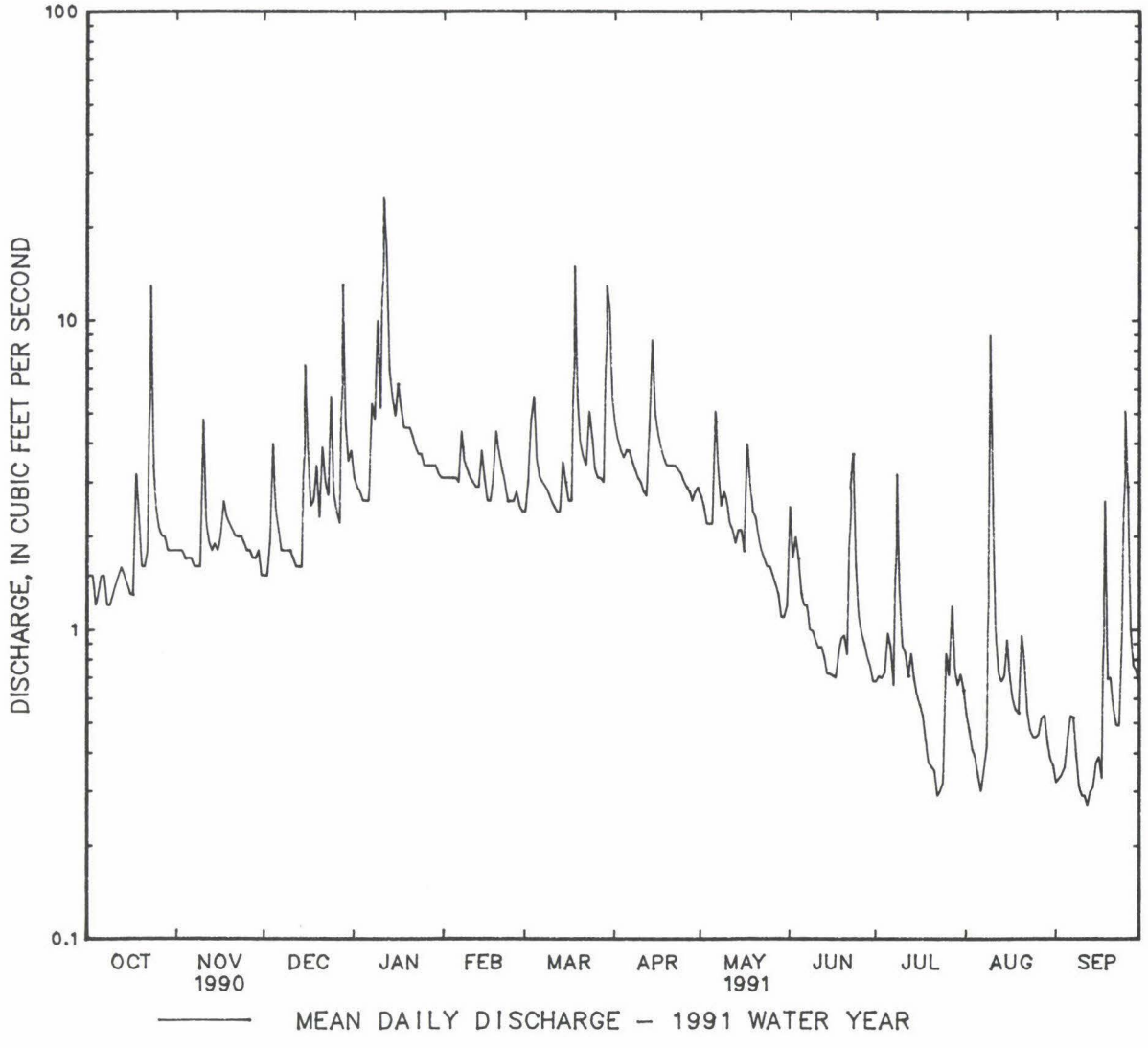
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1986 - 1991, BY WATER YEAR (WY)

MEAN	2.43	3.50	3.63	4.82	5.01	5.07	5.11	5.01	3.53	2.49	2.05	1.54
MAX	4.83	7.20	5.92	6.60	7.45	6.43	6.45	9.43	8.10	6.05	4.49	3.37
(WY)	1990	1986	1987	1990	1987	1987	1987	1990	1990	1989	1990	1989
MIN	.83	1.66	2.09	2.46	3.10	3.90	3.33	1.93	.98	.76	.72	.71
(WY)	1989	1988	1989	1989	1991	1988	1986	1986	1986	1991	1988	1986

01594710 KILLPECK CREEK AT HUNTERSVILLE, MD--Continued

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1986 - 1991	
ANNUAL TOTAL	1779.3		896.55			
ANNUAL MEAN	4.87		2.46		3.67	
HIGHEST ANNUAL MEAN					5.33	1990
LOWEST ANNUAL MEAN					2.43	1988
HIGHEST DAILY MEAN	69	May 29	25	Jan 11	69	May 29 1990
LOWEST DAILY MEAN	1.2	(a)	.27	Sep 12	.27	Sep 12 1991
ANNUAL SEVEN-DAY MINIMUM	1.3	Oct 4	.31	Sep 9	.31	Sep 9 1991
INSTANTANEOUS PEAK FLOW	255	May 29	110	Jan 11	255	May 29 1990
INSTANTANEOUS PEAK STAGE	5.50	May 29	3.97	Jan 11	5.50	May 29 1990
INSTANTANEOUS LOW FLOW	1.1	Oct 11	.16	(b)	.16	(b)
ANNUAL RUNOFF (CFSM)	1.38		.69		1.04	
ANNUAL RUNOFF (INCHES)	18.70		9.42		14.10	
10 PERCENT EXCEEDS	8.7		4.4		6.6	
50 PERCENT EXCEEDS	4.0		2.0		3.0	
90 PERCENT EXCEEDS	1.7		.48		.70	

a Oct. 4, 8, 9.
b Aug. 6, Sept. 18, 1991.



01594710 KILLPECK CREEK AT HUNTERSVILLE, MD--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1986 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (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)
OCT 1985									
08...	1230	2.5	151	7.1	14.0	22.0	5.3	--	--
DEC									
11...	1440	5.1	145	7.6	10.5	15.0	12	11	1.7
11...	1445	5.1	147	7.3	10.5	15.0	14	<10	2.2
MAR 1986									
11...	1030	4.5	135	7.6	12.5	24.0	13	<10	1.2
MAY									
14...	1100	2.2	158	7.0	12.5	16.0	14	<10	0.7
JUN									
11...	1330	0.80	152	7.4	21.0	31.5	14	11	0.5
JUL									
16...	1530	0.38	154	7.5	23.0	30.5	1.8	<10	0.6
16...	1535	0.38	154	7.5	23.0	30.5	1.8	<10	<0.5
AUG									
13...	1000	0.99	152	7.8	21.5	23.0	11	<10	0.8
SEP									
18...	1230	0.62	--	7.5	14.0	20.5	33	<10	2.1

DATE	ALKA-LINITY WAT WH TOT FET 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 N)	NITRO-GEN, NITRITE DIS-SOLVED (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)
OCT 1985									
08...	32	--	2	--	--	--	--	--	--
DEC									
11...	24	11	6	1.19	0.007	1.20	0.050	0.33	0.25
11...	25	11	6	1.19	0.006	1.20	0.050	0.35	0.25
MAR 1986									
11...	22	8.9	14	1.09	0.006	1.10	0.030	0.30	<0.10
MAY									
14...	41	9.0	2	1.29	0.009	1.30	0.020	0.95	0.50
JUN									
11...	32	10	13	1.19	0.009	1.20	0.056	0.55	0.45
JUL									
16...	--	9.3	4	1.20	0.005	1.20	0.024	0.40	0.48
16...	--	9.3	6	1.09	0.005	1.10	0.032	--	--
AUG									
13...	30	11	4	1.09	0.005	1.10	0.032	0.40	0.40
SEP									
18...	--	10	16	1.35	0.003	1.35	0.020	0.45	0.30

01594710 KILLPECK CREEK AT HUNTERSVILLE, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	PHEO-PHYTIN PHYTO-PLANK-TON, ACID M. (UG/L)	CHLORO-PHYLL A PHYTO-PLANK-TON, UNCORR. (UG/L)	CHLORO-PHYLL B PHYTO-PLANK-TON, UNCORR. (UG/L)	CHLORO-PHYLL C PHYTO-PLANK-TON, UNCORR. (UG/L)
OCT									
08...	--	--	--	2.9	3.3	--	0.119	0.053	0.159
DEC									
11...	0.110	0.040	0.020	3.8	3.3	--	0.344	0.276	0.393
11...	0.070	0.040	0.010	3.8	3.5	--	0.345	0.255	0.697
MAR									
11...	0.080	0.040	0.010	2.1	2.0	--	--	--	--
MAY									
14...	0.100	0.050	0.020	3.1	2.9	0.853	2.92	0.167	0.586
JUN									
11...	0.130	0.050	0.021	2.7	3.1	0.075	1.53	0.341	0.908
JUL									
16...	0.130	0.080	<0.004	3.5	4.1	0.554	0.931	0.077	0.115
16...	--	--	0.021	3.7	4.2	0.614	1.13	0.032	0.00
AUG									
13...	0.130	0.060	0.038	2.7	2.8	0.045	0.954	0.00	0.00
SEP									
18...	0.200	0.060	0.025	2.6	2.9	2.86	14.0	0.298	3.24

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				
08...	1230	2.5	10	0.07
DEC				
11...	1440	5.1	21	0.29
11...	1445	5.1	6	0.08
MAR				
11...	1030	4.5	32	0.39
AUG				
13...	1000	0.99	17	0.05
SEP				
18...	1230	0.62	16	0.03

01594710 KILLPECK CREEK AT HUNTERSVILLE, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (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)
OCT 1986									
21...	1230	0.97	157	7.4	8.5	18.0	7.0	<10	2.7
DEC									
17...	0900	2.2	152	7.2	4.5	4.0	13	<10	1.7
17...	0905	2.2	152	7.2	4.5	4.0	19	<10	1.8
JAN 1987									
13...	1245	3.8	149	6.9	5.0	10.0	11	<10	1.0
FEB									
18...	1430	4.8	--	--	--	--	4.8	<10	1.5
18...	1445	4.8	--	--	--	--	4.6	<10	1.7
MAR									
18...	1130	6.5	147	7.2	7.0	13.0	7.2	<10	1.8
APR									
22...	1430	4.8	136	7.2	19.5	28.0	14	<10	1.9
JUN									
02...	1300	2.5	151	7.3	21.0	29.5	4.2	--	1.7
JUL									
16...	1045	1.7	162	7.6	19.0	21.0	15	<10	1.3
AUG									
12...	1000	0.80	180	7.6	21.0	28.5	6.3	<10	2.2
SEP									
15...	1020	1.5	168	7.2	23.0	26.0	7.1	<10	1.1

DATE	ALKA-LINITY WAT WH TOT FET 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 N)	NITRO-GEN, NITRITE DIS-SOLVED (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)
OCT 1986									
21...	35	11	<1	1.49	0.006	1.50	0.048	0.43	0.38
DEC									
17...	29	12	4	0.993	0.007	1.00	0.056	0.25	0.20
17...	29	11	4	0.993	0.007	1.00	0.056	0.25	0.20
JAN 1987									
13...	25	9.8	6	1.30	0.003	1.30	0.056	0.38	0.33
FEB									
18...	--	--	<1	1.49	0.008	1.50	0.076	0.35	0.25
18...	--	--	3	1.49	0.008	1.50	0.066	0.35	0.30
MAR									
18...	22	8.8	6	1.59	0.007	1.60	0.020	0.40	0.35
APR									
22...	31	8.8	5	1.29	0.014	1.30	0.080	0.35	0.20
JUN									
02...	31	2.8	8	1.29	0.006	1.30	0.024	0.45	0.35
JUL									
16...	32	10	13	--	--	1.80	0.032	0.43	0.30
AUG									
12...	28	10	<1	1.99	0.007	2.00	0.012	0.25	0.35
SEP									
15...	31	8.8	2	1.20	0.002	1.20	0.032	0.68	0.45

01594710 KILLPECK CREEK AT HUNTERSVILLE, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	PHEO-PHYTIN PHYTO-PLANK-TON, ACID M. (UG/L)	CHLORO-PHYLL A PHYTO-PLANK-TON, UNCORR. (UG/L)	CHLORO-PHYLL B PHYTO-PLANK-TON, UNCORR. (UG/L)	CHLORO-PHYLL C PHYTO-PLANK-TON, UNCORR. (UG/L)
OCT 1986									
21...	0.080	0.040	0.024	2.4	4.0	0.015	0.315	0.00	0.369
DEC									
17...	0.140	0.030	0.010	3.4	3.3	--	0.237	0.126	0.014
17...	0.080	0.050	0.014	3.3	3.0	--	0.433	0.060	0.00
JAN 1987									
13...	0.060	0.060	0.010	2.8	3.3	--	0.499	0.00	0.497
FEB									
18...	0.060	0.030	0.008	--	--	--	1.06	0.033	0.053
18...	0.050	0.030	0.008	--	--	--	1.12	0.108	0.242
MAR									
18...	0.040	0.030	0.042	2.1	2.3	--	2.05	0.185	0.357
APR									
22...	0.090	0.070	0.012	2.8	2.6	0.090	1.89	0.00	0.091
JUN									
02...	0.080	0.040	0.016	4.1	4.3	--	0.974	0.208	1.13
JUL									
16...	0.110	0.070	0.038	2.5	2.4	1.09	1.44	1.01	4.19
AUG									
12...	0.150	0.090	0.030	1.7	1.7	0.614	2.10	0.738	3.05
SEP									
15...	0.090	0.060	0.022	3.4	3.7	--	0.250	0.00	0.400

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 1986				
21...	1230	0.97	5	0.01
DEC				
17...	0900	2.2	58	0.35
JAN 1987				
13...	1245	3.8	23	0.24
FEB				
18...	1430	4.8	9	0.12
MAR				
18...	1130	6.5	7	0.11
APR				
22...	1430	4.8	19	0.25
JUN				
02...	1300	2.5	25	0.17
JUL				
16...	1045	1.7	18	0.08
AUG				
12...	1000	0.80	7	0.02
SEP				
15...	1020	1.5	17	0.07

01594710 KILLPECK CREEK AT HUNTERSVILLE, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	SPE-CIFIC CON-DUCT-ANCE LAB (US/CM)	PH (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)
OCT 1987										
19...	1220	0.90	162	--	6.6	12.0	20.0	4.6	<10	3.0
NOV										
23...	1100	1.4	168	--	7.3	3.5	12.0	3.0	<10	2.9
DEC										
14...	0940	1.7	154	--	7.2	5.5	5.5	5.0	<10	1.9
JAN 1988										
21...	1330	6.5	126	--	6.6	7.0	12.5	11	37	1.7
FEB										
24...	1115	3.5	150	140	7.2	7.0	6.0	7.2	<10	3.1
MAR										
17...	1500	1.3	154	136	7.1	9.0	11.0	17	<10	0.9
APR										
21...	1340	3.9	142	138	7.3	16.0	20.0	5.5	<10	2.0
JUN										
29...	1315	0.76	176	173	6.8	20.5	26.0	8.5	11	<0.5
JUL										
26...	1215	1.0	183	171	7.4	23.5	30.0	12	14	<0.5
26...	1230	1.0	182	177	7.4	23.5	30.0	10	13	<0.5
AUG										
23...	1315	0.66	188	172	7.3	19.0	22.5	300	<10	0.9
SEP										
28...	1015	0.57	192	172	7.4	15.0	19.0	3.3	<1	0.1

DATE	ALKA-LINITY WAT WH TOT FET 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 N)	NITRO-GEN, NITRITE DIS-SOLVED (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)	NITRO-GEN, TOTAL (MG/L AS N)
OCT 1987										
19...	32	10	4	1.50	0.005	1.50	0.040	0.33	0.50	--
NOV										
23...	35	9.8	1	1.59	0.006	1.60	0.024	0.52	0.20	--
DEC										
14...	32	--	8	2.30	0.005	2.30	0.048	0.40	0.35	--
JAN 1988										
21...	19	9.4	15	0.734	0.006	0.740	0.056	0.35	0.30	--
FEB										
24...	24	9.6	4	0.975	0.005	0.980	0.048	0.35	0.30	1.3
MAR										
17...	25	--	16	1.59	0.008	1.60	0.024	0.30	0.20	1.9
APR										
21...	25	8.6	7	0.289	0.011	0.300	0.024	0.40	0.25	0.70
JUN										
29...	26	9.7	12	2.19	0.008	2.20	0.032	0.04	0.30	2.2
JUL										
26...	31	11	10	1.79	0.008	1.80	0.040	0.50	--	2.3
26...	31	10	9	1.79	0.008	1.80	0.040	0.65	--	2.5
AUG										
23...	30	10	1	1.99	0.008	2.00	0.016	0.50	0.40	2.5
SEP										
28...	34	--	<1	1.69	0.006	1.70	0.020	0.45	0.40	2.2

01594710 KILLPECK CREEK AT HUNTERSVILLE, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	PHEO-PHYTIN PHYTO-PLANK-TON, ACID M. (UG/L)	CHLORO-PHYLL A PHYTO-PLANK-TON, UNCORR. (UG/L)	CHLORO-PHYLL B PHYTO-PLANK-TON, UNCORR. (UG/L)	CHLORO-PHYLL C PHYTO-PLANK-TON, UNCORR. (UG/L)
OCT 1987									
19...	0.070	0.030	0.026	2.0	2.2	0.150	0.996	0.055	0.084
NOV									
23...	0.100	0.070	0.018	1.7	1.8	--	1.51	0.00	0.057
DEC									
14...	0.050	0.040	0.016	1.4	1.3	0.00	1.07	0.00	0.00
JAN 1988									
21...	0.090	0.050	0.024	3.8	3.7	0.200	1.20	0.00	0.00
FEB									
24...	0.050	0.030	0.014	--	--	0.00	0.600	0.00	0.00
MAR									
17...	0.075	0.025	0.010	1.4	1.3	--	1.80	0.00	0.00
APR									
21...	0.060	0.050	0.022	2.5	2.4	0.00	3.20	0.00	0.200
JUN									
29...	0.110	0.060	0.034	2.1	2.1	0.800	1.40	0.00	0.00
JUL									
26...	0.100	--	0.032	2.8	3.1	1.20	4.20	1.00	0.200
26...	0.090	--	0.026	2.8	3.5	--	--	--	--
AUG									
23...	0.070	0.060	0.032	2.3	2.8	0.00	1.80	0.200	0.200
SEP									
28...	0.070	0.050	0.034	2.0	2.1	--	0.800	0.00	0.00

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 1987				
19...	1220	0.90	13	0.03
NOV				
23...	1100	1.4	8	0.03
DEC				
14...	0940	1.7	12	0.06
JAN 1988				
21...	1330	6.5	34	0.59
FEB				
24...	1115	3.5	11	0.10
MAR				
17...	1500	1.3	18	0.06
APR				
21...	1340	3.9	39	0.41
JUN				
29...	1315	0.76	16	0.03
JUL				
26...	1215	1.0	120	0.32

01594710 KILLPECK CREEK AT HUNTERSVILLE, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989

DATE	TIME	ENDING DATE	ENDING TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	SPE-CIFIC CON-DUCT-ANCE LAB (US/CM)	PH (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)
OCT 1988											
24...	1220	--	--	1.3	204	182	7.4	12.0	17.5	3.6	--
NOV											
01...	1100	--	--	17	--	126	--	--	--	180	35
01...	1200	--	--	13	--	128	--	--	--	170	34
01...	1230	--	--	12	--	131	--	--	--	83	35
01...	1300	--	--	10	--	137	--	--	--	75	39
01...	1330	--	--	9.4	--	142	--	--	--	54	32
01...	1400	--	--	8.2	--	147	--	--	--	48	34
01...	1430	--	--	7.4	--	150	--	--	--	42	30
01...	1445	--	--	6.7	--	150	--	--	--	0.40	38
17...	0910	--	--	34	--	--	--	--	--	970	42
17...	0925	--	--	30	--	--	--	--	--	610	42
17...	0940	--	--	27	--	--	--	--	--	450	49
17...	0955	--	--	23	--	--	--	--	--	350	96
17...	1010	--	--	21	--	--	--	--	--	270	44
28...	1515	--	--	13	--	--	--	--	--	7.6	26
DEC											
21...	1125	--	--	1.6	196	167	8.0	6.0	14.0	5.3	13
JAN 1989											
17...	1015	--	--	2.4	163	160	7.1	3.0	5.5	12	--
FEB											
15...	1500	--	--	2.0	160	162	7.2	10.0	24.0	4.9	<10
22...	0930	--	--	8.3	--	--	--	--	--	340	20
22...	0935	--	--	8.3	--	--	--	--	--	500	27
22...	0940	--	--	8.6	--	--	--	--	--	480	28
22...	0945	--	--	8.6	--	--	--	--	--	510	41
FEB											
22-22	1215	890222	1230	5.4	--	--	--	--	--	65	24
FEB											
22-22	1330	890222	1345	5.1	--	--	--	--	--	64	17
FEB											
22-22	1445	890222	1500	4.0	--	--	--	--	--	64	15
FEB											
22-22	1545	890222	1600	3.5	--	--	--	--	--	64	22
MAR											
14...	1500	--	--	3.6	165	--	7.7	7.0	--	7.0	<10
24...	1015	--	--	62	--	--	--	--	--	61	16
24...	1020	--	--	62	--	--	--	--	--	600	19
APR											
05...	2400	--	--	11	--	--	--	--	--	71	18
06...	0130	--	--	16	--	--	--	--	--	120	13
06...	0300	--	--	20	--	--	--	--	--	150	15
06...	0430	--	--	22	--	--	--	--	--	35	--
06...	0600	--	--	21	--	--	--	--	--	120	--
06...	0730	--	--	16	--	--	--	--	--	66	23
06...	0900	--	--	12	--	--	--	--	--	50	45
06...	1030	--	--	11	--	--	--	--	--	34	--
19...	1600	--	--	8.6	120	--	7.1	16.0	18.0	18	20
MAY											
16...	0900	--	--	19	95	--	7.5	14.0	14.0	--	--
16...	0930	--	--	19	95	--	7.5	14.0	14.0	--	--
JUN											
13...	1200	--	--	4.8	150	--	6.3	19.0	28.0	12	10
JUL											
20...	1240	--	--	4.2	129	--	7.6	22.0	27.0	--	--
AUG											
15...	1450	--	--	3.4	138	--	6.8	22.0	25.0	10	<10
SEP											
14...	1200	--	--	2.9	144	7	7.1	22.0	26.0	11	28
20...	1210	--	--	8.3	--	--	--	21.0	25.0	60	35
SEP											
26-26	0250	890926	0820	30	--	--	--	--	--	260	28
SEP											
26-26	0850	890926	1420	13	--	--	--	--	--	65	29

01594710 KILLPECK CREEK AT HUNTERSVILLE, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989

DATE	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	ALKA-LINITY WAT WH TOT FET 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 N)	NITRO-GEN, NITRITE DIS-SOLVED (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)
OCT 1988										
24...	1.4	34	10	2	1.20	0.004	1.20	--	0.50	0.30
NOV										
01...	--	--	5.8	30	0.459	0.011	0.470	0.096	1.9	0.65
01...	--	--	6.0	3	0.412	0.008	0.420	0.052	1.5	0.60
01...	--	--	6.2	5	0.392	0.008	0.400	0.052	0.90	0.65
01...	--	--	6.4	6	0.362	0.008	0.370	0.056	0.95	0.65
01...	--	--	6.6	4	0.363	0.007	0.370	0.052	0.85	0.65
01...	--	--	6.8	4	0.363	0.007	0.370	0.056	0.90	0.65
01...	--	--	7.1	26	0.333	0.007	0.340	0.052	0.85	0.70
01...	--	--	--	23	0.263	0.007	0.270	0.052	0.95	--
17...	--	--	5.8	88	0.691	0.019	0.710	0.024	9.5	1.2
17...	--	--	6.0	53	0.767	0.023	0.790	0.024	3.1	1.3
17...	--	--	6.0	44	0.536	0.024	0.560	0.028	2.6	1.4
17...	--	--	6.4	30	0.409	0.021	0.430	0.024	2.1	1.4
17...	--	--	6.4	23	0.388	0.022	0.410	0.028	2.0	1.4
28...	3.6	--	9.0	61	0.365	0.005	0.370	0.040	1.0	0.50
DEC										
21...	<0.5	29	10	2	1.60	0.004	1.60	0.032	0.30	0.30
JAN 1989										
17...	3.2	27	10	1	0.996	0.004	1.00	0.048	0.45	0.55
FEB										
15...	1.9	26	9.5	6	0.996	0.004	1.00	0.320	0.40	0.40
22...	--	--	6.7	271	0.752	0.008	0.760	0.144	2.2	0.55
22...	--	--	6.5	70	0.623	0.007	0.630	0.164	4.0	0.50
22...	--	--	6.4	61	0.444	0.006	0.450	0.244	3.2	0.75
22...	--	--	5.5	60	0.363	0.007	0.370	0.124	3.0	0.75
FEB										
22-22	--	--	7.7	56	0.604	0.006	0.610	0.140	0.85	0.60
FEB										
22-22	--	--	7.9	44	0.574	0.006	0.580	0.124	--	0.60
FEB										
22-22	--	--	7.7	41	0.564	0.006	0.570	0.144	0.85	0.65
FEB										
22-22	--	--	7.9	42	0.564	0.006	0.570	0.120	0.80	--
MAR										
14...	2.4	23	9.2	2	1.20	0.005	1.20	0.040	0.50	0.50
24...	--	--	--	68	--	0.008	--	0.092	2.0	0.70
24...	--	--	--	76	--	0.005	--	0.092	1.2	0.70
APR										
05...	--	--	--	13	--	--	--	--	1.2	--
06...	--	--	7.5	15	0.813	0.007	0.820	0.028	1.4	0.50
06...	--	--	6.8	22	0.732	0.008	0.740	0.028	1.7	0.50
06...	--	--	6.4	17	0.613	0.007	0.620	0.040	1.4	0.55
06...	--	--	6.6	8	0.513	0.007	0.520	0.052	1.2	0.60
06...	--	--	6.4	87	0.464	0.006	0.470	0.052	0.95	0.65
06...	--	--	7.3	53	0.445	0.005	0.450	0.048	0.80	0.60
06...	--	--	7.7	35	0.435	0.005	0.440	0.048	0.75	0.60
06...	--	--	8.1	--	0.444	0.006	0.450	0.040	--	3.0
19...	1.0	17	9.0	20	0.722	0.008	0.730	0.060	0.85	0.70
MAY										
16...	--	17	--	--	--	--	--	--	--	--
16...	--	17	--	--	--	--	--	--	--	--
JUN										
13...	1.4	24	9.4	6	1.68	0.021	1.70	0.044	0.45	0.35
JUL										
20...	<0.5	27	10	2	1.49	0.013	1.50	0.048	0.60	0.50
AUG										
15...	<0.5	30	11	1	1.29	0.007	1.30	0.032	0.55	0.25
SEP										
14...	1.5	31	13	14	1.19	0.009	1.20	0.052	0.60	0.50
20...	--	--	9.0	78	0.511	0.009	0.520	0.056	1.1	0.50
SEP										
26-26	--	--	7.1	114	0.492	0.008	0.500	0.060	1.6	0.55
SEP										
26-26	--	--	9.0	73	0.401	0.009	0.410	0.100	1.3	0.60

01594710 KILLPECK CREEK AT HUNTERSVILLE, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989

DATE	NITRO-GEN, TOTAL (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)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	PHEO-PHYTIN PHYTO-PLANK-TON, ACID M. (UG/L)	CHLORO-PHYLL A PHYTO-PLANK-TON, UNCORR. (UG/L)	CHLORO-PHYLL B PHYTO-PLANK-TON, UNCORR. (UG/L)	CHLORO-PHYLL C PHYTO-PLANK-TON, UNCORR. (UG/L)
OCT 1988										
24...	1.7	0.100	0.060	0.020	2.4	2.5	0.00	1.00	1.00	4.80
NOV										
01...	2.4	0.800	0.050	0.018	18	12	--	--	--	--
01...	2.0	0.490	0.050	0.014	14	11	--	--	--	--
01...	1.3	0.180	0.060	0.016	18	14	--	--	--	--
01...	1.3	0.270	0.050	0.016	17	16	--	--	--	--
01...	1.2	0.170	0.050	0.040	15	13	--	--	--	--
01...	1.3	0.170	0.050	0.046	15	13	--	--	--	--
01...	1.2	0.140	2.00	0.044	12	11	--	--	--	--
01...	1.2	0.140	--	0.030	13	9.2	--	--	--	--
17...	10	3.40	0.140	0.046	9.1	9.0	--	--	--	--
17...	3.9	1.20	0.150	0.056	29	12	--	--	--	--
17...	3.2	1.00	0.180	0.082	24	14	--	--	--	--
17...	2.5	0.700	0.180	0.076	23	15	--	--	--	--
17...	2.4	0.500	0.200	0.084	20	14	--	--	--	--
28...	1.4	0.240	0.050	0.022	8.6	9.7	--	--	--	--
DEC										
21...	1.9	0.040	0.020	0.004	2.1	2.3	--	--	--	--
JAN 1989										
17...	1.5	0.050	0.050	0.010	3.1	2.5	--	1.00	0.00	0.00
FEB										
15...	1.4	0.060	0.040	0.010	--	2.1	--	2.00	0.00	0.00
22...	3.0	1.10	0.030	0.010	4.3	4.2	--	--	--	--
22...	4.6	1.70	0.020	0.006	5.8	4.8	--	--	--	--
22...	3.7	1.20	0.030	0.008	11	3.9	--	--	--	--
22...	3.4	1.20	0.030	0.010	9.6	7.0	--	--	--	--
FEB										
22-22	1.5	0.200	0.040	0.00	12	3.8	--	--	--	--
FEB										
22-22	--	--	0.040	0.00	14	4.2	--	--	--	--
FEB										
22-22	1.4	0.170	0.040	0.00	14	4.5	--	--	--	--
FEB										
22-22	1.4	0.190	--	0.00	21	4.6	--	--	--	--
MAR										
14...	1.7	0.050	0.040	--	2.5	2.5	0.00	1.60	0.400	1.40
24...	--	0.900	0.050	--	--	--	--	--	--	--
24...	--	0.420	0.050	--	--	--	--	--	--	--
APR										
05...	--	0.320	--	--	--	--	--	--	--	--
06...	--	0.390	0.040	0.012	--	--	--	--	--	--
06...	--	0.470	0.040	0.010	--	--	--	--	--	--
06...	--	0.380	0.040	0.010	--	--	--	--	--	--
06...	--	0.330	0.040	0.014	--	--	--	--	--	--
06...	--	0.200	0.030	0.014	--	--	--	--	--	--
06...	--	0.140	0.040	0.016	--	--	--	--	--	--
06...	--	0.120	0.050	0.018	--	--	--	--	--	--
06...	--	--	0.260	0.036	--	--	--	--	--	--
19...	1.6	0.130	0.040	0.016	5.4	5.8	--	3.40	0.200	0.600
MAY										
16...	--	--	--	--	--	--	1.00	3.40	0.400	0.200
16...	--	--	--	--	--	--	1.20	2.60	0.200	0.00
JUN										
13...	2.2	0.110	0.040	0.050	4.1	3.8	0.200	2.20	0.200	0.00
JUL										
20...	2.1	<0.200	0.060	0.092	4.1	3.8	--	0.800	0.00	0.00
AUG										
15...	1.8	0.200	0.100	0.028	3.4	3.0	--	1.20	0.200	0.00
SEP										
14...	1.8	0.110	0.060	0.030	2.4	1.7	--	7.60	1.00	0.00
20...	1.6	0.300	0.060	0.032	12	6.9	--	--	--	--
SEP										
26-26	2.1	0.500	0.060	0.024	9.2	7.3	--	--	--	--
SEP										
26-26	1.7	0.450	0.060	0.028	8.9	7.8	--	--	--	--

01594710 KILLPECK CREEK AT HUNTERSVILLE, MD--Continued

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
NOV 1988				
01...	1100	17	1	0.05
01...	1200	13	1	0.04
01...	1230	12	1	0.03
01...	1300	10	1	0.03
01...	1330	9.4	1	0.02
01...	1400	8.2	1	0.02
01...	1430	7.4	1	0.02
01...	1445	6.7	172	3.1
28...	1515	13	128	4.4
DEC				
21...	1125	1.6	2	0.01
JAN 1989				
17...	1015	2.4	5	0.03
FEB				
15...	1500	2.0	4	0.02
MAR				
14...	1500	3.6	8	0.08
24...	0000	10	813	23
24...	0100	16	983	43
24...	0200	20	169	9.2
24...	0300	24	1020	67
24...	0400	29	353	28
24...	0500	26	221	15
24...	0600	24	217	14
24...	0700	26	334	23
24...	0800	32	481	41
24...	0900	48	244	32
24...	1000	63	581	99
24...	1015	62	2750	463
APR				
06...	0100	14	175	6.7
06...	0230	19	278	14
06...	0400	21	198	11
06...	0530	22	251	15
06...	0700	17	125	5.7
06...	0830	14	86	3.1
06...	1000	11	58	1.8
06...	1130	10	41	1.1
19...	1600	8.6	72	1.7
29...	1130	5.1	309	4.2
MAY				
16...	0900	19	318	16
JUN				
13...	1200	4.8	29	0.37
JUL				
20...	1240	4.2	29	0.33
26...	2125	13	961	34
31...	0145	26	726	50
31...	0215	42	721	81
31...	0245	73	1290	253
31...	0315	105	2490	708
31...	0345	135	2420	879
31...	0415	154	1720	716
31...	0445	163	1140	501
31...	0515	167	868	390
31...	0545	163	681	299
31...	0615	121	498	163
31...	0645	68	531	98
31...	0715	46	808	101
31...	0745	35	708	66
31...	0815	28	509	38
31...	0845	23	452	28
AUG				
15...	1450	3.4	8	0.07
SEP				
14...	1200	2.9	39	0.30
20...	1210	8.3	303	6.8
SEP				
26-26	0250	30	691	57
SEP				
26-26	0850	13	124	4.4

01594710 KILLPECK CREEK AT HUNTERSVILLE, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DATE	TIME	ENDING DATE	ENDING TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (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)
OCT 1989										
19-19	1110	891019	1310	21	--	--	15.0	15.0	250	28
OCT										
19-19	1210	891019	1410	24	--	--	15.0	15.0	250	28
OCT										
19-19	1340	891019	1510	24	--	--	15.0	15.0	120	28
OCT										
19-19	1440	891019	1610	19	--	--	15.0	15.0	120	28
OCT										
19-19	1540	891019	1810	14	--	--	15.0	15.0	60	28
OCT										
19-19	1640	891019	1910	12	--	--	15.0	15.0	60	28
25...	1000	--	--	3.9	145	7.7	10.0	16.5	5.6	15
25...	1100	--	--	3.4	145	7.7	10.0	16.5	5.6	15
NOV										
15...	0945	--	--	3.9	142	7.2	15.0	20.0	8.9	14
DEC										
21...	1345	--	--	3.1	160	7.0	0.0	0.0	12	<10
JAN 1990										
25-25	1945	900125	2145	20	--	--	--	--	230	21
JAN										
25-26	2215	900126	0015	22	--	--	--	--	160	21
JAN										
26-26	0045	900126	0215	18	--	--	--	--	110	19
JAN										
26-26	0245	900126	0445	20	--	--	--	--	120	21
JAN										
26-26	0515	900126	0715	26	--	--	--	--	140	22
26...	1230	--	--	24	--	--	--	--	90	22
31...	1430	--	--	5.1	--	7.0	9.0	17.0	7.6	<10
FEB										
28...	1100	--	--	14	90	7.7	6.0	13.0	6.4	10
MAR										
17-17	1530	900317	1630	20	121	7.0	16.5	--	490	27
MAR										
17-17	1700	900317	1800	31	91	6.7	17.5	--	--	--
MAR										
17-17	1830	900317	2030	22	92	6.7	17.5	--	200	32
MAR										
17-17	2100	900317	2330	23	100	6.8	18.0	--	200	32
MAR										
17-18	2400	900318	0300	27	95	6.8	16.0	--	120	33
29...	1100	--	--	4.2	141	7.3	9.0	9.5	16	15
29...	1105	--	--	4.2	--	--	--	--	17	22
29...	1215	--	--	5.1	139	7.1	9.0	9.5	20	22
APR										
26...	1100	--	--	3.9	139	6.9	19.0	33.0	8.0	10
APR										
29-29	1100	900429	1130	16	--	--	--	--	30	24
APR										
29-29	1200	900429	1330	22	--	--	--	--	160	27
APR										
29-29	1400	900429	1600	12	--	--	--	--	56	24
APR										
29-29	2000	900429	2030	12	--	--	--	--	46	22
APR										
29-29	2100	900429	2200	36	--	--	--	--	47	25
APR										
29-29	2230	900429	2330	47	--	--	--	--	34	28
APR										
29-30	2400	900430	0130	26	--	--	--	--	150	26
APR										
30-30	0200	900430	0730	13	--	--	--	--	53	20

01594710 KILLPECK CREEK AT HUNTERSVILLE, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DATE	TIME	ENDING DATE	ENDING TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (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)
MAY 1990										
10-10	0915	900510	1045	17	--	--	--	--	130	23
MAY										
10-10	1115	900510	1215	22	--	--	--	--	3800	23
MAY										
10-10	1245	900510	1445	47	--	--	--	--	330	34
MAY										
10-10	1515	900510	1715	23	--	--	--	--	160	25
MAY										
10-10	1745	900510	2045	24	--	--	--	--	180	29
22...	1315	--	--	5.1	141	6.9	14.0	13.0	13	16
JUN										
27...	1250	--	--	4.5	148	6.7	22.0	33.0	14	11
JUL										
19...	1015	--	--	2.9	158	6.4	22.0	29.0	9.6	12
JUL										
29-29	0810	900729	1010	21	--	--	--	--	6800	--
JUL										
29-29	1110	900729	1410	36	--	--	--	--	560	28
JUL										
29-30	1510	900730	0710	5.6	--	--	--	--	170	--
AUG										
09-09	0934	900809	1334	20	--	--	--	--	580	25
AUG										
09-09	1434	900809	1834	44	--	--	--	--	410	23
AUG										
09-10	1934	900810	0734	18	--	--	--	--	96	23
AUG										
13-14	2317	900814	0217	13	--	--	--	--	370	21
AUG										
14-14	0317	900814	0717	5.2	--	--	--	--	80	18
AUG										
14-14	0817	900814	1217	4.3	--	--	--	--	33	17
AUG										
22-22	2030	900822	2230	25	--	--	--	--	550	29
AUG										
22-23	2330	900823	0230	66	--	--	--	--	300	32
AUG										
23-23	0330	900823	1130	17	--	--	--	--	80	25
29...	0845	--	--	2.9	162	6.1	22.0	27.0	12	18
SEP										
27...	1045	--	--	15	169	6.1	16.0	22.0	7.6	12

01594710 KILLPECK CREEK AT HUNTERSVILLE, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DATE	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	ALKA-LINITY WAT WH TOT FET 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 N)	NITRO-GEN, NITRITE DIS-SOLVED (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)
OCT 1989										
19-19	6.0	--	6.8	408	0.394	0.006	0.400	0.116	2.7	0.60
OCT										
19-19	6.0	--	6.8	408	0.394	0.006	0.400	0.116	2.7	0.60
OCT										
19-19	3.7	--	6.8	180	0.362	0.008	0.370	0.100	1.5	0.50
OCT										
19-19	3.7	--	6.8	180	0.362	0.008	0.370	0.100	1.5	0.50
OCT										
19-19	2.1	--	7.9	67	0.353	0.007	0.360	0.108	1.1	0.50
OCT										
19-19	2.1	--	7.9	67	0.353	0.007	0.360	0.108	1.1	0.50
25...	<0.5	30	18	3	0.017	0.013	0.030	0.012	--	0.10
25...	<0.5	30	18	3	0.017	0.013	0.030	0.012	--	0.10
NOV										
15...	1.2	29	11	10	0.675	0.005	0.680	0.008	0.40	0.25
DEC										
21...	3.3	29	2.4	15	1.39	0.008	1.40	0.064	0.30	0.15
JAN 1990										
25-25	--	--	7.6	455	0.658	0.012	0.670	0.124	1.6	0.35
JAN										
25-26	--	--	7.1	202	0.588	0.012	0.600	0.128	0.85	0.85
JAN										
26-26	--	--	7.4	126	0.539	0.011	0.550	0.134	0.70	0.55
JAN										
26-26	--	--	7.2	12	0.559	0.011	0.570	0.144	0.85	0.85
JAN										
26-26	--	--	6.4	200	0.510	0.010	0.520	0.128	0.80	0.95
26...	--	--	6.6	60	0.462	0.008	0.470	0.092	0.75	0.40
31...	1.1	25	9.4	5	--	--	1.20	0.056	0.35	0.30
FEB										
28...	0.5	25	9.0	8	1.29	0.006	1.30	0.032	0.25	0.15
MAR										
17-17	--	--	7.5	1140	1.19	0.012	1.20	0.032	4.4	0.35
MAR										
17-17	--	--	6.4	1030	0.745	0.015	0.760	0.068	3.5	0.40
MAR										
17-17	--	--	6.8	38	0.633	0.017	0.650	0.092	2.0	0.50
MAR										
17-17	--	--	7.5	36	0.633	0.017	0.650	0.204	1.8	0.80
MAR										
17-18	--	--	7.3	244	0.556	0.014	0.570	0.152	1.5	0.80
29...	0.5	25	--	38	1.39	0.010	1.40	0.028	0.40	0.25
29...	0.5	--	--	35	1.39	0.011	1.40	0.028	0.45	0.20
29...	0.8	26	--	46	1.39	0.011	1.40	0.024	0.45	0.40
APR										
26...	0.5	32	--	18	--	0.009	--	--	0.30	0.10
APR										
29-29	--	--	7.9	610	1.49	0.013	1.50	0.096	3.4	0.10
APR										
29-29	--	--	6.6	214	--	0.019	--	0.132	1.8	1.0
APR										
29-29	--	--	7.5	108	0.654	0.016	0.670	0.080	0.95	0.60
APR										
29-29	--	--	7.7	705	0.716	0.014	0.730	0.048	2.4	0.55
APR										
29-29	--	--	5.8	735	0.583	0.017	0.600	0.048	3.1	1.1
APR										
29-29	--	--	5.3	475	0.424	0.016	0.440	0.064	2.8	0.85
APR										
29-30	--	--	6.4	262	0.457	0.013	0.470	0.128	1.8	0.70
APR										
30-30	--	--	8.3	124	0.587	0.013	0.600	0.148	1.1	0.45

01594710 KILLPECK CREEK AT HUNTERSVILLE, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DATE	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	ALKA-LINITY WAT WH TOT FET 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 N)	NITRO-GEN, NITRITE DIS-SOLVED (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)
MAY 1990										
10-10	--	--	7.3	238	0.719	0.011	0.730	0.060	1.0	0.40
MAY										
10-10	--	--	6.6	785	0.549	0.011	0.560	0.092	2.1	0.40
MAY										
10-10	--	--	5.8	500	0.465	0.015	0.480	0.164	2.0	0.60
MAY										
10-10	--	--	6.8	220	0.505	0.015	0.520	0.244	1.3	0.70
MAY										
10-10	--	--	6.8	232	0.516	0.014	0.530	0.160	1.2	0.55
22...	1.2	30	9.8	28	1.29	0.010	1.30	0.056	0.35	0.25
JUN										
27...	0.5	28	10	20	1.69	0.009	1.70	0.044	0.35	0.15
JUL										
19...	0.5	30	9.0	13	1.79	0.010	1.80	0.036	0.50	0.40
JUL										
29-29	6.8	--	6.8	1940	1.28	0.023	1.30	0.020	--	0.40
JUL										
29-29	5.3	--	7.1	75	0.540	0.020	0.560	0.024	--	0.35
JUL										
29-30	3.8	--	9.4	82	0.854	0.016	0.870	0.048	1.6	0.35
AUG										
09-09	--	--	7.1	1130	0.988	0.012	1.00	0.040	3.3	0.45
AUG										
09-09	--	--	6.0	1540	0.523	0.007	0.530	0.036	3.5	0.45
AUG										
09-10	--	--	8.6	200	0.543	0.007	0.550	0.060	1.2	0.50
AUG										
13-14	--	--	7.7	8100	0.986	0.014	1.00	0.012	2.8	--
AUG										
14-14	--	--	9.2	136	0.717	0.013	0.730	0.036	1.2	--
AUG										
14-14	--	--	10	54	0.890	0.010	0.900	0.040	0.70	--
AUG										
22-22	--	--	7.1	1200	0.484	0.006	0.490	0.028	--	--
AUG										
22-23	--	--	6.6	2270	0.323	0.007	0.330	0.064	--	--
AUG										
23-23	--	--	9.8	492	0.424	0.006	0.430	0.064	--	--
29...	0.5	37	<0.21	19	1.59	0.007	1.60	0.056	0.65	0.55
SEP										
27...	0.5	36	--	9	1.69	0.007	1.70	0.024	0.30	0.30

01594710 KILLPECK CREEK AT HUNTERSVILLE, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DATE	NITRO-GEN, TOTAL (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)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	PHEO-PHYTIN PHYTO-PLANK-TON, ACID M. (UG/L)	CHLORO-PHYLL A PHYTO-PLANK-TON, UNCORR. (UG/L)	CHLORO-PHYLL B PHYTO-PLANK-TON, UNCORR. (UG/L)	CHLORO-PHYLL C PHYTO-PLANK-TON, UNCORR. (UG/L)
OCT 1989										
19-19	3.1	1.40	0.030	0.030	12	8.3	--	--	--	--
OCT										
19-19	3.1	1.40	0.030	0.030	12	8.3	--	--	--	--
OCT										
19-19	1.9	0.430	0.030	0.030	13	9.8	--	--	--	--
OCT										
19-19	1.9	0.430	0.030	0.030	13	9.8	--	--	--	--
OCT										
19-19	1.5	0.260	0.030	0.034	11	9.8	--	--	--	--
OCT										
19-19	1.5	0.260	0.030	0.034	11	9.8	--	--	--	--
25...	--	--	0.030	0.012	2.7	2.8	--	--	--	--
25...	--	--	0.030	0.012	2.7	2.8	--	--	--	--
NOV										
15...	1.1	0.070	0.050	0.022	3.8	3.7	--	3.40	0.600	0.00
DEC										
21...	1.7	0.110	0.020	0.010	2.1	1.9	--	2.40	0.600	0.400
JAN 1990										
25-25	2.3	0.900	0.020	0.016	11	5.2	--	--	--	--
JAN										
25-26	1.5	0.340	0.140	0.154	9.3	9.4	--	--	--	--
JAN										
26-26	1.2	0.250	0.030	0.022	9.0	8.6	--	--	--	--
JAN										
26-26	1.4	0.320	0.250	0.020	8.7	12	--	--	--	--
JAN										
26-26	1.3	0.340	0.040	0.020	9.2	12	--	--	--	--
26...	1.2	0.350	0.050	0.020	8.6	6.4	--	--	--	--
31...	1.5	0.090	0.050	0.006	3.1	3.1	0.00	0.001	0.001	0.003
FEB										
28...	1.5	0.070	0.030	0.010	3.8	1.2	--	0.002	0.00	0.00
MAR										
17-17	5.6	2.10	0.040	0.012	16	6.6	--	--	--	--
MAR										
17-17	4.3	--	--	--	17	8.3	--	--	--	--
MAR										
17-17	2.7	0.700	0.030	0.008	15	9.0	--	--	--	--
MAR										
17-17	2.5	0.500	0.030	0.010	13	8.9	--	--	--	--
MAR										
17-18	2.1	0.800	0.030	0.012	13	8.2	--	--	--	--
29...	1.8	0.150	0.030	0.008	3.0	2.6	0.00	0.007	0.00	0.001
29...	1.8	0.110	0.030	0.006	3.1	2.6	--	--	--	--
29...	1.8	0.140	0.060	0.004	2.9	2.8	--	--	--	--
APR										
26...	--	0.080	0.020	0.016	3.6	3.2	0.00	0.007	0.00	0.001
APR										
29-29	4.9	1.40	0.040	0.012	17	6.4	--	--	--	--
APR										
29-29	--	--	0.100	0.014	15	8.6	--	--	--	--
APR										
29-29	1.6	0.280	0.050	0.014	9.8	8.8	--	--	--	--
APR										
29-29	3.1	1.10	0.080	0.018	13	6.7	--	--	--	--
APR										
29-29	3.7	1.30	0.330	0.042	17	9.0	--	--	--	--
APR										
29-29	3.2	1.00	0.210	0.018	17	9.4	--	--	--	--
APR										
29-30	2.3	0.400	0.050	0.018	11	8.9	--	--	--	--
APR										
30-30	1.7	0.270	0.040	0.018	7.8	6.9	--	--	--	--

01594710 KILLPECK CREEK AT HUNTERSVILLE, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DATE	NITROGEN, TOTAL (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)	PHEOPHYTIN PHYTOPLANKTON, ACID M. (UG/L)	CHLOROPHYLL A PHYTOPLANKTON, UNCORR. (UG/L)	CHLOROPHYLL B PHYTOPLANKTON, UNCORR. (UG/L)	CHLOROPHYLL C PHYTOPLANKTON, UNCORR. (UG/L)
MAY 1990										
10-10	1.8	0.900	0.080	0.020	13	7.1	--	--	--	--
MAY										
10-10	2.7	1.30	0.150	0.026	22	7.7	--	--	--	--
MAY										
10-10	2.5	1.10	0.150	0.024	48	10	--	--	--	--
MAY										
10-10	1.8	0.400	0.080	0.034	14	9.2	--	--	--	--
MAY										
10-10	1.7	0.420	0.060	0.086	13	9.2	--	--	--	--
22...	1.7	0.130	0.060	0.016	4.1	3.8	--	0.00	0.00	0.00
JUN										
27...	2.1	0.090	0.060	0.018	3.3	3.1	--	0.001	0.00	0.00
JUL										
19...	2.3	0.180	0.060	0.018	3.3	3.2	0.00	0.002	0.00	0.00
JUL										
29-29	--	--	0.050	0.018	110	7.7	--	--	--	--
JUL										
29-29	--	--	<0.050	0.010	23	8.2	--	--	--	--
JUL										
29-30	2.5	0.900	0.060	0.026	10	5.8	--	--	--	--
AUG										
09-09	4.3	2.00	<0.050	0.016	8.0	6.2	--	--	--	--
AUG										
09-09	4.0	1.80	<0.050	0.016	11	8.0	--	--	--	--
AUG										
09-10	1.7	0.350	0.090	0.022	8.1	7.3	--	--	--	--
AUG										
13-14	3.8	1.40	--	0.016	6.4	7.0	--	--	--	--
AUG										
14-14	1.9	0.310	--	0.018	6.6	6.1	--	--	--	--
AUG										
14-14	1.6	0.160	--	0.020	5.5	5.2	--	--	--	--
AUG										
22-22	--	--	--	0.018	23	8.5	--	--	--	--
AUG										
22-23	--	--	--	0.022	17	10	--	--	--	--
AUG										
23-23	--	--	--	0.024	9.9	9.2	--	--	--	--
29...	2.3	0.140	0.050	0.024	4.7	4.2	--	0.001	0.00	0.00
SEP										
27...	2.0	0.050	0.150	0.014	5.6	5.6	0.00	0.001	0.00	0.00

01594710 KILLPECK CREEK AT HUNTERSVILLE, MD--Continued

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
OCT 1989				
19-19	1110	21	511	29
OCT				
19-19	1210	24	511	33
OCT				
19-19	1340	24	245	16
OCT				
19-19	1440	19	245	12
OCT				
19-19	1540	14	95	3.5
OCT				
19-19	1640	12	95	3.1
25...	1000	3.9	23	0.24
25...	1100	3.4	23	0.21
NOV				
15...	0945	3.9	12	0.13
DEC				
21...	1345	3.1	19	0.16
JAN 1990				
26-26	0045	18	157	7.5
JAN				
26-26	0245	20	261	14
JAN				
26-26	0515	26	289	20
26...	1230	24	145	9.3
31...	1430	5.1	16	0.22
FEB				
10-10	0945	26	1920	133
FEB				
10-10	1115	52	2010	283
FEB				
10-10	1245	33	944	83
FEB				
10-10	1415	22	504	29
FEB				
10-10	1545	22	344	20
FEB				
10-10	1715	15	185	7.4
28...	1100	14	11	0.41
MAR				
17-17	1700	31	1220	103
MAR				
17-17	1830	22	509	31
MAR				
17-17	2100	23	362	22
MAR				
17-18	2400	27	330	24
29...	1100	4.2	51	0.58
29...	1215	5.1	42	0.58
APR				
26...	1100	3.9	62	0.65
APR				
29-30	2400	26	356	25
APR				
30-30	0200	13	255	8.9

01594710 KILLPECK CREEK AT HUNTERSVILLE, MD--Continued

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
MAY 1990				
04-05	2230	9.1	399	9.8
MAY				
05-05	0100	22	2620	153
MAY				
05-05	0300	84	2400	543
MAY				
05-05	0500	72	1380	267
MAY				
05-05	0730	23	542	34
MAY				
10-10	0915	17	389	18
MAY				
10-10	1115	22	1050	62
MAY				
10-10	1245	47	1070	136
MAY				
10-10	1515	23	406	25
MAY				
10-10	1745	24	347	22
MAY				
13-13	1808	8.8	2220	53
MAY				
13-13	1940	61	1680	278
MAY				
13-13	2221	33	1010	90
22...	1315	5.1	57	0.78
MAY				
26-26	0820	20	723	40
MAY				
26-26	1220	12	149	4.9
JUN				
27...	1250	4.5	48	0.58
JUL				
29-29	0810	21	2590	144
JUL				
29-29	1110	36	983	95
JUL				
29-30	1510	5.6	110	1.7
AUG				
09-09	0934	20	1360	73
AUG				
09-09	1434	44	2040	245
AUG				
09-10	1934	18	400	19
AUG				
13-14	2317	13	940	34
AUG				
14-14	0317	5.2	167	2.4
AUG				
14-14	0817	4.3	67	0.77
AUG				
22-22	2030	25	2070	142
AUG				
22-23	2330	66	8660	1530
AUG				
23-23	0330	17	903	42
29...	0845	2.9	16	0.12
SEP				
27...	1045	15	5	0.21

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 National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good except those for estimated daily discharges (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)
Dec. 19	0030	175	3.80	July 7	2345	277	4.60
Dec. 31	0045	*347	*5.13				

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.6	8.8	5.9	75	43	20	20	15	4.7	3.8	3.3	3.4
2	6.0	8.1	5.7	51	34	25	18	14	4.6	6.2	2.9	2.9
3	5.7	7.6	13	41	29	24	16	13	4.5	4.6	2.7	2.7
4	9.8	7.2	26	33	26	75	15	12	4.8	4.1	2.9	3.4
5	9.6	7.4	15	27	27	44	26	11	4.2	3.8	2.6	5.6
6	6.8	11	13	27	47	44	24	16	4.0	3.6	2.3	6.1
7	6.0	7.7	11	33	59	56	20	15	4.1	27	2.3	3.6
8	5.6	6.9	9.9	25	45	40	19	12	4.0	50	2.3	2.8
9	5.5	6.6	8.9	26	37	34	24	16	3.8	12	8.1	2.8
10	5.6	19	8.5	29	32	29	39	14	3.8	8.2	5.6	3.0
11	30	13	7.9	34	26	25	26	12	3.9	7.1	3.5	3.4
12	19	9.9	7.5	68	22	22	22	11	4.3	11	2.9	3.0
13	20	8.7	7.6	56	22	21	51	9.7	4.1	20	2.7	3.2
14	15	8.1	6.7	43	33	19	63	9.1	4.0	10	2.8	3.6
15	12	7.6	52	37	27	17	75	8.6	4.0	7.7	3.8	2.8
16	10	7.3	45	71	36	16	57	8.0	23	6.3	3.7	2.4
17	9.1	9.6	33	76	25	19	42	8.4	16	5.2	2.8	2.4
18	27	8.1	71	50	21	49	34	8.1	6.4	4.6	2.5	2.6
19	28	7.2	100	40	34	49	29	7.7	4.8	4.2	2.7	3.5
20	18	6.9	50	36	108	43	26	7.1	4.2	3.8	3.4	2.4
21	15	6.5	40	37	64	43	24	6.7	3.8	3.5	3.1	2.3
22	21	6.4	32	e27	45	44	34	6.3	4.1	3.8	3.1	2.3
23	85	13	81	e22	36	86	28	5.8	28	4.2	2.9	2.4
24	51	9.4	77	e17	29	60	28	5.7	9.9	6.4	2.9	2.3
25	37	8.1	49	e16	26	44	27	5.4	6.4	4.1	3.0	2.6
26	29	7.4	38	e15	23	36	24	5.7	5.1	3.9	3.5	2.5
27	22	7.1	31	e16	20	31	22	6.1	4.5	3.8	3.4	2.4
28	17	6.9	32	20	20	26	22	5.3	4.2	3.2	6.5	2.4
29	14	6.6	66	18	---	23	20	4.9	3.9	4.8	7.9	2.4
30	11	6.1	169	31	---	23	18	4.9	3.8	5.1	4.5	2.5
31	9.8	---	193	76	---	20	---	5.2	---	4.3	3.6	---
TOTAL	567.1	254.2	1305.6	1173	996	1107	893	289.7	190.9	250.3	110.2	89.7
MEAN	18.3	8.47	42.1	37.8	35.6	35.7	29.8	9.35	6.36	8.07	3.55	2.99
MAX	85	19	193	76	108	86	75	16	28	50	8.1	6.1
MIN	5.5	6.1	5.7	15	20	16	15	4.9	3.8	3.2	2.3	2.3
CFSM	2.22	1.03	5.12	4.60	4.32	4.34	3.62	1.14	.77	.98	.43	.36
IN.	2.56	1.15	5.90	5.30	4.50	5.00	4.04	1.31	.86	1.13	.50	.41

e Estimated

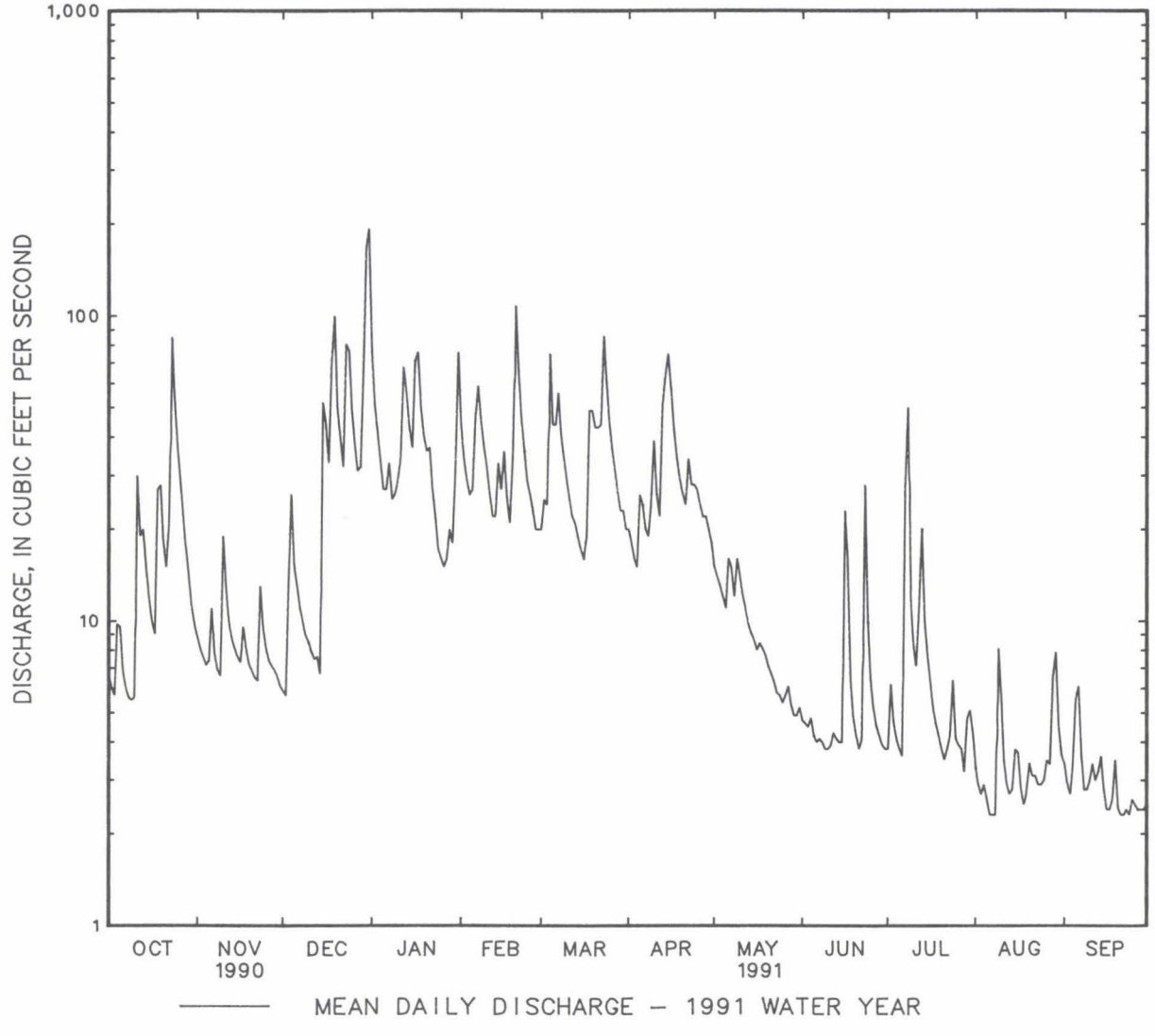
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1980 - 1991, BY WATER YEAR (WY)

MEAN	11.9	28.5	30.6	23.9	37.0	36.1	33.2	29.4	22.6	17.7	11.3	7.41
MAX	20.4	90.8	51.9	43.6	67.2	51.7	61.0	46.9	62.8	33.3	40.2	13.6
(WY)	1990	1986	1985	1990	1986	1985	1984	1983	1981	1984	1980	1987
MIN	5.04	8.47	16.8	8.85	18.5	13.9	19.2	9.35	6.36	2.88	2.56	2.99
(WY)	1983	1991	1990	1981	1987	1990	1988	1991	1991	1988	1988	1991

01594930 LAUREL RUN AT DOBBIN ROAD NEAR WILSON, MD--Continued

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1980 - 1991	
ANNUAL TOTAL	8838.4		7226.7			
ANNUAL MEAN	24.2		19.8		23.6	
HIGHEST ANNUAL MEAN					29.3	1984
LOWEST ANNUAL MEAN					17.3	1988
HIGHEST DAILY MEAN	263	May 26	193	Dec 31	800	Nov 4 1985
LOWEST DAILY MEAN	4.1	Sep 4	2.3	(a)	1.7	(b)
ANNUAL SEVEN-DAY MINIMUM	4.6	Aug 31	2.4	Sep 20	1.9	Aug 12 1988
INSTANTANEOUS PEAK FLOW	619	Jun 9	347	Dec 31	c863	Nov 5 1985
INSTANTANEOUS PEAK STAGE	7.50	Jun 9	5.13	Dec 31	10.10	Nov 5 1985
INSTANTANEOUS LOW FLOW	3.9	(d)	2.2	(f)	1.7	(g)
ANNUAL RUNOFF (CFSM)	2.94		2.41		2.86	
ANNUAL RUNOFF (INCHES)	39.95		32.67		38.90	
10 PERCENT EXCEEDS	47		45		49	
50 PERCENT EXCEEDS	16		11		16	
90 PERCENT EXCEEDS	6.4		3.0		4.6	

a Aug. 6-8, Sept. 21, 22, 24.
b Aug. 17, 18, 1988.
c From rating curve extended above 450 ft^3/s on basis of runoff comparisons with nearby stations.
d Sept. 3, 4.
f Aug. 6, 7.
g Aug. 17, 18, 1988.



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 National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good above 0.5 ft^3/s and fair below except those for estimated daily discharges (ice effect, backwater from beaver dams), which are fair. Several observations 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)
Dec. 30	2300	*76	*3.74	No other peak greater than base discharge.			

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	2.0	1.3	15	11	4.1	4.5	2.9	.67	.34	.25	.15
2	.99	1.9	1.3	12	8.3	4.7	2.8	2.4	.45	.54	.19	.12
3	.98	1.9	3.5	9.9	6.8	4.7	2.7	2.3	.45	.39	.26	.17
4	1.7	1.9	6.8	6.5	5.7	16	2.7	2.1	.49	.32	.30	.18
5	1.9	1.9	4.0	5.0	5.5	9.2	5.2	2.1	.67	.30	.22	.21
6	1.2	2.7	3.3	5.1	11	9.2	4.7	2.5	.45	.29	.21	.33
7	.98	2.0	3.1	6.8	12	12	3.5	2.4	.46	1.1	.24	.22
8	1.0	1.8	2.7	5.1	10	7.9	3.0	1.7	.40	1.7	.21	.18
9	1.1	1.7	2.5	5.0	7.6	6.4	4.7	3.4	.30	.42	1.7	.17
10	.94	4.3	2.4	6.6	6.1	5.6	8.3	2.3	.38	.30	.61	.18
11	6.5	2.9	2.4	6.9	4.9	4.7	4.8	2.0	.51	.35	.29	.18
12	3.1	2.5	2.2	13	4.3	4.3	4.1	1.7	.47	2.0	.21	.18
13	3.1	2.2	2.1	12	4.2	4.3	12	1.5	.46	3.1	.53	.15
14	2.4	1.9	2.1	9.1	7.4	4.1	13	1.4	.33	.86	.24	.18
15	2.0	1.7	12	8.8	5.4	3.7	15	1.3	.38	.55	.31	.16
16	1.6	1.7	11	21	4.5	3.6	13	1.2	.59	.43	.28	.18
17	1.3	2.0	6.4	18	3.8	4.6	12	1.2	.97	.27	.20	.20
18	4.0	1.8	16	14	3.8	13	11	1.2	.72	.28	.31	.18
19	5.3	1.6	19	12	9.0	12	5.5	1.6	.54	.30	.25	.30
20	3.4	1.5	10	e11	24	10	4.3	1.1	.53	.27	.32	e.24
21	3.1	1.4	8.0	e9.5	14	9.9	4.2	.88	.47	.24	.52	e.19
22	4.0	1.4	6.6	e8.0	11	10	5.9	1.2	.66	.30	.42	e.17
23	18	3.1	16	e10	8.0	20	5.2	1.0	4.4	.57	.29	e.18
24	9.4	2.3	15	e8.0	6.2	14	5.0	1.4	1.0	.52	.25	e.17
25	5.6	1.9	10	e7.0	5.2	12	5.1	1.1	.53	.33	.18	e.20
26	4.1	1.7	8.0	e5.5	4.6	10	4.2	.64	.36	.34	.23	e.19
27	3.4	1.8	6.5	e4.5	4.0	8.6	4.1	.77	.32	.51	.21	e.17
28	2.9	1.6	6.5	e6.0	4.0	7.9	3.7	.60	.35	.54	.16	e.17
29	2.6	1.5	14	e10	---	6.1	4.0	1.0	.38	.95	.13	e.18
30	2.4	1.4	33	14	---	6.0	3.3	.80	.30	.68	.14	e.19
31	2.3	---	31	17	---	5.8	---	1.2	---	.36	.13	---
TOTAL	102.39	60.0	268.7	302.3	212.3	254.4	181.5	48.89	18.99	19.45	9.79	5.67
MEAN	3.30	2.00	8.67	9.75	7.58	8.21	6.05	1.58	.63	.63	.32	.19
MAX	18	4.3	33	21	24	20	15	3.4	4.4	3.1	1.7	.33
MIN	.94	1.4	1.3	4.5	3.8	3.6	2.7	.60	.30	.24	.13	.12
CFSM	1.73	1.05	4.54	5.11	3.97	4.30	3.17	.83	.33	.33	.17	.10
IN.	1.99	1.17	5.23	5.89	4.13	4.95	3.53	.95	.37	.38	.19	.11

e Estimated

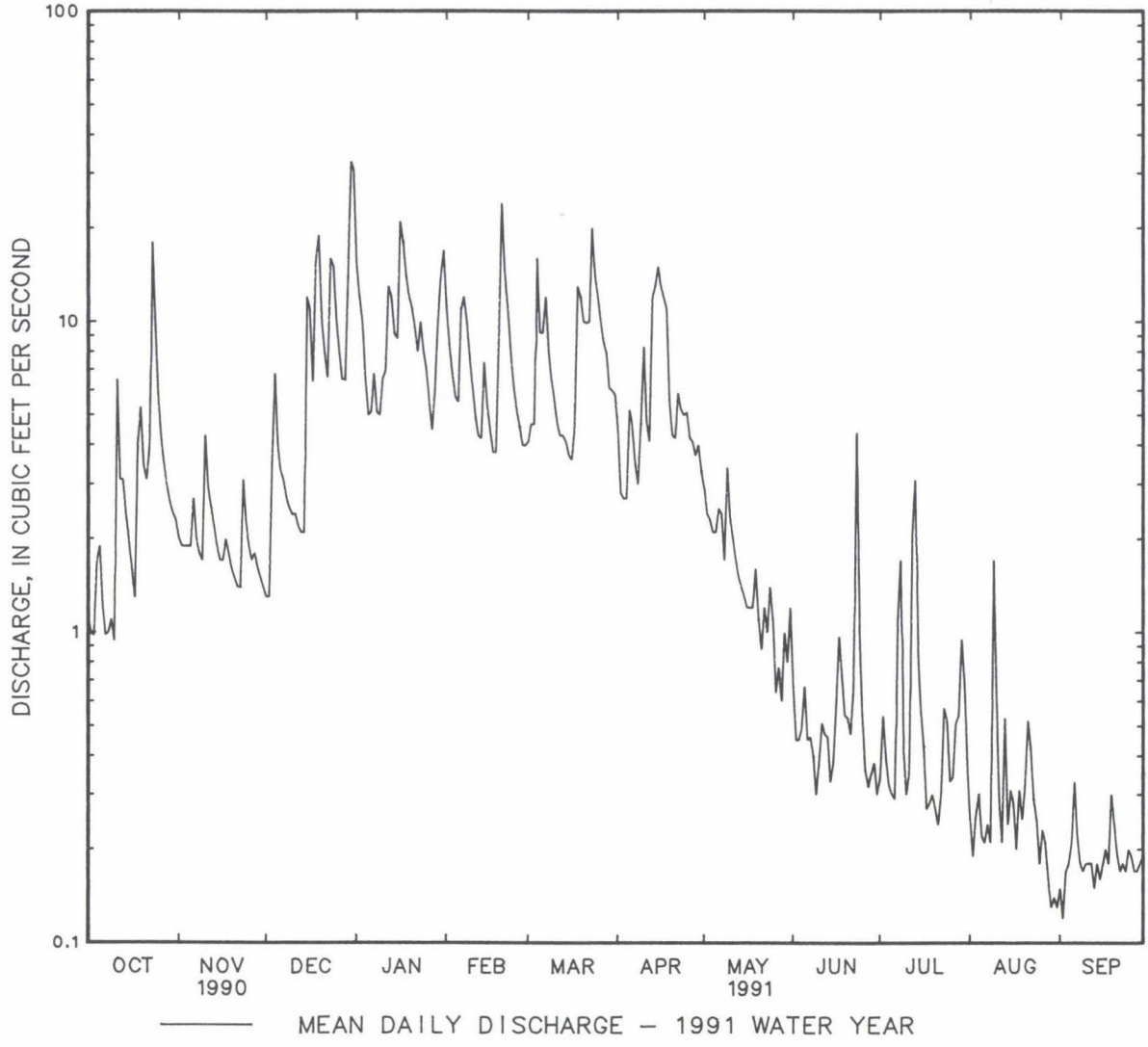
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1980 - 1991, BY WATER YEAR (WY)

MEAN	1.78	5.10	5.75	4.91	7.70	7.76	7.06	5.80	3.91	3.11	1.69	1.26
MAX	3.65	17.5	8.67	9.75	15.9	11.6	13.4	9.25	12.7	7.32	7.91	3.42
(WY)	1990	1986	1991	1991	1986	1984	1984	1988	1981	1985	1980	1981
MIN	.61	2.00	2.83	1.29	3.84	2.52	4.26	1.58	.63	.28	.30	.19
(WY)	1983	1983	1990	1981	1987	1990	1989	1991	1991	1988	1983	1991

01594936 NORTH FORK SAND RUN NEAR WILSON, MD--Continued

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1980 - 1991	
ANNUAL TOTAL	1743.34		1484.38			
ANNUAL MEAN	4.78		4.07		4.56	
HIGHEST ANNUAL MEAN					5.57	1984
LOWEST ANNUAL MEAN					3.43	1983
HIGHEST DAILY MEAN	70	May 26	33	Dec 30	139	May 31 1985
LOWEST DAILY MEAN	.43	Sep 5	.12	Sep 2	.09	Aug 22 1983
ANNUAL SEVEN-DAY MINIMUM	.55	Aug 31	.14	Aug 28	.12	Aug 12 1988
INSTANTANEOUS PEAK FLOW	213	May 26	76	Dec 30	a895	May 31 1985
INSTANTANEOUS PEAK STAGE	5.13	May 26	3.74	Dec 30	10.47	May 31 1985
INSTANTANEOUS LOW FLOW	.42	(b)	.11	Sep 2	.01	(c)
ANNUAL RUNOFF (CFSM)	2.50		2.13		2.39	
ANNUAL RUNOFF (INCHES)	33.95		28.91		32.42	
10 PERCENT EXCEEDS	10		11		10	
50 PERCENT EXCEEDS	3.0		2.1		2.8	
90 PERCENT EXCEEDS	.97		.21		.50	

a From rating curve extended above 90 ft^3/s on basis of contracted-opening measurement of peak flow.
b Aug. 16, 18, 19, Sept. 4-6.
c 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. Elevation of gage is 2,441.94 ft above National Geodetic Vertical Datum of 1929 (Garrett County bench mark).

REMARKS.--Water-discharge records good except those for Dec. 27, 28, Jan. 22-27 (ice effect) and those for Sept. 12-18, 30 (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)
Dec. 18	2230	40	2.22	Feb. 20	1145	46	2.37
Dec. 30	2300	*106	*3.30				

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.81	2.4	1.5	19	8.3	4.1	4.1	3.0	.48	.20	.16	.11
2	.68	2.3	1.5	13	6.9	4.8	3.6	2.7	.39	.19	.15	.11
3	.63	2.0	4.3	9.4	6.3	4.9	3.2	2.5	.38	.16	.13	.11
4	1.5	1.8	6.5	7.3	5.8	17	3.0	2.3	.36	.22	.16	.14
5	1.2	1.8	4.9	6.0	6.5	9.4	4.9	2.0	.27	.18	.15	.20
6	.81	2.5	4.1	5.7	12	9.7	4.6	2.8	.25	.16	.14	.16
7	.73	1.8	3.6	6.2	14	11	4.0	2.3	.25	.98	.14	.12
8	.68	1.6	3.3	5.1	10	8.4	3.8	1.8	.25	1.2	.13	.11
9	.68	1.5	3.0	5.3	8.7	7.1	5.6	2.9	.19	.35	.58	.11
10	.68	4.2	2.8	5.8	7.2	6.2	7.5	2.4	.16	.26	.24	.12
11	5.1	3.0	2.6	6.0	6.3	5.4	5.4	1.9	.14	.22	.17	.15
12	2.8	2.6	2.5	11	5.4	4.9	4.7	1.7	.15	1.4	.16	e.12
13	3.3	2.5	2.5	9.8	4.9	4.5	14	1.6	.15	1.6	.15	e.11
14	2.6	2.3	2.2	8.1	6.8	4.0	16	1.4	.12	.53	.16	e.12
15	2.0	2.2	13	7.3	6.8	3.6	18	1.2	.12	.37	.21	e.11
16	1.7	2.1	11	20	7.1	3.4	14	1.1	.14	.28	.15	e.10
17	1.5	2.4	7.9	19	6.2	4.0	11	1.0	.24	.22	.12	e.10
18	3.9	2.1	18	13	4.1	11	8.3	.97	.17	.18	.12	e.10
19	3.7	1.8	21	9.7	8.1	10	6.8	1.3	.13	.18	.13	.13
20	2.8	1.7	13	8.3	28	9.1	6.0	.98	.12	.18	.16	.11
21	2.5	1.6	10	7.8	16	8.6	5.4	.86	.12	.18	.15	.10
22	3.4	1.6	8.0	e6.3	11	9.3	6.4	.76	.15	.26	.12	.10
23	18	3.3	18	e5.3	8.5	21	5.4	.68	1.7	.26	.12	.11
24	9.3	2.6	17	e4.6	6.8	14	5.3	.64	.44	.23	.12	.11
25	6.9	2.4	12	e3.9	5.9	11	5.0	.60	.23	.18	.11	.11
26	5.5	2.2	9.1	e3.6	5.1	8.4	4.5	.60	.18	.16	.11	.11
27	4.3	2.1	e7.1	e3.5	4.5	6.9	4.3	.65	.16	.16	.11	.10
28	3.6	2.0	e6.2	4.1	4.3	5.9	4.0	.57	.16	.16	.11	.09
29	3.2	1.8	13	3.6	---	5.0	3.7	.49	.16	.36	.11	.09
30	2.8	1.6	40	7.5	---	4.8	3.3	.47	.16	.39	.11	e.09
31	2.6	---	41	13	---	4.2	---	.59	---	.20	.11	---
TOTAL	99.90	65.8	310.6	258.2	231.5	241.6	195.8	44.76	7.92	11.60	4.79	3.45
MEAN	3.22	2.19	10.0	8.33	8.27	7.79	6.53	1.44	.26	.37	.15	.11
MAX	18	4.2	41	20	28	21	18	3.0	1.7	1.6	.58	.20
MIN	.63	1.5	1.5	3.5	4.1	3.4	3.0	.47	.12	.16	.11	.09
CFSM	1.40	.95	4.36	3.62	3.59	3.39	2.84	.63	.11	.16	.07	.05
IN.	1.62	1.06	5.02	4.18	3.74	3.91	3.17	.72	.13	.19	.08	.06

e Estimated

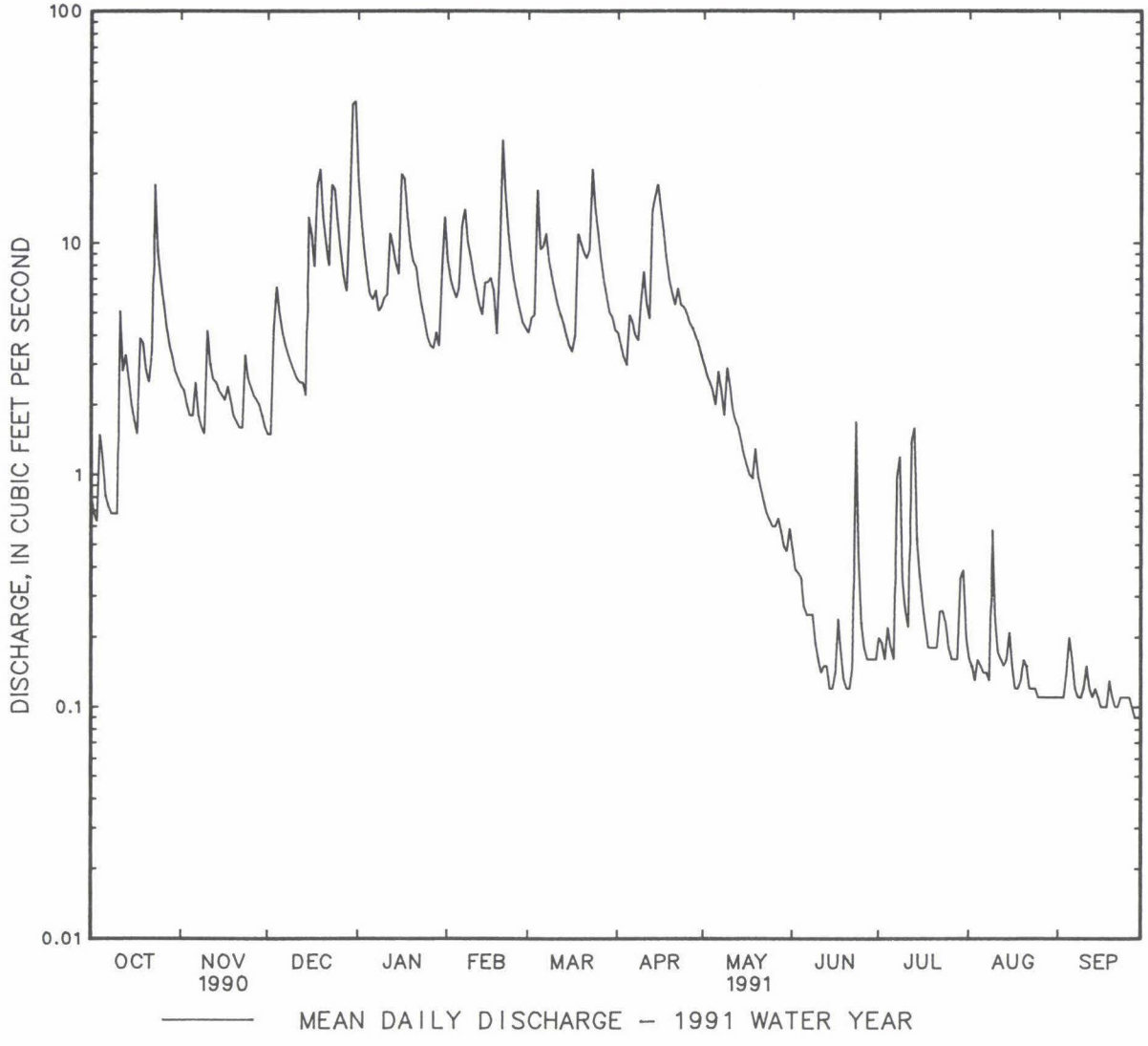
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 1991, BY WATER YEAR (WY)

MEAN	2.40	4.87	6.49	8.35	7.08	6.95	6.98	7.44	2.59	2.51	.96	1.57
MAX	4.57	10.2	10.0	11.5	8.89	10.4	11.3	12.2	5.29	6.53	2.55	3.71
(WY)	1990	1987	1991	1990	1989	1989	1987	1990	1989	1989	1989	1987
MIN	.60	2.19	3.92	5.97	4.60	3.34	5.12	1.44	.26	.33	.15	.11
(WY)	1989	1991	1990	1987	1987	1990	1989	1991	1991	1988	1991	1991

01594950 MCMILLAN FORK NEAR FORT PENDLETON, MD--Continued

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1987 - 1991	
ANNUAL TOTAL	2061.52		1475.92			
ANNUAL MEAN	5.65		4.04		4.84	
HIGHEST ANNUAL MEAN					5.54	1989
LOWEST ANNUAL MEAN					4.04	1991
HIGHEST DAILY MEAN	110	May 26	41	Dec 31	110	May 26 1990
LOWEST DAILY MEAN	.40	Aug 18	.09	(a)	.09	(a)
ANNUAL SEVEN-DAY MINIMUM	.48	Aug 31	.10	Sep 24	.10	Sep 24 1991
INSTANTANEOUS PEAK FLOW	UNKNOWN	May 26	106	Dec 30	UNKNOWN	May 26 1990
INSTANTANEOUS PEAK STAGE	b4.91	May 26	3.30	Dec 30	b4.91	May 26 1990
INSTANTANEOUS LOW FLOW	.40	(c)	.08	Sep 30	.08	Sep 30 1991
ANNUAL RUNOFF (CFSM)	2.46		1.76		2.10	
ANNUAL RUNOFF (INCHES)	33.34		23.87		28.60	
10 PERCENT EXCEEDS	13		10		11	
50 PERCENT EXCEEDS	3.7		2.3		3.6	
90 PERCENT EXCEEDS	.77		.12		.31	

a Sept. 28-30.
b Affected by backwater.
c Aug. 17-19, Sept. 4, 5, 12.



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 malfunction or probes buried by sediment. Records represent water temperature at sensor within 0.5°C.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 281 microsiemens, Sept. 4, 1988; minimum, 57 microsiemens, Feb. 20, 1991.
pH: Maximum, 8.4 units, Sept. 7, 1991; minimum, 4.9 units, Nov. 21, 22, 1988.
WATER TEMPERATURE: Maximum, 22.0°C, Aug. 18, 1988 and July 7, 1991; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT PERIOD.--
SPECIFIC CONDUCTANCE: Maximum, 191 microsiemens, Sept. 12; minimum, 57 microsiemens, Feb. 20.
pH: Maximum, 8.4 units, Sept. 7; minimum 5.8 units, Feb. 20.
WATER TEMPERATURE: Maximum, 22.0°C, July 7; minimum, 0.0°C, on many days during winter periods.

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	121	113	119	92	91	91	85	84	84	77	72	75
2	121	118	119	93	91	92	85	84	85	84	77	81
3	124	118	120	94	92	93	108	79	89	89	83	86
4	138	107	118	94	93	93	100	75	83	90	89	89
5	139	127	133	95	93	94	75	70	72	90	90	90
6	127	121	124	103	93	98	70	68	69	91	90	91
7	123	121	122	97	95	96	71	70	70	125	86	91
8	124	121	123	97	95	96	71	70	70	87	85	86
9	124	122	123	98	96	97	72	71	71	86	83	85
10	125	124	125	104	94	98	73	71	72	85	83	84
11	132	110	123	98	91	94	74	72	73	89	82	84
12	119	111	114	91	89	90	74	73	74	90	73	83
13	119	104	109	90	88	89	76	74	75	74	72	73
14	106	99	103	91	90	90	77	75	76	78	74	75
15	101	98	99	92	90	91	87	66	75	82	76	78
16	100	98	99	92	90	91	69	61	65	86	63	75
17	101	99	100	97	89	93	62	60	61	66	63	64
18	123	91	104	97	92	94	76	61	66	69	65	67
19	106	95	98	94	92	93	68	64	66	74	68	71
20	95	94	95	94	92	93	74	66	70	77	73	75
21	95	93	94	94	93	93	81	73	77	79	75	78
22	101	91	94	94	92	93	84	78	81	82	79	80
23	102	77	84	105	84	92	88	73	81	84	78	81
24	77	74	76	84	79	80	75	72	74	81	79	80
25	81	73	77	79	78	79	76	74	75	82	79	80
26	85	80	82	79	77	78	79	76	77	83	77	81
27	89	84	86	80	78	79	81	78	80	81	77	79
28	91	89	90	80	79	79	84	81	83	82	76	79
29	91	90	91	83	80	81	83	76	82	83	79	81
30	92	90	91	84	82	82	76	68	70	88	77	82
31	92	91	92	---	---	---	72	69	70	79	64	68
MONTH	139	73	104	105	77	90	108	60	75	125	63	80

01594950 MCMILLAN FORT NEAR FORT PENDLETON, MD--CONTINUED

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	71	66	68	92	85	87	91	85	88	90	87	88
2	72	70	71	88	83	85	90	88	89	90	88	89
3	75	71	73	85	81	84	90	88	89	92	88	89
4	76	73	75	85	68	72	90	88	89	92	88	89
5	77	71	75	72	69	70	91	79	86	92	88	91
6	71	65	68	79	72	73	84	79	81	97	81	88
7	67	64	65	77	72	73	81	80	81	96	88	90
8	67	65	66	77	74	75	81	80	80	90	86	88
9	72	67	70	80	77	78	85	71	80	94	79	87
10	77	72	74	82	79	81	94	84	86	89	84	86
11	82	77	79	85	80	83	85	84	84	88	84	86
12	84	81	83	85	81	84	89	84	86	90	86	88
13	84	82	83	84	83	84	---	---	---	92	88	90
14	89	78	84	88	83	85	---	---	---	93	91	92
15	80	77	78	88	83	86	---	---	---	97	92	94
16	79	77	78	89	82	85	---	---	---	124	95	100
17	79	73	77	96	79	88	---	---	---	101	98	99
18	79	76	78	92	62	71	---	---	---	105	101	103
19	95	70	80	69	63	67	81	79	80	106	95	102
20	76	57	62	75	67	69	85	81	84	107	106	107
21	63	58	60	72	67	69	85	84	85	109	106	107
22	70	62	66	77	67	71	89	81	85	111	107	109
23	76	70	72	74	65	67	84	80	82	118	108	111
24	80	76	78	71	67	70	87	81	83	115	111	113
25	83	80	81	76	71	73	87	82	83	117	112	114
26	86	83	84	80	75	77	83	82	82	117	113	116
27	87	85	86	83	78	81	87	82	84	125	113	121
28	90	84	86	85	83	84	86	85	86	126	120	123
29	---	---	---	89	84	87	86	84	85	124	121	123
30	---	---	---	91	85	89	89	85	88	130	120	124
31	---	---	---	94	88	90	---	---	---	129	116	123
MONTH	95	57	75	96	62	79	---	---	---	130	79	101

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	131	128	129	154	143	151	153	148	150	177	173	175
2	132	128	129	149	144	146	156	151	153	178	173	176
3	131	126	128	150	147	148	158	153	155	184	173	178
4	128	125	127	149	139	145	159	152	155	180	168	177
5	134	128	129	148	142	144	158	153	155	169	159	166
6	131	128	130	150	145	147	162	155	158	168	157	162
7	132	129	131	162	109	143	163	158	160	173	167	169
8	133	129	131	167	122	158	163	158	161	175	164	171
9	135	131	133	157	153	155	162	112	130	178	165	175
10	138	133	135	157	150	153	146	131	139	177	165	174
11	141	136	138	152	149	151	153	146	149	175	164	168
12	142	139	141	152	118	141	155	151	153	191	169	173
13	143	139	141	170	132	157	157	153	155	175	169	173
14	146	142	143	169	149	157	157	153	155	176	166	170
15	152	145	147	149	145	147	156	142	149	180	164	175
16	152	146	149	150	145	148	158	151	153	183	172	177
17	149	133	141	148	141	145	162	156	158	184	173	178
18	145	135	140	148	142	145	166	159	162	184	176	181
19	167	145	150	148	144	146	166	161	164	179	162	167
20	155	150	152	149	145	147	162	154	158	169	164	166
21	165	155	157	151	145	148	162	160	161	171	167	169
22	167	142	159	151	136	145	167	159	162	170	159	167
23	178	90	147	164	138	146	171	162	165	171	167	168
24	159	152	154	148	140	143	169	164	167	168	163	166
25	153	149	151	152	147	148	173	166	169	166	163	164
26	152	149	150	154	150	152	172	167	170	164	159	162
27	153	148	150	153	148	151	175	167	171	167	161	163
28	154	149	151	154	150	152	176	169	173	166	164	165
29	166	151	156	154	130	140	190	168	173	167	163	165
30	154	151	153	143	121	132	178	172	175	168	160	166
31	---	---	---	150	143	146	179	173	176	---	---	---
MONTH	178	90	142	170	109	148	190	112	159	191	157	170

01594950 MCMILLAN FORT NEAR FORT PENDLETON, MD--CONTINUED

pH (STANDARD UNITS), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	7.29	7.21	7.25	6.52	6.47	6.49	6.94	6.86	6.91	6.02	5.93	5.97
2	7.33	7.26	7.30	6.55	6.52	6.53	6.97	6.89	6.93	6.09	5.98	6.04
3	7.37	7.30	7.33	6.64	6.55	6.58	6.94	6.57	6.80	6.14	6.05	6.09
4	7.36	7.21	7.30	6.68	6.63	6.66	6.61	6.55	6.59	6.21	6.13	6.17
5	7.32	7.25	7.28	6.76	6.68	6.71	6.59	6.54	6.56	6.30	6.17	6.22
6	7.35	7.30	7.32	6.75	6.55	6.60	6.63	6.57	6.60	6.36	6.30	6.32
7	7.39	7.30	7.35	6.56	6.52	6.54	6.65	6.59	6.62	6.41	6.36	6.38
8	7.41	7.32	7.36	6.62	6.56	6.60	6.66	6.60	6.63	6.45	6.39	6.42
9	7.43	7.34	7.38	6.63	6.60	6.62	6.67	6.65	6.66	6.50	6.45	6.47
10	7.39	7.31	7.36	6.63	6.55	6.59	6.70	6.66	6.69	6.56	6.50	6.52
11	7.38	6.95	7.10	6.71	6.63	6.67	6.73	6.65	6.69	6.58	6.51	6.54
12	7.06	6.97	7.01	6.74	6.71	6.73	6.78	6.71	6.75	6.59	6.40	6.47
13	7.15	7.00	7.06	6.75	6.73	6.74	6.80	6.75	6.77	6.45	6.34	6.40
14	7.28	7.07	7.17	6.77	6.73	6.75	6.88	6.71	6.79	6.52	6.39	6.45
15	7.07	6.96	6.99	6.90	6.75	6.81	6.87	6.28	6.59	6.58	6.51	6.54
16	7.05	6.99	7.02	6.95	6.88	6.92	6.43	6.36	6.40	6.57	6.20	6.43
17	7.07	7.01	7.04	6.94	6.92	6.93	6.54	6.43	6.49	6.36	6.20	6.27
18	7.11	6.81	6.98	6.94	6.90	6.93	6.54	6.17	6.46	6.36	6.13	6.21
19	6.95	6.84	6.90	6.94	6.88	6.91	6.17	6.06	6.13	6.29	6.14	6.22
20	6.98	6.94	6.96	6.96	6.92	6.94	6.20	6.05	6.11	6.31	6.25	6.29
21	7.01	6.98	6.99	6.98	6.91	6.94	6.21	6.07	6.14	6.32	6.27	6.29
22	7.02	6.86	6.99	7.00	6.92	6.96	6.24	6.11	6.17	6.31	6.18	6.25
23	6.86	6.33	6.52	6.95	6.76	6.86	6.25	6.09	6.17	6.59	6.20	6.38
24	6.44	6.25	6.34	6.85	6.81	6.84	6.19	6.06	6.13	6.61	6.56	6.59
25	6.29	6.25	6.26	6.90	6.84	6.87	6.11	6.06	6.08	6.66	6.56	6.61
26	6.29	6.26	6.28	6.88	6.85	6.87	6.10	6.05	6.08	6.63	6.45	6.55
27	6.33	6.28	6.30	6.91	6.85	6.87	6.13	6.04	6.08	6.67	6.58	6.63
28	6.38	6.33	6.35	6.95	6.86	6.91	6.12	6.07	6.10	6.68	6.62	6.64
29	6.42	6.38	6.39	6.95	6.91	6.93	6.07	5.98	6.02	6.71	6.62	6.66
30	6.42	6.40	6.41	6.93	6.88	6.91	6.18	5.99	6.10	6.71	6.35	6.65
31	6.48	6.42	6.45	---	---	---	6.12	5.92	5.99	6.36	6.28	6.32
MONTH	7.43	6.25	6.93	7.00	6.47	6.77	6.97	5.92	6.43	6.71	5.93	6.39
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	6.45	6.29	6.38	6.77	6.66	6.71	---	---	---	6.66	6.51	6.60
2	6.56	6.43	6.51	6.73	6.65	6.70	---	---	---	6.68	6.63	6.65
3	6.62	6.55	6.58	6.76	6.57	6.70	---	---	---	6.69	6.63	6.66
4	6.68	6.58	6.63	6.57	6.22	6.30	---	---	---	6.71	6.60	6.66
5	6.65	6.46	6.60	6.47	6.35	6.42	---	---	---	6.69	6.58	6.64
6	6.46	6.23	6.32	6.51	6.38	6.47	---	---	---	6.70	6.49	6.59
7	6.27	6.21	6.25	6.46	6.38	6.42	---	---	---	6.68	6.54	6.62
8	6.34	6.27	6.31	6.54	6.44	6.50	---	---	---	6.74	6.56	6.65
9	6.44	6.33	6.39	6.61	6.49	6.56	---	---	---	6.58	6.40	6.49
10	6.50	6.43	6.47	6.61	6.57	6.59	---	---	---	6.59	6.42	6.50
11	6.56	6.49	6.52	---	---	---	---	---	---	6.60	6.45	6.52
12	6.57	6.50	6.54	---	---	---	---	---	---	6.62	6.46	6.54
13	6.59	6.55	6.57	---	---	---	---	---	---	6.64	6.48	6.56
14	6.55	6.46	6.51	---	---	---	---	---	---	6.65	6.49	6.58
15	6.54	6.45	6.49	---	---	---	---	---	---	6.63	6.54	6.59
16	6.52	6.45	6.47	---	---	---	---	---	---	6.66	6.57	6.61
17	6.55	6.44	6.49	---	---	---	---	---	---	6.69	6.57	6.63
18	6.56	6.54	6.55	---	---	---	---	---	---	6.67	6.58	6.63
19	6.56	6.30	6.48	---	---	---	6.49	6.39	6.45	6.71	6.60	6.63
20	6.30	5.85	6.00	---	---	---	6.51	6.45	6.47	6.76	6.64	6.71
21	6.17	5.92	6.07	---	---	---	6.52	6.44	6.47	6.83	6.69	6.76
22	6.34	6.17	6.27	---	---	---	6.46	6.36	6.41	6.86	6.71	6.80
23	6.43	6.34	6.39	---	---	---	6.48	6.35	6.42	6.88	6.71	6.78
24	6.51	6.40	6.45	---	---	---	6.50	6.41	6.44	6.86	6.69	6.77
25	6.57	6.50	6.54	---	---	---	6.52	6.42	6.46	6.86	6.71	6.78
26	6.62	6.55	6.59	---	---	---	6.56	6.44	6.49	6.90	6.64	6.78
27	6.68	6.59	6.63	---	---	---	6.60	6.45	6.51	6.83	6.61	6.73
28	6.72	6.64	6.68	---	---	---	6.62	6.47	6.54	6.84	6.74	6.78
29	---	---	---	---	---	---	6.64	6.52	6.58	6.94	6.67	6.83
30	---	---	---	---	---	---	6.65	6.50	6.58	6.94	6.66	6.83
31	---	---	---	---	---	---	---	---	---	6.82	6.62	6.73
MONTH	6.72	5.85	6.45	---	---	---	---	---	---	6.94	6.40	6.67

01594950 MCMILLAN FORT NEAR FORT PENDLETON, MD--CONTINUED

pH (STANDARD UNITS), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	6.90	6.73	6.82	7.40	7.17	7.29	8.10	7.88	7.97	8.28	7.95	8.10
2	6.92	6.76	6.84	7.40	7.18	7.30	8.16	7.92	8.02	8.35	8.00	8.15
3	6.98	6.75	6.87	7.43	7.29	7.37	8.22	7.93	8.05	8.45	7.82	8.13
4	7.04	6.77	6.93	7.51	7.27	7.37	8.23	7.95	8.06	8.24	7.72	7.99
5	7.11	6.96	7.04	7.50	7.31	7.40	8.24	8.01	8.11	8.36	7.83	8.05
6	7.16	7.00	7.08	7.55	7.37	7.45	8.29	8.01	8.11	8.29	7.80	8.04
7	7.17	7.03	7.10	7.54	6.47	7.27	8.31	7.98	8.15	8.45	7.93	8.11
8	7.20	7.06	7.12	7.15	6.37	6.86	8.39	7.95	8.15	8.36	7.79	8.09
9	7.19	7.05	7.11	7.39	7.14	7.29	7.98	7.66	7.79	8.44	7.68	8.10
10	7.23	7.05	7.13	7.44	7.32	7.37	8.07	7.78	7.94	8.39	7.86	8.11
11	7.25	7.08	7.17	7.54	7.38	7.46	8.18	7.94	8.04	8.42	7.87	8.14
12	7.25	7.13	7.18	7.59	6.53	7.26	8.25	7.97	8.09	8.26	7.86	8.04
13	7.23	7.12	7.18	7.04	6.52	6.83	8.27	7.99	8.10	8.39	7.82	8.07
14	7.27	7.15	7.21	7.34	7.06	7.23	8.32	8.02	8.14	8.40	7.81	8.09
15	7.30	7.16	7.23	7.48	7.27	7.38	8.20	7.90	8.05	8.23	7.81	7.99
16	7.28	7.05	7.17	7.57	7.41	7.49	8.26	7.86	8.02	8.38	7.88	8.09
17	7.21	7.02	7.13	7.65	7.46	7.56	8.12	7.70	7.89	8.40	7.76	8.03
18	7.27	7.10	7.19	7.75	7.51	7.61	8.27	7.84	7.99	8.11	7.79	7.93
19	7.22	7.10	7.16	7.88	7.66	7.76	8.25	7.86	8.01	8.08	7.67	7.87
20	7.21	7.13	7.18	7.92	7.70	7.78	8.24	7.70	7.93	8.18	7.80	7.95
21	7.34	7.21	7.26	7.98	7.71	7.84	8.21	7.88	8.00	7.99	7.77	7.86
22	7.30	7.06	7.23	7.87	7.65	7.74	8.27	7.91	8.03	8.11	7.76	7.89
23	7.06	6.39	6.69	7.86	7.62	7.71	8.31	7.90	8.07	7.98	7.74	7.84
24	7.13	6.89	7.05	7.89	7.65	7.78	8.36	7.90	8.07	---	---	---
25	7.25	7.11	7.19	7.97	7.75	7.85	8.35	7.94	8.11	---	---	---
26	7.33	7.20	7.28	8.01	7.79	7.87	8.22	7.76	8.02	---	---	---
27	7.37	7.27	7.32	8.06	7.82	7.93	8.34	7.89	8.03	---	---	---
28	7.41	7.24	7.33	8.09	7.85	7.96	8.40	7.88	8.08	---	---	---
29	7.32	7.19	7.26	7.94	7.77	7.84	8.37	7.83	8.02	---	---	---
30	7.36	7.22	7.31	7.88	7.76	7.81	8.30	7.90	8.07	---	---	---
31	---	---	---	8.00	7.76	7.89	8.37	7.90	8.05	---	---	---
MONTH	7.41	6.39	7.13	8.09	6.37	7.53	8.40	7.66	8.04	---	---	---

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	11.5	10.5	11.0	9.5	6.0	7.5	3.5	1.0	2.0	5.0	3.5	4.5
2	11.0	10.0	10.5	9.0	6.0	7.5	4.5	2.0	3.5	5.5	3.5	4.5
3	11.0	7.5	9.5	10.0	7.5	8.5	6.5	4.0	4.5	5.0	3.5	4.5
4	13.0	11.0	12.0	9.5	6.5	8.0	6.5	2.0	4.5	3.5	2.0	3.0
5	12.5	11.0	11.5	10.0	6.5	8.5	2.0	1.5	2.0	4.5	1.5	2.5
6	13.0	10.5	11.5	9.0	6.0	7.5	3.5	2.0	2.5	5.5	4.5	5.0
7	12.5	10.0	11.5	6.0	4.0	5.5	4.0	3.0	3.5	5.0	2.5	3.0
8	14.5	12.5	13.5	5.5	4.0	4.5	3.5	2.0	3.0	2.5	1.5	2.0
9	15.0	13.0	14.0	5.5	3.5	4.5	3.5	2.5	3.0	3.0	2.0	2.5
10	14.5	12.5	14.0	6.0	5.5	6.0	4.5	3.0	3.5	4.0	2.5	3.5
11	14.5	12.5	13.5	5.5	4.5	5.0	3.5	2.0	3.0	3.0	1.0	2.0
12	14.0	12.5	13.5	5.0	4.0	4.5	4.5	2.5	3.5	3.5	3.0	3.0
13	15.0	13.5	14.0	4.0	3.0	3.5	6.0	4.0	5.0	3.0	2.0	2.5
14	14.5	13.0	14.0	4.5	2.0	3.5	4.0	1.5	2.5	3.5	1.5	3.0
15	13.0	11.0	12.0	6.5	3.0	4.5	6.0	2.0	4.0	4.5	3.0	4.0
16	11.0	8.5	10.0	7.5	4.5	6.0	6.0	4.5	5.0	5.0	4.0	4.5
17	12.0	8.5	10.5	7.5	5.0	6.5	5.5	4.0	5.0	4.0	3.5	3.5
18	12.5	9.5	12.0	5.0	3.0	4.0	8.0	5.5	7.0	3.5	3.0	3.5
19	9.5	7.0	8.0	4.0	1.5	3.0	6.5	5.0	6.0	4.5	3.0	3.5
20	9.0	5.5	7.0	4.5	3.0	4.0	6.0	4.5	5.0	4.5	4.0	4.5
21	9.5	6.0	8.0	4.5	1.5	3.0	7.5	5.5	6.5	4.0	1.0	2.0
22	10.5	8.0	9.0	6.5	3.5	5.0	9.0	6.5	8.0	1.0	.0	.5
23	12.0	10.5	11.5	8.0	6.0	7.5	9.0	8.0	8.5	1.5	.0	.5
24	11.0	9.0	10.5	6.0	4.5	5.0	8.0	3.0	5.0	2.0	1.0	1.5
25	9.5	8.0	9.0	7.5	5.5	6.5	4.0	2.5	3.0	1.0	.0	.0
26	8.5	6.5	7.5	7.5	5.0	6.5	3.5	2.0	3.0	.0	.0	.0
27	8.0	5.0	6.5	8.5	5.5	7.0	2.5	.0	1.5	1.5	.0	.5
28	7.5	6.5	7.5	10.5	6.5	8.5	3.5	.0	2.0	2.0	1.5	1.5
29	7.0	5.5	6.0	9.0	4.0	6.5	4.5	3.5	4.0	2.5	.5	1.5
30	7.5	4.5	6.0	4.0	1.5	3.0	7.5	4.5	6.0	3.0	1.5	2.0
31	9.5	6.5	8.0	---	---	---	6.5	4.5	5.0	2.0	.5	1.5
MONTH	15.0	4.5	10.4	10.5	1.5	5.7	9.0	.0	4.2	5.5	.0	2.6

01594950 MCMILLAN FORT NEAR FORT PENDLETON, MD--CONTINUED

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	2.5	.5	1.5	6.0	2.0	3.5	5.5	4.0	4.5	14.0	9.0	12.0
2	3.5	1.5	2.5	8.5	5.5	7.0	6.5	3.5	4.5	12.0	9.5	11.0
3	4.5	2.0	3.0	7.0	6.0	7.0	7.5	2.0	5.0	12.5	9.0	10.5
4	4.5	2.0	3.0	6.5	3.0	4.5	8.5	3.5	6.0	11.5	9.0	10.5
5	5.0	3.0	4.0	6.0	3.0	4.0	8.5	7.5	8.0	14.5	9.5	12.5
6	6.0	4.5	5.0	5.5	3.5	4.5	10.5	6.0	8.0	14.5	11.0	13.0
7	6.0	5.0	5.5	5.5	3.0	4.0	12.5	7.0	9.5	12.5	9.0	11.0
8	5.0	4.0	4.5	5.0	2.5	3.5	12.0	8.5	10.5	13.5	9.0	11.5
9	4.5	3.0	4.0	5.0	2.0	3.5	13.5	10.5	11.5	12.0	11.5	12.0
10	4.0	3.0	3.5	3.5	2.0	2.5	10.5	7.0	9.5	15.0	11.0	13.0
11	3.0	1.0	2.0	3.0	1.5	2.5	9.5	5.5	7.5	16.0	10.5	13.0
12	1.5	.0	1.0	3.0	.0	1.5	9.0	5.5	7.0	16.0	11.5	13.5
13	3.5	1.5	2.5	2.5	1.5	1.5	7.5	6.5	7.0	17.5	13.0	15.0
14	3.5	1.0	2.5	2.0	1.0	1.5	7.5	6.5	7.0	17.0	13.5	15.5
15	1.0	.0	.0	3.0	1.5	2.5	10.0	7.0	8.0	17.0	14.0	15.5
16	.0	.0	.0	4.0	.0	2.0	11.5	7.0	9.0	16.5	13.0	15.0
17	1.0	.0	.5	5.0	.5	3.0	12.5	7.0	9.5	16.5	14.0	15.5
18	2.0	1.0	1.5	5.0	3.5	4.0	12.0	7.0	9.5	16.5	14.5	15.5
19	3.0	2.0	2.5	3.5	2.5	3.0	9.0	7.5	8.5	14.5	11.5	13.0
20	4.5	3.0	3.5	6.5	3.0	4.5	8.5	7.5	8.0	12.5	11.0	12.0
21	5.5	3.5	4.5	8.5	4.5	6.5	7.5	5.5	6.5	14.5	10.5	12.5
22	6.5	4.0	5.0	8.5	6.0	7.0	6.5	5.0	5.5	15.5	13.0	14.0
23	4.0	2.5	3.5	8.5	7.0	7.5	9.5	5.0	7.0	16.0	13.0	14.5
24	4.5	2.0	3.0	7.0	5.0	6.5	8.0	6.5	7.0	17.0	14.5	15.5
25	4.0	3.0	3.5	8.0	5.0	6.0	11.0	5.5	8.0	17.5	14.0	16.0
26	3.0	1.5	2.0	7.5	4.5	6.0	11.5	7.5	9.5	18.0	15.0	16.5
27	2.0	.5	1.0	10.5	7.0	8.5	13.0	8.0	10.5	18.0	15.5	16.5
28	4.0	.5	2.5	10.5	7.5	9.5	13.0	9.5	11.5	18.5	16.5	17.0
29	---	---	---	7.5	6.0	7.0	14.0	11.5	12.5	19.0	15.5	17.0
30	---	---	---	6.0	3.0	4.5	14.5	11.5	13.0	19.5	16.0	17.5
31	---	---	---	6.0	1.5	4.0	---	---	---	19.5	17.0	18.0
MONTH	6.5	.0	2.8	10.5	.0	4.6	14.5	2.0	8.3	19.5	9.0	14.0
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	19.0	16.0	17.5	20.5	17.0	18.5	19.0	13.5	16.0	17.0	13.0	15.5
2	19.0	16.0	17.5	20.5	17.0	18.5	19.5	14.5	16.5	15.5	11.0	13.0
3	18.0	16.0	17.0	18.5	16.5	17.5	19.5	15.0	17.5	17.0	11.0	14.0
4	16.0	12.5	14.5	18.5	16.0	17.0	19.0	16.5	17.5	16.5	15.0	16.0
5	13.5	10.5	12.0	19.5	16.0	17.5	17.5	14.0	16.0	17.0	15.0	16.0
6	13.5	9.5	11.5	19.5	15.0	17.5	17.5	13.0	15.5	17.0	14.0	16.0
7	13.0	9.5	11.5	22.0	16.5	18.5	19.0	15.0	17.0	16.5	12.0	14.0
8	14.0	10.5	12.0	19.5	17.5	18.5	19.0	14.5	16.5	15.5	11.5	13.5
9	15.5	10.0	12.5	19.0	17.0	17.5	18.0	16.5	17.0	16.5	12.0	14.0
10	16.5	11.0	13.5	17.5	16.0	16.5	18.0	16.0	17.0	16.5	14.0	15.5
11	16.5	12.0	14.5	18.0	15.5	16.5	17.5	14.0	15.5	17.0	14.5	16.5
12	17.5	14.5	15.5	17.5	14.5	16.5	17.5	13.0	15.0	16.0	13.0	14.5
13	16.5	12.0	14.0	19.5	17.0	18.0	16.5	13.0	15.0	17.5	13.0	15.5
14	16.5	10.0	13.0	18.0	15.5	17.0	17.5	15.0	16.0	19.0	16.0	17.0
15	17.0	11.0	14.0	17.5	13.5	15.0	17.5	15.0	16.0	19.0	15.5	17.0
16	19.0	14.5	16.5	17.0	12.5	15.0	18.0	14.0	16.0	19.5	15.0	17.5
17	18.0	15.5	16.5	18.5	13.5	15.5	18.0	13.5	15.5	19.5	16.5	18.0
18	18.0	15.5	16.5	18.5	14.0	16.0	18.5	15.5	17.0	19.0	16.5	17.5
19	19.5	15.5	17.0	19.5	16.0	17.5	18.5	15.5	17.0	17.5	11.5	14.5
20	19.5	15.0	17.0	19.5	16.5	18.0	17.0	15.0	16.0	11.5	8.0	10.0
21	19.0	14.0	16.5	21.0	16.5	18.5	16.0	13.5	15.0	9.5	6.5	8.0
22	16.5	15.5	16.0	20.5	17.0	18.5	16.5	12.0	14.0	11.0	6.0	8.5
23	16.0	14.5	15.5	21.5	17.5	19.0	17.5	13.0	15.0	11.5	10.0	11.0
24	16.5	14.0	15.0	20.0	17.5	18.5	18.0	14.0	16.0	12.5	9.5	11.0
25	16.5	12.5	14.5	19.5	17.0	18.0	18.0	14.5	16.0	12.0	10.0	11.0
26	17.0	12.5	14.0	18.5	17.0	17.5	18.0	15.0	16.0	11.0	9.0	10.0
27	17.5	11.5	14.5	18.5	15.5	17.0	18.0	14.0	16.0	9.0	6.0	7.5
28	19.0	13.0	16.0	18.0	14.0	16.0	19.0	16.0	17.5	8.5	5.0	6.5
29	19.5	15.5	17.5	16.0	15.0	16.0	19.5	16.0	17.5	10.5	5.0	8.0
30	20.5	16.5	18.5	17.5	14.5	16.0	20.0	16.0	18.0	11.0	8.5	9.5
31	---	---	---	18.5	15.0	16.5	20.5	17.0	18.5	---	---	---
MONTH	20.5	9.5	15.1	22.0	12.5	17.2	20.5	12.0	16.3	19.5	5.0	13.2

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 National Geodetic Vertical Datum of 1929.

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 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)
Dec. 31	0030	*2,210	*6.23	No other peak greater than base discharge.			

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33	73	59	533	274	160	168	117	33	29	32	8.0
2	35	68	52	379	225	177	152	103	25	46	19	6.0
3	33	62	115	297	198	174	142	100	24	38	12	4.5
4	43	54	238	234	184	541	143	109	24	99	11	10
5	57	52	160	200	197	311	180	95	24	117	18	23
6	34	84	146	198	378	291	190	99	24	49	27	34
7	24	65	139	229	447	417	157	105	24	40	15	25
8	23	64	135	191	357	287	148	95	24	397	17	16
9	28	54	108	179	282	252	183	138	23	103	53	9.4
10	26	123	95	225	236	234	300	126	24	64	49	11
11	154	104	85	220	199	210	197	91	25	52	37	16
12	127	72	97	387	174	189	176	71	24	50	18	11
13	120	73	75	367	178	177	393	57	24	151	18	9.6
14	90	67	73	282	253	165	575	60	27	80	23	19
15	66	66	355	249	207	151	595	62	25	59	24	17
16	59	59	350	581	178	149	473	65	41	50	31	11
17	54	69	229	623	206	170	337	61	118	44	23	9.0
18	107	67	420	379	174	386	266	56	50	37	11	7.2
19	150	58	620	302	311	406	229	48	38	32	8.4	32
20	100	62	330	285	719	316	193	48	34	40	20	35
21	97	57	273	284	464	307	171	54	33	40	22	32
22	90	58	240	e210	318	319	222	46	32	35	22	24
23	552	100	477	e180	252	729	213	37	152	31	18	16
24	305	83	493	e195	234	478	208	34	81	40	28	20
25	216	67	324	e185	198	350	207	41	51	35	22	14
26	174	61	263	e180	181	284	194	28	41	32	13	14
27	140	65	231	e170	163	245	171	31	42	27	16	13
28	115	66	224	e160	155	207	154	39	34	22	17	23
29	90	64	414	180	---	186	141	60	24	26	34	20
30	88	64	1030	219	---	195	127	36	23	42	25	15
31	81	---	1250	476	---	166	---	38	---	34	13	---
TOTAL	3311	2081	9100	8779	7342	8629	7005	2150	1168	1941	696.4	504.7
MEAN	107	69.4	294	283	262	278	233	69.4	38.9	62.6	22.5	16.8
MAX	552	123	1250	623	719	729	595	138	152	397	53	35
MIN	23	52	52	160	155	149	127	28	23	22	8.4	4.5
CFSM	1.46	.95	4.02	3.88	3.59	3.81	3.20	.95	.53	.86	.31	.23
IN.	1.69	1.06	4.64	4.47	3.74	4.40	3.57	1.10	.60	.99	.35	.26

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1956 - 1991, BY WATER YEAR (WY)

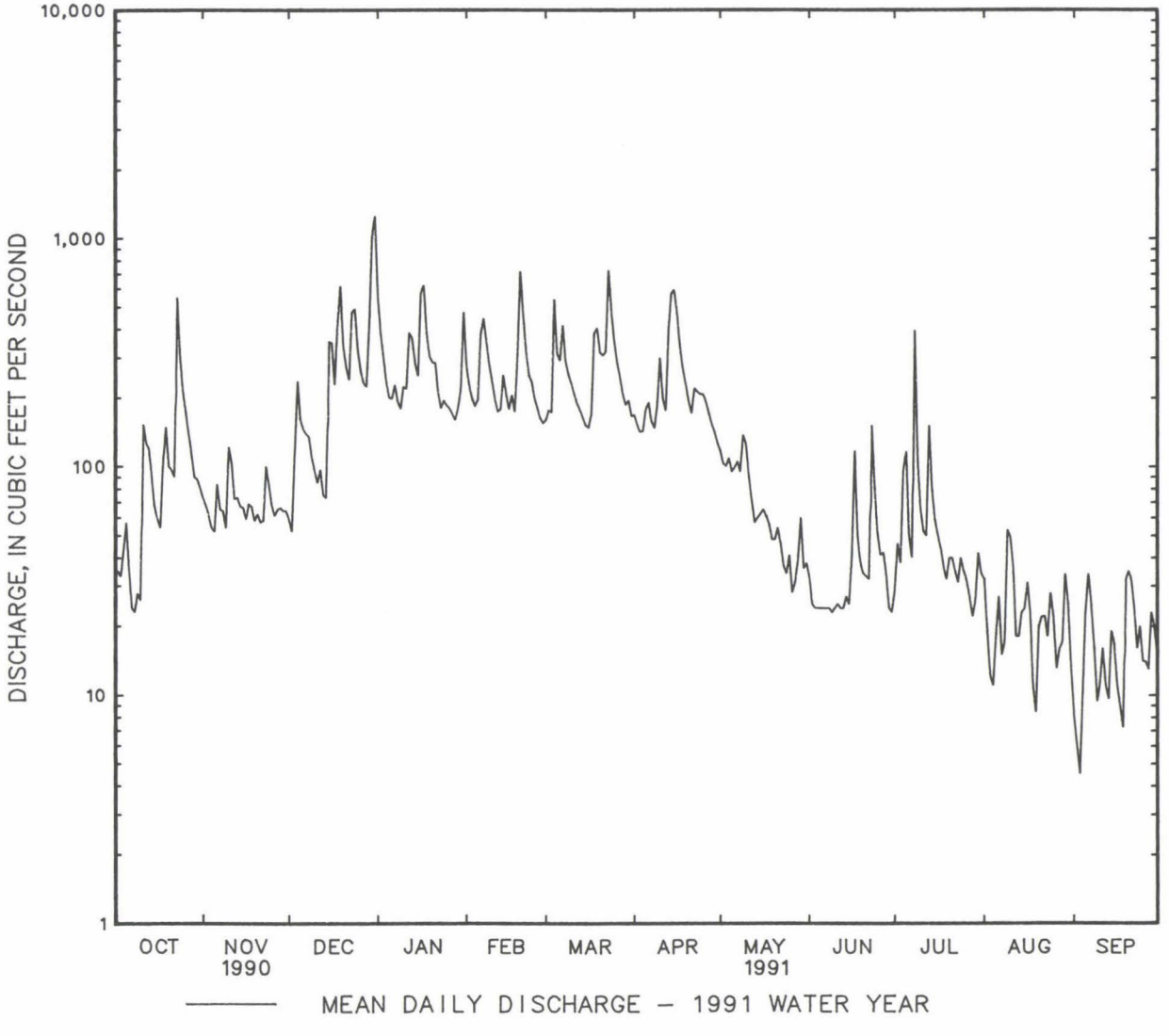
MEAN	77.3	142	232	233	257	337	284	194	122	85.1	70.8	51.2
MAX	316	588	527	569	491	885	573	419	442	340	334	238
(WY)	1977	1986	1973	1974	1961	1963	1958	1967	1981	1978	1956	1971
MIN	12.8	26.2	56.7	41.8	72.1	112	106	62.5	15.5	14.3	6.72	5.99
(WY)	1964	1966	1966	1977	1978	1990	1968	1965	1965	1965	1965	1959

01595000 NORTH BRANCH POTOMAC RIVER AT STEYER, MD--Continued

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1956 - 1991	
ANNUAL TOTAL	65460		52707.1			
ANNUAL MEAN	179		144		174	
HIGHEST ANNUAL MEAN					225	1978
LOWEST ANNUAL MEAN					115	1959
HIGHEST DAILY MEAN	1640	May 26	1250	Dec 31	4410	Nov 5 1985
LOWEST DAILY MEAN	23	Oct 8	4.5	Sep 3	3.1	(a)
ANNUAL SEVEN-DAY MINIMUM	29	Aug 30	12	Sep 12	3.6	Sep 23 1959
INSTANTANEOUS PEAK FLOW	3630	May 26	2210	Dec 31	b11500	Nov 5 1985
INSTANTANEOUS PEAK STAGE	7.62	May 26	6.23	Dec 31	13.14	Nov 5 1985
INSTANTANEOUS LOW FLOW	15	Oct 6	4.0	Sep 3	2.9	Sep 10 1965
ANNUAL RUNOFF (CFSM)	2.46		1.98		2.38	
ANNUAL RUNOFF (INCHES)	33.36		26.86		32.29	
10 PERCENT EXCEEDS	350		333		386	
50 PERCENT EXCEEDS	135		90		102	
90 PERCENT EXCEEDS	42		20		20	

a Sept. 9, 10, 1965.

b From rating curve extended above 3,000 ft^3/s on basis of slope-area measurement at gage height 10.30 ft.



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 National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Water-discharge records good except those for September (extreme shifting), which are fair. 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, 1,430 ft^3/s, Dec. 30, gage height, 6.23 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.7	36	188	159	107	71	99	78	18	27	12	6.0
2	12	34	105	555	97	102	196	43	16	37	9.0	5.0
3	11	29	44	432	80	396	64	35	19	18	5.3	5.4
4	13	27	74	118	63	799	61	32	25	76	4.4	12
5	13	30	57	112	79	76	72	30	20	87	4.8	21
6	10	43	50	108	142	73	68	33	19	42	8.2	23
7	8.9	40	45	122	236	100	61	34	18	30	13	14
8	9.0	33	28	117	321	67	59	33	17	84	14	6.4
9	11	32	26	114	425	58	61	42	15	47	27	9.1
10	11	42	147	123	216	58	72	40	15	40	13	27
11	51	38	255	128	71	61	61	35	17	33	6.0	19
12	27	33	122	155	67	64	57	32	18	38	5.2	18
13	33	30	20	158	71	67	87	31	22	49	7.8	18
14	22	35	19	141	107	67	202	36	21	30	17	8.8
15	17	30	67	139	141	60	619	37	16	25	17	6.1
16	16	27	58	273	126	59	173	36	14	22	10	5.6
17	15	28	35	332	111	68	91	32	19	21	6.3	15
18	21	25	51	408	103	385	76	28	19	19	5.4	27
19	23	23	77	284	154	172	75	29	17	21	6.3	34
20	18	23	45	83	191	107	64	26	17	16	13	28
21	18	21	47	98	243	322	57	25	17	11	13	20
22	24	20	37	122	373	221	64	24	24	13	13	8.0
23	224	23	66	125	65	566	70	22	76	18	12	7.0
24	554	21	87	109	64	355	84	20	35	19	9.6	15
25	270	19	59	98	70	367	83	19	31	18	5.2	22
26	137	21	53	96	75	211	72	18	34	19	5.1	20
27	78	26	53	90	75	188	63	18	30	19	12	20
28	37	24	112	90	71	122	67	19	27	15	14	10
29	34	94	249	85	---	71	99	24	20	17	15	5.0
30	39	249	615	103	---	79	118	24	16	20	15	4.5
31	31	---	788	143	---	79	---	24	---	14	11	---
TOTAL	1797.6	1156	3679	5220	3944	5491	3095	959	672	945	329.6	439.9
MEAN	58.0	38.5	119	168	141	177	103	30.9	22.4	30.5	10.6	14.7
MAX	554	249	788	555	425	799	619	78	76	87	27	34
MIN	8.9	19	19	83	63	58	57	18	14	11	4.4	4.5

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1962 - 1991, BY WATER YEAR (WY)

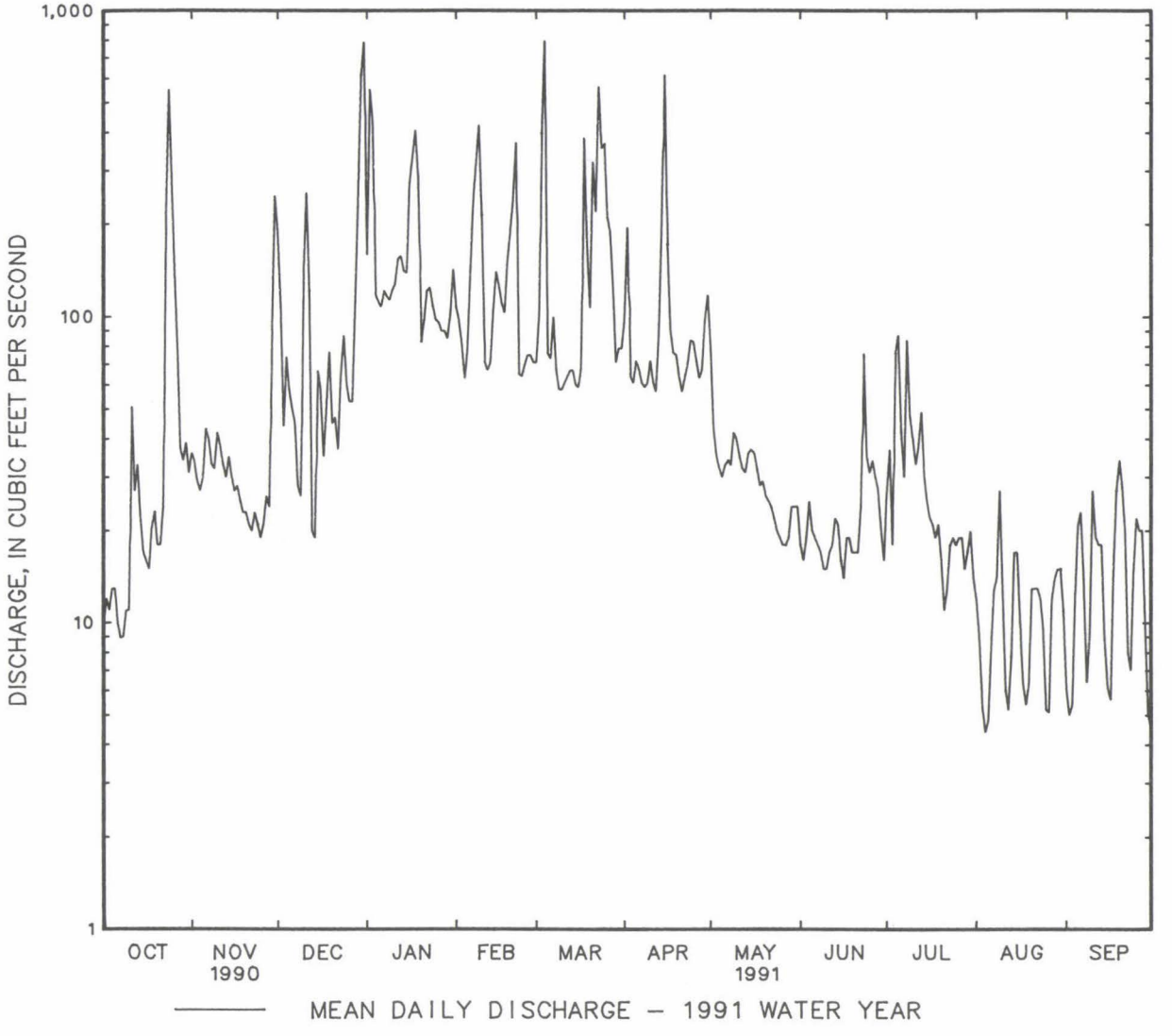
MEAN	54.3	96.3	115	113	137	214	157	118	73.0	45.8	29.1	31.4
MAX	234	669	301	239	253	537	371	271	237	205	104	140
(WY)	1977	1986	1973	1974	1982	1963	1987	1988	1981	1978	1975	1979
MIN	5.02	7.34	10.8	20.9	21.3	46.9	62.8	28.3	9.91	4.36	3.92	3.89
(WY)	1979	1966	1966	1981	1978	1990	1967	1964	1964	1968	1988	1985

01595200 STONY RIVER NEAR MOUNT STORM, WV--Continued

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1962 - 1991	
ANNUAL TOTAL	31195.5		27728.1			
ANNUAL MEAN	a85.5		a76.0		a98.5	
HIGHESTANNUAL MEAN					134	1978
LOWESTANNUAL MEAN					42.0	1964
HIGHEST DAILY MEAN	981	May 27	799	Mar 4	9880	Nov 5 1985
LOWEST DAILY MEAN	8.9	Sep 30	4.4	Aug 4	1.3	Aug 28 1988
ANNUAL SEVEN-DAY MINIMUM	11	Sep 27	8.1	Aug 1	1.7	Aug 28 1988
INSTANTANEOUS PEAK FLOW	1430	Dec 30	1430	Dec 30	b14000	Nov 5 1985
INSTANTANEOUS PEAK STAGE	6.23	Dec 30	6.23	Dec 30	c16.41	Nov 5 1985
INSTANTANEOUS LOW FLOW	8.6	Sep 30	3.8	Sep 30	UNKNOWN	
10 PERCENT EXCEEDS	223		172		230	
50 PERCENT EXCEEDS	36		35		49	
90 PERCENT EXCEEDS	13		11		8.9	

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.



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 current year.

INSTRUMENTATION.--Temperature recorder (continuous ethyl alcohol - actuated thermograph) since December 1961.

REMARKS.--Upstream reservoir regulation stopped June 1987. Temperature recorder stopped Oct 1-29.

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, 26.0°C, July 23, 24; minimum, 1.5°C, Dec. 25-28.

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	---	10.5	9.5	11.0	11.0	5.0	4.5	3.5	3.0	8.0	6.0
2	---	---	10.0	9.5	11.0	10.0	11.0	5.0	5.0	3.5	10.5	8.0
3	---	---	11.0	10.0	10.0	7.0	11.0	8.0	5.0	5.0	13.0	10.0
4	---	---	11.0	9.5	7.0	5.0	8.0	6.0	5.0	4.0	13.0	8.0
5	---	---	11.0	9.5	5.0	4.0	7.0	6.0	5.5	4.0	8.0	6.0
6	---	---	11.0	9.0	4.0	4.0	8.0	7.0	6.0	5.5	6.0	6.0
7	---	---	9.0	8.0	5.0	4.0	8.0	6.0	8.0	6.0	6.0	5.5
8	---	---	8.0	7.5	4.5	3.5	6.0	6.0	9.0	8.0	5.5	5.0
9	---	---	7.5	6.5	3.0	3.0	7.0	6.0	9.5	8.5	5.0	4.0
10	---	---	7.0	6.5	8.0	3.0	7.0	7.0	9.5	4.5	4.5	4.0
11	---	---	6.5	6.0	9.5	8.0	7.0	5.0	4.5	3.0	4.0	4.0
12	---	---	6.0	5.5	9.5	7.0	6.5	5.5	3.0	2.0	4.5	4.0
13	---	---	5.5	3.5	7.0	5.0	6.0	5.0	4.5	2.0	4.5	4.5
14	---	---	4.0	3.5	5.0	2.0	5.0	5.0	4.5	3.5	4.5	4.5
15	---	---	6.0	3.5	3.5	2.0	6.5	5.0	3.5	3.5	6.0	4.5
16	---	---	7.0	6.0	3.5	3.0	6.5	5.0	3.5	3.0	6.0	4.5
17	---	---	7.0	6.0	3.0	3.0	7.0	5.0	4.5	3.5	7.5	5.5
18	---	---	6.0	4.0	5.5	3.0	7.5	7.0	6.0	4.5	11.5	7.0
19	---	---	4.0	3.0	5.5	4.0	8.0	6.0	6.0	5.5	11.5	6.0
20	---	---	4.5	3.5	4.0	3.0	6.0	5.0	6.5	5.5	8.0	6.0
21	---	---	4.0	3.0	5.0	3.0	5.0	3.0	8.0	6.0	13.5	8.0
22	---	---	6.0	4.0	7.0	5.0	3.0	2.5	9.5	7.5	12.5	12.5
23	---	---	8.0	6.0	7.5	7.0	3.5	3.0	7.5	4.5	14.0	11.0
24	---	---	7.0	5.0	7.5	3.0	4.0	3.5	5.0	3.5	11.0	10.5
25	---	---	6.0	5.0	3.0	1.5	4.0	3.0	5.5	5.0	13.0	11.5
26	---	---	6.5	6.0	1.5	1.5	4.0	3.0	5.0	5.0	12.0	11.0
27	---	---	8.0	6.0	1.5	1.5	4.5	3.5	5.0	4.5	14.0	12.0
28	---	---	10.0	7.5	7.0	1.5	4.5	4.5	6.0	5.0	14.0	12.0
29	---	---	11.0	7.5	7.0	6.5	5.0	4.5	---	---	12.0	11.0
30	9.5	8.0	11.0	11.0	9.5	6.5	6.0	5.0	---	---	11.0	8.0
31	10.5	8.5	---	---	9.5	5.0	5.0	3.0	---	---	9.5	7.5
MONTH	---	---	11.0	3.0	11.0	1.5	11.0	2.5	9.5	2.0	14.0	4.0

01595200 STONY RIVER NEAR MOUNT STORM, WV--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	10.0	8.5	19.0	16.0	23.0	21.0	24.5	23.0	23.5	19.0	21.0	18.0
2	13.0	10.0	17.5	13.5	23.0	21.0	23.5	21.5	25.0	20.0	19.0	16.5
3	11.0	8.5	16.0	12.5	22.0	21.0	23.0	21.5	25.0	20.0	19.5	16.5
4	11.5	9.5	14.0	13.0	21.0	19.5	21.5	20.0	23.0	21.5	19.0	18.0
5	11.5	11.5	18.0	13.0	19.5	16.5	22.0	19.5	24.0	19.0	19.0	18.0
6	13.5	11.0	18.0	15.5	17.5	15.5	24.0	20.5	22.5	19.0	20.5	18.0
7	15.5	12.0	15.5	12.0	17.0	15.5	25.0	22.5	21.5	20.0	19.0	16.0
8	15.0	13.0	16.5	12.5	17.0	15.5	23.5	21.0	22.5	19.0	19.0	16.0
9	16.0	14.5	16.0	15.0	20.5	15.5	22.5	21.0	22.0	20.0	18.0	16.0
10	15.0	12.5	19.0	15.0	21.0	15.0	22.5	21.5	22.0	19.0	19.0	17.0
11	12.5	10.0	19.0	15.5	21.0	18.0	22.5	20.5	22.0	18.0	20.5	18.0
12	12.0	10.0	19.5	16.0	20.0	18.5	22.5	20.5	21.0	17.0	18.5	16.0
13	11.0	10.0	21.0	18.0	20.5	17.5	22.5	20.5	20.0	17.0	19.0	16.0
14	11.0	10.0	21.0	18.5	20.5	16.0	22.5	21.5	19.0	18.0	21.0	18.0
15	16.5	11.0	21.5	18.5	22.0	17.0	23.0	19.5	20.0	18.0	20.5	18.0
16	17.0	11.5	21.5	18.5	23.0	20.0	23.5	19.0	21.5	18.0	22.0	18.5
17	14.0	11.5	21.5	20.0	23.0	21.0	23.5	20.0	21.5	17.5	21.5	20.0
18	14.0	11.0	20.5	19.0	22.0	21.0	23.5	20.0	21.0	19.0	21.0	19.0
19	13.5	10.5	18.5	15.5	22.0	20.0	23.5	22.5	23.0	18.5	20.5	16.0
20	10.5	10.5	15.5	14.5	23.0	19.5	24.5	21.5	21.0	19.0	16.0	14.0
21	10.5	9.5	18.5	14.5	24.0	20.0	25.5	22.0	19.0	17.5	14.0	11.0
22	9.5	8.5	19.5	17.5	23.5	20.5	25.5	22.5	20.5	16.5	14.0	11.0
23	11.5	8.5	21.0	17.5	20.5	19.0	26.0	23.0	19.5	17.0	14.0	13.0
24	11.5	10.0	20.5	19.5	21.5	18.5	26.0	23.0	21.0	17.5	13.5	12.0
25	14.0	9.5	22.0	19.0	22.0	18.5	24.5	22.0	20.0	17.5	13.0	13.0
26	15.0	12.5	22.0	19.5	22.5	19.5	24.0	22.0	21.5	18.0	13.0	12.0
27	15.5	13.0	22.0	19.5	23.0	19.5	23.0	21.0	21.0	17.5	12.0	11.0
28	17.5	14.5	22.5	20.5	23.5	20.5	22.5	19.0	21.5	19.5	12.0	10.0
29	18.5	16.5	22.5	20.5	24.0	22.0	22.0	19.0	22.0	19.0	13.0	10.0
30	19.0	17.5	23.5	21.0	25.0	22.5	22.0	19.0	22.0	19.0	14.0	11.5
31	---	---	24.0	22.0	---	---	23.0	20.0	22.5	20.5	---	---
MONTH	19.0	8.5	24.0	12.0	25.0	15.0	26.0	19.0	25.0	16.5	22.0	10.0

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 National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for Jan. 23-26 (ice effect), which are fair and those for June 14, 15, 19-22, 26-30, July 1-4, July 11 - Sept. 30 (missing record), which are poor. 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)
Oct. 23	1045	*1,090	*3.72	Dec. 31	0215	1,080	3.70

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	41	15	401	88	50	77	46	8.1	e3.6	e2.1	e1.8
2	21	35	15	246	92	61	70	42	7.4	e3.0	e1.9	e1.7
3	18	32	59	158	65	64	61	38	7.2	e3.0	e1.8	e1.7
4	20	29	284	117	72	276	56	34	9.0	e8.0	e2.5	e2.1
5	22	26	182	90	101	240	54	30	7.5	15	e1.9	2.5
6	18	28	126	81	291	180	52	29	6.2	6.8	e1.8	e2.3
7	15	24	95	80	513	171	46	27	5.6	5.0	e1.8	e2.1
8	14	21	76	63	394	142	42	24	5.6	8.5	e1.8	e2.0
9	15	19	63	61	245	121	42	27	5.2	5.9	e4.0	e1.9
10	13	44	54	61	167	101	53	26	4.9	4.7	2.8	e1.7
11	175	45	46	62	123	84	43	23	4.7	e4.0	e2.3	e1.8
12	199	39	42	68	94	71	41	21	6.7	e3.6	e2.2	e1.7
13	208	36	39	73	82	65	100	20	6.3	e3.3	e2.1	e1.7
14	182	34	34	69	112	59	545	20	e4.5	e3.1	e2.0	e1.6
15	127	32	83	72	111	50	574	19	e4.3	e2.9	3.1	e1.6
16	90	31	213	348	86	45	466	17	5.0	e2.7	3.0	e1.6
17	71	31	173	535	97	49	268	16	6.8	e2.5	e2.5	e1.5
18	86	29	394	346	83	96	165	21	5.0	e2.3	e2.1	e1.5
19	98	26	510	211	83	142	121	29	e4.3	e2.2	e1.9	e1.9
20	85	25	315	154	163	153	105	24	e4.1	e2.6	e3.3	e1.9
21	72	22	223	129	198	145	90	19	e4.0	e2.3	2.1	e1.8
22	69	22	176	93	164	146	88	17	e5.0	e2.1	e2.1	e1.7
23	680	24	265	e90	128	403	80	15	9.5	e2.0	e6.5	e1.6
24	477	24	378	e75	101	432	81	14	8.1	e1.9	e16	e1.7
25	252	21	269	e80	86	258	78	13	5.3	e1.9	e6.3	e1.9
26	156	19	170	e90	74	172	75	13	e4.0	e1.9	e3.5	e1.7
27	111	18	121	94	64	153	70	13	e3.8	e1.8	e2.5	e1.7
28	86	17	102	79	56	125	67	11	e3.7	e1.8	e2.2	e1.6
29	69	17	90	52	---	106	59	9.8	e3.7	e2.1	e2.1	e1.6
30	57	16	392	46	---	96	55	9.0	e3.6	e3.5	e2.0	e1.6
31	48	---	772	66	---	83	---	8.8	---	e2.5	e1.9	---
TOTAL	3578	827	5776	4190	3933	4339	3724	675.6	169.1	116.5	94.1	53.5
MEAN	115	27.6	186	135	140	140	124	21.8	5.64	3.76	3.04	1.78
MAX	680	45	772	535	513	432	574	46	9.5	15	16	2.5
MIN	13	16	15	46	56	45	41	8.8	3.6	1.8	1.8	1.5
CFSM	2.35	.56	3.79	2.75	2.86	2.85	2.53	.44	.11	.08	.06	.04
IN.	2.71	.63	4.38	3.17	2.98	3.29	2.82	.51	.13	.09	.07	.04

e Estimated

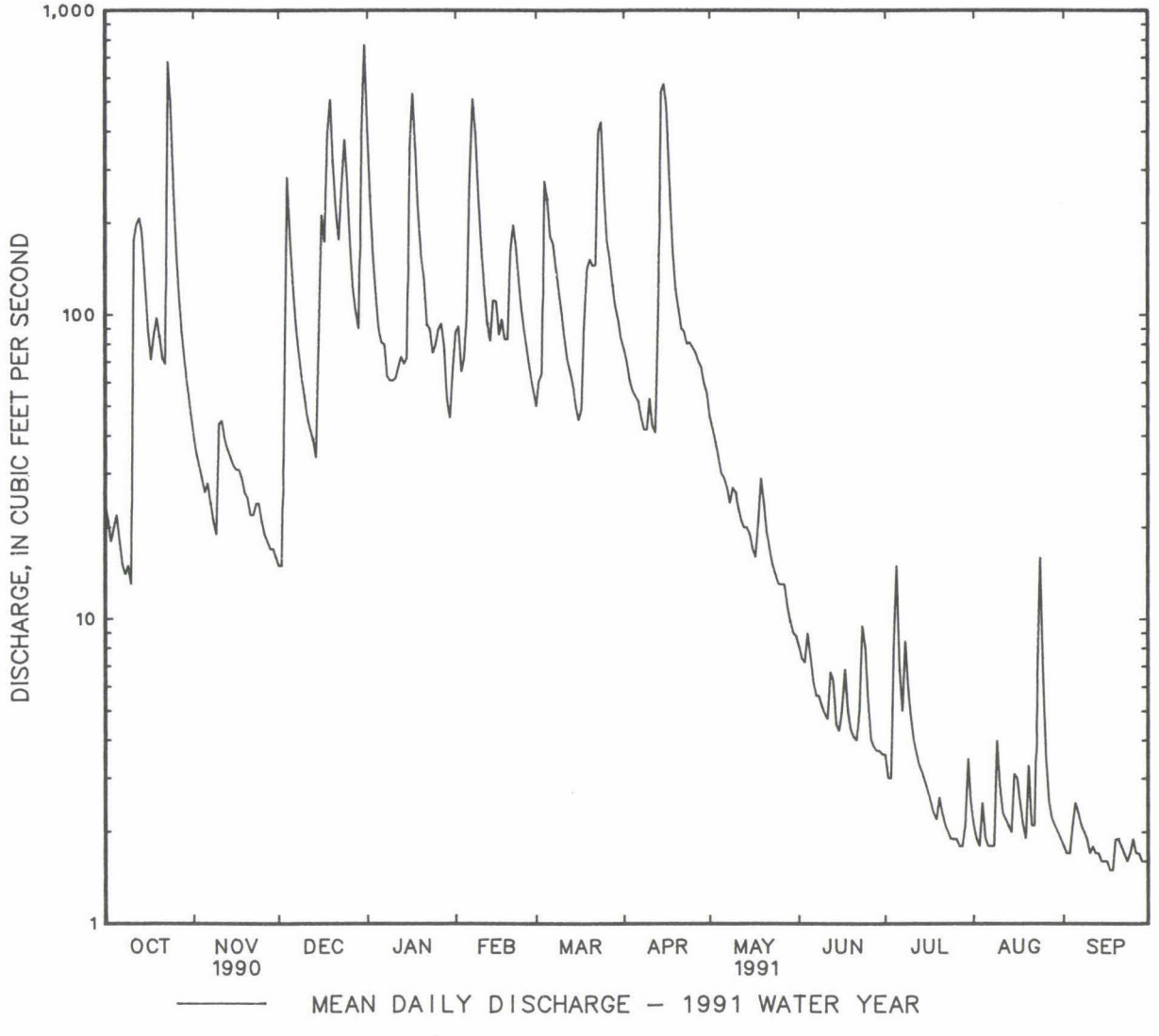
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1949 - 1991, BY WATER YEAR (WY)

MEAN	28.9	51.7	92.0	94.2	126	177	142	92.9	45.3	20.5	17.0	15.9
MAX	157	336	256	251	307	348	331	205	154	111	116	98.1
(WY)	1955	1986	1973	1952	1956	1963	1970	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	2.04
(WY)	1964	1954	1954	1977	1954	1990	1968	1991	1965	1965	1966	1963

01596500 SAVAGE RIVER NEAR BARTON, MD--Continued

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1949 - 1991	
ANNUAL TOTAL	29150.5		27475.8			
ANNUAL MEAN	79.9		75.3		75.0	
HIGHEST ANNUAL MEAN					102	1955
LOWEST ANNUAL MEAN					34.9	1954
HIGHEST DAILY MEAN	772	Dec 31	772	Dec 31	2180	Nov 5 1985
LOWEST DAILY MEAN	4.6	(a)	1.5	(b)	.50	(c)
ANNUAL SEVEN-DAY MINIMUM	5.1	Aug 13	1.6	Sep 12	.63	Aug 29 1966
INSTANTANEOUS PEAK FLOW	1090	Oct 23	1090	Oct 23	d7510	Oct 15 1954
INSTANTANEOUS PEAK STAGE	3.72	Oct 23	3.72	Oct 23	8.45	Oct 15 1954
INSTANTANEOUS LOW FLOW	4.3	Jun 30	UNKNOWN		.40	(f)
ANNUAL RUNOFF (CFSM)	1.63		1.53		1.53	
ANNUAL RUNOFF (INCHES)	22.09		20.82		20.76	
10 PERCENT EXCEEDS	211		188		187	
50 PERCENT EXCEEDS	44		32		33	
90 PERCENT EXCEEDS	8.1		1.9		4.0	

a June 29, 30.
b Sept. 17, 18.
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.



01597500 SAVAGE RIVER, BELOW SAVAGE RIVER DAM, NEAR BLOOMINGTON, MD

LOCATION.--Lat 39°30'05", long 79°07'25", Garrett County, Hydrologic Unit 02070002, on left bank 0.7 mi downstream from Savage River Dam, 1.1 mi downstream from Crabtree Creek, 3.2 mi northwest of Bloomington, and 3.7 mi upstream from mouth.

DRAINAGE AREA.--106 mi^2.

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

REVISED RECORDS.--WSP 1432: 1955.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1,276.40 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good. Diversions upstream from station by Baltimore and Ohio Railroad and by cities of Frostburg and Westernport for municipal supply. Flow regulated by Savage River Reservoir beginning December 1950, capacity 20,000 acre-ft. U.S. Army Corps of Engineers satellite 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, 1,740 ft^3/s, Apr. 15, gage height, 4.09 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	87	346	78	1220	230	246	276	110	58	56	54	58
2	87	343	78	1210	230	338	194	95	58	56	54	58
3	87	340	82	1010	227	335	176	95	58	56	54	51
4	87	339	85	684	226	339	152	95	57	56	54	48
5	87	338	87	548	227	338	141	95	56	56	50	51
6	300	335	104	497	225	338	141	95	56	56	53	51
7	300	334	125	493	378	338	141	95	56	56	52	51
8	296	331	125	374	462	269	141	95	56	56	53	51
9	87	331	125	305	462	230	141	83	56	56	54	51
10	87	326	125	303	462	230	141	64	56	56	54	51
11	204	319	125	304	462	230	105	58	56	56	54	51
12	234	315	125	303	380	230	87	58	56	56	54	51
13	130	308	125	301	338	230	89	58	56	56	53	51
14	130	306	125	299	338	168	852	58	56	56	52	51
15	130	300	127	299	335	133	1470	58	56	56	53	51
16	106	261	129	311	335	130	1250	58	57	56	56	51
17	91	241	228	527	334	131	1000	58	56	56	58	51
18	91	240	486	642	331	133	801	58	56	56	58	51
19	87	202	602	641	331	133	419	58	56	56	58	51
20	91	180	606	637	331	135	377	58	56	56	58	51
21	91	180	603	633	331	141	239	58	56	55	58	51
22	93	180	603	428	331	182	156	58	56	54	58	51
23	600	180	603	307	331	220	141	70	56	54	58	51
24	1100	177	603	307	331	223	141	75	56	54	58	51
25	598	180	603	307	331	295	141	75	56	54	58	51
26	397	177	599	303	328	443	141	76	56	54	58	51
27	274	177	597	303	326	545	141	75	56	54	58	51
28	216	177	501	254	164	543	141	64	56	54	58	51
29	174	175	447	208	---	540	141	58	56	54	58	51
30	236	124	459	233	---	422	141	58	56	54	58	51
31	348	---	897	230	---	351	---	58	---	54	58	---
TOTAL	6926	7762	10207	14421	9117	8559	9617	2227	1688	1715	1724	1541
MEAN	223	259	329	465	326	276	321	71.8	56.3	55.3	55.6	51.4
MAX	1100	346	897	1220	462	545	1470	110	58	56	58	58
MIN	87	124	78	208	164	130	87	58	56	54	50	48
(†)	19500	9700	18400	11600	13800	18300	19100	18800	16800	14600	12200	9800

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1949 - 1991, BY WATER YEAR (WY)

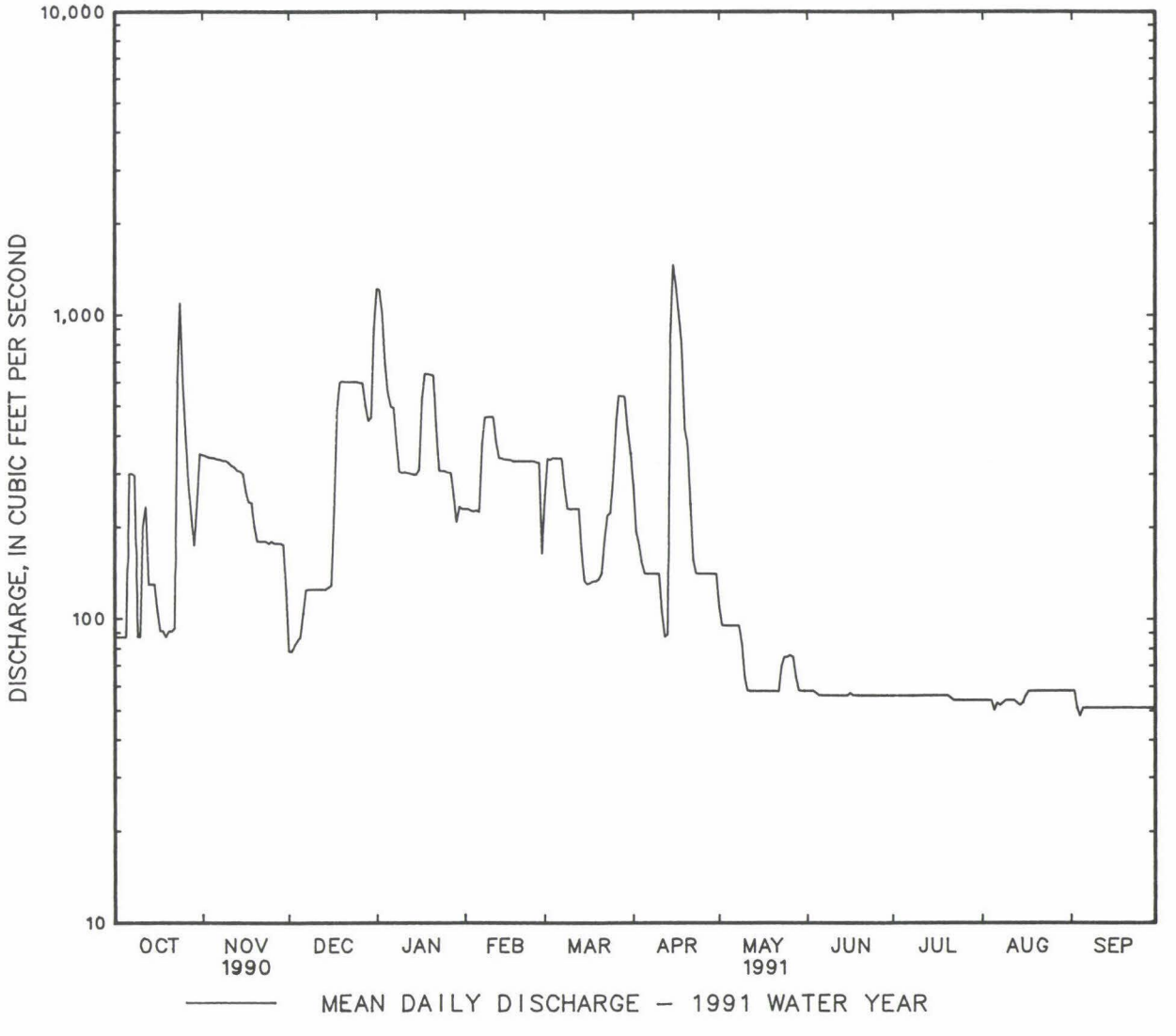
MEAN	110	125	222	216	278	323	203	195	108	69.9	68.4	88.5
MAX	446	641	655	713	596	684	610	488	298	329	262	206
(WY)	1955	1986	1973	1952	1956	1963	1970	1989	1951	1990	1956	1975
MIN	8.14	8.88	12.7	23.7	38.7	105	11.9	18.0	15.8	22.3	6.37	11.7
(WY)	1952	1952	1954	1954	1954	1976	1954	1976	1977	1950	1951	1951

† Monthend contents, in acre-feet, in Savage River Reservoir (contents on Sept. 30, 1990, 18,700 acre-feet). Records provided by U.S. Army Corps of Engineers.

01597500 SAVAGE RIVER, BELOW SAVAGE RIVER DAM, NEAR BLOOMINGTON, MD--Continued

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1949 - 1991	
ANNUAL TOTAL	74058		75504			
ANNUAL MEAN	203		207		167	
ANNUAL MEAN≠	213		195		167	
HIGHEST ANNUAL MEAN					231	1955
LOWEST ANNUAL MEAN					69.7	1954
HIGHEST DAILY MEAN	2500	Jul 13	1470	Apr 15	3790	Oct 16 1954
LOWEST DAILY MEAN	38	Sep 6	48	Sep 4	.60	(a)
ANNUAL SEVEN-DAY MINIMUM	58	Aug 7	51	Sep 3	.64	Aug 4 1951
INSTANTANEOUS PEAK FLOW	4510	Jul 13	1740	Apr 15	8550	Nov 4 1985
INSTANTANEOUS PEAK STAGE	6.03	Jul 13	4.09	Apr 15	7.81	Nov 4 1985
INSTANTANEOUS LOW FLOW	11	Oct 19	11	Oct 19	.35	Oct 27 1966
ANNUAL RUNOFF (CFSM)≠	2.01		1.84		1.58	
ANNUAL RUNOFF (INCHES)≠	27.28		24.97		21.39	
10 PERCENT EXCEEDS	480		462		410	
50 PERCENT EXCEEDS	123		125		85	
90 PERCENT EXCEEDS	62		54		19	

≠ Adjusted for change in reservoir contents since December 1950.
a July 27-31, Aug. 5, 6, 9, 10, 1951.



01598500 NORTH BRANCH POTOMAC RIVER AT LUKE, MD

LOCATION.--Lat 39°28'45", 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 National Geodetic Vertical Datum of 1929. June 27, 1899, to July 15, 1906, nonrecording gage at bridge 1.1 mi downstream at datum about 35 ft lower.

REMARKS.--No estimated daily discharges. Records good. Flow regulated prior to July 1981 by Stony River Reservoir, 45 mi upstream from station, since December 1950 by Savage River Reservoir, 5 mi upstream from station (see station 01597500), and since July 1981 by Jennings Randolph Lake, 9 mi upstream from station. Some regulation at low flow by West Virginia Pulp and Paper Company at site used 1899-1906. U.S. Army Corps of Engineers satellite 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, 4,700 ft^3/s, Apr. 15, gage height, 6.82 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	426	690	399	3730	860	728	907	637	271	231	231	226
2	424	685	399	3640	857	1070	747	561	270	231	231	225
3	422	680	515	3380	859	1080	711	470	277	231	231	221
4	427	677	676	2460	863	1360	634	434	272	237	231	211
5	422	678	470	1830	877	1470	565	433	254	232	226	205
6	628	674	470	1750	933	1480	560	389	236	228	229	202
7	627	672	484	1760	1320	1490	556	325	236	228	229	190
8	623	667	478	1630	1560	1230	553	322	236	227	229	189
9	414	667	473	1540	1530	1020	557	353	235	735	235	189
10	413	690	469	1540	1520	1020	563	347	235	612	229	189
11	723	673	467	1550	1500	1010	523	555	222	245	228	188
12	926	667	463	1550	1270	1000	500	553	230	252	228	186
13	827	663	462	1550	1090	955	1000	327	229	251	228	185
14	804	629	458	1540	1120	837	2830	323	230	248	228	184
15	717	594	536	1540	1100	787	4130	321	231	247	229	184
16	453	555	666	1980	1080	786	4390	308	235	245	231	184
17	431	526	948	2720	1080	788	2960	298	232	245	232	184
18	509	523	1270	2710	1080	822	1940	301	231	244	233	184
19	492	485	1410	2650	1090	832	1500	306	228	241	232	184
20	430	467	1380	2620	1140	827	1590	299	228	243	233	175
21	430	510	1390	2600	1130	826	1030	297	227	243	231	166
22	441	509	1370	1850	1120	879	735	297	229	243	231	166
23	1380	513	1420	1270	1110	1950	699	312	237	243	240	166
24	1990	511	1420	1260	1100	2810	737	323	230	241	785	166
25	1380	507	1390	1240	1090	2160	830	513	228	241	626	166
26	957	505	1370	1230	1090	1920	823	535	227	239	241	165
27	669	504	1360	1230	1080	1780	1020	327	222	239	240	164
28	594	501	1350	1030	665	1400	1010	308	228	238	240	165
29	536	500	1370	835	---	1270	672	292	228	244	239	166
30	576	454	1890	862	---	1130	667	285	229	237	235	166
31	695	---	3260	875	---	1040	---	274	---	232	227	---
TOTAL	20786	17576	30483	57952	31114	37757	35939	11625	7103	8293	8138	5541
MEAN	671	586	983	1869	1111	1218	1198	375	237	268	263	185
MAX	1990	690	3260	3730	1560	2810	4390	637	277	735	785	226
MIN	413	454	399	835	665	728	500	274	222	227	226	164

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1950 - 1991, BY WATER YEAR (WY)

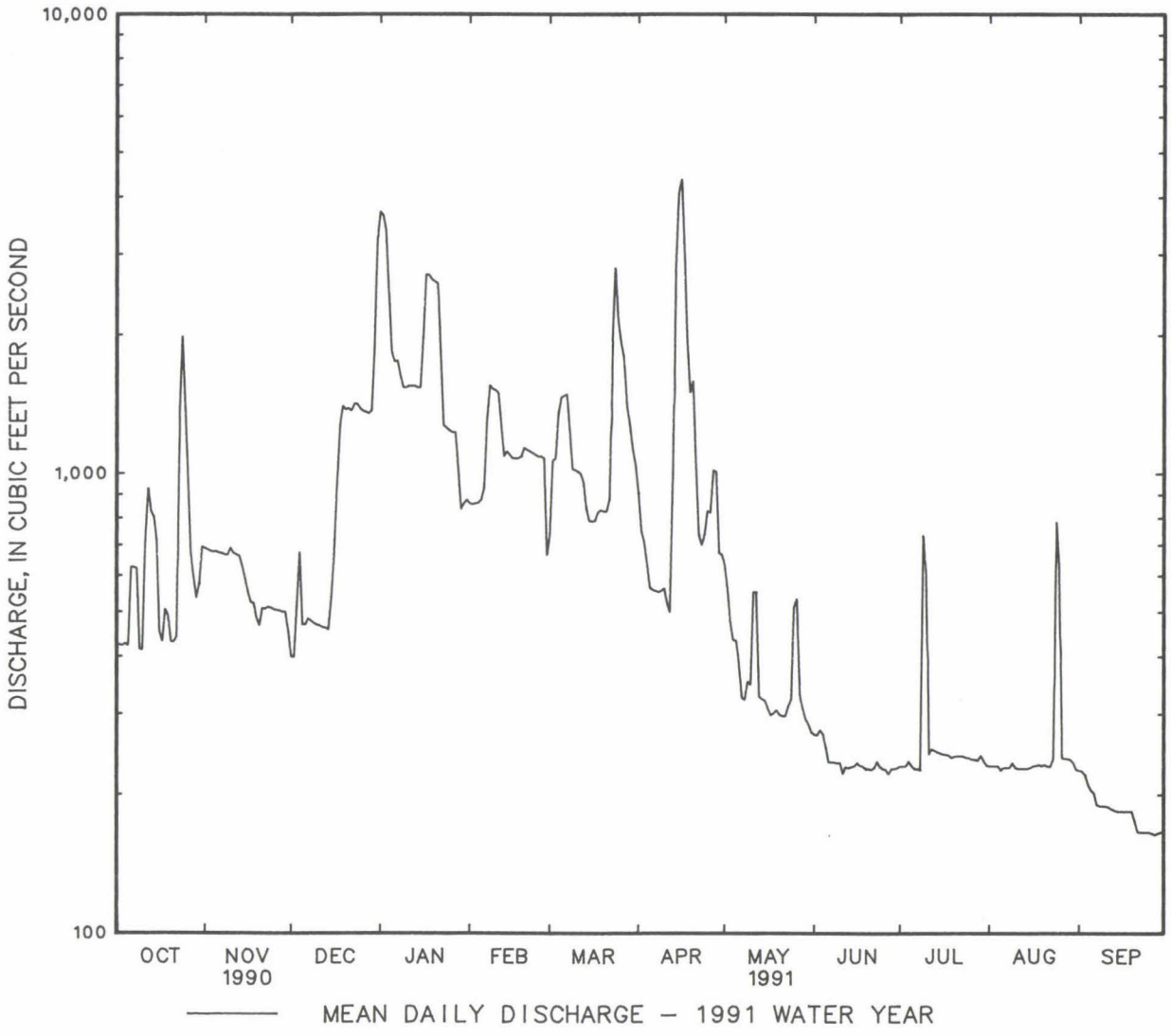
MEAN	377	495	842	903	1109	1500	1164	908	514	316	311	260
MAX	1423	2806	2536	2276	2421	3414	2442	2238	1493	1294	1401	737
(WY)	1955	1986	1973	1952	1956	1963	1958	1988	1981	1990	1955	1971
MIN	45.5	91.8	131	166	322	467	374	165	108	91.4	61.4	66.9
(WY)	1952	1954	1954	1977	1978	1988	1990	1982	1969	1953	1951	1951

01598500 NORTH BRANCH POTOMAC RIVER AT LUKE, MD--Continued

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1950 - 1991	
ANNUAL TOTAL	300585		272307			
ANNUAL MEAN	824		746		723	
ANNUAL MEAN≠	837		691		724	
HIGHEST ANNUAL MEAN					943	1972
LOWEST ANNUAL MEAN					412	1969
HIGHEST DAILY MEAN	6300	Jul 13	4390	Apr 16	18400	Aug 18 1955
LOWEST DAILY MEAN	286	Aug 3	164	Sep 27	36	Oct 20 1951
ANNUAL SEVEN-DAY MINIMUM	293	Aug 9	165	Sep 22	38	Oct 18 1951
INSTANTANEOUS PEAK FLOW	8540	Jul 13	4700	Apr15	a39400	Oct 15 1954
INSTANTANEOUS PEAK STAGE	8.89	Jul 13	6.82	Apr 15	17.15	Oct 15 1954
INSTANTANEOUS LOW FLOW	222	Aug 26	119	Jun 11	UNKNOWN	
ANNUAL RUNOFF (CFSM)≠	2.07		1.71		1.79	
ANNUAL RUNOFF (INCHES)≠	28.12		23.22		24.33	
10 PERCENT EXCEEDS	1500		1540		1630	
50 PERCENT EXCEEDS	577		513		411	
90 PERCENT EXCEEDS	361		227		111	

≠ 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 Westvaco Corporation datum. 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.--No estimated daily discharges. Records good. 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)
Dec. 31	0145	*1,230	*6.50	No other peak greater than base discharge.			

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	64	23	438	84	78	101	78	20	10	8.2	7.4
2	20	55	23	306	83	87	93	74	19	9.8	7.6	6.8
3	18	47	73	229	84	92	86	71	21	9.3	6.8	6.4
4	22	40	161	169	87	386	83	67	21	14	9.2	7.1
5	22	38	94	134	101	220	83	63	18	15	8.2	8.2
6	18	42	85	122	196	194	81	70	17	11	7.7	7.8
7	16	36	79	133	321	201	77	63	16	9.8	7.2	6.9
8	17	32	71	104	254	147	74	56	15	11	7.2	6.1
9	16	31	65	99	197	124	75	66	15	9.8	13	5.7
10	16	65	60	102	159	110	81	59	14	9.4	9.5	5.4
11	196	57	56	103	132	100	72	52	14	9.8	7.8	5.5
12	118	47	52	112	106	92	67	49	14	9.5	7.5	5.4
13	157	43	50	112	103	90	155	47	13	12	7.2	5.1
14	109	41	46	100	153	88	534	45	12	9.7	7.7	10
15	90	39	106	104	127	84	604	42	12	8.2	8.0	6.3
16	76	39	135	471	98	84	471	39	15	7.8	7.8	5.4
17	61	40	97	597	98	86	334	37	15	7.7	7.3	5.0
18	77	39	205	387	90	126	244	42	13	7.3	6.9	4.9
19	80	37	224	286	105	114	191	55	14	7.0	7.2	6.1
20	60	35	158	236	146	103	180	43	13	7.2	8.6	6.1
21	56	33	179	220	120	101	159	37	12	6.9	7.8	5.4
22	63	33	152	164	109	122	144	33	12	7.7	7.8	5.1
23	641	36	227	134	100	381	116	31	22	8.0	20	5.3
24	368	35	234	123	94	325	105	29	16	7.6	26	5.9
25	225	32	168	99	90	252	97	27	13	7.1	11	6.7
26	152	30	140	92	86	193	91	27	12	7.4	10	6.2
27	114	28	116	91	84	185	88	31	11	7.6	8.7	5.3
28	96	28	107	89	81	154	87	26	11	7.1	11	5.0
29	84	26	108	85	---	129	86	23	10	9.8	10	4.9
30	77	24	434	86	---	124	85	22	10	10	8.2	4.8
31	70	---	792	102	---	106	---	21	---	9.6	7.8	---
TOTAL	3158	1172	4520	5629	3488	4678	4744	1425	440	284.1	288.9	182.2
MEAN	102	39.1	146	182	125	151	158	46.0	14.7	9.16	9.32	6.07
MAX	641	65	792	597	321	386	604	78	22	15	26	10
MIN	16	24	23	85	81	78	67	21	10	6.9	6.8	4.8
CFSM	1.41	.54	2.01	2.51	1.72	2.08	2.18	.63	.20	.13	.13	.08
IN.	1.62	.60	2.32	2.89	1.79	2.40	2.44	.73	.23	.15	.15	.09

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1930 - 1991, BY WATER YEAR (WY)

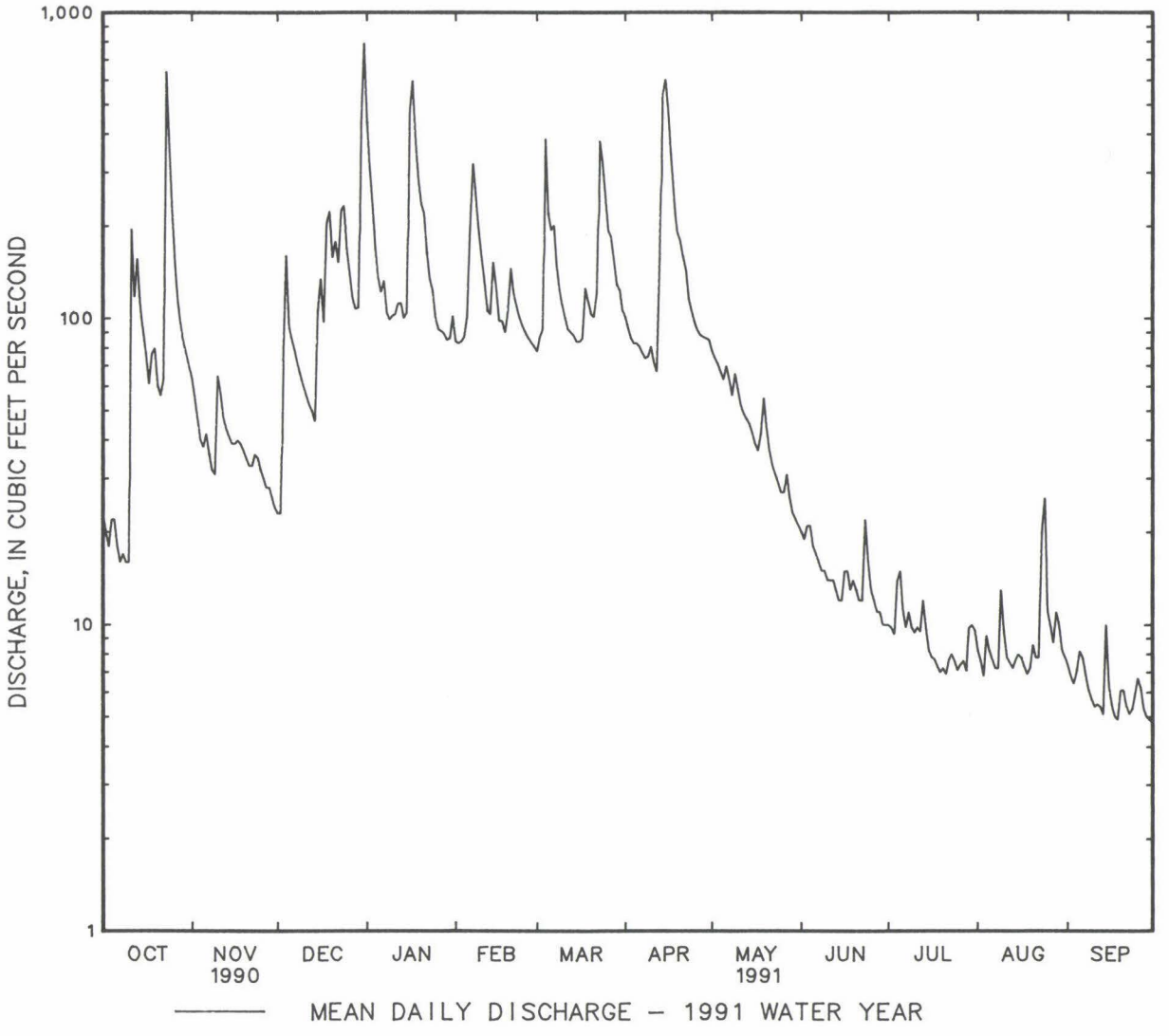
MEAN	33.5	42.2	71.5	89.3	125	199	170	124	56.5	29.3	22.4	19.4
MAX	270	355	314	371	283	682	408	294	161	185	120	141
(WY)	1943	1986	1973	1937	1971	1936	1970	1989	1951	1989	1955	1945
MIN	1.78	3.40	3.42	10.9	8.77	43.2	40.0	27.7	12.5	5.19	3.97	2.65
(WY)	1931	1931	1944	1940	1954	1990	1954	1934	1969	1930	1930	1932

01599000 GEORGES CREEK AT FRANKLIN, MD--Continued

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1930 - 1991	
ANNUAL TOTAL	29854		30009.2			
ANNUAL MEAN	81.8		82.2		81.6	
HIGHEST ANNUAL MEAN					129	1984
LOWEST ANNUAL MEAN					30.7	1969
HIGHEST DAILY MEAN	792	Dec 31	792	Dec 31	4130	Mar 17 1936
LOWEST DAILY MEAN	12	Aug 18	4.8	Sep 30	1.6	(a)
ANNUAL SEVEN-DAY MINIMUM	14	Aug 13	5.4	Sep 17	1.6	Sep 29 1930
INSTANTANEOUS PEAK FLOW	1320	Jul 13	1230	Dec 31	b8500	Mar 17 1936
INSTANTANEOUS PEAK STAGE	6.64	Jul 13	6.50	Dec 31	c9.60	Mar 17 1936
INSTANTANEOUS LOW FLOW	12	(d)	4.5	(f)	1.6	(g)
ANNUAL RUNOFF (CFSM)	1.13		1.14		1.13	
ANNUAL RUNOFF (INCHES)	15.34		15.42		15.32	
10 PERCENT EXCEEDS	166		192		196	
50 PERCENT EXCEEDS	53		52		37	
90 PERCENT EXCEEDS	20		7.2		6.9	

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 Aug. 18, 19.
f Sept. 18, 28-30.
g 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 National Geodetic Vertical Datum of 1929. May 6, 1905, to July 14, 1906, nonrecording gage at highway bridge 700 ft upstream at different datum. Oct. 18, 1929, to Mar. 17, 1936, water-stage recorder, and Apr. 1, 1936, to Mar. 19, 1937, nonrecording gage at site 200 ft upstream at present datum.

REMARKS.--Records good except those for estimated daily discharges (ice effect), which are 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, and 1967-82, 84 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)
Oct. 23	1315	*9,280	*9.23	Dec. 31	0400	4,980	7.14

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	113	286	111	1920	332	327	497	311	86	44	38	19
2	102	252	111	1250	376	403	457	287	75	41	31	18
3	92	229	482	952	386	432	400	270	74	40	27	18
4	101	210	1390	743	449	1940	373	248	72	58	28	18
5	125	199	1050	607	576	1530	377	237	70	100	25	19
6	100	217	787	559	1150	1180	370	256	65	60	24	19
7	85	185	619	577	2240	1200	335	234	63	63	25	19
8	78	168	504	466	1770	987	312	206	62	59	23	18
9	75	157	420	439	1220	850	318	208	59	52	26	17
10	76	319	357	442	928	724	380	205	58	49	26	17
11	1280	316	312	466	740	610	321	184	56	46	24	17
12	1590	285	280	480	595	525	306	172	58	43	23	16
13	1430	273	260	493	542	487	446	168	57	47	22	17
14	1130	255	234	447	673	459	847	177	56	43	22	19
15	803	239	395	468	620	406	1620	157	54	40	23	17
16	573	231	668	1690	443	367	1670	141	52	37	22	15
17	434	226	615	2880	458	397	1240	133	51	35	21	15
18	556	209	1300	1830	437	628	927	130	52	33	22	15
19	614	192	1910	1260	457	851	756	164	53	32	37	19
20	510	181	1360	1050	671	862	690	139	53	31	42	16
21	449	168	1250	1000	886	770	617	120	51	30	29	16
22	427	162	1040	806	831	773	608	113	65	27	25	16
23	5370	168	1440	673	690	1560	534	108	73	25	27	16
24	3010	169	1730	650	582	1620	506	103	66	24	27	17
25	1500	154	1330	499	525	1220	464	103	57	24	25	18
26	983	142	993	423	461	942	418	96	52	26	24	18
27	724	134	768	e400	404	891	390	90	49	26	23	17
28	577	129	682	e380	360	762	368	85	46	25	25	17
29	465	125	591	367	---	666	374	80	44	26	24	16
30	381	117	1190	356	---	620	347	78	43	27	21	15
31	327	---	3700	423	---	541	---	80	---	33	20	---
TOTAL	24080	6097	27879	24996	19802	25530	17268	5083	1772	1246	801	514
MEAN	777	203	899	806	707	824	576	164	59.1	40.2	25.8	17.1
MAX	5370	319	3700	2880	2240	1940	1670	311	86	100	42	19
MIN	75	117	111	356	332	327	306	78	43	24	20	15
CFSM	3.14	.82	3.64	3.26	2.86	3.33	2.33	.66	.24	.16	.10	.07
IN.	3.63	.92	4.20	3.76	2.98	3.85	2.60	.77	.27	.19	.12	.08

e Estimated

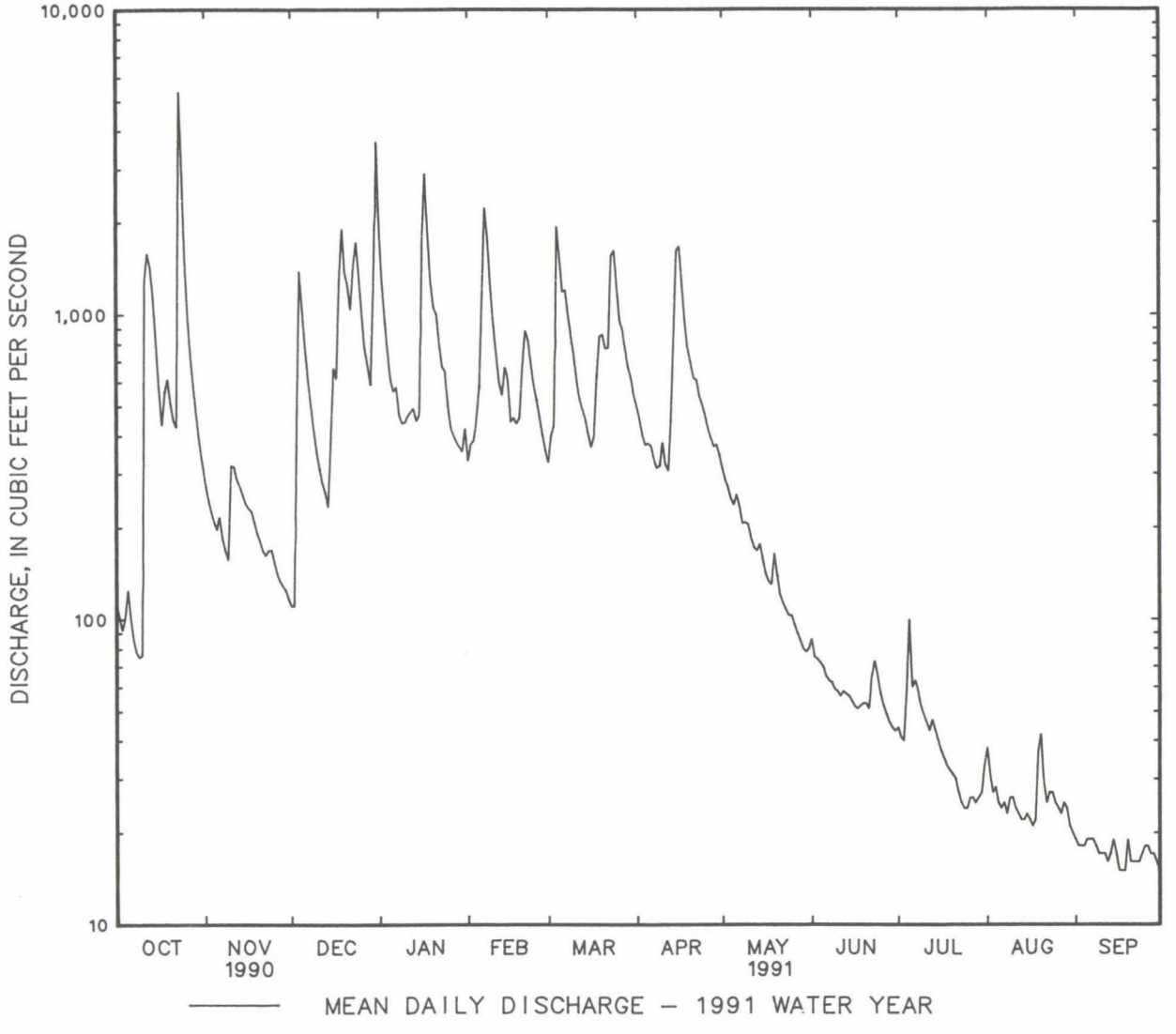
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1930 - 1991, BY WATER YEAR (WY)

MEAN	143	191	322	377	518	794	674	468	227	109	89.2	73.1
MAX	1130	1520	1113	1477	1255	2410	1398	1109	967	641	674	412
(WY)	1943	1986	1973	1937	1971	1936	1970	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 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1930 - 1991	
ANNUAL TOTAL	146788		155068			
ANNUAL MEAN	402		425		331	
HIGHEST ANNUAL MEAN					491	1984
LOWEST ANNUAL MEAN					122	1954
HIGHEST DAILY MEAN	5370	Oct 23	5370	Oct 23	15700	Oct 15 1942
LOWEST DAILY MEAN	32	Aug 18	15	(a)	10	(b)
ANNUAL SEVEN-DAY MINIMUM	35	Aug 13	16	Sep 16	10	Oct 8 1930
INSTANTANEOUS PEAK FLOW	9280	Oct 23	9280	Oct 23	c38100	Mar 17 1936
INSTANTANEOUS PEAK STAGE	9.23	Oct 23	9.23	Oct 23	d20.20	Mar 17 1936
INSTANTANEOUS LOW FLOW	30	Aug 18	13	Sep 18	9.0	Oct 14 1930
ANNUAL RUNOFF (CFSM)	1.63		1.72		1.34	
ANNUAL RUNOFF (INCHES)	22.11		23.35		18.22	
10 PERCENT EXCEEDS	919		1140		789	
50 PERCENT EXCEEDS	229		237		147	
90 PERCENT EXCEEDS	64		22		29	

a Sept. 16-18, 30.
b Oct. 8-10, 1930.
c 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.
d From floodmarks at present site.



01603000 NORTH BRANCH POTOMAC RIVER NEAR CUMBERLAND, MD

LOCATION.--Lat 39°37'16", 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 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 National Geodetic Vertical Datum of 1929. Prior to June 18, 1929, nonrecording gage at same site and datum.

REMARKS.--Records good except those for estimated daily dicharges (backwater from construction), 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 gage. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

EXTREMES 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, 12,400 ft^3/s, Oct. 23, gage height, 11.47 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e470	1230	708	6660	e1400	e1100	1840	1190	433	298	279	251
2	e460	1180	678	5440	e1430	e1750	1590	1110	420	294	275	246
3	e450	1130	1050	4810	e1450	e1800	1450	987	426	291	266	245
4	e470	1100	2550	3850	e1500	e4700	1400	892	433	304	273	248
5	e520	1080	2000	2770	e1650	e4000	1290	863	406	411	267	251
6	e480	1110	1610	2630	e2400	e3400	1270	913	361	338	255	245
7	e600	1060	1430	2750	e4000	e3500	1220	813	355	319	255	242
8	e590	1020	1300	2510	e3850	e2900	1180	719	350	312	255	228
9	e580	1010	1200	2300	e3200	e2400	1170	735	335	300	276	229
10	e450	1230	1130	2310	e2850	e2200	1270	790	342	1050	279	226
11	e1500	1320	1070	2430	e2600	1950	1170	730	330	381	261	228
12	3140	1190	1030	2450	e2300	1810	1080	873	328	302	256	222
13	2790	1160	1000	2550	e2000	1770	1330	843	325	338	251	222
14	2440	1100	973	2420	e2250	1650	3950	660	325	319	250	235
15	1930	1030	1140	2430	e2200	1520	6680	623	318	298	256	230
16	1430	1020	1750	e4800	e1850	1470	7340	592	317	294	257	223
17	1110	953	1710	e7500	e1850	1500	5500	566	340	289	254	220
18	1240	931	2680	e5600	e1850	1760	3650	561	328	288	290	220
19	1500	895	3770	e4600	e1850	2040	2610	634	325	288	294	230
20	1200	841	3220	e4250	e2250	2060	2670	590	318	286	291	217
21	1110	829	3210	e4150	e2500	1970	2330	539	314	283	269	213
22	1090	839	3100	e3350	e2350	1970	1780	526	331	283	261	206
23	7450	852	3590	e2350	e2200	3740	1600	519	421	291	259	207
24	6460	869	3940	e2250	e2050	5800	1510	515	389	282	337	209
25	3790	854	3580	e2000	e1950	4340	1540	530	339	274	1090	215
26	2780	841	3160	e1850	e1850	3260	1500	696	318	271	356	210
27	1900	830	2820	e1900	e1750	3260	1490	708	309	271	274	205
28	1580	820	2710	e1750	e1550	2650	1690	501	295	270	274	202
29	1360	810	2620	e1450	---	2330	1380	463	294	278	285	203
30	1210	802	3330	e1400	---	2200	1260	450	295	290	273	205
31	1250	---	8730	e1550	---	1940	---	434	---	288	264	---
TOTAL	53330	29936	72789	99060	60930	78740	65740	21565	10420	10081	9282	6733
MEAN	1720	998	2348	3195	2176	2540	2191	696	347	325	299	224
MAX	7450	1320	8730	7500	4000	5800	7340	1190	433	1050	1090	251
MIN	450	802	678	1400	1400	1100	1080	434	294	270	250	202

e Estimated

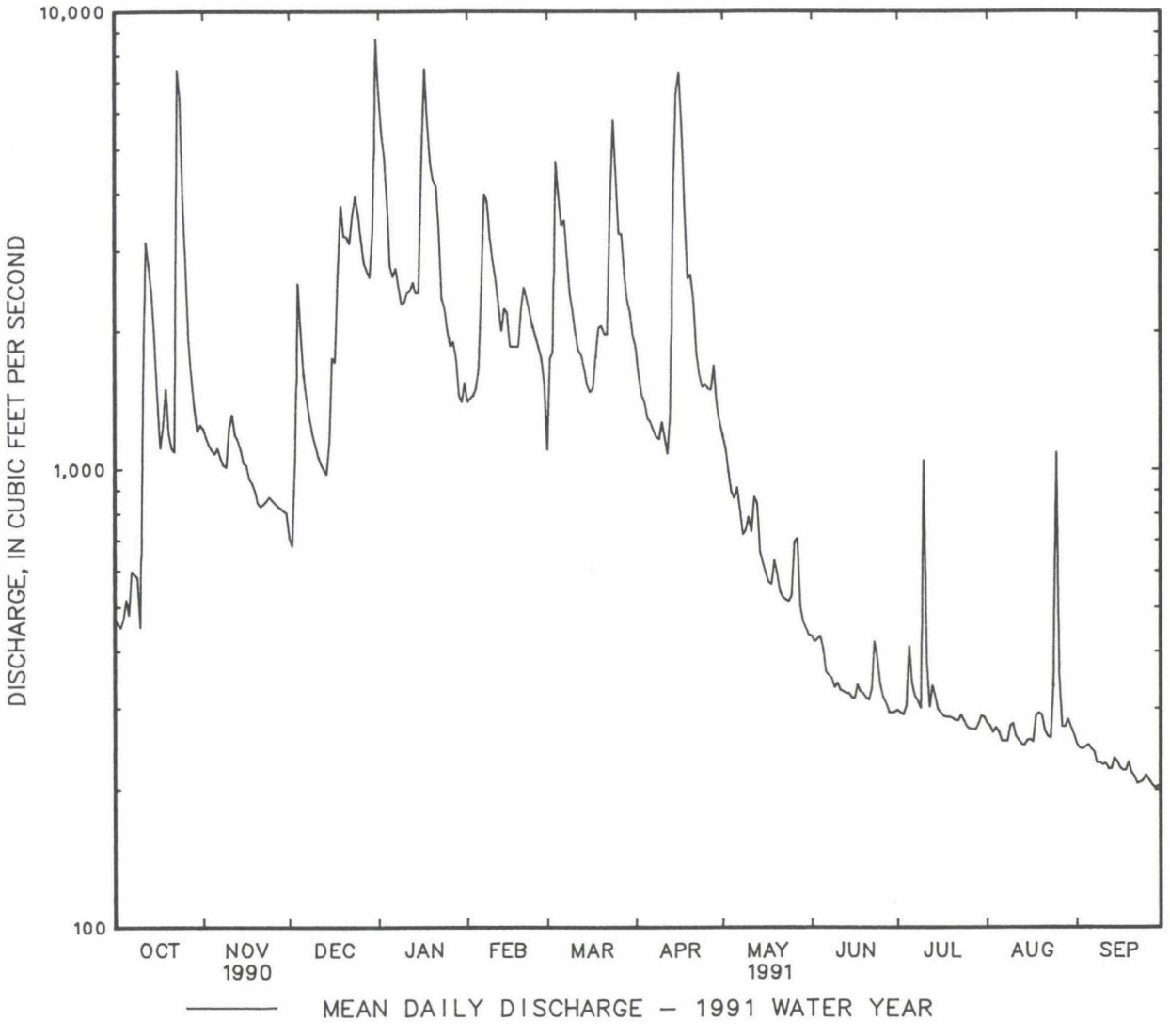
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1930 - 1991, BY WATER YEAR (WY)

MEAN	616	765	1305	1551	1994	2843	2347	1720	889	511	437	389
MAX	3791	5350	4652	5115	4125	8763	4888	3902	2375	2270	2028	2036
(WY)	1943	1986	1973	1937	1961	1936	1970	1988	1981	1989	1955	1945
MIN	28.9	44.8	134	269	393	789	723	374	209	89.7	57.7	40.3
(WY)	1931	1931	1931	1940	1934	1990	1968	1934	1965	1930	1930	1932

01603000 NORTH BRANCH POTOMAC RIVER NEAR CUMBERLAND, MD--Continued

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1930 - 1991	
ANNUAL TOTAL	528453		518606			
ANNUAL MEAN	1448		1421		1277	
ANNUAL MEAN≠	1461		1366		1278	
HIGHEST ANNUAL MEAN					1801	1973
LOWEST ANNUAL MEAN					632	1969
HIGHEST DAILY MEAN	8730	Dec 31	8730	Dec 31	47400	Mar 18 1936
LOWEST DAILY MEAN	350	(a)	202	Sep 28	13	(b)
ANNUAL SEVEN-DAY MINIMUM	360	Aug 12	207	Sep 24	16	Sep 20 1932
INSTANTANEOUS PEAK FLOW	12400	Oct 23	12400	Oct 23	c88200	Mar 17 1936
INSTANTANEOUS PEAK STAGE	11.47	Oct 23	11.47	Oct 23	29.10	Mar 17 1936
INSTANTANEOUS LOW FLOW	UNKNOWN		202	(d)	12	Sep 22 1932
ANNUAL RUNOFF (CFSM)	1.67		1.56		1.46	
ANNUAL RUNOFF (INCHES)	22.67		21.19		19.83	
10 PERCENT EXCEEDS	2880		3240		2970	
50 PERCENT EXCEEDS	963		1050		671	
90 PERCENT EXCEEDS	494		256		163	

≠ Adjusted for change in reservoir contents since October 1981.
a Aug. 15, 16.
b Sept. 21-24, 1932.
c From rating curve extended above 33,000 ft^3/s on basis of slope-area measurement of peak flow.
d Sept. 27-29.



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.

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 National Geodetic Vertical Datum of 1929. 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.--No estimated daily discharges. Records good. National Weather Service gage-height telemeter and U.S. Army Corps of Engineers satellite telementer at station. Several measurments 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 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)
Dec. 31	0600	14,900	11.72	Mar. 5	0100	14,500	11.54
Jan. 17	1000	16,600	12.44	Mar. 24	0800	*31,500	*17.38

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	171	648	299	8590	1210	790	2340	932	292	162	512	120
2	162	588	291	4930	1130	767	2210	846	281	156	383	116
3	154	538	306	3400	1070	921	1990	780	296	157	309	113
4	152	499	477	2520	1000	6610	1780	724	356	184	262	122
5	152	463	622	1970	941	11000	1640	684	336	585	230	124
6	147	453	875	1650	935	6040	1570	662	294	786	201	129
7	146	445	783	1600	1060	4640	1550	677	263	590	180	133
8	146	455	706	1780	1310	3740	1410	667	244	416	169	134
9	149	428	649	1740	1330	2890	1320	636	230	313	169	137
10	146	434	601	1760	1230	2400	1290	664	219	259	195	131
11	198	490	557	2820	1130	2070	1220	715	210	232	347	123
12	794	747	523	5120	1030	1780	1090	665	201	220	430	117
13	1470	712	495	8290	939	1590	1020	699	187	223	324	113
14	1540	658	468	6410	964	1530	2460	808	178	242	264	114
15	1410	613	476	4800	1030	1470	3780	845	171	258	232	111
16	1020	572	568	7080	971	1350	3380	707	164	257	213	109
17	772	534	997	15100	843	1340	2740	606	162	232	194	106
18	644	505	1090	9600	828	1580	2280	545	167	205	179	106
19	602	486	1140	5790	879	2680	1970	512	159	182	170	119
20	1020	460	1360	4110	925	3010	1770	508	161	169	228	116
21	1030	431	1370	3290	1360	2630	1640	537	165	166	208	115
22	837	411	1290	2640	1360	2560	1510	494	169	192	223	113
23	2410	398	1270	2070	1250	9280	1370	454	172	261	203	122
24	6800	380	1690	1790	1130	23900	1240	425	212	232	177	125
25	3660	367	3130	1620	1030	10100	1130	412	275	202	160	122
26	2260	360	2630	1360	974	5730	1040	386	327	183	149	120
27	1620	346	2030	1210	935	4090	959	382	266	170	140	119
28	1250	335	1690	1180	859	3230	905	376	221	193	134	116
29	1010	324	1510	1130	---	2620	1060	354	193	275	128	113
30	848	311	3660	1050	---	2440	1010	333	173	277	123	112
31	733	---	13600	1020	---	2560	---	314	---	371	123	---
TOTAL	33453	14391	47153	117420	29653	127338	50674	18349	6744	8350	6959	3570
MEAN	1079	480	1521	3788	1059	4108	1689	592	225	269	224	119
MAX	6800	747	13600	15100	1360	23900	3780	932	356	786	512	137
MIN	146	311	291	1020	828	767	905	314	159	156	123	106
CFSM	.73	.33	1.03	2.57	.72	2.79	1.15	.40	.15	.18	.15	.08
IN.	.85	.36	1.19	2.97	.75	3.22	1.28	.46	.17	.21	.18	.09

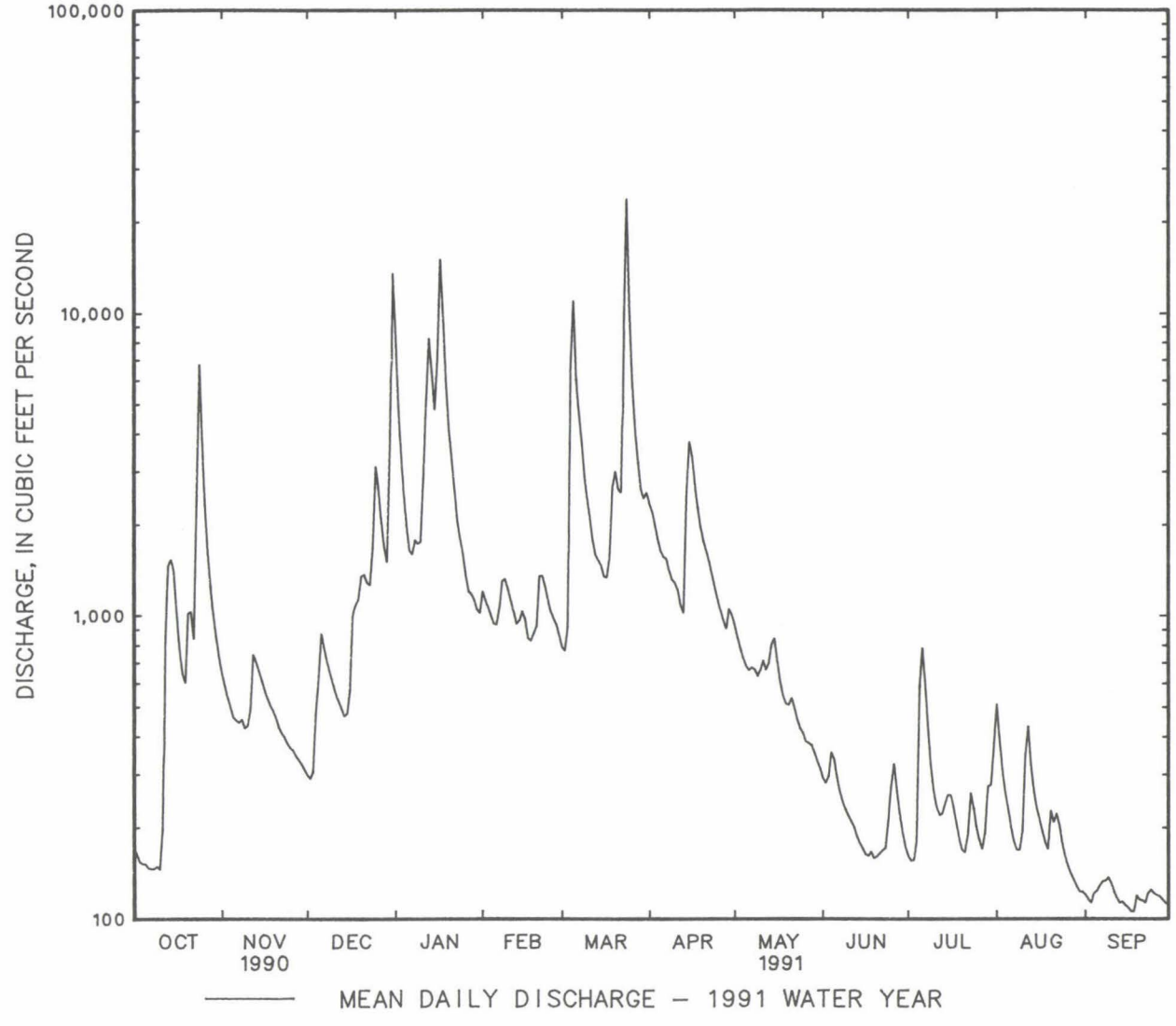
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1899 - 1991, BY WATER YEAR (WY)

MEAN	657	862	1235	1549	1998	2901	2371	1771	1031	520	509	400
MAX	4629	12850	5000	4595	5137	10490	6421	4079	5231	2638	3923	1980
(WY)	1977	1986	1973	1937	1939	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 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1899 - 1991	
ANNUAL TOTAL	391911		464054			
ANNUAL MEAN	1074		1271		1313	
HIGHEST ANNUAL MEAN					2232	1973
LOWEST ANNUAL MEAN					566	1969
HIGHEST DAILY MEAN	13600	Dec 31	23900	Mar 24	145000	Nov 5 1985
LOWEST DAILY MEAN	146	Oct 7	106	Sep 17	52	Sep 11 1966
ANNUAL SEVEN-DAY MINIMUM	148	Oct 4	111	Sep 12	54	Sep 7 1966
INSTANTANEOUS PEAK FLOW	14900	Dec 31	31500	Mar 24	a240000	Nov 5 1985
INSTANTANEOUS PEAK STAGE	11.72	Dec 31	17.38	Mar 24	b44.22	Nov 5 1985
INSTANTANEOUS LOW FLOW	146	(c)	103	Sep 18	29	(d)
ANNUAL RUNOFF (CFSM)	.73		.86		.89	
ANNUAL RUNOFF (INCHES)	9.91		11.74		12.13	
10 PERCENT EXCEEDS	2200		2660		2970	
50 PERCENT EXCEEDS	722		602		638	
90 PERCENT EXCEEDS	186		146		154	

a From rating curve extended above 145,000 ft^3/s on basis of slope-area measurement of peak flow.
b From floodmarks.
c Oct. 6-10.
d Jan. 28, 1956, result of freezeup, July 30, 1966, result of temporary dam.



01610000 POTOMAC RIVER AT PAW PAW, WV

LOCATION.--Lat 39°32'13", long 78°27'28", 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 National Geodetic Vertical Datum of 1929. Prior to Mar. 25, 1939, nonrecording gage at bridge 250 ft downstream at same datum.

REMARKS.--No estimated daily discharges. Records good. 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)
Oct. 23	2315	22,500	16.46	Mar. 5	0415	22,500	16.45
Dec. 31	1400	29,600	18.88	Mar. 24	1230	*39,700	*22.11
Jan. 17	1245	32,000	19.66				

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	912	2420	1220	20100	3480	2810	5590	2840	880	516	901	451
2	868	2260	1110	13400	3430	2920	5210	2610	846	511	826	428
3	828	2100	1270	10500	3320	3370	4670	2370	838	499	697	417
4	809	1970	5600	8670	3290	11800	4250	2180	885	517	622	412
5	856	1870	4630	6700	3320	19000	3960	2030	927	764	587	413
6	845	1880	3740	5790	3920	11900	3790	2040	849	1570	534	415
7	991	1850	3250	5830	5880	10200	3670	2200	753	1210	491	415
8	988	1760	2840	5830	6820	8680	3430	1940	708	988	476	413
9	981	1700	2550	5460	6070	7050	3270	1840	677	794	490	402
10	784	1930	2320	5290	5400	6120	3330	1910	649	968	519	400
11	1380	2530	2140	6350	4910	5500	3160	1920	626	1190	541	398
12	4510	2400	1990	8010	4450	4930	2850	2010	624	632	788	395
13	5640	2400	1900	11600	3940	4570	2790	2010	588	630	718	383
14	5360	2240	1800	10600	4090	4400	6470	2190	570	637	618	379
15	4460	2100	1880	8790	4490	4150	12300	1910	557	638	570	380
16	3400	1970	3510	13100	3950	3820	13600	1840	552	625	547	379
17	2550	1870	3580	29400	3610	3720	11000	1570	554	607	516	373
18	2210	1760	4490	21300	3600	4090	8030	1440	555	572	496	367
19	2960	1680	7030	14100	3610	5440	6420	1430	546	540	548	365
20	2740	1600	6340	11100	3870	6200	5820	1430	547	512	603	365
21	2820	1500	5830	9980	4460	5760	5470	1390	544	558	616	365
22	2470	1490	5700	8690	4660	5560	4720	1310	538	506	552	365
23	11600	1480	5790	6510	4390	12300	4190	1220	605	569	551	365
24	18500	1480	7880	5840	4060	34700	3830	1170	668	611	535	365
25	10200	1430	8260	5210	3840	18900	3620	1140	699	559	894	365
26	6800	1380	7270	4580	3660	11700	3440	1300	737	524	1080	365
27	4980	1350	6000	4350	3510	9520	3220	1300	706	507	505	365
28	3950	1330	5340	4190	3340	8020	3290	1150	612	491	467	365
29	3280	1300	4980	3800	---	6710	3300	1050	568	566	464	361
30	2800	1260	5530	3480	---	6210	3030	1010	538	651	464	352
31	2550	---	24900	3520	---	6070	---	936	---	636	460	---
TOTAL	114022	54290	150670	282070	117370	256120	151720	52686	19946	21098	18676	11583
MEAN	3678	1810	4860	9099	4192	8262	5057	1700	665	681	602	386
MAX	18500	2530	24900	29400	6820	34700	13600	2840	927	1570	1080	451
MIN	784	1260	1110	3480	3290	2810	2790	936	538	491	460	352
CFSM	1.18	.58	1.56	2.93	1.35	2.66	1.63	.55	.21	.22	.19	.12
IN.	1.36	.65	1.80	3.38	1.40	3.06	1.82	.63	.24	.25	.22	.14

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 1991, BY WATER YEAR (WY)

MEAN	1612	2012	3311	3820	5272	7213	5960	4430	2578	1331	1177	992
MAX	9709	17180	12300	9099	11440	17120	13050	10450	7612	5071	6458	5012
(WY)	1977	1986	1973	1991	1939	1963	1987	1988	1972	1949	1955	1945
MIN	261	327	388	679	1116	2043	2258	1074	544	303	278	252
(WY)	1952	1966	1966	1981	1954	1990	1968	1941	1965	1966	1944	1959

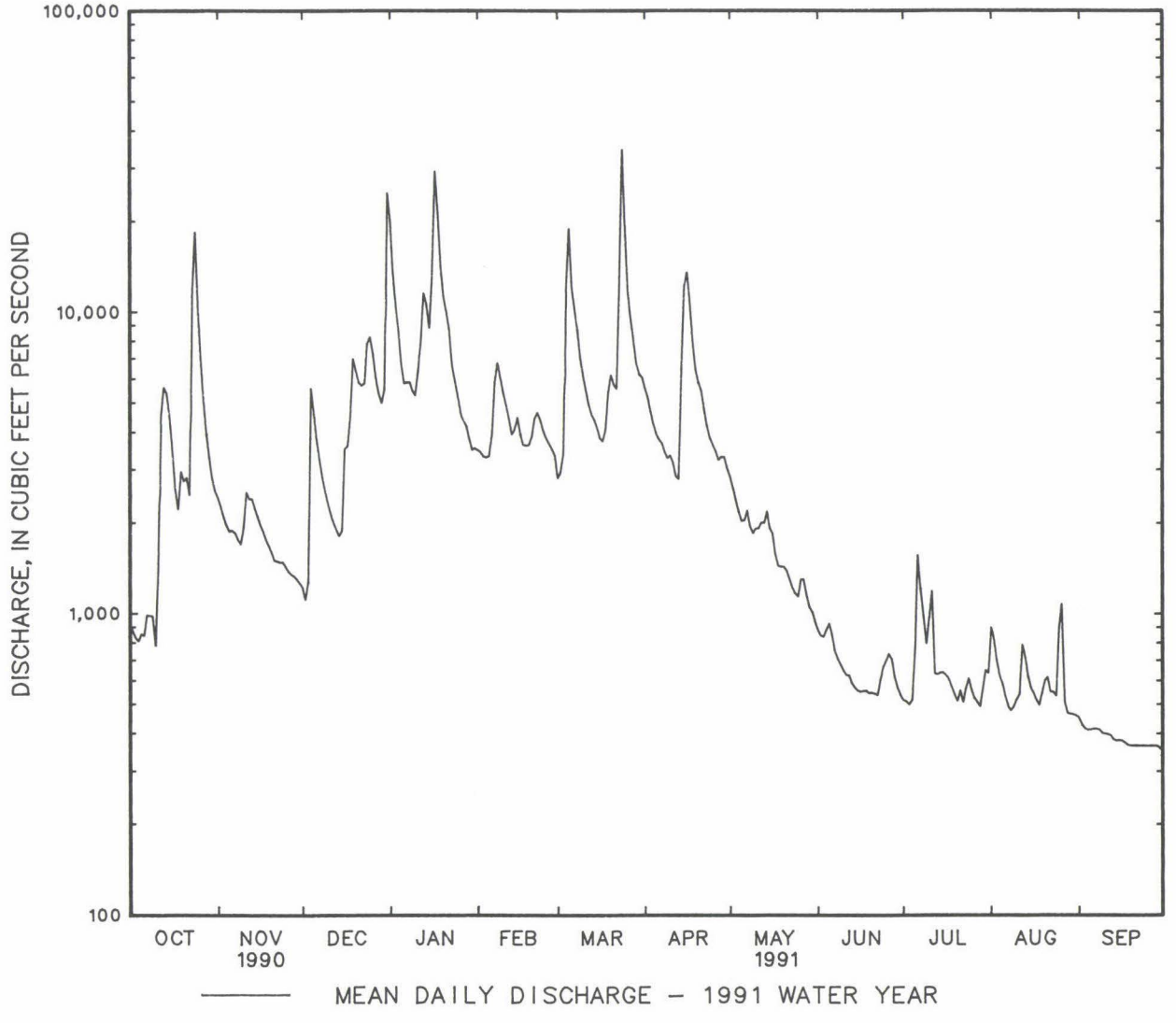
01610000 POTOMAC RIVER AT PAW PAW, WV--Continued

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1939 - 1991	
ANNUAL TOTAL	1162002		1250251			
ANNUAL MEAN	3184		3425		3299	
HIGHEST ANNUAL MEAN					5080	1973
LOWEST ANNUAL MEAN					1499	1969
HIGHEST DAILY MEAN	24900	Dec 31	34700	Mar 24	125000	Nov 6 1985
LOWEST DAILY MEAN	580	Aug 17	352	Sep 30	172	(a)
ANNUAL SEVEN-DAY MINIMUM	610	Aug 13	363	Sep 24	179	Sep 7 1966
INSTANTANEOUS PEAK FLOW	29600	Dec 31	39700	Mar 24	b235000	Nov 5 1985
INSTANTANEOUS PEAK STAGE	18.88	Dec 31	22.11	Mar 24	53.58	Nov 5 1985
INSTANTANEOUS LOW FLOW	574	Aug 17	350	Sep 30	164	(c)
ANNUAL RUNOFF (CFSM)	1.02		1.10		1.06	
ANNUAL RUNOFF (INCHES)	13.90		14.96		14.42	
10 PERCENT EXCEEDS	6390		7510		7480	
50 PERCENT EXCEEDS	2260		1990		1770	
90 PERCENT EXCEEDS	915		491		427	

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.

b Sept. 10, 11, 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 National Geodetic Vertical Datum of 1929. Oct. 1, 1932, to Jan. 5, 1935, Mar. 18, 1936, to Jan. 20, 1937, nonrecording gage, on former highway bridge just upstream at same datum.

REMARKS.--Records good. 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)
Oct. 24	0515	29,400	15.01	Mar. 5	1115	25,200	13.80
Dec. 31	1945	36,000	16.76	Mar. 24	1430	*46,500	*19.31
Jan. 17	1845	40,800	17.95				

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1120	2890	1490	27300	4040	3540	6780	3410	1180	749	798	612
2	1080	2680	1430	17200	3900	2950	6290	3150	1110	724	1010	568
3	1030	2500	1470	12900	3740	3620	5700	2880	1090	709	961	540
4	1010	2350	5610	10500	3650	7870	5150	2640	1070	703	869	531
5	1000	2220	6810	8440	3630	23000	4790	2460	1190	725	790	542
6	1030	2160	4980	6900	3870	16000	4510	2410	1210	1050	747	565
7	1020	2160	4200	6520	5560	12200	4350	2590	1120	1740	702	575
8	1160	2100	3580	6790	7780	10700	4130	2590	1010	1440	653	560
9	1160	2030	3160	6440	7290	8810	3870	2340	960	1210	666	554
10	1160	2060	2840	6030	6430	7440	3860	2260	920	1010	651	536
11	1130	2630	2600	6670	5760	6610	3850	2320	880	1220	669	534
12	3250	2850	2410	8500	5210	5910	3510	2300	859	1250	693	526
13	6600	2810	2270	11800	4710	5340	3260	2360	837	882	930	514
14	8320	2640	2170	13100	4470	5090	4190	2600	796	825	905	498
15	6050	2470	2150	10700	5020	4880	12500	2480	778	831	811	509
16	4620	2320	3080	13200	4790	4520	15700	2290	766	825	766	520
17	3480	2210	4080	35100	4160	4250	13600	2110	765	813	718	501
18	2920	2090	4610	30600	4070	4360	10300	1880	764	795	689	499
19	3250	2000	7530	19300	4040	5300	8130	1750	761	757	665	532
20	4000	1930	8010	14400	4190	6780	6810	1740	783	725	787	800
21	3620	1830	6840	12400	4560	6680	6530	1690	773	693	799	658
22	3270	1750	6750	11100	5070	6260	5960	1660	767	722	868	572
23	9760	1750	6400	8770	4930	8900	5220	1570	777	670	792	532
24	25900	1740	8800	7180	4570	40500	4690	1470	817	726	835	514
25	14800	1730	9850	6510	4270	27500	4320	1410	879	773	776	e521
26	9320	1680	9170	5560	4090	15700	4100	1380	902	729	1110	e525
27	6710	1630	7500	5110	3920	11800	3850	1520	944	692	1180	e526
28	5080	1590	6430	4880	3760	10100	3720	1610	932	665	728	509
29	4180	1560	5830	4650	---	8690	3860	1400	847	658	650	501
30	3530	1530	5570	4140	---	7570	3660	1310	779	700	631	486
31	3090	---	23100	4010	---	7290	---	1250	---	807	627	---
TOTAL	143650	63890	170720	346700	131480	300160	177190	64830	27266	26818	24476	16360
MEAN	4634	2130	5507	11180	4696	9683	5906	2091	909	865	790	545
MAX	25900	2890	23100	35100	7780	40500	15700	3410	1210	1740	1180	800
MIN	1000	1530	1430	4010	3630	2950	3260	1250	761	658	627	486
CFSM	1.14	.52	1.35	2.75	1.15	2.38	1.45	.51	.22	.21	.19	.13
IN.	1.31	.58	1.56	3.17	1.20	2.74	1.62	.59	.25	.24	.22	.15

e Estimated

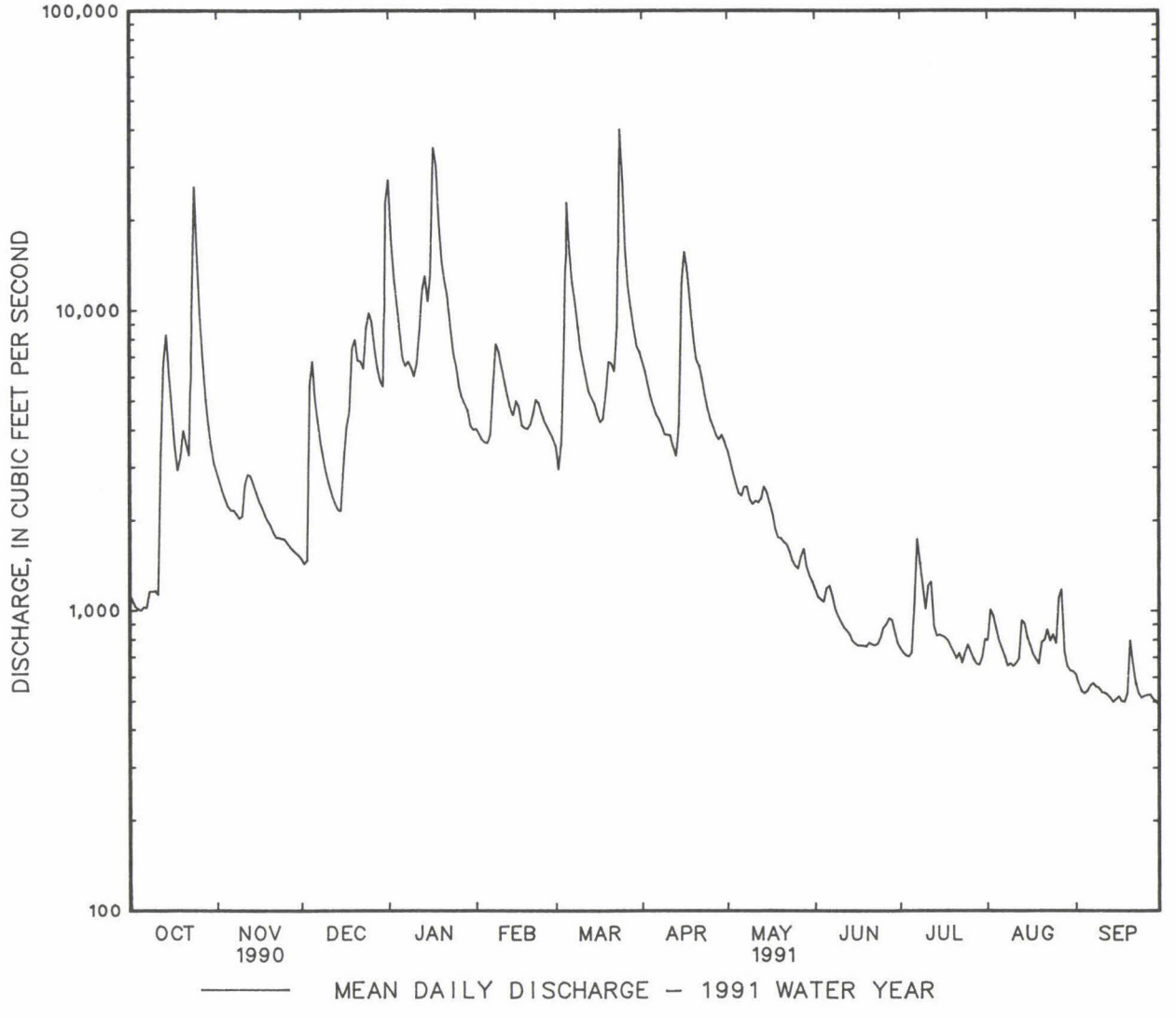
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1933 - 1991, BY WATER YEAR (WY)

MEAN	2124	2467	3994	4968	6556	9134	7653	5505	3123	1560	1505	1264
MAX	13270	20090	15160	15450	16720	32280	16950	13260	13390	6677	9479	6756
(WY)	1977	1986	1973	1937	1971	1936	1987	1988	1972	1949	1955	1945
MIN	309	399	463	751	1041	2311	2857	1344	622	357	342	329
(WY)	1942	1966	1966	1956	1934	1990	1968	1941	1969	1966	1944	1946

01613000 POTOMAC RIVER AT HANCOCK, MD--Continued

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1933 - 1991	
ANNUAL TOTAL	1349697		1493540			
ANNUAL MEAN	3698		4092		4142	
HIGHEST ANNUAL MEAN					6319	1973
LOWEST ANNUAL MEAN					1770	1969
HIGHEST DAILY MEAN	25900	Oct 24	40500	Mar 24	261000	Mar 18 1936
LOWEST DAILY MEAN	773	Aug 18	486	Sep 30	184	Oct 3 1932
ANNUAL SEVEN-DAY MINIMUM	822	Aug 13	510	Sep 12	215	Sep 7 1966
INSTANTANEOUS PEAK FLOW	36000	Dec 31	46500	Mar 24	a340000	Mar 18 1936
INSTANTANEOUS PEAK STAGE	16.76	Dec 31	19.31	Mar 24	47.60	Mar 18 1936
INSTANTANEOUS LOW FLOW	765	Aug 18	462	Sep 30	180	Oct 4 1932
ANNUAL RUNOFF (CFSM)	.91		1.00		1.02	
ANNUAL RUNOFF (INCHES)	12.33		13.64		13.82	
10 PERCENT EXCEEDS	7640		8800		9410	
50 PERCENT EXCEEDS	2610		2410		2160	
90 PERCENT EXCEEDS	1130		665		520	

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.

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

REVISED RECORDS.--WSP 756: Drainage area. WSP 1432: 1929(M), 1930, 1931-32(M), 1935(M).

GAGE.--Water-stage recorder. Datum of gage is 391.85 ft above National Geodetic Vertical Datum of 1929. Prior to Dec. 6, 1932, nonrecording gage at highway bridge 0.7 mi downstream at datum 2.93 ft lower. Dec. 6, 1932, to Oct. 7, 1933, nonrecording gage 150 ft downstream from former site at datum 4.92 ft lower than present datum.

REMARKS.--No estimated daily discharges. Records good. Low flow partly regulated by small powerplants near Mercersburg, Pa. 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 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)
Oct. 13	1615	5,490	8.53	Jan. 17	1000	5,460	8.51
Oct. 23	2115	*7,550	*10.04				

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	109	618	218	2390	710	450	797	523	214	111	111	105
2	106	561	215	1770	631	487	742	482	204	113	100	101
3	103	515	291	1510	607	542	683	455	202	123	93	98
4	104	478	3020	1300	593	1290	635	433	195	127	93	99
5	113	450	2200	1120	577	1660	618	407	185	152	93	105
6	112	469	1350	1030	613	1230	618	460	177	281	91	121
7	104	451	1060	1170	932	1220	576	704	174	211	94	134
8	103	398	882	1080	1020	1020	538	522	169	183	96	114
9	101	363	767	968	880	891	517	437	164	169	141	106
10	99	504	679	941	794	819	522	418	158	146	178	104
11	177	631	608	1020	725	754	504	389	155	135	123	105
12	760	496	547	1020	651	691	445	364	149	128	113	100
13	3690	419	514	983	620	656	430	356	150	132	109	96
14	3100	382	474	893	854	661	496	695	145	132	107	97
15	1300	356	539	826	991	663	817	595	140	123	105	95
16	885	340	921	1900	778	708	1150	450	138	115	104	95
17	683	335	755	5150	682	669	897	400	136	108	102	95
18	704	326	1120	3660	654	716	771	382	168	104	101	108
19	1560	308	1800	2440	665	806	686	367	166	101	111	206
20	1040	297	1410	2050	742	729	682	362	148	101	235	136
21	799	282	1310	1890	676	669	711	321	144	117	277	122
22	685	271	1410	1590	621	647	985	302	134	119	189	109
23	3820	288	1470	1290	577	1280	1110	288	135	107	161	107
24	4900	311	2420	1190	539	1840	917	272	145	101	138	111
25	2130	287	2100	1050	530	1350	833	263	139	99	130	117
26	1530	263	1580	917	519	1120	738	250	133	100	174	116
27	1200	249	1320	873	493	1110	676	241	123	105	148	108
28	1010	242	1210	835	469	1100	627	291	117	102	133	101
29	854	238	1100	796	---	936	586	268	114	99	123	99
30	746	228	1020	753	---	940	557	237	111	104	116	98
31	674	---	2570	801	---	884	---	229	---	105	108	---
TOTAL	33301	11356	36880	45206	19143	28538	20864	12163	4632	3953	3997	3308
MEAN	1074	379	1190	1458	684	921	695	392	154	128	129	110
MAX	4900	631	3020	5150	1020	1840	1150	704	214	281	277	206
MIN	99	228	215	753	469	450	430	229	111	99	91	95
CFSM	2.17	.77	2.41	2.95	1.38	1.86	1.41	.79	.31	.26	.26	.22
IN.	2.51	.86	2.78	3.40	1.44	2.15	1.57	.92	.35	.30	.30	.25

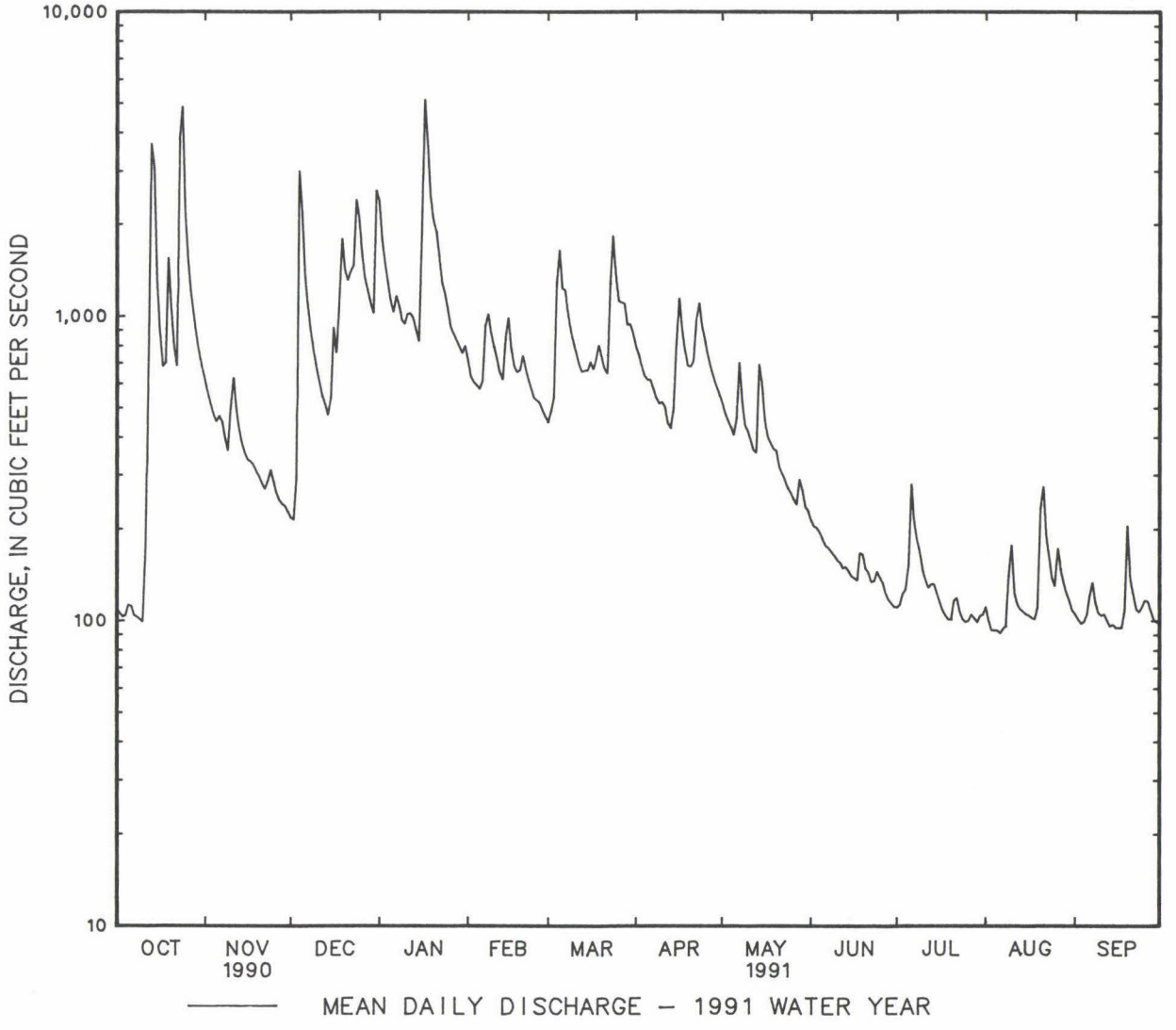
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 1991, BY WATER YEAR (WY)

MEAN	337	428	599	650	847	1130	1045	746	505	321	224	243
MAX	2177	1453	1904	1685	2446	3557	2417	1736	3278	1358	921	1828
(WY)	1977	1933	1973	1937	1984	1936	1970	1989	1972	1928	1942	1975
MIN	42.3	45.4	61.2	88.8	151	274	367	218	120	62.2	48.0	54.6
(WY)	1931	1931	1931	1931	1931	1990	1947	1941	1965	1966	1966	1930

01614500 CONOCOCHEAGUE CREEK AT FAIRVIEW, MD--Continued

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1928 - 1991	
ANNUAL TOTAL	187447		223341			
ANNUAL MEAN	514		612		584	
HIGHEST ANNUAL MEAN					1078	1972
LOWEST ANNUAL MEAN					301	1954
HIGHEST DAILY MEAN	4900	Oct 24	5150	Jan 17	26700	Jun 23 1972
LOWEST DAILY MEAN	99	Oct 10	91	Aug 6	25	Nov 28 1930
ANNUAL SEVEN-DAY MINIMUM	105	Oct 4	94	Aug 2	28	Sep 7 1966
INSTANTANEOUS PEAK FLOW	7550	Oct 23	7550	Oct 23	a32400	Jun 23 1972
INSTANTANEOUS PEAK STAGE	10.04	Oct 23	10.04	Oct 23	b24.50	Jun 23 1972
INSTANTANEOUS LOW FLOW	95	(c)	88	Aug 6	21	(d)
ANNUAL RUNOFF (CFSM)	1.04		1.24		1.18	
ANNUAL RUNOFF (INCHES)	14.12		16.82		16.07	
10 PERCENT EXCEEDS	1050		1290		1290	
50 PERCENT EXCEEDS	327		450		330	
90 PERCENT EXCEEDS	134		104		101	

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 Oct. 9, 10.
d Aug. 8, Sept. 12, 1966.



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 National Geodetic Vertical Datum of 1929.

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)
Oct. 13	1130	73	2.07	Sept. 19	0015	*109	*2.40

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.1	11	6.0	23	20	14	16	10	5.4	2.4	1.5	1.2
2	1.7	10	6.0	20	19	15	15	9.8	5.5	2.7	1.5	1.1
3	1.2	9.8	8.5	19	19	15	14	9.7	5.0	2.8	1.5	1.1
4	1.3	9.6	19	18	19	18	14	9.5	4.7	2.6	1.5	1.3
5	1.4	8.4	13	17	19	16	15	9.5	4.6	2.8	1.4	2.8
6	1.3	9.0	10	18	19	15	15	13	4.6	3.4	1.5	1.5
7	1.3	8.9	9.6	22	20	16	14	14	4.5	2.7	1.4	1.5
8	1.3	8.9	9.0	19	19	14	13	11	4.3	2.7	1.4	1.4
9	1.3	9.1	8.6	18	18	14	13	11	4.3	2.5	1.4	1.4
10	1.3	14	8.4	18	18	13	13	11	4.2	2.4	1.4	1.4
11	4.0	12	8.4	20	17	13	12	9.8	4.1	2.4	1.4	1.4
12	3.2	9.4	8.2	21	16	12	12	9.3	3.9	2.3	1.4	1.3
13	48	8.9	8.2	21	17	13	13	8.9	3.7	3.0	1.3	1.2
14	21	8.5	7.7	19	19	14	15	8.3	3.4	2.4	1.2	1.4
15	11	8.7	11	19	18	14	17	7.9	3.4	2.1	1.3	1.4
16	9.8	8.4	12	31	16	13	16	7.6	3.4	2.0	1.4	1.4
17	8.9	8.3	9.9	40	15	13	14	7.8	3.4	2.0	1.2	1.4
18	11	7.8	13	34	16	14	14	8.4	3.6	2.0	1.5	11
19	16	7.3	14	31	17	13	13	7.9	3.6	1.7	3.0	42
20	11	7.2	11	30	17	13	14	7.9	3.6	1.7	4.9	7.6
21	9.9	7.0	12	29	16	12	15	7.4	3.4	1.6	2.4	4.2
22	9.6	6.9	12	25	16	12	16	7.2	3.0	1.7	1.9	3.8
23	25	7.3	13	24	15	22	14	6.7	3.1	1.7	1.7	3.6
24	20	6.9	19	24	14	23	13	6.6	3.1	1.6	1.6	3.4
25	14	6.7	16	23	14	18	12	6.4	3.0	1.6	1.5	4.1
26	13	6.7	15	22	14	17	12	6.3	2.8	1.6	1.5	3.5
27	12	6.5	14	22	14	18	11	5.6	2.6	1.5	1.4	2.9
28	12	6.7	e14	22	14	17	11	5.5	2.5	1.5	1.4	2.7
29	11	6.4	14	21	---	16	11	5.5	2.5	1.5	1.3	2.5
30	11	6.0	16	22	---	17	11	5.8	2.4	1.6	1.2	2.5
31	11	---	28	22	---	16	---	5.4	---	1.5	1.2	---
TOTAL	306.6	252.3	374.5	714	475	470	408	260.7	111.6	66.0	50.2	118.0
MEAN	9.89	8.41	12.1	23.0	17.0	15.2	13.6	8.41	3.72	2.13	1.62	3.93
MAX	48	14	28	40	20	23	17	14	5.5	3.4	4.9	42
MIN	1.2	6.0	6.0	17	14	12	11	5.4	2.4	1.5	1.2	1.1
CFSM	.52	.44	.64	1.22	.90	.80	.72	.44	.20	.11	.09	.21
IN.	.60	.50	.74	1.41	.93	.93	.80	.51	.22	.13	.10	.23

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1991, BY WATER YEAR (WY)

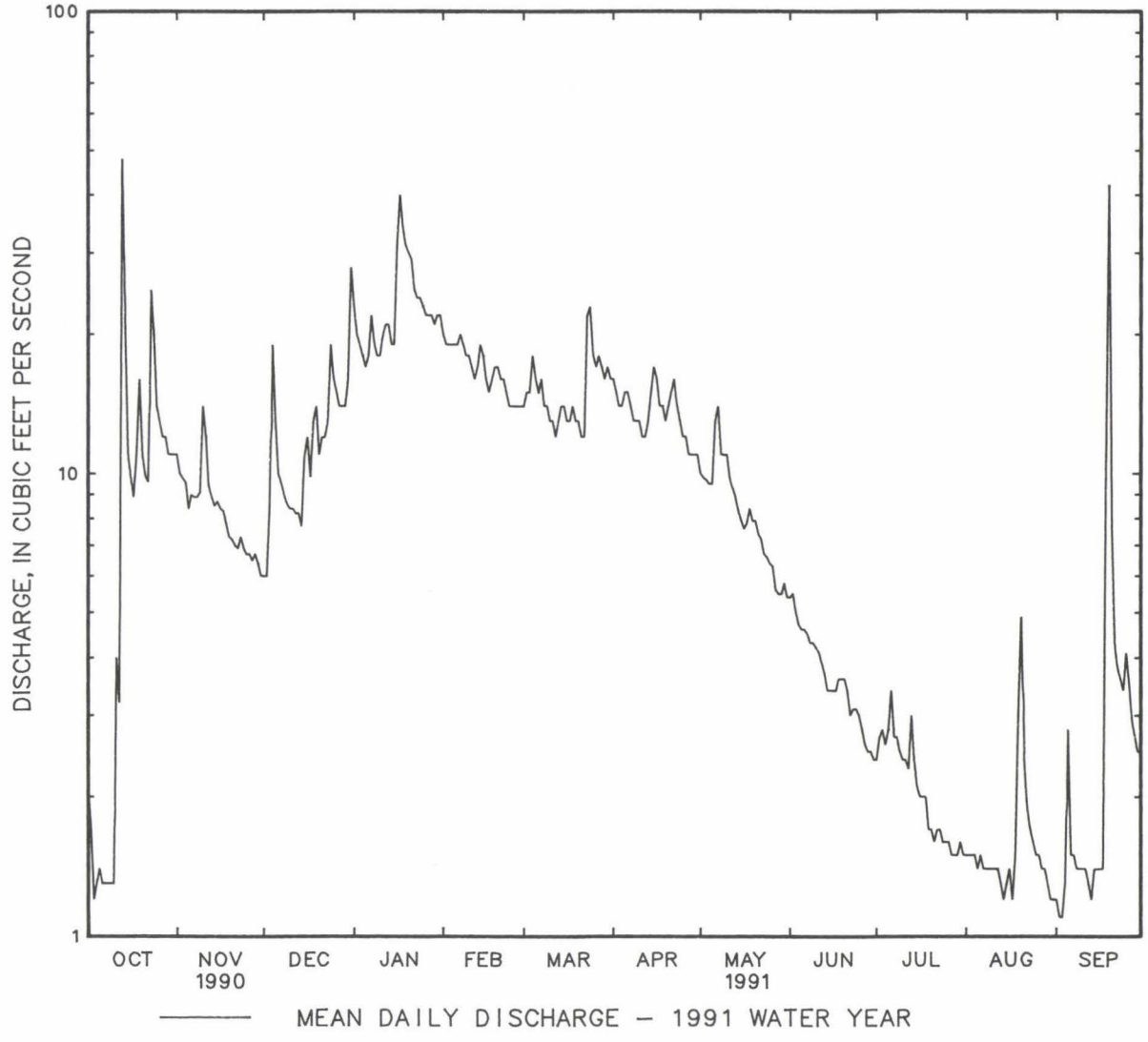
MEAN	8.21	7.81	9.86	12.0	14.9	17.4	18.2	15.8	13.6	9.67	6.95	6.08
MAX	39.5	27.0	29.7	30.1	32.2	38.0	49.8	36.2	48.2	32.4	18.0	31.8
(WY)	1977	1976	1973	1979	1973	1979	1984	1972	1972	1972	1972	1975
MIN	.83	2.07	1.60	2.24	4.14	5.08	4.45	3.65	2.74	2.13	1.62	1.68
(WY)	1987	1989	1989	1981	1989	1990	1969	1969	1969	1991	1991	1988

01617800 MARSH RUN AT GRIMES, MD--Continued

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1964 - 1991	
ANNUAL TOTAL	2389.5		3606.9			
ANNUAL MEAN	6.55		9.88		11.7	
HIGHEST ANNUAL MEAN					23.9	1972
LOWEST ANNUAL MEAN					4.31	1969
HIGHEST DAILY MEAN	48	Oct 13	48	Oct 13	223	Jun 23 1972
LOWEST DAILY MEAN	1.2	Oct 3	1.1	(a)	.00	Oct 1 1977
ANNUAL SEVEN-DAY MINIMUM	1.3	Oct 3	1.2	Aug 29	.60	Oct 21 1986
INSTANTANEOUS PEAK FLOW	73	Oct 13	109	Sep 19	b459	Feb 12 1985
INSTANTANEOUS PEAK STAGE	2.07	Oct 13	2.40	Sep 19	4.45	Feb 12 1985
INSTANTANEOUS LOW FLOW	1.2	(c)	1.1	(d)	f.00	Oct 1 1977
ANNUAL RUNOFF (CFSM)	.35		.52		.62	
ANNUAL RUNOFF (INCHES)	4.70		7.10		8.40	
10 PERCENT EXCEEDS	11		19		23	
50 PERCENT EXCEEDS	5.6		9.0		8.7	
90 PERCENT EXCEEDS	2.5		1.4		3.0	

a Sept. 2, 3.

b From rating curve extended above 220 ft^3/s.
c Oct. 2-4, 6-10.
d Sept. 1-4.
f Result of regulation caused by construction work upstream from station.



01618000 POTOMAC RIVER AT SHEPHERDSTOWN, WV

LOCATION.--Lat 39°26'04", long 77°48'07", Jefferson County, Hydrologic Unit 02070004, on right bank, 0.1 mi downstream from Rumsey Bridge at Shepherdstown, 3.3 mi upstream from Antietam Creek, and at mile 184.

DRAINAGE AREA.--5,936 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1928 to September 1953. Annual maximums, water years 1954-64. July 1964 to current year. Gage-height record and estimated discharges October 1953 to June 1964 available in files of the Maryland/Delaware/DC district office.

REVISED RECORDS.--WSP 756: Drainage area. WSP 781: 1929(M).

GAGE.--Water-stage recorder. Datum of gage is 281.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Water-discharge records good. Some regulation at low flow by power plants upstream from station, prior to July 1981 by Stony River Reservoir, since December 1950 by Savage River Reservoir (see station 01597500), and since July 1981 by Jennings Randolph Lake. National Weather Service gage height telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Floods in June 1889 and May 1924 reached stages of 39.2 ft and 29.8 ft respectively, from floodmarks, discharges, about 290,000 ft^3/s and 168,000 ft^3/s respectively, from rating curve extended as explained above.

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)
Oct. 14	0945	28,400	10.07	Jan. 18	0330	*59,600	*16.12
Oct. 24	1400	52,700	14.91	Mar. 5	2200	33,300	11.11
Jan. 1	0500	50,200	14.44	Mar. 24	2200	59,600	16.11

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1740	5470	2560	45900	6630	5470	10600	5140	2060	1200	1190	933
2	1670	5290	2530	30700	6300	5270	9610	4790	1810	1270	1220	770
3	1180	4930	2820	21700	6090	5060	8870	4480	1860	1140	1370	770
4	1230	4660	5440	17300	5940	6350	8000	4060	1780	1070	1550	815
5	1310	4460	15500	14200	5780	24700	7360	3730	1780	1020	1490	1240
6	1210	4270	10900	11600	5770	27500	6990	3650	1910	1140	1430	1040
7	1260	4160	8060	10600	6480	19100	6650	3980	1860	1410	1340	924
8	1250	4040	6730	10900	9810	16400	6370	4300	1570	2150	1400	942
9	1360	3850	5750	10500	11200	13800	6050	3890	1420	1830	1580	967
10	1360	4060	5150	9760	10000	11600	5840	3600	1280	1660	1450	934
11	1880	4840	4700	9780	8940	10000	5820	3440	1530	1220	1390	791
12	3270	5280	4320	11900	7980	8890	5680	3340	1700	1320	1390	915
13	10500	5010	3970	14600	7290	7970	5380	3330	1810	1690	1350	903
14	25700	4800	3730	18600	6970	7490	5450	3570	1770	1410	1350	888
15	13700	4320	3700	16800	7360	7230	9730	4060	1750	1260	1480	906
16	9180	4190	4490	15600	7690	6880	20600	3580	1550	997	1500	897
17	6920	3990	6050	42700	6850	6480	20800	3300	1730	985	1480	907
18	5680	3840	6570	54000	6350	6370	16500	3050	1910	1070	1300	988
19	6750	3650	9830	36100	6310	6850	12600	2770	1450	1010	1560	3260
20	7980	3360	13800	25800	6440	8270	10500	2670	1260	949	1370	2540
21	6940	3170	11700	21200	6610	9280	9510	2640	1140	904	1070	1460
22	6130	3080	10900	18800	6870	8830	9340	2570	1290	829	1530	1250
23	9160	3330	10600	15600	7100	9700	8860	2560	1240	938	1520	1100
24	45100	3300	13100	12600	6810	39600	7820	2310	1070	919	1330	973
25	31700	3250	17800	11100	6440	48600	7040	2120	1140	920	1350	1320
26	18400	3160	15700	9540	6140	27400	6470	2100	1190	999	1410	1320
27	13000	2960	13100	8350	5900	19000	6020	2110	1180	911	1420	1000
28	9760	2810	11100	7910	5660	16100	5640	2240	1220	908	1590	1100
29	7790	2700	9690	7570	---	13600	5550	2230	1180	962	1140	913
30	6600	2630	8950	7130	---	11700	5490	2360	1200	1170	809	909
31	5870	---	18900	6700	---	11100	---	2330	---	1040	950	---
TOTAL	265580	118860	268140	555540	197710	426590	261140	100300	45640	36301	42309	33675
MEAN	8567	3962	8650	17920	7061	13760	8705	3235	1521	1171	1365	1122
MAX	45100	5470	18900	54000	11200	48600	20800	5140	2060	2150	1590	3260
MIN	1180	2630	2530	6700	5660	5060	5380	2100	1070	829	809	770
CFSM	1.44	.67	1.46	3.02	1.19	2.32	1.47	.55	.26	.20	.23	.19
IN.	1.66	.74	1.68	3.48	1.24	2.67	1.64	.63	.29	.23	.27	.21

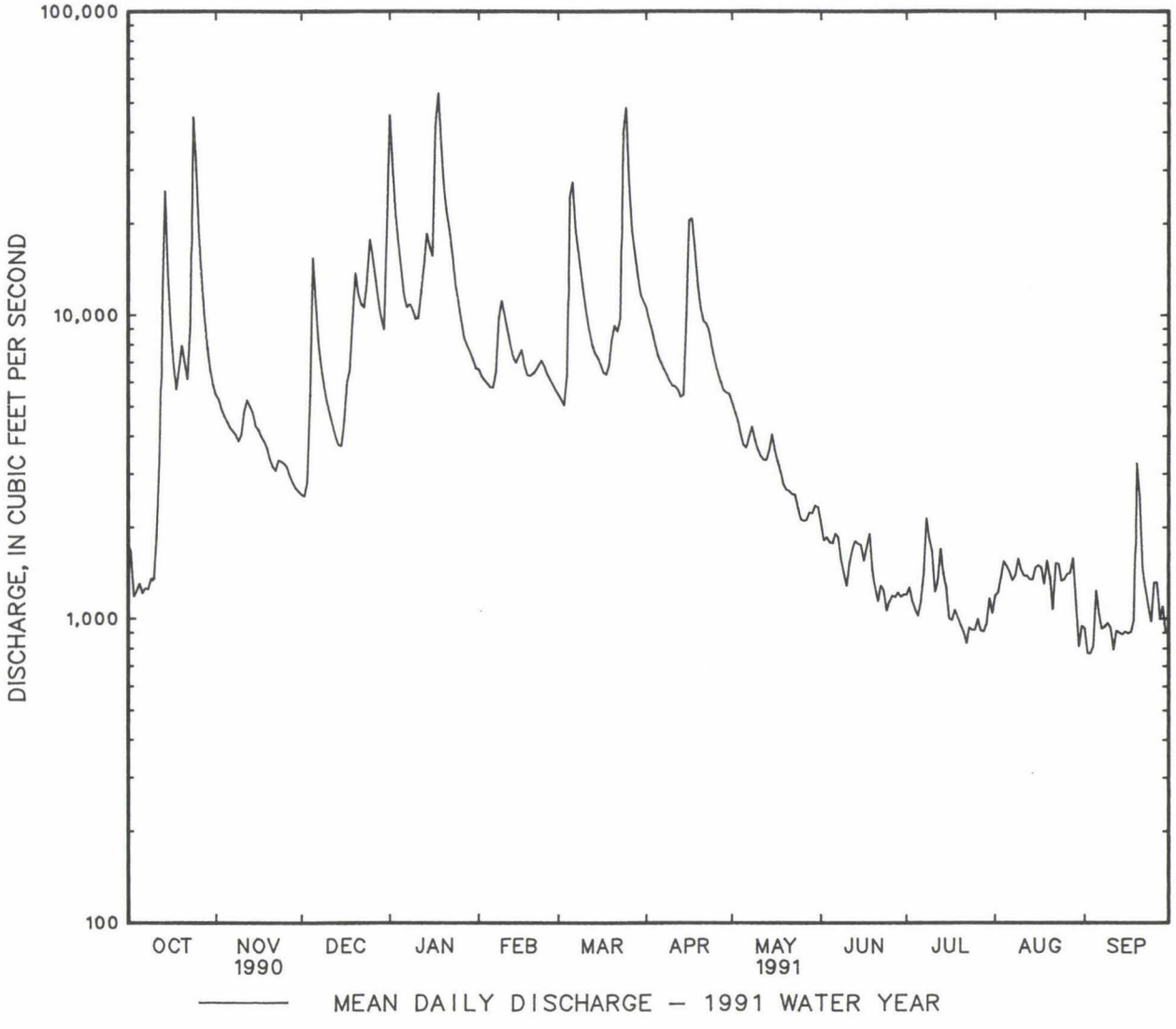
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1929 - 1991, BY WATER YEAR (WY)

MEAN	3223	3705	5659	6921	9145	12700	11140	8099	4587	2458	2234	1959
MAX	20080	24780	22070	20480	23770	45990	25020	20450	22600	9529	12140	11750
(WY)	1977	1986	1973	1937	1971	1936	1984	1988	1972	1949	1955	1975
MIN	351	395	621	1009	1580	3081	4010	2049	970	556	429	378
(WY)	1931	1931	1931	1981	1934	1990	1969	1930	1969	1966	1930	1930

01618000 POTOMAC RIVER AT SHEPHERDSTOWN, WV--Continued

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1929 - 1991	
ANNUAL TOTAL	2014930		2351785			
ANNUAL MEAN	5520		6443		5969	
HIGHEST ANNUAL MEAN					9988	1972
LOWEST ANNUAL MEAN					2607	1969
HIGHEST DAILY MEAN	45100	Oct 24	54000	Jan 18	287000	Mar 19 1936
LOWEST DAILY MEAN	1160	(a)	770	(b)	185	Jul 31 1966
ANNUAL SEVEN-DAY MINIMUM	1260	Oct 3	884	Aug 29	294	Sep 4 1966
INSTANTANEOUS PEAK FLOW	52700	Oct 24	59600	Jan 18	c335000	Mar 19 1936
INSTANTANEOUS PEAK STAGE	14.91	Oct 24	16.12	Jan 18	d42.10	Mar 19 1936
INSTANTANEOUS LOW FLOW	718	Oct 3	679	Jul 22	170	Aug 1 1966
ANNUAL RUNOFF (CFSM)	.93		1.09		1.01	
ANNUAL RUNOFF (INCHES)	12.63		14.74		13.66	
10 PERCENT EXCEEDS	10900		14000		13400	
50 PERCENT EXCEEDS	3880		4060		3220	
90 PERCENT EXCEEDS	1670		1030		860	

a Aug. 12, 16.
b Sept. 2, 3.
c From rating curve extended above 200,000 ft^3/s on basis of slope-area measurement of peak flow.
d From floodmarks.



01618000 POTOMAC RIVER AT SHEPHERDSTOWN, WV--Continued
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1979 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1980 to September 1981 (discontinued).
WATER TEMPERATURE: October 1980 to September 1981 (discontinued).

EXTREMES FOR PERIOD OF DAILY RECORD--
SPECIFIC CONDUCTANCE: Maximum, 670 microsiemens, Aug. 6, 10, 15, 30, Sept. 3, 1981; minimum, 160 microsiemens, Apr. 14-15, 1981.
WATER TEMPERATURE: Maximum, 30.0°C, July 17, 21, 25, 1981; minimum, 1.0°C, Feb. 13, 1981.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	SPE-CIFIC CON-DUCT-ANCE LAB (US/CM)	PH (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)
OCT 1990												
22...	0930	6250	260	258	6.9	12.0	13.0	758	8.4	10.7	100	K1900
JAN 1991												
10...	1205	9800	270	262	6.9	4.0	11.0	771	3.6	13.1	99	260
MAR												
18...	0905	6400	268	252	7.1	6.0	16.0	750	2.8	12.7	104	K22
MAY												
06...	0930	3550	290	275	7.1	18.0	20.0	753	1.1	9.0	96	K17
JUL												
08...	1030	2200	385	465	8.0	26.0	30.0	753	1.5	7.3	91	--
SEP												
09...	0930	1010	350	453	8.2	25.0	25.0	764	1.2	--	--	K10

DATE	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	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)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)
OCT 1990												
22...	290	31	6.2	8.4	2.9	69	80	66	34	8.8	<0.10	7.3
JAN 1991												
10...	65	33	6.2	6.9	1.7	63	77	63	37	10	<0.10	6.4
MAR												
18...	K17	34	7.0	6.8	1.5	68	82	67	37	10	<0.10	4.5
MAY												
06...	250	35	10	6.4	2.1	84	100	82	12	9.5	0.20	0.60
JUL												
08...	--	52	11	21	3.4	120	145	119	77	25	0.20	5.6
SEP												
09...	170	50	11	22	3.4	107	130	107	86	31	0.20	4.6

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	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 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)
OCT 1990												
22...	150	211	--	0.010	<0.010	1.50	1.50	0.040	0.030	0.40	1.9	0.030
JAN 1991												
10...	151	210	--	<0.010	<0.010	1.80	1.70	0.040	0.060	0.40	2.2	0.030
MAR												
18...	161	215	--	0.020	<0.010	1.50	1.40	0.010	0.020	0.30	1.8	0.010
MAY												
06...	145	213	1.19	<0.010	0.010	1.20	1.20	0.060	0.060	0.60	1.8	0.040
JUL												
08...	277	399	1.08	0.020	0.020	1.10	1.10	0.040	0.040	0.60	1.7	0.060
SEP												
09...	259	390	0.760	0.010	0.020	0.790	0.780	0.030	0.030	0.70	1.5	0.040

K: Results based on colony count outside the acceptance range (non-ideal colony count).

01618000 POTOMAC RIVER AT SHEPHERDSTOWN, WV--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO TOTAL (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)
OCT 1990												
22...	0.040	0.020	0.020	10	<1	43	<0.5	<1.0	<1	<3	1	60
JAN 1991												
10...	<0.010	0.010	<0.010	--	--	--	--	--	--	--	--	--
MAR												
18...	0.010	0.020	<0.010	20	<1	41	<0.5	<1.0	<1	<3	2	19
MAY												
06...	0.040	0.010	0.020	<10	<1	31	<0.5	<1.0	<1	<3	1	17
JUL												
08...	0.040	0.040	0.030	--	--	--	--	--	--	--	--	--
SEP												
09...	0.030	0.010	0.030	<10	<1	50	<0.5	<1.0	<1	<3	2	6

DATE	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)	HARD-NESS TOTAL (MG/L AS CACO3)
OCT 1990												
22...	<1	4	17	0.1	<10	2	<1	<1.0	150	<6	<3	100
JAN 1991												
10...	--	--	--	--	--	--	--	--	--	--	--	110
MAR												
18...	<1	<4	39	<0.1	<10	2	<1	<1.0	160	<6	<3	110
MAY												
06...	1	<4	6	<0.1	<10	<1	<1	<1.0	120	<6	7	130
JUL												
08...	--	--	--	--	--	--	--	--	--	--	--	190
SEP												
09...	<1	11	20	<0.1	<10	2	<1	<1.0	300	<6	3	180

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 1990					
22...	0930	6250	10	169	99
JAN 1991					
10...	1205	9800	7	185	96
MAR					
18...	0905	6400	5	86	88
MAY					
06...	0930	3550	10	96	95
JUL					
08...	1030	2200	6	36	100
SEP					
09...	0930	1010	5	14	92

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 National Geodetic Vertical Datum of 1929, from topographic map.

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

PEAK DISCHARGE FOR CURRENT YEAR.--Peak discharge, 12 ft^3/s, Dec. 31, gage height, 1.51 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.8	7.8	6.6	11	10	8.8	9.6	8.5	7.8	7.2	6.6	6.1
2	5.8	7.4	6.6	e10	10	8.8	9.4	8.5	7.8	7.3	6.6	6.0
3	5.9	7.2	6.6	e10	10	8.8	9.4	8.5	7.8	7.2	6.6	5.8
4	6.1	7.2	7.1	e10	10	8.8	9.4	8.5	7.8	7.2	6.6	5.8
5	6.1	7.2	7.2	e10	9.9	8.8	9.4	8.3	7.8	7.2	6.5	6.1
6	6.1	7.3	7.2	e9.7	9.7	8.8	9.4	8.1	7.8	7.2	6.3	6.1
7	6.1	7.2	7.2	e9.7	9.7	8.8	9.4	8.1	7.8	7.1	6.3	6.1
8	6.1	7.2	7.2	e9.4	9.7	8.8	9.4	8.1	7.8	6.9	6.3	6.1
9	6.1	7.2	7.2	e9.4	9.7	8.8	9.4	8.1	7.8	6.9	6.3	6.1
10	6.1	7.2	7.2	e9.4	9.7	8.8	9.1	8.1	7.8	6.9	6.3	5.9
11	6.1	7.2	7.2	9.4	9.6	8.8	9.1	8.1	7.8	6.9	6.3	5.8
12	6.1	7.2	7.2	9.8	10	8.8	9.1	8.1	7.7	6.6	6.2	5.8
13	9.6	7.2	7.2	10	9.5	8.8	9.1	8.1	7.5	6.9	6.1	5.8
14	9.0	7.2	7.2	10	9.6	8.8	9.1	8.1	7.5	6.9	6.1	5.7
15	8.2	7.2	7.2	10	9.2	8.8	9.1	8.1	7.5	6.9	6.1	5.5
16	7.7	7.2	7.2	11	9.1	8.8	9.0	8.1	7.5	6.9	6.1	5.5
17	7.4	7.2	7.2	12	9.1	8.8	8.8	8.3	7.5	6.9	6.1	5.5
18	7.3	7.2	7.2	12	9.1	8.8	8.8	8.5	7.5	6.8	6.1	5.7
19	7.5	7.2	7.4	12	9.1	8.8	8.8	8.5	7.5	6.6	6.1	7.9
20	7.5	7.2	7.5	12	9.1	8.6	8.8	8.5	7.5	6.6	6.1	7.2
21	7.5	6.9	7.5	12	8.9	8.5	8.8	8.5	7.5	6.6	6.1	6.9
22	7.4	6.9	7.5	11	8.8	8.5	8.8	8.5	7.4	6.6	6.1	6.9
23	7.8	6.9	7.7	11	8.8	9.3	8.8	8.4	7.2	6.6	6.1	6.9
24	8.1	6.6	8.2	11	8.8	10	8.6	8.1	7.2	6.6	6.1	6.6
25	8.1	6.8	8.5	11	8.8	10	8.5	8.1	7.2	6.6	6.1	6.6
26	8.0	6.9	8.3	11	8.8	10	8.5	8.1	7.2	6.6	6.1	6.4
27	7.8	6.8	8.1	11	8.8	10	8.5	8.1	7.2	6.6	6.1	6.3
28	7.8	6.6	8.1	11	8.8	9.9	8.5	8.1	7.2	6.6	6.1	6.3
29	7.8	6.6	8.1	11	---	9.7	8.5	8.1	7.2	6.6	6.1	6.3
30	7.8	6.6	9.3	11	---	9.7	8.5	8.0	7.2	6.6	6.1	6.3
31	7.8	---	12	10	---	9.7	---	7.8	---	6.6	6.1	---
TOTAL	222.5	212.5	235.9	327.8	262.3	281.1	269.6	255.0	226.0	211.7	192.8	186.0
MEAN	7.18	7.08	7.61	10.6	9.37	9.07	8.99	8.23	7.53	6.83	6.22	6.20
MAX	9.6	7.8	12	12	10	10	9.6	8.5	7.8	7.3	6.6	7.9
MIN	5.8	6.6	6.6	9.4	8.8	8.5	8.5	7.8	7.2	6.6	6.1	5.5

e Estimated

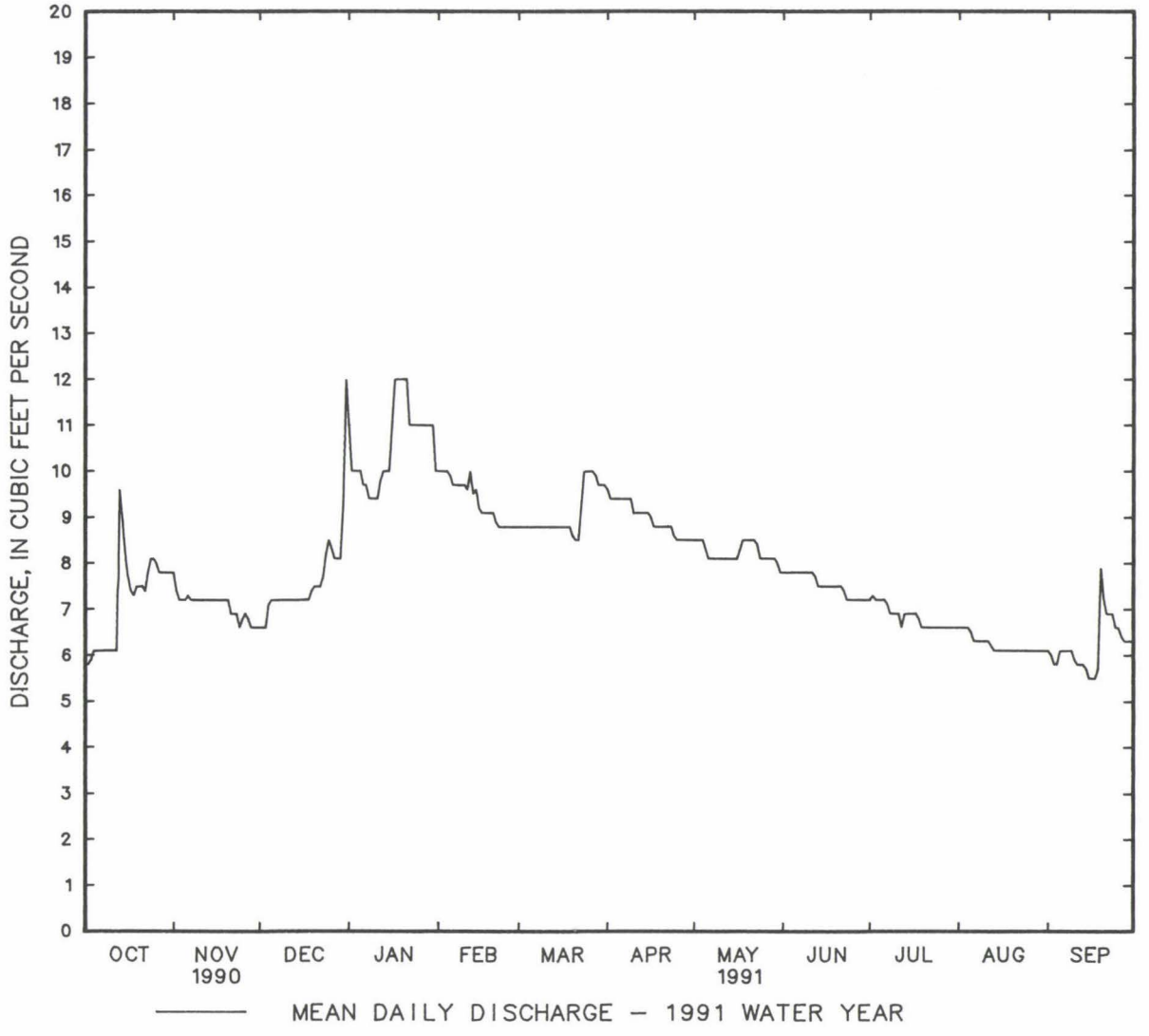
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 1991, BY WATER YEAR (WY)

MEAN	6.36	6.12	6.08	7.09	7.21	7.37	7.37	8.52	8.18	7.45	6.75	6.35
MAX	7.18	7.08	7.61	10.6	9.37	9.07	8.99	10.6	9.70	8.44	7.55	7.03
(WY)	1991	1991	1991	1991	1991	1991	1991	1989	1989	1989	1989	1989
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 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1987 - 1991	
ANNUAL TOTAL	2579.4		2883.2			
ANNUAL MEAN	7.07		7.90		7.10	
HIGHEST ANNUAL MEAN					7.90	1991
LOWEST ANNUAL MEAN					6.51	1988
HIGHEST DAILY MEAN	12	Dec 31	12	(a)	16	May 16 1989
LOWEST DAILY MEAN	5.8	(b)	5.5	(c)	5.0	(d)
ANNUAL SEVEN-DAY MINIMUM	5.8	Sep 27	5.6	Sep 12	5.1	Dec 13 1988
INSTANTANEOUS PEAK FLOW	12	Dec 31	12	(f)	17	May 16 1989
INSTANTANEOUS PEAK STAGE	1.51	Dec 31	1.51	(f)	1.69	May 16 1989
INSTANTANEOUS LOW FLOW	5.5	Nov 2	5.5	(g)	4.9	(d)
10 PERCENT EXCEEDS	7.8		9.8		8.8	
50 PERCENT EXCEEDS	7.2		7.8		6.9	
90 PERCENT EXCEEDS	6.1		6.1		5.5	

a Dec. 31, Jan. 17-21.
b Sept. 18-22, 27-30.
c Sept. 15-17.
d Dec. 18, 19, 1988.
f Dec. 31, Jan. 16-21.
g Nov. 2, Sept. 14-18.



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 National Geodetic Vertical Datum of 1929. June 24, 1897, to Aug. 25, 1905, nonrecording gage a few hundred feet downstream from Middle Bridge, 1.2 mi upstream at datum 12 ft higher. Aug. 21, 1928, to July 13, 1933, nonrecording gage at Burnside Bridge, 0.1 mi upstream at present datum. National Weather Service gage height telemeter at station.

REMARKS.--No estimated daily discharges. Records good. Some diurnal fluctuation caused by powerplant upstream from station. Since 1928 records include pumpage from the Potomac River for municipal supply of Hagerstown. This water later enters Antietam Creek upstream from station as sewage. Several measurements of water temperature were made during the year. Water-quality records for some prior years have been collected at this station.

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)
Oct. 13	2215	*2,670	*7.12	Sept. 19	1315	2,060	6.27

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	105	314	193	753	477	306	422	308	191	121	98	85
2	104	301	192	681	450	320	424	299	189	126	92	82
3	102	288	214	644	436	330	400	290	188	145	89	83
4	101	277	483	595	427	431	385	284	181	132	86	95
5	104	271	461	556	420	525	386	274	176	130	87	179
6	104	292	353	539	423	432	387	318	173	195	88	120
7	100	288	331	595	454	428	371	482	171	162	86	108
8	98	259	304	555	441	395	361	342	167	134	89	98
9	97	249	288	510	412	372	352	312	164	130	99	93
10	95	309	277	500	395	362	360	307	162	122	115	91
11	168	361	267	515	386	353	344	294	160	120	98	94
12	186	281	258	569	373	343	323	279	157	117	91	89
13	1370	263	253	562	364	339	326	273	155	138	91	86
14	1040	255	245	532	430	350	350	344	152	132	89	85
15	445	245	277	515	434	350	406	317	148	120	90	85
16	356	239	379	767	378	335	431	274	146	113	95	84
17	308	240	303	1150	362	326	379	270	159	105	88	86
18	316	235	336	970	361	356	361	304	168	104	86	101
19	498	228	467	848	368	381	347	265	158	103	129	1350
20	362	223	408	784	382	338	370	256	154	102	268	342
21	317	219	392	749	360	323	378	256	147	99	189	218
22	302	214	419	692	346	322	450	240	141	101	132	187
23	536	221	410	639	334	499	430	232	143	103	110	174
24	774	230	634	618	325	681	399	225	151	98	103	173
25	528	215	685	584	322	548	380	221	143	96	98	190
26	477	209	585	551	330	517	361	217	134	93	97	171
27	425	204	540	537	321	508	346	212	130	97	97	155
28	392	204	529	526	311	500	337	208	127	94	95	146
29	369	202	495	510	---	462	329	205	123	96	93	141
30	343	198	575	501	---	471	318	201	118	99	91	136
31	327	---	941	518	---	451	---	197	---	102	90	---
TOTAL	10849	7534	12494	19565	10822	12654	11213	8506	4676	3629	3249	5127
MEAN	350	251	403	631	386	408	374	274	156	117	105	171
MAX	1370	361	941	1150	477	681	450	482	191	195	268	1350
MIN	95	198	192	500	311	306	318	197	118	93	86	82
(†)	-15.4	-14.6	-13.9	-14.1	-14.3	-14.1	-14.5	-15.9	-17.7	-17.3	-17.2	-15.8
MEAN≠	335	236	389	617	372	394	360	258	138	99.7	87.8	155
CFSM≠	1.19	0.84	1.38	2.20	1.32	1.40	1.28	0.92	0.49	0.35	0.31	0.55
IN≠	1.37	0.94	1.59	2.54	1.38	1.61	1.43	1.06	0.55	0.40	0.36	0.61

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1897 - 1991, BY WATER YEAR (WY)

MEAN	172	185	247	289	361	456	459	370	284	213	172	159
MAX	916	589	776	809	938	1290	1001	779	1278	737	474	1090
(WY)	1977	1976	1951	1903	1984	1936	1984	1952	1972	1903	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

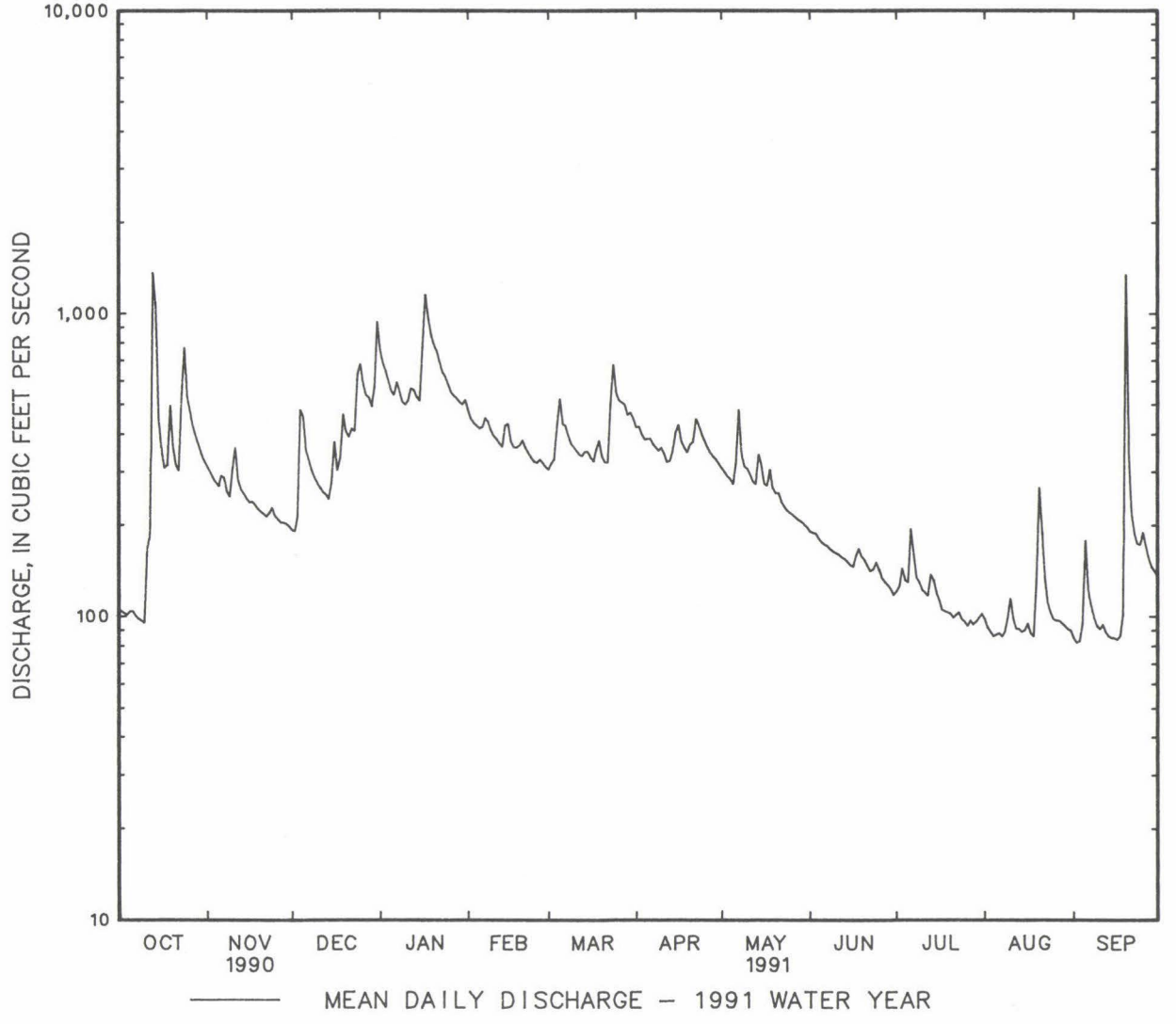
† Pumpage in cubic feet per second, from Potomac River for municipal supply of Hagerstown.
≠ Adjusted for pumpage.

01619500 ANTIETAM CREEK NEAR SHARPSBURG, MD--Continued

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1897 - 1991	
ANNUAL TOTAL	91093		110318			
ANNUAL MEAN	250		302		280	
ANNUAL MEAN≠	235		287		267	
HIGHEST ANNUAL MEAN					517	1903
LOWEST ANNUAL MEAN					124	1966
HIGHEST DAILY MEAN	1370	Oct 13	1370	Oct 13	8970	Sep 26 1975
LOWEST DAILY MEAN	95	Oct 10	82	Sep 2	37	Jan 30 1966
ANNUAL SEVEN-DAY MINIMUM	100	Oct 4	87	Sep 11	49	Jan 26 1966
INSTANTANEOUS PEAK FLOW	2670	Oct 13	2670	Oct 13	a12600	Jul 20 1956
INSTANTANEOUS PEAK STAGE	7.12	Oct 13	7.12	Oct 13	16.73	Jul 20 1956
INSTANTANEOUS LOW FLOW	91	Oct 10	80	(b)	c9.4	Nov 22 1957
ANNUAL RUNOFF (CFSM)≠	.83		1.02		.95	
ANNUAL RUNOFF (INCHES)≠	11.32		13.86		12.90	
10 PERCENT EXCEEDS	384		530		535	
50 PERCENT EXCEEDS	216		284		203	
90 PERCENT EXCEEDS	129		97		96	

≠ 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 Sep 1-3, 16, 18.
c 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 National Geodetic Vertical Datum of 1929. Apr. 15, 1895, to Mar. 31, 1909, nonrecording gage at site 0.8 mi downstream at datum 0.32 ft higher.

REMARKS.--No estimated daily discharges. Water-discharge records good. 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)
Oct. 13	1845	23,100	10.46	Jan. 18	0115	20,300	9.82
Oct. 24	1600	*28,900	*11.68	Mar. 5	2115	17,900	9.21
Jan. 1	0330	18,300	9.31	Mar. 24	2230	25,300	10.95
Jan. 13	1445	16,900	8.93				

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	705	3110	1040	16100	3120	1950	7380	2480	1150	847	4190	639
2	593	2790	1110	10500	2920	1910	6310	2310	1140	851	2790	620
3	664	2630	1210	7820	2710	1920	5590	2190	1350	834	2130	595
4	619	2330	1380	6360	2580	2590	4980	2080	1470	835	1710	573
5	650	2160	1790	5360	2490	10800	4510	1970	1420	1500	1440	601
6	575	2140	3360	4640	2450	14200	4210	1920	1330	1620	1260	696
7	534	2030	3720	4420	2470	9110	3970	1870	1230	2900	1100	774
8	567	1860	3090	4630	2520	6960	3760	1790	1130	2600	1010	695
9	634	1890	2660	5330	2590	5710	3480	1770	931	1970	991	563
10	673	1980	2360	5250	2870	4810	3230	1750	840	1510	1080	564
11	859	2080	2160	5120	2590	4200	3050	1740	984	1270	1190	758
12	1340	2160	1990	6420	2410	3790	2780	1720	951	1080	1150	681
13	10700	2360	1840	14400	2320	3480	2670	1650	808	1090	1180	367
14	17500	2150	1710	15800	2290	3280	2860	1590	776	1040	1020	455
15	12300	2160	1700	12400	2340	3180	3540	1550	794	1030	928	538
16	7250	1870	1730	10600	2300	3140	4160	1660	722	1250	892	643
17	5040	1890	1800	16200	2230	2990	4250	1590	724	1180	866	426
18	3930	1890	1880	18000	2130	2920	4010	1680	785	993	777	507
19	4500	1570	1990	12700	2110	2960	3720	1590	816	873	811	570
20	7170	1670	2050	9660	2130	3080	3540	1520	866	825	895	433
21	6690	1720	2040	8080	2120	3340	3420	1830	1100	787	895	400
22	5070	1660	2040	7190	2090	3260	3320	1710	1070	780	870	470
23	7260	1330	2070	6080	2070	5820	3130	1610	960	878	850	636
24	25900	1730	2430	5320	1970	21800	2920	1570	967	840	817	393
25	18100	1200	3710	4790	1940	18400	2720	1430	986	886	760	543
26	10400	1400	4350	4400	1930	10900	2550	1380	1470	853	711	464
27	7400	1390	4500	4040	1910	8110	2400	1310	1470	703	699	503
28	5780	1310	4090	3770	1930	6690	2360	1270	1230	644	684	491
29	4730	1380	3700	3600	---	5790	2340	1370	1080	2050	674	495
30	4050	1380	3820	3420	---	5370	2710	1390	977	2310	647	498
31	3490	---	12500	3290	---	6670	---	1190	---	4240	650	---
TOTAL	175673	57220	85820	245690	65530	189130	109870	52480	31527	41069	35667	16591
MEAN	5667	1907	2768	7925	2340	6101	3662	1693	1051	1325	1151	553
MAX	25900	3110	12500	18000	3120	21800	7380	2480	1470	4240	4190	774
MIN	534	1200	1040	3290	1910	1910	2340	1190	722	644	647	367
CFSM	1.86	.63	.91	2.61	.77	2.01	1.20	.56	.35	.44	.38	.18
IN.	2.15	.70	1.05	3.01	.80	2.31	1.34	.64	.39	.50	.44	.20

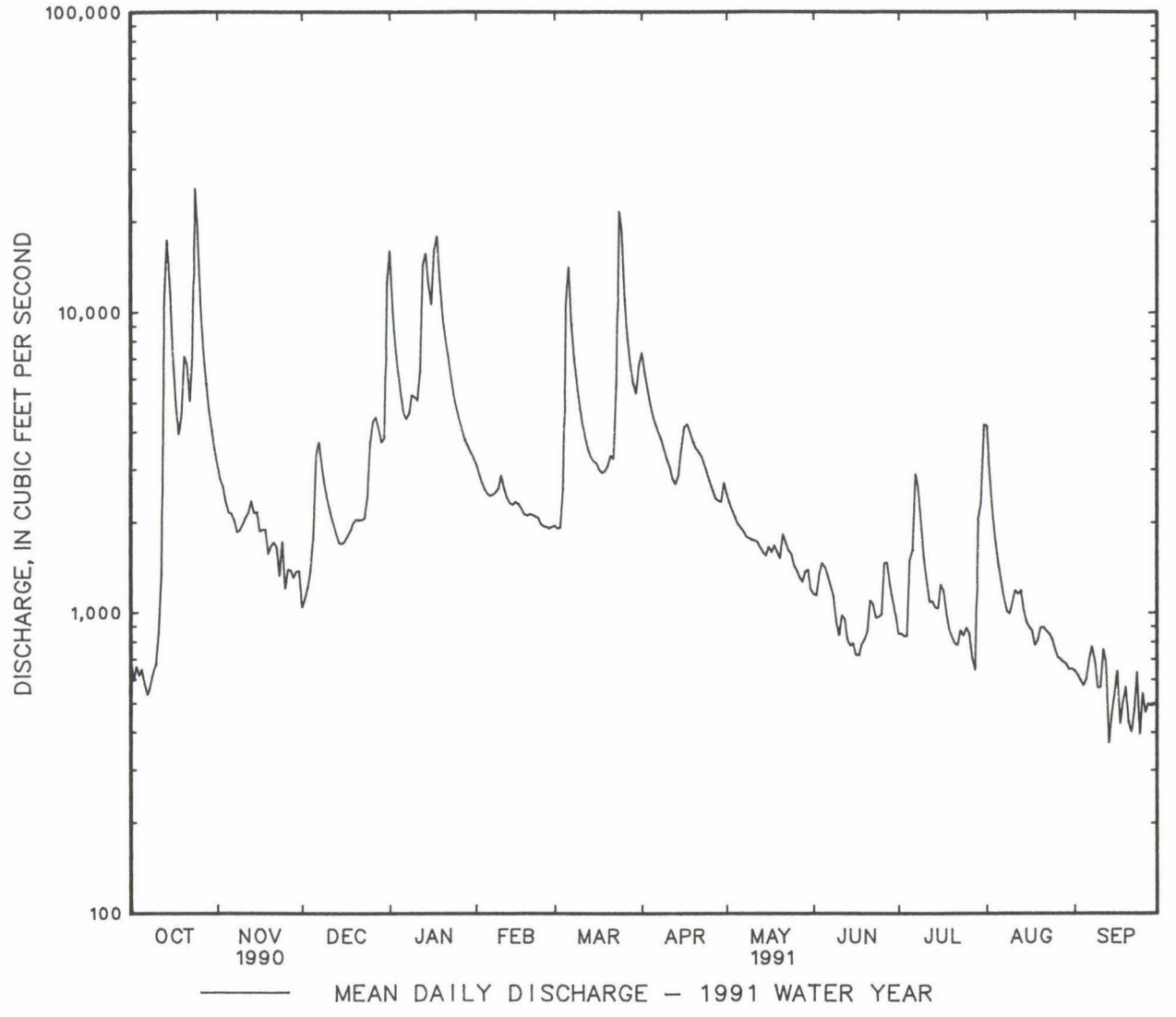
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1895 - 1991, BY WATER YEAR (WY)

MEAN	1999	1831	2432	3027	3806	4808	4303	3346	2370	1435	1634	1324
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 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1895 - 1991	
ANNUAL TOTAL	941514		1106267			
ANNUAL MEAN	2579		3031		2686	
HIGHEST ANNUAL MEAN					4838	1973
LOWEST ANNUAL MEAN					1111	1981
HIGHEST DAILY MEAN	25900	Oct 24	25900	Oct 24	192000	Oct 16 1942
LOWEST DAILY MEAN	533	Jul 11	367	Sep 13	194	Jul 24 1930
ANNUAL SEVEN-DAY MINIMUM	563	Jul 8	477	Sep 20	240	Sep 7 1966
INSTANTANEOUS PEAK FLOW	28900	Oct 24	28900	Oct 24	230000	Oct 16 1942
INSTANTANEOUS PEAK STAGE	11.68	Oct 24	11.68	Oct 24	a32.4	Oct 16 1942
INSTANTANEOUS LOW FLOW	341	Jul 30	100	Sep 24	59	Oct 4 1930
ANNUAL RUNOFF (CFSM)	.85		1.00		.88	
ANNUAL RUNOFF (INCHES)	11.52		13.54		12.00	
10 PERCENT EXCEEDS	4690		6520		5410	
50 PERCENT EXCEEDS	1990		1930		1600	
90 PERCENT EXCEEDS	748		669		608	

a From floodmarks.



01636500 SHENANDOAH RIVER AT MILLVILLE, WV--Continued
(National stream-quality accounting network station)

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 (discontinued).
WATER TEMPERATURES: October 1980 to September 1983 (discontinued).

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 1990 TO SEPTEMBER 1991

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	SPE-CIFIC CON-DUCT-ANCE LAB (US/CM)	PH (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)
OCT 1990												
22...	1215	5000	260	247	6.8	15.0	20.0	757	20	9.8	98	530
JAN 1991												
10...	0930	5300	290	255	7.1	4.0	17.0	770	3.8	12.7	96	54
MAR												
18...	1040	2900	290	283	6.8	6.5	15.5	748	1.5	11.6	96	K9
MAY												
06...	1130	1700	269	290	6.8	19.0	20.0	751	2.0	8.6	94	52
JUL												
08...	1330	2500	362	355	8.1	28.0	29.0	751	1.5	7.3	95	--
SEP												
09...	1230	1250	340	350	8.4	25.0	28.0	762	1.4	7.4	90	33

DATE	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	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)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)
OCT 1990												
22...	800	31	7.6	5.2	3.4	86	106	87	18	7.9	<0.10	8.1
JAN 1991												
10...	37	33	8.2	5.2	1.7	97	118	97	16	8.7	<0.10	6.1
MAR												
18...	K11	39	10	5.8	1.6	113	138	113	16	8.7	0.10	3.9
MAY												
06...	32	38	7.5	7.6	2.0	119	143	117	39	11	0.20	2.1
JUL												
08...	--	43	14	9.5	3.1	144	174	143	17	11	0.30	7.6
SEP												
09...	370	39	16	11	2.5	144	176	144	20	20	0.20	2.9

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	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 TOTAL (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, TOTAL (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)
OCT 1990												
22...	136	228	1.58	0.020	0.020	1.60	1.60	0.090	0.060	0.80	2.4	0.170
JAN 1991												
10...	137	241	--	<0.010	<0.010	1.70	1.60	0.020	0.020	0.40	2.1	0.030
MAR												
18...	159	273	--	0.020	<0.010	1.60	1.50	0.010	0.010	0.30	1.9	0.040
MAY												
06...	165	298	0.660	<0.010	0.010	0.660	0.670	0.040	0.030	0.50	1.2	0.050
JUL												
08...	197	342	1.58	0.030	0.020	1.60	1.60	0.070	0.070	0.70	2.3	0.180
SEP												
09...	186	346	0.750	<0.010	0.010	0.760	0.760	0.030	0.040	0.60	1.4	0.090

K: Results based on colony count outside the acceptance range (non-ideal colony count).

01636500 SHENANDOAH RIVER AT MILLVILLE, WV--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO TOTAL (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC DISSOLVED (UG/L AS AS)	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)
OCT 1990												
22...	0.130	0.130	0.120	30	<1	31	<0.5	<1.0	<1	<3	1	61
JAN 1991												
10...	0.020	0.030	<0.010	--	--	--	--	--	--	--	--	--
MAR												
18...	0.030	0.040	0.030	<10	<1	31	<0.5	<1.0	<1	<3	1	11
MAY												
06...	0.030	0.020	0.010	30	<1	47	<0.5	<1.0	1	<3	1	13
JUL												
08...	0.140	0.150	0.130	--	--	--	--	--	--	--	--	--
SEP												
09...	0.090	0.070	0.080	<10	<1	34	<0.5	1.0	<1	<3	1	5

DATE	LEAD, DISSOLVED (UG/L AS PB)	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	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)	HARDNESS TOTAL (MG/L AS CACO3)
OCT 1990												
22...	<1	4	3	0.1	<10	2	<1	<1.0	100	<6	<3	110
JAN 1991												
10...	--	--	--	--	--	--	--	--	--	--	--	120
MAR												
18...	1	<4	6	<0.1	<10	<1	<1	<1.0	130	<6	<3	140
MAY												
06...	<1	5	6	<0.1	<10	1	<1	<1.0	180	<6	6	130
JUL												
08...	--	--	--	--	--	--	--	--	--	--	--	170
SEP												
09...	<1	8	12	0.2	<10	<1	<1	<1.0	150	<6	<3	160

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
OCT 1990					
22...	1215	5000	34	459	98
JAN 1991					
10...	0930	5300	8	114	88
MAR					
18...	1040	2900	12	94	62
MAY					
06...	1130	1700	5	23	94
JUL					
08...	1330	2500	26	176	96
SEP					
09...	1230	1250	14	47	93

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 National Geodetic Vertical Datum of 1929, 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 1,200 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct. 13	0915	*1,770	*5.35	No other peak greater than base discharge.			

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.9	41	24	268	84	59	119	65	18	5.9	2.8	1.3
2	5.7	39	24	222	78	67	110	60	18	6.7	1.9	1.1
3	4.4	36	36	192	75	70	102	57	19	25	1.5	1.1
4	4.6	34	214	162	73	245	95	54	16	13	1.3	3.0
5	5.7	32	107	140	70	166	99	50	15	11	1.2	74
6	5.2	46	83	145	78	145	99	89	14	12	1.0	15
7	4.8	37	73	206	100	147	87	107	14	9.6	.96	8.4
8	4.3	31	66	156	84	121	79	61	13	7.2	1.1	6.0
9	4.5	28	59	145	76	109	76	57	12	6.6	2.3	4.3
10	4.8	95	54	147	72	102	78	56	11	5.7	4.9	3.4
11	18	86	49	174	69	94	67	49	11	5.5	6.0	3.0
12	29	55	45	288	63	86	61	46	10	4.8	2.7	2.5
13	616	46	44	244	67	84	68	43	9.9	8.0	1.6	2.4
14	98	41	41	201	112	85	88	41	9.4	9.9	1.3	2.2
15	54	38	84	183	92	82	117	39	8.7	6.0	2.9	1.9
16	39	37	109	443	66	80	110	35	8.3	4.0	3.4	2.0
17	32	40	75	433	75	73	93	41	8.4	3.3	1.5	1.8
18	63	38	134	334	71	112	87	67	77	2.3	1.4	1.8
19	119	33	143	273	79	94	83	41	33	2.0	2.7	92
20	54	32	109	240	96	80	94	37	18	2.1	53	21
21	43	30	117	228	80	76	95	33	14	2.5	42	9.2
22	39	29	117	174	76	76	139	31	12	2.2	11	6.1
23	324	36	143	149	71	301	101	28	13	3.0	6.0	4.9
24	175	37	294	142	68	260	97	34	14	1.6	3.8	4.8
25	112	31	192	123	70	204	92	30	12	1.6	2.7	16
26	88	28	161	111	69	175	84	25	9.9	1.7	2.4	14
27	73	27	144	108	65	185	80	23	8.9	9.7	2.0	8.7
28	63	26	141	103	61	155	76	26	7.9	5.5	1.8	6.6
29	55	27	132	97	---	134	72	21	7.1	4.1	1.7	4.7
30	49	25	193	97	---	155	71	20	6.4	4.1	1.6	4.0
31	44	---	424	115	---	136	---	18	---	4.0	1.6	---
TOTAL	2236.9	1161	3631	6043	2140	3958	2719	1384	448.9	190.6	172.06	327.2
MEAN	72.2	38.7	117	195	76.4	128	90.6	44.6	15.0	6.15	5.55	10.9
MAX	616	95	424	443	112	301	139	107	77	25	53	92
MIN	4.3	25	24	97	61	59	61	18	6.4	1.6	.96	1.1
CFSM	1.08	.58	1.75	2.91	1.14	1.91	1.35	.67	.22	.09	.08	.16
IN.	1.24	.65	2.02	3.36	1.19	2.20	1.51	.77	.25	.11	.10	.18

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1948 - 1991, BY WATER YEAR (WY)

MEAN	35.9	46.6	77.5	96.6	123	143	137	102	58.7	31.7	20.2	24.2
MAX	399	162	246	278	357	243	349	391	439	214	208	284
(WY)	1977	1986	1973	1979	1984	1979	1983	1988	1972	1949	1955	1975
MIN	2.62	3.61	3.80	4.25	28.7	46.3	44.5	29.2	13.5	4.86	2.04	1.68
(WY)	1964	1966	1966	1966	1954	1969	1963	1963	1954	1966	1966	1965

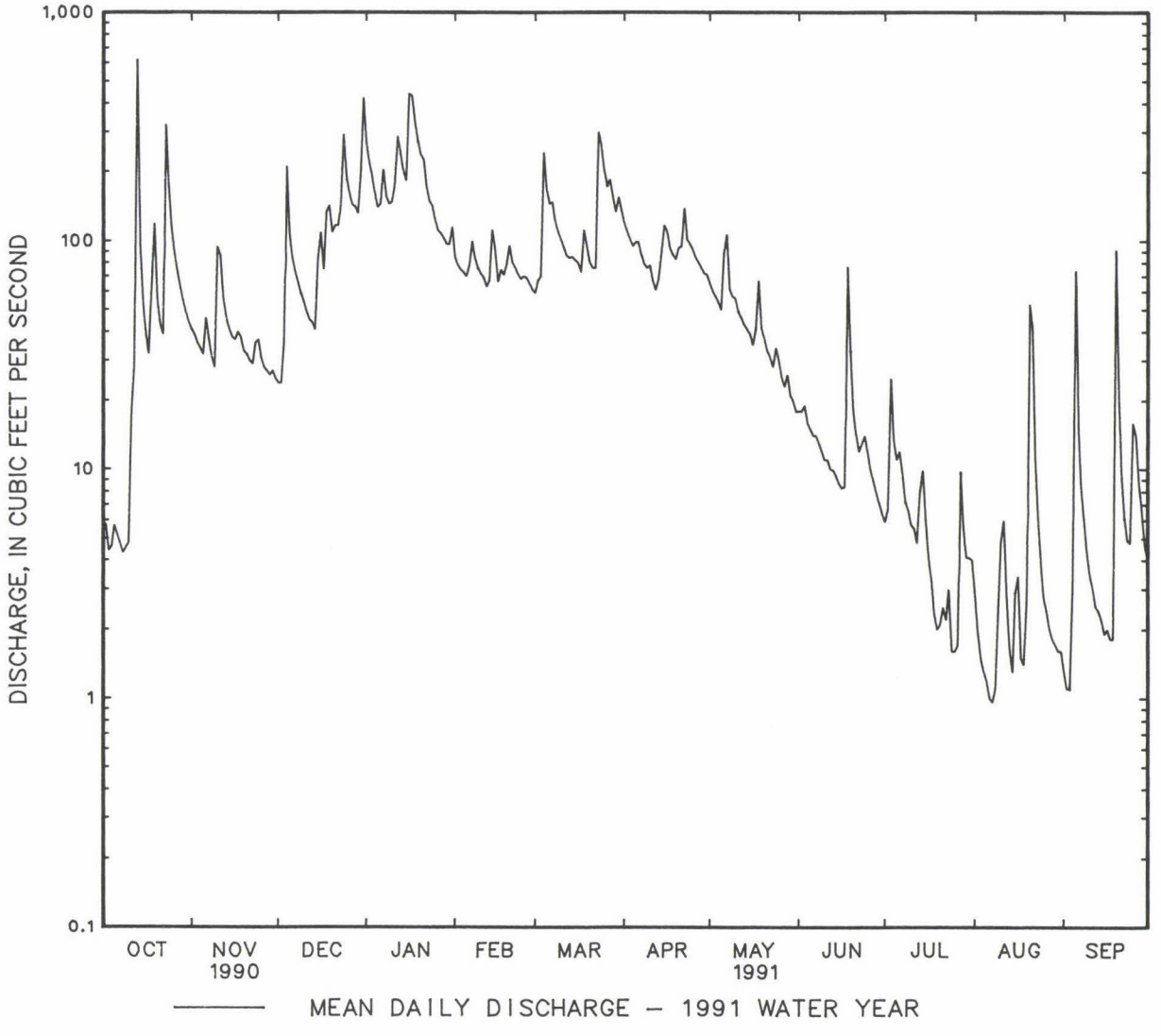
01637500 CATOCTIN CREEK NEAR MIDDLETOWN, MD--Continued

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1948 - 1991	
ANNUAL TOTAL	24728.0		24411.66			
ANNUAL MEAN	67.7		66.9		74.5	
HIGHEST ANNUAL MEAN					154	1972
LOWEST ANNUAL MEAN					29.7	1954
HIGHEST DAILY MEAN	616	Oct 13	616	Oct 13	4880	Oct 9 1976
LOWEST DAILY MEAN	4.3	Oct 8	.96	Aug 7	.00	(a)
ANNUAL SEVEN-DAY MINIMUM	4.8	Oct 3	1.3	Aug 2	.00	Aug 27 1966
INSTANTANEOUS PEAK FLOW	1770	Oct 13	1770	Oct 13	b12000	Oct 9 1976
INSTANTANEOUS PEAK STAGE	5.35	Oct 13	5.35	Oct 13	14.13	Oct 9 1976
INSTANTANEOUS LOW FLOW	3.8	(c)	.86	Aug 7	.00	(a)
ANNUAL RUNOFF (CFSM)	1.01		1.00		1.11	
ANNUAL RUNOFF (INCHES)	13.75		13.57		15.13	
10 PERCENT EXCEEDS	152		151		170	
50 PERCENT EXCEEDS	46		44		37	
90 PERCENT EXCEEDS	7.3		2.6		5.6	

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.

c Oct. 3, 4, 9, 10.



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.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February 1895 to current year.

REVISED RECORDS.--WSP 192: 1895-1905. WSP 1432: 1899, 1901-2, 1904-5, 1912, 1914(M), 1915, 1917(M), 1918, 1919(M), 1920, 1921-23(M), 1924, 1925-28(M), 1930(M).

GAGE.--Water-stage recorder. Datum of gage is 200.63 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 28, 1929, nonrecording gage at same site. Prior to Sept. 2, 1902, at datum about 0.45 ft higher.

REMARKS.--Water-discharge records good except those for estimated daily discharges (backwater from grass), 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.

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)
Oct. 24	1930	83,500	15.44	Mar. 6	0300	48,500	10.65
Jan. 1	1200	67,200	13.30	Mar. 25	0330	*85,000	*15.63
Jan. 18	0730	82,600	15.32				

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2080	8420	3540	61400	10200	7620	18900	8270	3260	2060	e5600	e1500
2	2240	7680	3270	46300	9700	7380	16900	7680	2940	1970	e4100	e1400
3	2100	7180	3520	32600	9120	6940	15300	7120	2950	1920	e3400	e1400
4	1810	6560	4440	25700	8790	8330	13800	6630	3280	2020	e3000	e1400
5	1960	6080	16000	21300	8540	26200	12600	6170	3030	2310	e2600	e1600
6	1940	6010	15300	17600	8420	43700	11800	6000	3040	2780	e2400	e1700
7	1800	5770	12700	16000	8920	30500	11200	6200	3010	3680	e2200	e1700
8	1830	5470	10600	16000	11500	24600	10600	6540	2880	4830	e2000	e1700
9	1870	5270	8980	16400	14200	20700	10000	6280	2580	4190	e2000	e1600
10	2060	5620	7870	15900	13500	17300	9430	5790	2360	3490	e1900	e1400
11	2340	6140	7110	15600	12200	15000	9020	5610	2310	2940	e1700	e1400
12	3200	6710	6520	19100	11000	13400	8720	5450	2440	2300	e1700	e1400
13	12300	7040	6020	27600	10200	12100	8230	5250	2160	2740	e1800	e1300
14	25300	6540	5600	34500	9800	11300	8250	5320	1990	2670	e1700	e1300
15	24000	6330	5540	31400	9970	10900	10600	5650	2160	2300	e1700	e1200
16	18000	5730	5990	28000	10400	10500	23000	5780	1920	2450	e1700	e1100
17	12900	5530	7360	51500	9730	9990	25800	5270	1880	2370	e1600	e1200
18	10300	5350	8700	78100	8840	9740	21900	5150	2240	2210	e1600	e1200
19	10400	4950	10600	54700	8690	10000	17700	4790	2350	2080	e1500	e2900
20	15000	4810	15700	38900	8780	11200	15000	4440	2190	1980	e1800	e5000
21	14500	4740	14700	31600	9020	12900	13500	4580	2250	1940	e2400	e2800
22	11600	4480	13400	27700	9130	12700	13300	4470	2340	1830	e2200	e2200
23	13200	4350	13300	23700	9510	15600	12800	4210	2260	1880	e2300	e2000
24	60000	4350	15000	19500	9210	49300	11700	4060	2200	1970	e2100	e1800
25	57900	4300	21500	16900	8710	74900	10600	4020	2170	1920	e1900	e1700
26	32900	4010	21000	15000	8370	43700	9720	3610	2530	2030	e1800	e2100
27	22600	4070	19000	13300	8080	30500	9080	3570	2790	1980	e1700	e1700
28	17000	3940	16300	12400	7820	24900	8560	3490	2580	1680	e1900	e1500
29	13200	3790	14300	11800	---	21300	8320	3620	2360	2270	e2200	e1500
30	11100	3860	13900	11300	---	18400	8650	3780	2340	e3500	e1700	e1400
31	9520	---	24700	10600	---	18000	---	3380	---	e3800	e1500	---
TOTAL	416950	165080	352460	842400	272350	629600	384980	162180	74790	78090	67700	52100
MEAN	13450	5503	11370	27170	9727	20310	12830	5232	2493	2519	2184	1737
MAX	60000	8420	24700	78100	14200	74900	25800	8270	3280	4830	5600	5000
MIN	1800	3790	3270	10600	7820	6940	8230	3380	1880	1680	1500	1100
CFSM	1.39	.57	1.18	2.82	1.01	2.10	1.33	.54	.26	.26	.23	.18
IN.	1.61	.64	1.36	3.25	1.05	2.43	1.48	.63	.29	.30	.26	.20

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1895 - 1991, BY WATER YEAR (WY)

MEAN	5132	5524	8382	11130	14300	19200	16370	12330	8018	4513	4198	3486
MAX	37030	39000	32610	31350	42640	68360	39840	41970	40400	16000	23580	17820
(WY)	1943	1986	1973	1937	1897	1936	1918	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

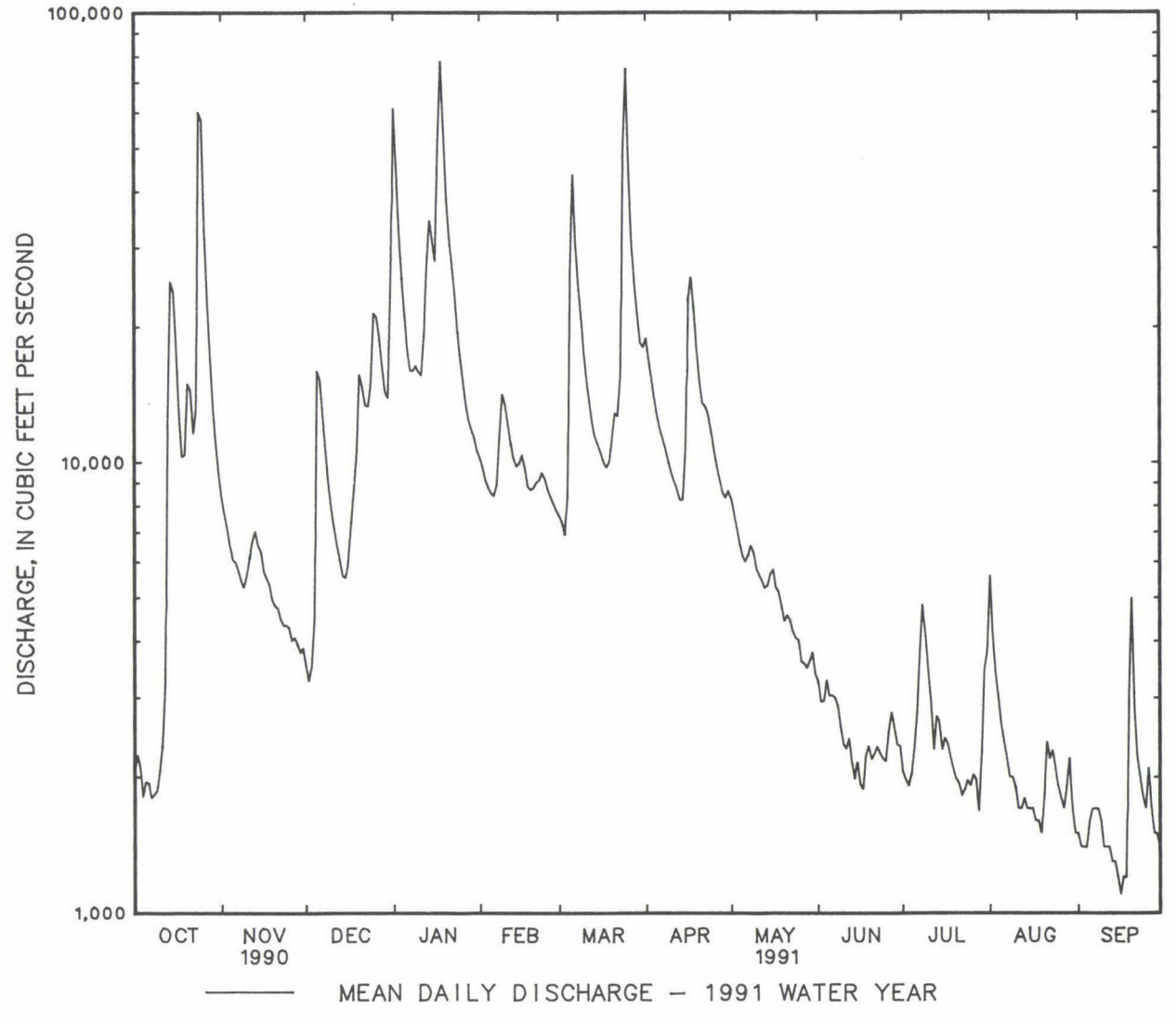
01638500 POTOMAC RIVER AT POINT OF ROCKS, MD--Continued

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1895 - 1991	
ANNUAL TOTAL	2964160		3498680			
ANNUAL MEAN	8121		9585		9366	
HIGHEST ANNUAL MEAN					15840	1972
LOWEST ANNUAL MEAN					4366	1969
HIGHEST DAILY MEAN	60000	Oct 24	78100	Jan 18	434000	Mar 19 1936
LOWEST DAILY MEAN	1740	Aug 17	e1100	Sep 16	540	Sep 10 1914
ANNUAL SEVEN-DAY MINIMUM	1900	Oct 4	1240	Sep 12	593	Sep 6 1966
INSTANTANEOUS PEAK FLOW	83500	Oct 24	85000	Mar 25	a480000	Mar 19 1936
INSTANTANEOUS PEAK STAGE	15.44	Oct 24	15.63	Mar 25	41.03	Mar 19 1936
INSTANTANEOUS LOW FLOW	1640	Oct 4	UNKNOWN		530	(b)
ANNUAL RUNOFF (CFSM)	.84		.99		.97	
ANNUAL RUNOFF (INCHES)	11.43		13.49		13.19	
10 PERCENT EXCEEDS	15400		21300		20400	
50 PERCENT EXCEEDS	6140		6000		5380	
90 PERCENT EXCEEDS	2440		1800		1650	

e Estimated.

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.



01638500 POTOMAC RIVER AT POINT OF ROCKS, MD--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1961 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: October 1960 to current year.
SUSPENDED-SEDIMENT DISCHARGE: October 1960 to current year.

REMARKS.--Water temperatures are measured daily in field by local observer at time of sampling.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE (water years 1961-1990): Maximum daily, 33.5°C, Aug. 24, 1964, July 19, 1977; minimum daily, 0.0°C on many days during winter periods.
SEDIMENT CONCENTRATION: Maximum daily mean, 2,690 mg/L, Nov. 7, 1985; minimum daily mean, 1 mg/L, on many days most years.
SEDIMENT LOAD: Maximum daily, 1,930,000 tons, Nov. 7, 1985; minimum daily, 2.0 tons on many days during 1964, 1966-1969.

EXTREMES FOR CURRENT YEAR.--
SEDIMENT CONCENTRATION: Maximum daily mean, 400 mg/L, Oct. 25; minimum daily mean, 1 mg/L, on many days.
SEDIMENT LOAD: Maximum daily, 62,500 tons, Oct. 25; minimum daily, 4.9 tons, July 22.

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20.0	12.0	---	4.0	---	8.0	9.0	---	---	---	---	28.0
2	19.5	---	---	6.0	---	8.0	---	---	---	---	---	26.0
3	19.0	---	---	---	---	9.0	---	---	---	---	---	24.0
4	19.0	11.5	---	---	---	9.0	10.5	---	---	---	---	26.0
5	---	---	---	---	---	10.0	12.0	---	---	---	---	27.0
6	20.0	12.0	---	---	---	---	12.0	---	---	---	---	25.0
7	21.0	12.0	---	---	---	---	14.0	---	---	---	---	24.0
8	21.0	10.0	7.5	---	---	---	---	---	---	---	---	25.0
9	23.0	10.0	7.0	---	---	---	---	---	---	---	---	27.0
10	22.0	9.0	7.0	---	---	---	---	---	---	---	---	25.0
11	---	9.0	6.0	---	---	10.0	---	---	---	---	---	26.0
12	---	9.5	6.5	---	---	9.0	---	---	---	---	---	25.0
13	---	---	---	---	---	9.0	---	---	---	---	---	25.0
14	19.5	8.0	6.0	---	---	6.0	---	---	---	---	---	27.0
15	19.0	9.0	6.0	---	---	6.0	---	---	---	---	---	28.0
16	19.0	9.5	7.5	---	---	8.0	---	---	---	---	---	---
17	19.0	9.0	8.0	---	---	8.0	---	---	---	---	---	30.0
18	---	---	9.0	---	---	---	---	---	---	---	---	27.0
19	---	8.0	7.0	---	---	10.0	12.0	---	---	---	---	25.0
20	16.0	8.0	7.0	---	---	10.0	---	---	---	---	---	22.0
21	15.0	8.5	6.5	---	---	8.0	---	---	---	---	---	---
22	14.5	8.5	---	---	---	8.0	11.0	---	---	---	---	19.0
23	14.5	---	---	---	---	11.0	---	---	---	---	---	20.0
24	14.0	---	---	---	---	11.0	12.0	---	---	---	---	20.0
25	14.0	---	---	---	---	10.0	14.0	---	---	---	---	20.0
26	13.0	---	---	---	---	10.0	---	---	---	---	---	21.0
27	13.0	---	3.0	---	---	---	---	---	---	---	28.0	18.0
28	12.5	---	2.0	---	---	12.0	---	---	---	---	29.0	20.0
29	11.0	---	---	---	---	9.0	---	---	---	---	31.0	22.0
30	10.5	---	---	---	---	10.0	---	---	---	---	32.0	19.0
31	11.5	---	---	---	---	10.0	---	---	---	---	30.0	---

01638500 POTOMAC RIVER AT POINT OF ROCKS, MD--Continued

SEDIMENT, SUSPENDED CONCENTRATION (MG/L), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	2	11	22	500	e1	9.6	e106	17600	e5	138	12	247
2	13	79	e8	166	e1	8.8	e95	11900	e5	131	20	399
3	2	11	e5	97	e2	19	e70	6160	e5	123	20	375
4	2	9.8	e5	89	e5	60	e50	3470	e5	119	31	697
5	2	11	e7	115	e20	864	e30	1730	e5	115	38	2690
6	3	16	7	114	e15	620	e25	1190	e5	114	e80	9440
7	2	9.7	7	109	e10	343	e20	864	e10	241	e85	7000
8	2	9.9	7	103	7	200	e15	648	e15	466	e70	4650
9	3	15	8	114	8	194	e15	664	e30	1150	e55	3070
10	2	11	7	106	6	127	e10	429	e25	911	e45	2100
11	2	13	6	99	3	58	e10	421	e20	659	38	1540
12	4	35	5	91	4	70	e20	1030	e15	445	27	977
13	20	664	5	95	5	81	e25	1860	e10	275	16	523
14	155	10600	5	88	8	121	e30	2790	e10	265	7	214
15	135	8750	6	103	19	284	e25	2120	e12	323	5	147
16	38	1850	6	93	19	307	e20	1510	e15	421	6	170
17	30	1040	3	45	17	338	e60	8340	e15	394	7	189
18	25	695	2	29	17	399	e170	35800	e13	310	8	210
19	20	562	2	27	10	286	e100	14800	e11	258	20	540
20	45	1820	2	26	20	848	e80	8400	e12	284	10	302
21	30	1170	2	26	18	714	e60	5120	e14	341	6	209
22	35	1100	1	12	e15	543	e40	2990	e14	345	7	240
23	35	1250	e2	23	e10	359	e30	1920	e15	385	10	421
24	258	49800	e2	23	e15	607	e20	1050	e14	348	40	5320
25	400	62500	e2	23	e25	1450	e15	684	e12	282	147	29700
26	155	13800	e2	22	e20	1130	e13	526	e10	226	125	14700
27	27	1650	e2	22	12	616	e11	395	e10	218	90	7410
28	20	918	e2	21	13	572	e9	301	e10	211	78	5240
29	21	748	e2	20	e12	463	e7	223	---	---	53	3050
30	33	989	e2	21	e10	375	e7	214	---	---	32	1590
31	29	745	---	---	e20	1330	e7	200	---	---	20	972
TOTAL	---	160882.4	---	2422	---	13396.4	---	135349	---	9498	---	104332
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	19	970	e6	134	e1	8.8	e5	28	e20	302	4	16
2	16	730	e5	104	e1	7.9	e3	16	e15	166	2	7.6
3	13	537	e5	96	e2	16	e3	16	e13	119	5	19
4	11	410	e3	54	e6	53	e4	22	e11	89	14	53
5	11	374	e2	33	e5	41	e4	25	e9	63	4	17
6	16	510	e3	49	e5	41	e6	45	e7	45	4	18
7	16	484	e5	84	e5	41	e11	109	e5	30	3	14
8	e15	429	e7	124	e3	23	e15	196	e5	27	4	18
9	e13	351	e6	102	e2	14	e13	147	e5	27	12	52
10	e11	280	e5	78	e1	6.4	e11	104	e6	31	5	19
11	e9	219	e5	76	e3	19	e9	71	e8	37	3	11
12	e7	165	e4	59	e3	20	e7	43	e8	37	3	11
13	e7	156	e3	43	e2	12	e9	67	e10	49	9	32
14	e7	156	e2	29	e2	11	e11	79	e10	46	16	56
15	e10	286	e7	107	e4	23	e9	56	e8	37	5	16
16	e30	1860	e9	140	e2	10	e9	60	e8	37	e3	8.9
17	e40	2790	e7	100	e2	10	e9	58	e8	35	17	55
18	e32	1890	e6	83	e5	30	e7	42	e7	30	15	49
19	26	1240	e5	65	e7	44	e5	28	e5	20	11	86
20	21	850	e3	36	e7	41	e3	16	e9	44	9	121
21	17	620	e5	62	e7	43	e2	10	e11	71	6	45
22	13	467	e6	72	e6	38	e1	4.9	e11	65	4	24
23	e10	346	e5	57	e6	37	e1	5.1	e11	68	5	27
24	e7	221	e4	44	e6	36	e2	11	e10	57	11	53
25	e5	143	e3	33	e5	29	e5	26	e9	46	17	78
26	e5	131	e3	29	e9	61	e5	27	e9	44	15	85
27	e6	147	e2	19	e11	83	e3	16	e8	37	11	50
28	e5	116	e2	19	e9	63	e2	9.1	6	31	5	20
29	e5	112	e2	20	e7	45	e5	31	6	36	8	32
30	e7	163	e2	20	e7	44	e15	142	5	23	6	23
31	---	---	e2	18	---	---	e10	103	12	49	---	---
TOTAL	---	17153	---	1989	---	951.1	---	1613.1	---	1798	---	1116.5

TOTAL LOAD FOR YEAR: 450500.5 TONS.

e Estimated

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 National Geodetic Vertical datum of 1929 (levels by U.S. Army Corps of Engineers). Prior to May 3, 1946, nonrecording gage and crest-stage gages at site 0.3 mi downstream at datum 0.98 ft lower.

REMARKS.--No estimated daily discharges. Water-discharge records good. 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)
Oct. 23	1945	*8,900	*13.90	Jan. 16	1800	5,330	10.66
Dec. 04	1030	5,430	10.76	Sept. 19	0600	5,090	10.41

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	98	66	595	123	87	208	83	23	5.1	5.4	3.8
2	11	90	66	357	105	111	179	74	21	4.3	3.7	2.6
3	9.7	81	553	299	104	148	150	69	25	4.9	3.1	2.2
4	9.5	77	3860	253	107	998	136	66	21	5.3	2.8	2.5
5	9.3	72	616	195	108	458	129	59	20	7.4	2.5	18
6	9.2	83	329	204	136	264	137	137	18	10	2.0	31
7	11	90	249	552	515	357	119	551	17	13	1.7	23
8	11	71	204	359	336	221	106	144	16	13	1.3	17
9	10	65	173	270	211	170	98	101	15	11	1.1	13
10	8.7	1510	154	311	169	153	99	92	15	10	3.4	9.2
11	41	808	134	424	146	134	86	81	13	8.8	6.5	7.2
12	191	255	121	1050	117	117	74	73	12	6.4	5.3	5.4
13	2070	170	117	959	111	114	73	72	11	7.6	4.5	4.0
14	565	129	109	482	552	128	121	95	10	7.7	3.2	3.3
15	178	113	324	341	421	197	389	76	9.8	7.5	2.3	3.3
16	111	115	651	2580	164	291	415	60	11	7.0	1.9	3.4
17	86	114	251	2460	137	167	184	54	10	5.3	1.5	3.5
18	181	109	842	996	132	665	138	61	11	4.1	1.1	4.9
19	1040	95	586	550	159	438	116	58	9.8	3.5	13	1600
20	214	90	290	492	308	233	120	55	12	3.2	63	152
21	140	85	492	477	222	179	140	46	13	3.3	86	63
22	116	82	560	298	162	162	305	42	11	3.1	45	38
23	4010	99	594	202	129	1750	198	38	9.9	1.8	23	27
24	2010	137	1810	202	111	972	144	37	12	1.7	15	21
25	486	95	525	172	110	418	130	36	16	1.6	11	36
26	287	85	318	155	106	286	110	33	13	1.4	30	58
27	191	79	250	149	99	494	101	32	10	10	26	37
28	158	77	209	137	91	394	95	30	7.7	11	15	26
29	132	76	270	128	---	233	89	28	6.2	8.9	10	19
30	114	71	870	122	---	317	87	25	5.2	8.4	7.4	16
31	104	---	2520	185	---	306	---	25	---	7.1	6.1	---
TOTAL	12527.4	5121	18113	15956	5191	10962	4476	2433	404.6	203.4	403.8	2250.3
MEAN	404	171	584	515	185	354	149	78.5	13.5	6.56	13.0	75.0
MAX	4010	1510	3860	2580	552	1750	415	551	25	13	86	1600
MIN	8.7	65	66	122	91	87	73	25	5.2	1.4	1.1	2.2
CFSM	2.34	.99	3.38	2.98	1.07	2.04	.86	.45	.08	.04	.08	.43
IN.	2.69	1.10	3.89	3.43	1.12	2.36	.96	.52	.09	.04	.09	.48

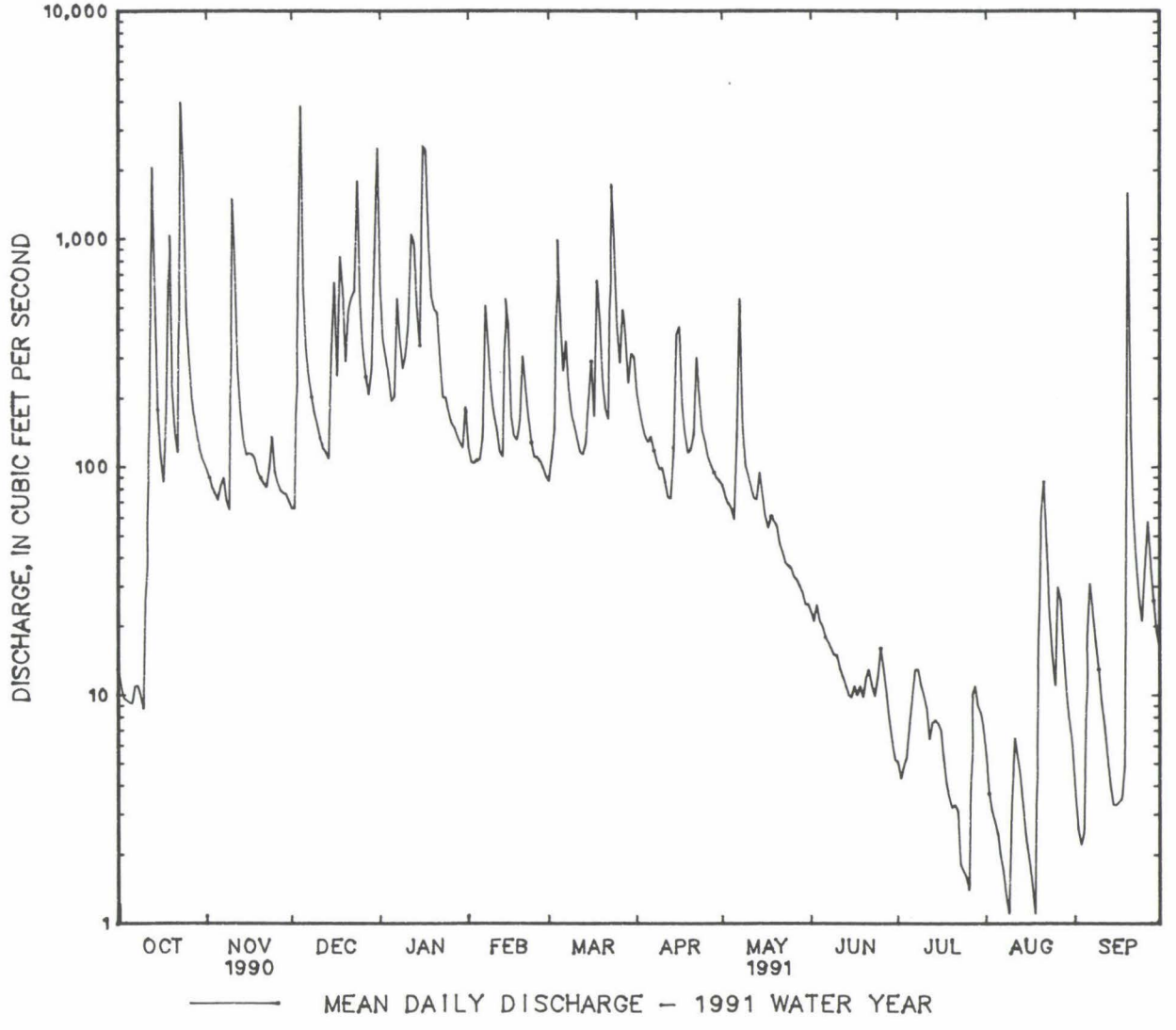
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1942 - 1991, BY WATER YEAR (WY)

MEAN	93.8	165	258	280	386	419	296	220	125	80.6	61.8	79.0
MAX	906	513	697	784	1029	1025	1029	964	1065	598	613	1027
(WY)	1977	1986	1984	1979	1961	1963	1983	1989	1972	1949	1942	1975
MIN	3.24	10.4	13.7	13.8	51.0	94.7	58.7	41.2	10.5	2.68	2.40	2.34
(WY)	1964	1954	1966	1981	1980	1949	1946	1969	1966	1966	1944	1943

01639000 MONOCACY RIVER AT BRIDGEPORT, MD--Continued

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1942 - 1991	
ANNUAL TOTAL	84105.9		78041.5			
ANNUAL MEAN	230		214		202	
HIGHEST ANNUAL MEAN					372	1972
LOWEST ANNUAL MEAN					76.8	1954
HIGHEST DAILY MEAN	4300	Jan 30	4010	Oct 23	16700	Jun 22 1972
LOWEST DAILY MEAN	8.7	Oct 10	1.1	(a)	.00	(b)
ANNUAL SEVEN-DAY MINIMUM	9.8	Oct 4	2.1	Aug 3	.04	Jul 22 1966
INSTANTANEOUS PEAK FLOW	8900	Oct 23	8900	Oct 23	c21300	Jun 22 1972
INSTANTANEOUS PEAK STAGE	13.90	Oct 23	13.90	Oct 23	24.05	Jun 22 1972
INSTANTANEOUS LOW FLOW	8.3	Oct 10	.85	(d)	.00	(f)
ANNUAL RUNOFF (CFSM)	1.33		1.24		1.17	
ANNUAL RUNOFF (INCHES)	18.09		16.78		15.89	
10 PERCENT EXCEEDS	475		493		432	
50 PERCENT EXCEEDS	99		92		62	
90 PERCENT EXCEEDS	16		5.0		7.9	

a Aug. 9, 18.
b July 25-28, 1966.
c From rating curve extended above 7,000 ft^3/s on basis of slope-conveyance study.
d Aug. 8, 9.
f 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, 1882-83, 1990 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: October 1989 to current year.
SUSPENDED-SEDIMENT DISCHARGE: October 1989 to current year.

INSTRUMENTATION.--Pumping sampler for nutrients and sediment since Nov. 29, 1989.

REMARKS.--Water temperatures are 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; minimum daily mean, 1 mg/L, Nov. 5-8, 1989, Feb. 11-13, 18, 19, 26-28, Mar. 13, 14, 1991.
SEDIMENT LOAD: Maximum daily, 7,230 tons, Jan. 30, 1990; minimum daily, 0.04 ton, Aug. 9, 18, 1991.

EXTREMES FOR CURRENT YEAR.--
SEDIMENT CONCENTRATION: Maximum daily mean, 204 mg/L, Oct. 13; minimum daily mean, 1 mg/L, Feb. 11-13, 18, 19, 26-28, Mar. 13, 14.
SEDIMENT LOAD: Maximum daily, 2,910 tons, Oct. 23; minimum daily, 0.04 ton, Aug. 9, 18.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	ENDING TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	TEMPERATURE AIR (DEG C)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NITRATE DISSOLVED (MG/L AS N)	NITROGEN, NITRATE TOTAL (MG/L AS N)
OCT 1990											
13...	1125	--	2330	159	7.7	20.0	21.0	0.010	0.050	0.790	0.750
13...	1250	--	2820	152	7.8	20.0	24.0	0.040	0.050	0.860	0.850
13...	1440	--	3270	--	--	--	--	0.020	0.050	0.880	0.850
13...	1555	--	3480	126	7.5	20.0	25.0	0.030	0.050	0.970	0.850
13...	1720	--	3710	--	--	--	--	0.010	0.050	0.890	0.850
13...	1945	--	4180	--	--	--	--	0.010	0.050	0.890	0.850
13...	2040	--	4200	112	7.6	20.0	20.0	0.010	0.050	0.890	0.850
13...	2200	--	3850	--	--	--	--	<0.010	0.050	--	0.840
13...	2250	--	3280	110	7.6	20.0	19.5	0.010	0.040	0.890	0.860
14...	0020	--	2020	140	7.6	20.0	19.5	0.020	0.040	0.980	0.960
14...	0150	--	1260	155	7.6	20.0	19.0	0.010	0.040	1.09	1.06
14...	0200	--	1200	--	--	--	--	0.010	0.040	1.09	1.16
OCT											
19-19	0120	0520	2240	184	--	--	--	0.010	0.060	0.890	1.34
23...	1140	--	2800	208	7.7	13.0	14.5	<0.010	0.030	--	2.27
23...	1224	--	4150	--	--	--	--	0.020	0.040	1.88	1.86
23...	1305	--	5470	171	7.6	13.5	16.5	<0.010	0.030	--	1.67
23...	1405	--	6620	--	--	--	--	0.010	0.030	1.39	1.37
23...	1425	--	6890	150	7.6	13.0	15.0	0.010	0.050	1.39	1.35
23...	1526	--	7530	--	--	--	--	0.010	0.050	1.29	1.25
23...	1637	--	8150	--	--	--	--	0.010	0.030	1.19	1.17
23...	1745	--	8590	--	--	--	--	0.010	0.040	1.19	1.16
23...	1830	--	8810	122	7.5	13.0	14.0	0.020	0.050	1.08	1.05
23...	1850	--	8810	--	--	--	--	0.010	0.040	1.09	1.16
23...	1955	--	8840	--	--	--	--	0.010	0.050	1.09	1.15
23...	2058	--	8720	--	--	--	--	0.010	0.040	1.09	1.16
23...	2204	--	8410	--	--	--	--	0.010	0.030	1.19	1.17
23...	2314	--	7940	--	--	--	--	<0.010	0.030	--	1.17
23...	2340	--	7740	118	7.5	13.0	13.0	<0.010	0.030	--	1.17
24...	0027	--	7230	--	--	--	--	<0.010	0.030	--	1.27
24...	0158	--	5690	--	--	--	--	0.010	0.040	1.39	1.36
24...	0305	--	4400	142	7.4	13.0	12.5	0.010	0.030	1.59	1.57
24...	0355	--	3260	--	--	--	--	0.010	0.030	1.89	1.97
24...	0610	--	2110	164	7.5	13.0	12.0	<0.010	0.030	--	1.87
24...	0755	--	1690	--	--	--	--	0.010	0.030	2.29	2.37

01639000 MONOCACY RIVER AT BRIDGEPORT, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	ENDING TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TEMPER-ATURE AIR (DEG C)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)
NOV 1990											
01...	0850	--	100	222	7.7	9.0	10.5	<0.010	<0.010	--	--
NOV											
10-10	1525	1650	3350	197	--	--	--	0.020	0.040	1.68	1.86
NOV											
10-10	1800	1915	4000	172	--	--	--	0.010	0.030	1.39	1.47
NOV											
10-11	2320	0430	1780	183	--	--	--	0.010	0.030	1.99	1.97
27...	1115	--	78	250	8.0	8.0	11.0	0.010	0.010	1.39	1.39
DEC											
03-04	2220	0045	3970	190	--	--	--	0.020	0.020	1.48	1.28
DEC											
04-04	0145	0550	4580	161	--	--	--	0.020	0.010	1.28	1.19
DEC											
04-04	0650	0845	5000	150	--	--	--	0.020	0.020	1.48	1.48
DEC											
04-04	0940	1120	5410	146	--	--	--	0.020	0.060	1.58	1.44
04...	0950	--	5390	140	7.5	7.5	6.0	0.020	0.020	1.38	1.48
DEC											
04-04	1215	2400	2670	166	--	--	--	0.010	0.050	2.49	2.45
04...	1350	--	4700	137	7.4	8.0	5.5	0.010	0.020	1.39	1.38
04...	1710	--	2970	136	7.3	7.5	1.5	0.020	0.060	1.58	1.54
04...	2050	--	1560	146	7.5	7.0	0.0	0.020	0.040	1.78	1.76
14...	1045	--	110	234	7.8	3.5	2.0	<0.010	0.010	--	2.19
FEB 1991											
04...	1200	--	110	226	7.7	5.0	11.0	0.010	0.010	1.99	1.99
28...	1030	--	93	236	7.8	4.0	8.0	0.010	<0.010	1.79	--
APR											
03...	1020	--	150	205	9.0	8.5	8.0	0.010	<0.010	1.09	--
MAY											
13...	0930	--	69	220	7.5	22.5	28.5	0.020	0.030	0.570	0.560
22...	0945	--	43	253	7.5	22.0	23.0	0.040	0.040	0.810	0.780
JUN											
24...	1005	--	9.9	326	7.7	22.0	24.0	0.010	<0.010	0.086	--
JUL											
02...	0945	--	3.5	373	7.8	25.5	26.0	0.010	0.020	0.140	0.120
AUG											
13...	1015	--	3.5	583	8.1	25.0	29.0	<0.010	0.010	--	--
29...	0645	--	7.6	--	--	--	--	--	0.020	--	0.550
SEP											
03...	0945	--	1.9	317	7.9	20.0	23.0	<0.010	<0.010	--	--

01639000 MONOCACY RIVER AT BRIDGEPORT, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (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 TOTAL (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 1990											
13...	0.800	0.800	0.150	0.100	1.6	1.0	0.220	0.140	0.220	0.140	27
13...	0.900	0.900	0.100	0.080	1.3	1.4	0.210	0.190	0.210	0.190	22
13...	0.900	0.900	0.080	0.040	1.3	0.90	0.210	0.200	0.220	0.140	--
13...	0.900	1.00	0.080	0.050	1.3	1.0	0.220	0.160	0.220	0.160	21
13...	0.900	0.900	0.080	0.030	1.4	0.90	0.220	0.160	0.220	0.140	--
13...	0.900	0.900	0.080	0.030	1.2	0.90	0.240	0.120	0.190	0.120	--
13...	0.900	0.900	0.060	0.030	1.1	1.0	0.200	0.120	0.190	0.120	20
13...	0.890	0.850	0.080	0.020	1.1	0.90	0.200	0.120	0.200	0.110	--
13...	0.900	0.900	0.050	0.030	1.1	0.90	0.170	0.140	0.170	0.130	14
14...	1.00	1.00	0.060	0.040	1.1	0.90	0.210	0.180	0.070	0.060	13
14...	1.10	1.10	0.070	0.040	1.4	1.1	0.220	0.180	0.070	0.080	15
14...	1.20	1.10	0.090	0.050	1.1	1.2	0.270	0.150	0.210	0.150	--
OCT											
19-19	1.40	0.900	0.110	0.030	1.1	0.90	0.530	0.140	0.280	0.150	--
23...	2.30	2.30	0.090	0.080	2.0	0.80	0.340	0.190	0.240	0.190	18
23...	1.90	1.90	0.150	0.140	1.8	0.80	0.230	0.210	0.240	0.200	--
23...	1.70	1.60	0.180	0.180	1.8	0.90	0.330	0.230	0.270	0.220	26
23...	1.40	1.40	0.150	0.140	1.2	0.70	0.330	0.220	0.270	0.200	--
23...	1.40	1.40	0.170	0.160	2.5	0.90	0.330	0.220	0.280	0.210	20
23...	1.30	1.30	0.140	0.140	1.7	0.70	0.310	0.210	0.270	0.200	--
23...	1.20	1.20	0.110	0.120	1.7	0.70	0.320	0.210	0.270	0.190	--
23...	1.20	1.20	0.120	0.120	1.7	0.70	0.360	0.210	0.260	0.190	--
23...	1.10	1.10	0.130	0.140	1.9	0.80	0.300	0.210	0.260	0.200	14
23...	1.20	1.10	0.110	0.120	1.5	0.60	0.290	0.210	0.260	0.180	--
23...	1.20	1.10	0.120	0.120	1.7	0.60	0.300	0.190	0.260	0.180	--
23...	1.20	1.10	0.100	0.100	1.4	0.60	0.290	0.210	0.240	0.170	--
23...	1.20	1.20	0.120	0.100	1.9	0.70	0.260	0.200	0.220	0.170	--
23...	1.20	1.20	0.110	0.100	1.3	0.60	0.250	0.180	0.220	0.160	--
23...	1.20	1.20	0.100	0.100	1.0	0.90	0.240	0.180	0.200	0.160	11
24...	1.30	1.30	0.100	0.090	1.2	0.70	0.290	0.160	0.200	0.150	--
24...	1.40	1.40	0.290	0.300	1.4	0.80	0.280	0.190	0.240	0.180	--
24...	1.60	1.60	0.490	0.490	1.7	1.2	0.310	0.230	0.250	0.210	13
24...	2.00	1.90	0.500	0.450	1.5	1.2	0.330	0.230	0.260	0.210	--
24...	1.90	1.80	0.890	0.890	2.2	1.5	0.370	0.250	0.290	0.240	11
24...	2.40	2.30	0.960	0.860	2.1	1.5	0.370	0.280	0.310	0.250	--
NOV											
01...	2.40	2.40	0.010	0.020	0.60	0.70	0.030	0.020	0.030	0.020	2.9
NOV											
10-10	1.90	1.70	0.080	0.060	1.8	0.70	0.370	0.230	0.290	0.200	--
NOV											
10-10	1.50	1.40	0.080	0.060	1.2	1.0	0.330	0.220	0.240	0.190	--
NOV											
10-11	2.00	2.00	0.130	0.110	1.3	1.1	0.320	0.230	0.250	0.200	--
27...	1.40	1.40	0.050	0.050	0.40	0.50	0.060	0.030	0.030	0.030	4.4
DEC											
03-04	1.30	1.50	0.160	0.160	1.6	1.0	0.530	0.190	0.190	0.180	--
DEC											
04-04	1.20	1.30	0.200	0.190	1.3	0.80	0.390	0.200	0.190	0.190	--
DEC											
04-04	1.50	1.50	0.180	0.170	1.5	<0.90	0.400	0.220	0.220	0.210	--
DEC											
04-04	1.50	1.60	0.170	0.140	1.3	0.80	0.350	0.210	0.310	0.200	--
04...	1.50	1.40	0.150	0.150	1.3	1.0	0.380	0.210	0.210	0.220	13
DEC											
04-04	2.50	2.50	0.100	0.090	1.1	0.80	0.270	0.150	0.230	0.160	--
04...	1.40	1.40	0.090	0.090	1.3	1.0	0.340	0.180	0.190	0.190	12
04...	1.60	1.60	0.130	0.120	<1.2	0.90	0.290	0.170	0.270	0.170	12
04...	1.80	1.80	0.110	0.100	1.1	<0.80	0.250	0.150	0.230	0.160	11
14...	2.20	2.20	0.020	0.020	0.60	0.30	0.030	0.020	0.020	0.020	3.1
FEB 1991											
04...	2.00	2.00	0.030	0.040	0.70	0.50	0.050	0.050	0.030	0.020	2.4
28...	1.80	1.80	<0.010	0.030	0.30	0.40	0.040	0.020	0.040	0.020	2.9
APR											
03...	1.10	1.10	0.010	0.020	0.30	0.30	0.030	0.020	0.020	0.010	3.0
MAY											
13...	0.590	0.590	0.080	0.060	0.70	0.70	0.110	0.080	0.090	0.070	4.6
22...	0.820	0.850	0.080	0.080	0.40	0.60	0.090	0.070	0.080	0.050	4.4
JUN											
24...	0.120	0.096	0.060	0.070	0.90	0.60	0.160	0.080	0.100	0.080	5.0
JUL											
02...	0.140	0.150	0.070	0.070	1.0	0.60	0.170	0.100	0.100	0.100	5.9
AUG											
13...	<0.050	<0.050	0.020	<0.010	0.90	0.50	0.170	0.050	0.050	0.040	8.3
29...	0.570	--	0.060	--	0.70	--	0.170	--	0.070	--	--
SEP											
03...	<0.050	<0.050	0.010	0.010	0.90	0.60	0.160	0.060	0.050	0.030	7.9

01639000 MONOCACY RIVER AT BRIDGEPORT, MD--Continued

SUSPENDED SEDIMENT DISCHARGE

DATE	TIME	ENDING TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
OCT 1990					
13...	1125	--	2330	370	2330
13...	1250	--	2820	359	2730
13...	1555	--	3480	298	2800
13...	2040	--	4200	282	3200
13...	2250	--	3280	119	1050
14...	0020	--	2020	74	404
14...	0150	--	1260	63	214
OCT					
19-19	0120	0520	2240	265	1600
23...	1140	--	2800	258	1950
23...	1305	--	5470	409	6040
23...	1425	--	6890	460	8560
23...	1830	--	8810	255	6070
23...	2340	--	7740	93	1940
24...	0305	--	4400	63	748
24...	0610	--	2110	48	273
NOV					
01...	0850	--	100	5	1.4
NOV					
10-10	1525	1650	3350	438	3960
NOV					
10-10	1800	1915	4000	238	2570
NOV					
10-11	2320	0430	1780	74	356
27...	1115	--	78	4	0.84
DEC					
03-04	2220	0045	3970	237	2540
DEC					
04-04	0145	0550	4580	126	1560
DEC					
04-04	0650	0845	5000	115	1550
DEC					
04-04	0940	1120	5410	130	1900
04...	0950	--	5390	129	1880
DEC					
04-04	1215	2400	2670	88	634
04...	1350	--	4700	105	1330
04...	1710	--	2970	79	634
04...	2050	--	1560	51	215
14...	1045	--	110	2	0.59
FEB 1991					
04...	1200	--	110	2	0.59
28...	1030	--	93	3	0.75
APR					
03...	1020	--	150	18	7.3
MAY					
13...	0930	--	69	25	4.7
22...	0945	--	42	12	1.4
JUN					
24...	1005	--	9.9	21	0.56
JUL					
02...	0945	--	3.5	20	0.19
AUG					
13...	1015	--	3.5	18	0.17
SEP					
03...	0945	--	1.9	17	0.09

01639000 MONOCACY RIVER AT BRIDGEPORT, MD--Continued

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT

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. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM
OCT 1990							
23...	1635	8130	383	8410	35	46	61
23...	1930	8890	207	4970	42	46	58

DATE	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .031 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 2.00 MM
OCT 1990								
23...	75	88	89	91	92	95	97	98
23...	70	84	89	91	92	94	97	98

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14.0	16.0	8.0	2.0	3.0	---	11.0	17.0	---	23.0	---	---
2	15.0	18.0	9.0	---	3.0	14.0	12.0	---	21.0	26.0	26.0	21.0
3	13.0	17.0	7.0	---	5.0	---	15.0	---	20.0	---	26.0	21.0
4	12.0	---	8.0	---	5.0	13.0	15.0	---	21.0	24.0	26.0	21.0
5	11.0	15.0	6.0	---	6.0	14.0	17.0	15.0	20.0	24.0	24.0	---
6	12.0	13.0	8.0	---	4.0	13.0	16.0	---	---	25.0	---	---
7	---	13.0	9.0	---	4.0	12.0	17.0	16.0	22.0	24.0	---	---
8	13.0	10.0	7.0	---	6.0	15.0	17.0	17.0	22.0	22.0	25.0	---
9	13.0	---	---	3.0	10.0	---	18.0	15.0	22.0	23.0	25.0	---
10	15.0	10.0	8.0	---	6.0	15.0	17.0	17.0	---	22.0	---	23.0
11	---	10.0	6.0	---	5.0	13.0	16.0	---	22.0	25.0	---	21.0
12	13.0	---	9.0	---	9.0	---	15.0	15.0	21.0	24.0	25.0	21.0
13	20.0	9.0	9.0	---	8.0	18.0	15.0	18.0	24.0	25.0	25.0	---
14	16.0	9.0	4.0	---	9.0	9.0	---	18.0	---	---	24.0	18.0
15	15.0	11.0	7.0	3.0	6.0	9.0	---	19.0	---	26.0	25.0	---
16	20.0	13.0	---	4.0	---	12.0	15.0	19.0	25.0	26.0	26.0	21.0
17	20.0	9.0	---	4.0	8.0	---	17.0	18.0	---	26.0	---	---
18	17.0	8.0	---	---	8.0	12.0	15.0	---	21.0	---	---	---
19	13.0	7.0	7.0	---	9.0	12.0	12.0	16.0	22.0	26.0	---	---
20	13.0	8.0	7.0	7.0	11.0	14.0	11.0	17.0	---	26.0	23.0	---
21	---	10.0	8.0	2.0	12.0	---	11.0	17.0	24.0	28.0	23.0	18.0
22	14.0	---	8.0	2.0	12.0	11.0	12.0	22.0	23.0	25.0	24.0	---
23	---	10.0	---	3.0	10.0	12.0	14.0	---	21.0	26.0	25.0	18.0
24	---	9.0	7.0	3.0	11.0	11.0	13.0	21.0	22.0	25.0	---	15.0
25	16.0	10.0	9.0	2.0	11.0	10.0	15.0	21.0	24.0	---	25.0	18.0
26	14.0	---	5.0	2.0	11.0	13.0	---	---	23.0	---	---	---
27	10.0	10.0	5.0	3.0	10.0	14.0	---	22.0	24.0	---	---	---
28	---	---	---	3.0	13.0	15.0	17.0	22.0	---	---	21.0	16.0
29	10.0	8.0	---	3.0	---	13.0	13.0	---	---	24.0	28.0	---
30	15.0	9.0	---	4.0	---	---	16.0	22.0	25.0	25.0	26.0	16.0
31	15.0	---	---	2.0	---	12.0	---	---	---	24.0	25.0	---

01639000 MONOCACY RIVER AT BRIDGEPORT, MD--Continued

SUSPENDED-SEDIMENT, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	OCTOBER MEAN CONCEN-TRATION (MG/L)	OCTOBER LOAD (TONS/ DAY)	NOVEMBER MEAN CONCEN-TRATION (MG/L)	NOVEMBER LOAD (TONS/ DAY)	DECEMBER MEAN CONCEN-TRATION (MG/L)	DECEMBER LOAD (TONS/ DAY)	JANUARY MEAN CONCEN-TRATION (MG/L)	JANUARY LOAD (TONS/ DAY)	FEBRUARY MEAN CONCEN-TRATION (MG/L)	FEBRUARY LOAD (TONS/ DAY)	MARCH MEAN CONCEN-TRATION (MG/L)	MARCH LOAD (TONS/ DAY)
1	9	.32	5	1.3	2	.36	65	104	5	1.7	2	.47
2	8	.24	6	1.5	2	.36	10	9.6	6	1.7	2	.60
3	6	.16	5	1.1	12	33	e10	8.1	5	1.4	4	1.6
4	7	.18	4	.83	85	964	e8	5.5	3	.87	60	257
5	7	.18	6	1.2	23	43	e10	5.3	6	1.7	31	40
6	8	.20	7	1.6	10	8.9	8	4.4	8	2.9	13	9.3
7	6	.18	6	1.5	6	4.0	13	19	17	24	11	11
8	5	.15	4	.77	4	2.2	12	12	14	13	20	12
9	7	.19	3	.53	3	1.4	10	7.3	7	4.0	6	2.8
10	4	.09	134	1050	4	1.7	8	6.7	3	1.4	2	.83
11	22	2.4	39	102	3	1.1	7	8.0	1	.39	2	.72
12	40	21	17	12	2	.65	18	51	1	.32	2	.63
13	204	1630	9	4.1	2	.63	58	150	1	.30	1	.31
14	45	74	5	1.7	2	.59	24	31	33	49	1	.35
15	28	13	3	.92	15	34	8	7.4	22	25	2	1.1
16	18	5.4	3	.93	44	95	133	1340	12	5.3	5	3.9
17	16	3.7	3	.92	12	8.1	39	274	4	1.5	4	1.8
18	31	31	3	.88	73	245	14	38	1	.36	32	57
19	138	388	2	.51	78	123	11	16	1	.43	22	26
20	30	17	2	.49	15	12	8	11	4	3.3	10	6.3
21	21	7.9	2	.46	15	20	7	9.0	4	2.4	6	2.9
22	15	4.7	2	.44	18	27	8	6.4	4	1.7	3	1.3
23	156	2910	2	.53	22	50	6	3.3	3	1.0	176	1610
24	48	350	4	1.5	141	713	4	2.2	3	.90	50	155
25	22	29	3	.77	55	78	3	1.4	3	.89	31	35
26	9	7.0	2	.46	12	10	2	.84	1	.29	30	23
27	7	3.6	3	.64	5	3.4	4	1.6	1	.27	50	67
28	5	2.1	3	.62	4	2.3	3	1.1	1	.25	45	48
29	3	1.1	3	.62	3	2.2	3	1.0	---	---	31	20
30	4	1.2	3	.58	55	417	4	1.3	---	---	28	24
31	4	1.1	---	---	177	1320	5	2.5	---	---	25	21
TOTAL	---	5505.09	---	1191.40	---	4221.89	---	2138.94	---	146.27	---	2440.91

DAY	APRIL MEAN CONCEN-TRATION (MG/L)	APRIL LOAD (TONS/ DAY)	MAY MEAN CONCEN-TRATION (MG/L)	MAY LOAD (TONS/ DAY)	JUNE MEAN CONCEN-TRATION (MG/L)	JUNE LOAD (TONS/ DAY)	JULY MEAN CONCEN-TRATION (MG/L)	JULY LOAD (TONS/ DAY)	AUGUST MEAN CONCEN-TRATION (MG/L)	AUGUST LOAD (TONS/ DAY)	SEPTEMBER MEAN CONCEN-TRATION (MG/L)	SEPTEMBER LOAD (TONS/ DAY)
1	22	12	e17	3.8	e8	.50	23	.32	e19	.28	e17	.17
2	21	10	e13	2.6	e9	.51	20	.23	e18	.18	22	.15
3	10	4.0	e13	2.4	e12	.81	e20	.26	17	.14	20	.12
4	13	4.8	e13	2.3	e15	.85	25	.36	19	.14	20	.13
5	13	4.5	e13	2.1	e20	1.1	e27	.54	23	.16	e26	1.3
6	17	6.3	e18	9.9	e20	.97	22	.59	26	.14	e35	2.9
7	9	2.9	e79	127	e20	.92	e30	1.1	26	.12	e30	1.9
8	8	2.3	30	12	e20	.86	e25	.88	22	.06	28	1.3
9	7	1.9	15	4.1	22	.89	19	.56	16	.04	e28	.98
10	10	2.7	10	2.5	e21	.85	24	.65	e22	.20	29	.72
11	11	2.6	9	2.0	e21	.74	23	.55	e24	.42	32	.62
12	8	1.6	8	1.6	21	.68	24	.41	20	.29	26	.38
13	8	1.6	8	1.6	e20	.59	22	.45	19	.23	e23	.25
14	13	4.2	8	2.1	e20	.54	21	.44	15	.13	e21	.19
15	51	54	8	1.6	e20	.53	20	.40	16	.10	e19	.17
16	48	54	7	1.1	21	.62	21	.40	14	.07	17	.16
17	31	15	9	1.3	e20	.54	e20	.29	e14	.06	10	.09
18	22	8.2	14	2.3	e20	.59	e20	.22	e14	.04	9	.12
19	17	5.3	11	1.7	e18	.48	21	.20	e17	.60	e190	1480
20	15	4.9	10	1.5	e24	.78	16	.14	46	7.8	e33	14
21	16	6.0	10	1.2	e22	.77	e18	.16	44	10	26	4.4
22	26	21	12	1.4	e20	.59	22	.18	24	2.9	21	2.2
23	20	11	e11	1.1	e20	.53	19	.09	20	1.2	17	1.2
24	21	8.2	e10	1.0	e22	.71	e18	.08	17	.69	12	.68
25	6	2.1	e10	.97	e26	1.1	e16	.07	14	.42	16	1.6
26	6	1.8	e10	.89	e24	.84	e16	.06	e26	2.1	12	1.9
27	7	1.9	e8	.69	e23	.62	e28	.76	24	1.7	6	.60
28	7	1.8	e8	.65	e22	.46	e25	.74	16	.65	6	.42
29	10	2.4	e8	.60	e20	.33	e20	.48	15	.40	7	.36
30	18	4.2	e8	.54	e20	.28	17	.39	15	.30	8	.35
31	---	---	e8	.54	---	---	19	.36	13	.21	---	---
TOTAL	---	263.2	---	195.08	---	20.58	---	12.36	---	31.77	---	1519.36

TOTAL LOAD FOR YEAR: 17686.85 TONS.

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 September 1991.

GAGE.--Water-stage recorder. Elevation of gage is 383.22 ft above National Geodetic Vertical Datum of 1929.

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

PEAK DISCHARGES FOR CURRENT PERIOD.--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)
May 10, 1990	1815	761	4.26	Nov. 10, 1990	1445	953	4.85
May 29, 1990	1400	*860	*4.54	Dec. 3, 1990	2045	562	3.74
July 22, 1990	0100	539	3.63	Dec. 4, 1990	0700	612	3.89
				Dec. 30, 1990	1945	1,060	5.14
Oct. 18, 1990	1915	1,030	5.00	Jan. 16, 1991	1245	1,100	5.24
Oct. 23, 1990	1400	*1,440	*6.03	Mar. 23, 1991	1515	846	4.56

DISCHARGE, IN CUBIC FEET PER SECOND, MAY 1990 TO SEPTEMBER 1990
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	e36	50	3.9	5.5	13
2	---	---	---	---	---	---	---	e24	41	3.7	3.9	10
3	---	---	---	---	---	---	---	e18	36	3.2	2.8	8.9
4	---	---	---	---	---	---	---	e17	32	2.9	2.8	7.5
5	---	---	---	---	---	---	---	e60	27	2.8	2.9	6.9
6	---	---	---	---	---	---	---	e34	23	4.8	8.4	6.5
7	---	---	---	---	---	---	---	e22	22	4.2	14	6.1
8	---	---	---	---	---	---	---	18	76	2.9	6.1	5.7
9	---	---	---	---	---	---	---	15	84	2.8	4.9	5.1
10	---	---	---	---	---	---	---	231	32	3.7	17	4.9
11	---	---	---	---	---	---	---	121	23	5.7	18	4.9
12	---	---	---	---	---	---	---	52	19	6.7	8.3	4.3
13	---	---	---	---	---	---	---	54	16	18	6.2	4.8
14	---	---	---	---	---	---	---	52	15	10	5.9	6.7
15	---	---	---	---	---	---	---	34	13	30	5.6	5.6
16	---	---	---	---	---	---	---	34	12	33	4.3	5.4
17	---	---	---	---	---	---	---	77	11	9.8	3.8	5.6
18	---	---	---	---	---	---	---	34	17	6.6	3.3	5.4
19	---	---	---	---	---	---	---	25	19	5.1	2.9	4.1
20	---	---	---	---	---	---	---	22	13	4.4	16	5.0
21	---	---	---	---	---	---	---	25	9.7	24	15	5.3
22	---	---	---	---	---	---	---	22	8.1	132	27	14
23	---	---	---	---	---	---	---	18	7.0	34	85	15
24	---	---	---	---	---	---	---	16	6.8	17	31	6.5
25	---	---	---	---	---	---	---	14	6.0	11	21	4.6
26	---	---	---	---	---	---	---	72	5.6	8.6	15	3.9
27	---	---	---	---	---	---	---	40	4.8	6.8	12	4.2
28	---	---	---	---	---	---	---	27	4.6	5.9	9.5	4.2
29	---	---	---	---	---	---	---	371	4.1	5.3	12	3.4
30	---	---	---	---	---	---	---	177	4.0	5.0	82	3.2
31	---	---	---	---	---	---	---	69	---	5.2	18	---
TOTAL	---	---	---	---	---	---	---	1831	641.7	419.0	470.1	190.7
MEAN	---	---	---	---	---	---	---	59.1	21.4	13.5	15.2	6.36
MAX	---	---	---	---	---	---	---	371	84	132	85	15
MIN	---	---	---	---	---	---	---	14	4.0	2.8	2.8	3.2
CFSM	---	---	---	---	---	---	---	1.89	.68	.43	.48	.20
IN.	---	---	---	---	---	---	---	2.18	.76	.50	.56	.23

e Estimated

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

MEAN	---	---	---	---	---	---	---	59.1	21.4	13.5	15.2	6.36
MAX	---	---	---	---	---	---	---	59.1	21.4	13.5	15.2	6.36
(WY)	---	---	---	---	---	---	---	1990	1990	1990	1990	1990
MIN	---	---	---	---	---	---	---	59.1	21.4	13.5	15.2	6.36
(WY)	---	---	---	---	---	---	---	1990	1990	1990	1990	1990

01639140 PINEY CREEK NEAR TANEYTOWN, MD--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.0	22	11	89	e22	15	36	10	3.3	.65	.14	.03
2	3.0	20	10	69	21	20	32	9.1	3.1	.59	.03	.00
3	2.6	16	143	60	21	20	27	8.4	3.1	.89	.02	.00
4	2.2	16	317	49	20	72	24	7.9	3.1	1.3	.00	.32
5	2.7	15	83	41	19	38	24	7.4	2.7	1.2	.00	21
6	3.6	26	56	47	25	28	25	24	2.3	2.0	.09	4.9
7	2.9	18	46	93	55	35	21	31	2.2	1.3	.06	4.2
8	2.7	15	40	e60	38	24	18	11	2.1	1.2	.03	2.3
9	2.5	12	34	e54	29	21	17	8.7	2.0	.80	.51	1.6
10	2.4	342	30	e70	26	19	15	8.4	2.0	.63	.63	.87
11	11	101	26	80	22	17	12	7.5	1.7	.55	.39	.66
12	15	56	23	304	18	15	11	6.8	1.5	.43	.38	.37
13	41	43	e20	165	e17	15	12	31	1.3	.72	.35	.49
14	26	35	19	97	71	19	21	21	1.5	.51	.33	.49
15	12	31	83	86	42	33	60	10	1.2	.46	.14	.49
16	8.5	28	67	521	e26	35	41	7.9	2.4	.45	.03	.49
17	6.9	33	39	249	e22	23	24	8.9	6.7	.41	.06	.46
18	273	27	107	127	20	112	19	9.1	1.7	.34	.04	7.6
19	137	22	69	88	30	60	15	7.3	1.5	.30	.04	58
20	38	20	45	76	49	41	16	6.8	1.6	.28	9.3	6.2
21	28	18	78	e64	31	33	25	5.9	1.7	.29	13	3.1
22	23	17	67	e47	26	30	49	5.5	1.5	.40	3.2	2.0
23	704	28	98	e40	21	309	25	5.2	1.5	.36	1.5	1.7
24	150	26	200	e37	18	125	20	4.7	1.5	.32	.87	1.4
25	75	19	72	e33	19	70	17	5.1	1.9	.25	.60	29
26	54	16	54	e30	18	53	14	4.6	1.4	.17	.53	9.4
27	42	15	46	e28	17	80	13	4.1	.96	.29	.44	4.9
28	37	13	e44	e26	15	56	11	4.2	.75	.17	.40	3.3
29	31	12	56	e25	---	40	11	3.8	.65	.17	.37	2.4
30	27	11	351	28	---	61	11	3.7	.69	.22	.18	2.0
31	25	---	254	42	---	44	---	3.8	---	.15	.09	---
TOTAL	1792.0	1073	2588	2825	758	1563	666	292.8	59.55	17.80	33.75	169.67
MEAN	57.8	35.8	83.5	91.1	27.1	50.4	22.2	9.45	1.98	.57	1.09	5.66
MAX	704	342	351	521	71	309	60	31	6.7	2.0	13	58
MIN	2.2	11	10	25	15	15	11	3.7	.65	.15	.00	.00
CFSM	1.85	1.14	2.67	2.91	.86	1.61	.71	.30	.06	.02	.03	.18
IN.	2.13	1.28	3.08	3.36	.90	1.86	.79	.35	.07	.02	.04	.20

e Estimated

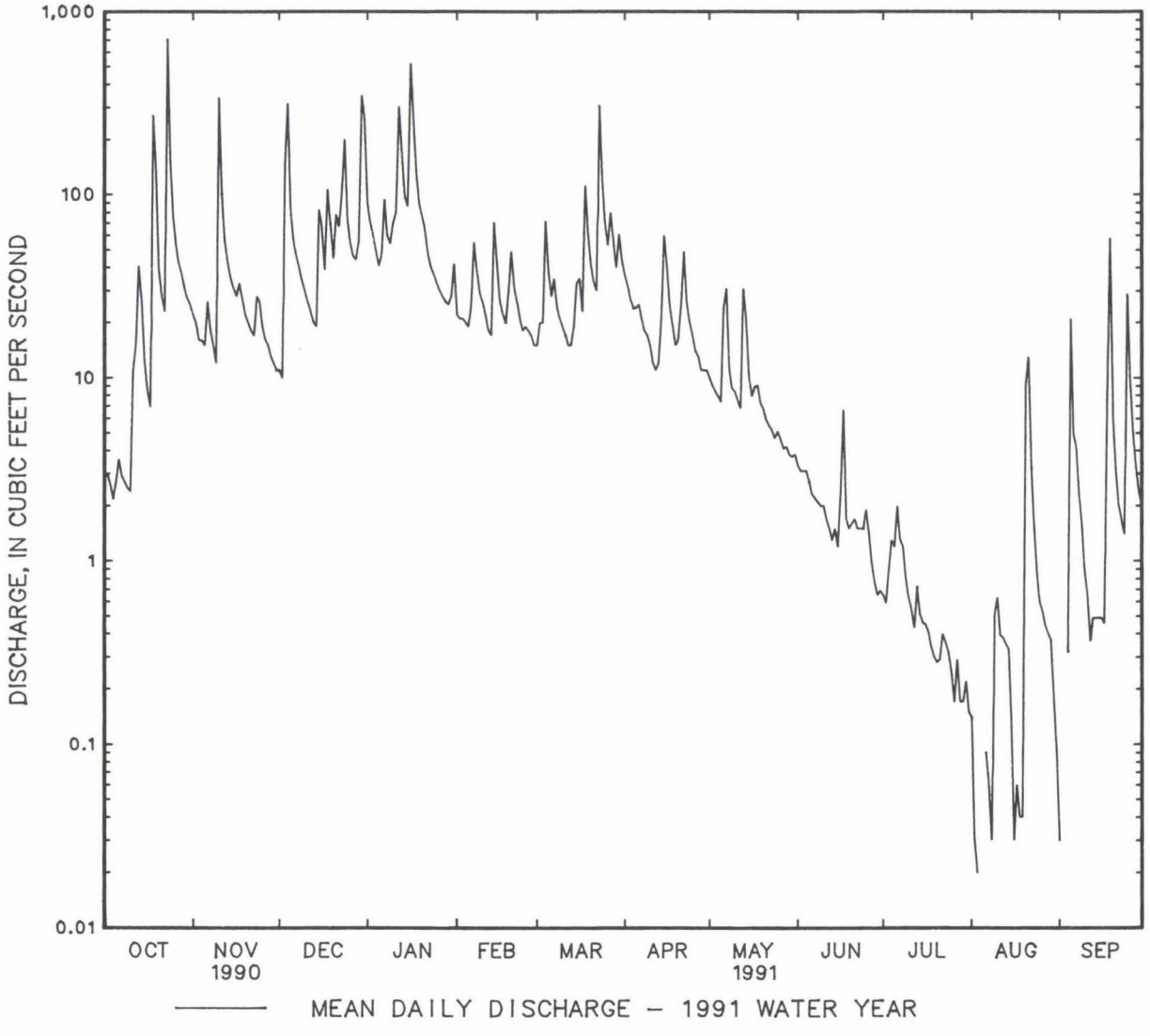
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 1991, BY WATER YEAR (WY)

MEAN	58.3	36.6	84.1	92.9	27.6	50.4	22.2	34.3	11.7	7.05	8.13	6.01
MAX	58.3	36.6	84.1	92.9	27.6	50.4	22.2	59.1	21.4	13.5	15.2	6.36
(WY)	1991	1991	1991	1991	1991	1991	1991	1990	1990	1990	1990	1990
MIN	58.3	36.6	84.1	92.9	27.6	50.4	22.2	9.45	1.98	.57	1.09	5.66
(WY)	1991	1991	1991	1991	1991	1991	1991	1991	1991	1991	1991	1991

01639140 PINEY CREEK NEAR TANEYTOWN, MD--Continued

SUMMARY STATISTICS	FOR 1991 WATER YEAR		WATER YEARS 1990 - 1991	
ANNUAL TOTAL	11838.57			
ANNUAL MEAN	32.4		32.8	
HIGHEST ANNUAL MEAN			32.8	1991
LOWEST ANNUAL MEAN			32.8	1991
HIGHEST DAILY MEAN	704	Oct 23	715	Oct 23 1990
LOWEST DAILY MEAN	.00	(a)	.00	(a)
ANNUAL SEVEN-DAY MINIMUM	.03	Aug 2	.03	Aug 2 1991
INSTANTANEOUS PEAK FLOW	1440	Oct 23	1440	Oct 23 1990
INSTANTANEOUS PEAK STAGE	6.03	Oct 23	6.03	Oct 23 1990
INSTANTANEOUS LOW FLOW	.00	(b)	.00	(b)
ANNUAL RUNOFF (CFSM)	1.04		1.05	
ANNUAL RUNOFF (INCHES)	14.07		14.23	
10 PERCENT EXCEEDS	70		69	
50 PERCENT EXCEEDS	15		14	
90 PERCENT EXCEEDS	.38		.51	

a Aug. 4,5, Sept. 2,3, 1991.
b Aug. 3-9, 17, Sept. 1-4, 1991



01639140 PINEY CREEK NEAR TANEYTOWN, MD--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1990 to September 1991.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (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)	CALCIUM DIS-SOLVED (MG/L AS CA)
JUN 1991											
26...	1600	1.2	426	8.0	23.5	756	8.1	96	1400	730	36
AUG											
29...	0710	0.49	--	--	--	--	--	--	--	--	--

DATE	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)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)
JUN 1991											
26...	9.7	32	5.5	111	24	42	<0.10	11	243	3.08	0.030
AUG											
29...	--	--	--	--	--	--	--	--	--	--	0.050

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 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS ORTHO TOTAL (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)
JUN 1991											
26...	0.020	3.20	3.10	0.060	0.050	0.80	0.740	0.700	0.700	140	61
AUG											
29...	--	2.80	--	0.090	--	0.60	0.740	0.640	--	--	--

DATE	HARD-NESS TOTAL (MG/L AS CACO3)	ALA-CHLOR (LASSO) WATER DISSOLV (UG/L)	AMETRYN WATER, DISS, REC, (UG/L)	ATRA-ZINE, WATER, DISS, REC (UG/L)	METO-LACHLOR WATER DISSOLV (UG/L)	METRI-BUZIN SENCOR WATER DISSOLV (UG/L)	ALDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	CHLOR-DANE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDD, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDT, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
JUN 1991											
26...	130	0.1	<0.05	1.5	0.9	<0.0	<0.1	5.0	0.4	0.6	0.6
AUG											
29...	--	<0.0	<0.05	0.50	0.9	<0.0	--	--	--	--	--

DATE	DI-AZINON, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DI-ELDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ENDO-SULFAN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ENDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ETHION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	HEPTA-CHLOR, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	HEPTA-CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	MALA-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	METH-OXY-CHLOR, TOT. IN BOTTOM MATL. (UG/KG)
JUN 1991										
26...	0.2	0.7	<0.1	<0.1	<0.1	<0.1	0.1	0.1	<0.1	3.0
AUG										
29...	--	--	--	--	--	--	--	--	--	--

DATE	METHYL PARA-THION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRI-THION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	PARA-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	PCB, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	PCN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	PER-THANE IN BOT-TOM MA-TERIAL (UG/KG)	PROP-AZINE SED, BOT MAT REC (UG/L)	TRI-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	TOXA-PHENE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
JUN 1991										
26...	<0.1	<0.1	<0.1	<0.1	5	<1.0	<1.00	<0.05	<0.1	<10
AUG										
29...	--	--	--	--	--	--	--	<0.05	--	--

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.

PERIOD OF RECORD.--October 1947 to current year. Prior to December 1947, monthly discharge only, published in WSP 1302.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 336.88 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges (backwater from large tree), which are fair. Occasional diversion for irrigation upstream from station. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

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)
Oct. 23	1730	*2,820	*7.49	Dec. 30	1730	1,810	5.53
Nov. 10	1430	1,840	5.58	Jan. 16	1200	2,050	6.00

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	79	59	267	e120	e80	132	78	43	19	18	17
2	31	75	60	214	e100	e85	123	73	47	22	14	14
3	29	72	199	187	e95	e110	114	69	44	25	14	14
4	29	65	521	160	e95	e160	108	67	44	27	13	17
5	36	61	184	140	e95	e130	110	64	39	27	12	58
6	34	71	134	153	e100	e120	114	106	38	29	11	37
7	30	65	117	232	e130	e130	105	117	38	25	11	32
8	30	59	105	168	e130	e120	98	76	38	22	10	24
9	40	58	95	164	e100	e95	96	71	35	22	17	21
10	39	826	90	187	e90	e85	91	71	33	18	29	20
11	40	320	83	221	e85	e80	82	65	33	19	18	19
12	52	148	80	1020	e80	e85	79	62	32	19	14	19
13	145	120	79	537	e90	e95	84	66	30	23	12	17
14	88	104	75	348	e150	e110	106	84	26	27	13	17
15	53	95	158	321	e130	e120	154	65	26	19	12	18
16	44	90	185	1210	e110	e110	141	58	26	18	13	18
17	41	94	112	780	e90	e110	103	59	50	14	12	17
18	267	84	209	471	e95	e200	93	67	38	13	12	86
19	513	79	161	e340	e110	e160	88	58	38	12	11	275
20	94	76	119	e260	e140	145	92	56	37	12	407	49
21	72	72	171	e240	e110	128	110	52	34	16	140	34
22	65	71	169	e200	e95	123	182	51	31	16	41	27
23	1310	85	196	e170	e90	648	115	49	31	16	30	26
24	754	84	434	e150	e90	368	101	49	37	14	25	25
25	197	73	193	e140	e85	217	95	56	33	11	23	185
26	141	68	155	e130	e85	176	88	50	28	16	21	75
27	114	66	142	e120	e80	224	84	45	25	36	20	47
28	103	66	152	e120	e80	180	82	47	25	19	20	37
29	93	65	151	e120	---	148	80	45	24	17	19	33
30	85	60	761	e120	---	177	82	65	22	22	19	30
31	82	---	649	e140	---	149	---	49	---	20	18	---
TOTAL	4683	3351	5998	9030	2850	4868	3132	1990	1025	615	1049	1308
MEAN	151	112	193	291	102	157	104	64.2	34.2	19.8	33.8	43.6
MAX	1310	826	761	1210	150	648	182	117	50	36	407	275
MIN	29	58	59	120	80	80	79	45	22	11	10	14
CFSM	1.48	1.10	1.90	2.86	1.00	1.54	1.02	.63	.33	.19	.33	.43
IN.	1.71	1.22	2.19	3.29	1.04	1.78	1.14	.73	.37	.22	.38	.48

e Estimated

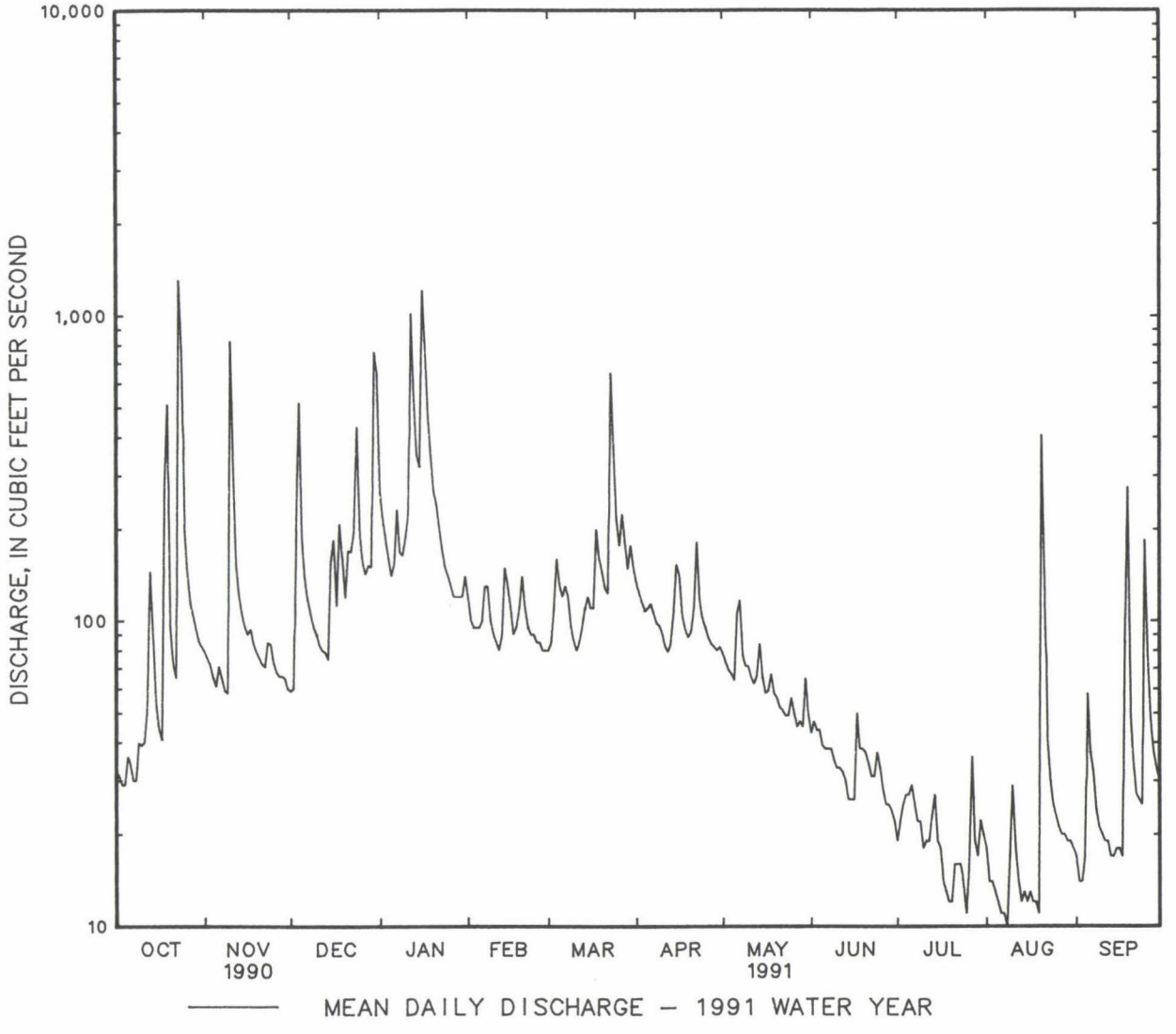
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1948 - 1991, BY WATER YEAR (WY)

MEAN	60.2	79.7	117	143	178	179	159	122	101	70.5	54.0	64.0
MAX	390	211	356	401	387	360	401	383	891	295	212	729
(WY)	1980	1972	1973	1979	1979	1978	1983	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 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1948 - 1991	
ANNUAL TOTAL	46548		39899			
ANNUAL MEAN	128		109		110	
HIGHEST ANNUAL MEAN					227	1972
LOWEST ANNUAL MEAN					50.8	1966
HIGHEST DAILY MEAN	1310	Oct 23	1310	Oct 23	14400	Jun 22 1972
LOWEST DAILY MEAN	29	Oct 3	10	Aug 8	1.0	Sep 12 1966
ANNUAL SEVEN-DAY MINIMUM	31	Oct 2	12	Aug 2	1.4	Sep 7 1966
INSTANTANEOUS PEAK FLOW	2820	Oct 23	2820	Oct 23	a28000	Sep 26 1975
INSTANTANEOUS PEAK STAGE	7.49	Oct 23	7.49	Oct 23	18.98	Sep 26 1975
INSTANTANEOUS LOW FLOW	21	Oct 3	9.7	(b)	1.0	Sep 12 1966
ANNUAL RUNOFF (CFSM)	1.25		1.07		1.08	
ANNUAL RUNOFF (INCHES)	16.98		14.55		14.69	
10 PERCENT EXCEEDS	206		194		207	
50 PERCENT EXCEEDS	93		79		65	
90 PERCENT EXCEEDS	40		18		23	

a From rating curve extended above 3,900 ft^3/s on the basis of contracted-opening measurement at gage height of 17.86 ft.
b July 18, Aug. 8, 19.



01640965 HUNTING CREEK NEAR FOXVILLE, MD

LOCATION.--Lat 39°37'10", long 77°28'00", Frederick County, Hydrologic Unit 02070009, on left downstream wingwall of culvert on park road in Cunningham Falls State Park, 0.25 mi upstream from Hunting Creek Lake, and 2.9 mi west of Thurmont.

DRAINAGE AREA.--2.14 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1981 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 1,030 ft above National Geodetic Vertical datum of 1929, from topographic map.

REMARKS.--Water-discharge records good except those for estimated daily discharges (missing record), and discharges below 1.0 ft^3/s and above 40 ft^3/s, 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)
Oct. 13	0300	*62	*3.02	Oct. 23	0900	56	2.96
Oct. 13	0715	47	2.87				

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.16	2.7	1.5	9.9	3.8	3.9	5.6	3.1	.52	.16	.06	.02
2	.15	2.5	1.4	8.0	3.6	5.5	5.0	2.8	.49	.35	.05	.02
3	.17	2.4	6.1	6.9	3.5	6.0	4.5	2.6	.46	.38	.04	.02
4	.20	2.2	16	5.8	3.4	17	4.2	2.4	.41	.27	.05	.64
5	.17	2.2	8.0	5.0	3.4	9.6	4.3	2.3	.39	.32	.04	1.2
6	.15	3.7	6.0	5.7	4.5	8.1	4.0	5.0	.35	.32	.03	.15
7	.14	2.2	4.9	6.5	6.6	7.8	3.6	4.0	.35	.22	.04	.10
8	e.14	1.9	4.3	4.8	5.1	6.3	3.3	2.9	.31	.21	.05	.08
9	e.14	1.9	3.7	4.7	4.7	5.6	3.2	2.8	.29	.17	.25	.06
10	.15	9.9	3.4	4.7	4.4	5.1	3.1	2.6	.26	.14	.17	.06
11	3.3	5.0	3.1	5.0	4.1	4.6	2.7	2.3	.26	.13	.07	.06
12	.91	3.7	2.9	8.5	3.8	4.3	2.5	2.1	.26	.13	.05	.05
13	21	3.3	2.7	7.3	4.3	4.1	3.0	2.0	.24	.44	.04	.04
14	4.6	3.0	2.4	5.7	7.2	4.0	4.5	1.8	.22	.19	.05	.09
15	2.8	2.8	6.4	5.4	5.2	4.6	7.8	1.6	.19	.14	.04	.07
16	2.1	2.7	5.0	17	4.3	4.6	6.5	1.4	.24	.11	.03	.06
17	1.8	3.0	3.8	17	4.5	4.2	5.4	2.8	.36	.10	.03	.06
18	5.2	2.7	7.8	12	4.6	7.8	4.7	2.1	4.5	.09	.02	1.4
19	4.6	2.5	6.6	10	5.9	5.8	4.2	1.6	.90	.09	.04	3.4
20	3.2	2.4	4.9	10	6.2	5.2	5.2	1.4	.58	.09	.47	.29
21	2.8	2.2	6.7	10	5.2	4.9	6.7	1.3	.41	.08	.30	.16
22	2.7	2.2	6.0	7.4	5.1	4.9	8.3	1.1	.34	.09	.09	.12
23	25	2.7	9.2	6.4	5.0	15	6.4	1.0	.41	.08	.06	.11
24	13	2.3	14	6.1	4.8	11	5.8	.92	.36	.07	.05	.11
25	8.3	2.1	8.6	5.2	4.7	8.4	5.1	.85	.31	.07	.08	.33
26	6.2	2.0	7.0	4.6	4.8	7.2	4.6	.77	.25	.16	.06	.20
27	4.8	1.9	6.0	4.7	4.5	8.0	4.3	.72	.22	.12	.05	.12
28	4.2	1.9	5.9	4.6	4.2	6.8	3.9	.70	.20	.09	.05	.09
29	3.5	1.7	5.8	4.0	---	6.0	3.6	.64	.19	.13	.04	.08
30	3.1	1.6	15	4.4	---	7.2	3.5	.61	.17	.11	.03	.07
31	2.9	---	16	5.2	---	6.0	---	.63	---	.09	.03	---
TOTAL	127.58	83.3	201.1	222.5	131.4	209.5	139.5	58.84	14.44	5.14	2.46	9.26
MEAN	4.12	2.78	6.49	7.18	4.69	6.76	4.65	1.90	.48	.17	.079	.31
MAX	25	9.9	16	17	7.2	17	8.3	5.0	4.5	.44	.47	3.4
MIN	.14	1.6	1.4	4.0	3.4	3.9	2.5	.61	.17	.07	.02	.02
CFSM	1.92	1.30	3.03	3.35	2.19	3.16	2.17	.89	.22	.08	.04	.14
IN.	2.22	1.45	3.50	3.87	2.28	3.64	2.42	1.02	.25	.09	.04	.16

e Estimated

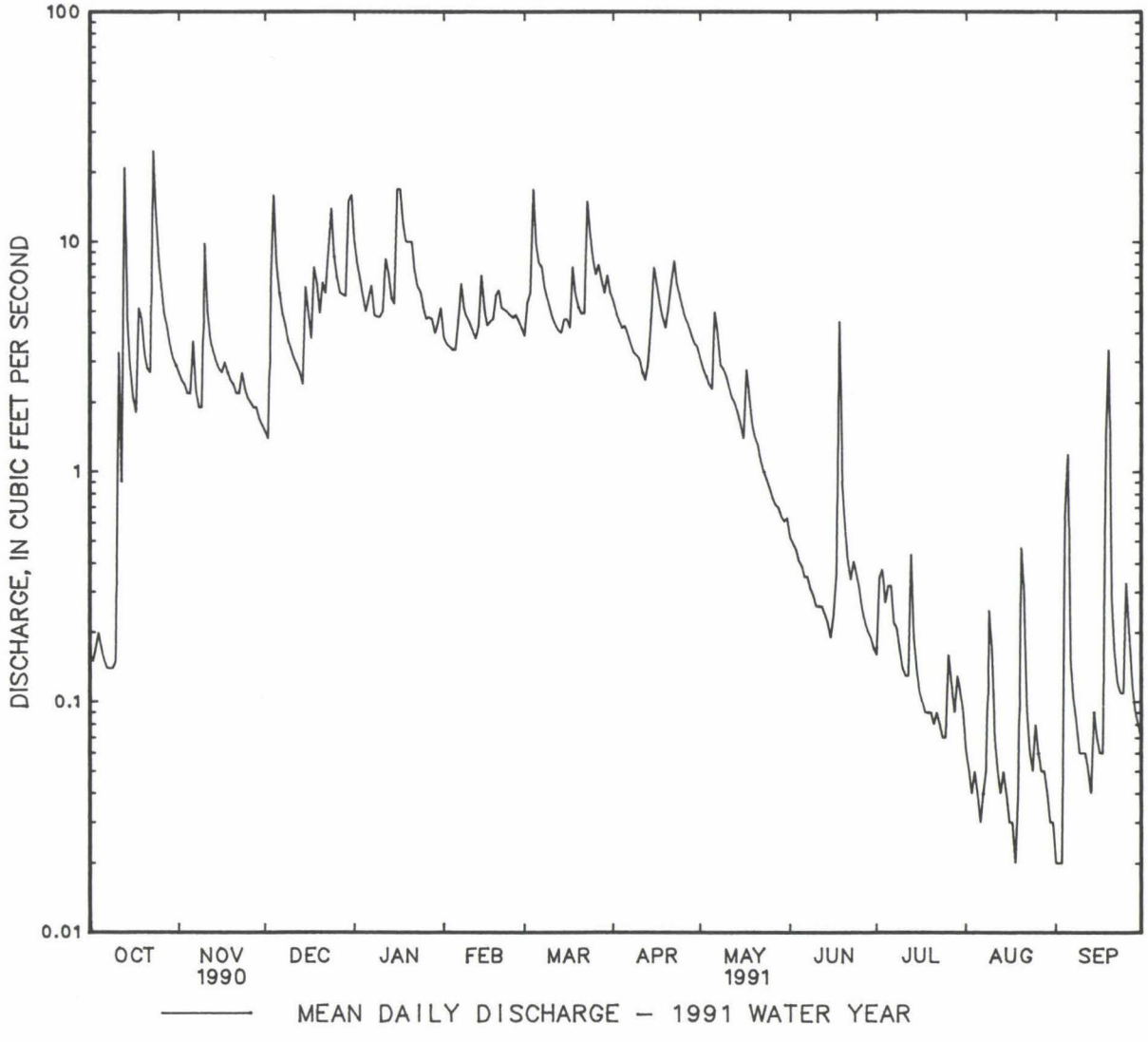
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1982 - 1991, BY WATER YEAR (WY)

MEAN	1.00	2.68	3.34	3.09	5.73	5.99	6.50	6.02	1.99	.75	.90	.24
MAX	4.31	10.6	8.28	7.18	12.6	10.1	13.6	15.2	5.43	2.69	6.33	.57
(WY)	1991	1986	1984	1991	1984	1983	1987	1989	1982	1989	1984	1984
MIN	.093	.49	.68	1.25	2.23	2.62	2.56	1.90	.49	.17	.052	.063
(WY)	1987	1982	1989	1983	1987	1988	1985	1991	1991	1991	1987	1986

01640965 HUNTING CREEK NEAR FOXVILLE, MD--Continued

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1982 - 1991	
ANNUAL TOTAL	1202.01		1205.02			
ANNUAL MEAN	3.29		3.30		3.17	
HIGHEST ANNUAL MEAN					5.14	1984
LOWEST ANNUAL MEAN					1.82	1985
HIGHEST DAILY MEAN	25	Oct 23	25	Oct 23	101	Feb 14 1984
LOWEST DAILY MEAN	.14	(a)	.02	(b)	.02	(b)
ANNUAL SEVEN-DAY MINIMUM	.16	Oct 4	.03	Aug 28	.03	Aug 28 1991
INSTANTANEOUS PEAK FLOW	62	Oct 13	62	Oct 13	c814	May 19 1988
INSTANTANEOUS PEAK STAGE	3.02	Oct 13	3.02	Oct 13	4.71	May 19 1988
INSTANTANEOUS LOW FLOW	.14	(d)	.01	Sep 3	.01	Sep 3 1991
ANNUAL RUNOFF (CFSM)	1.54		1.54		1.48	
ANNUAL RUNOFF (INCHES)	20.89		20.95		20.13	
10 PERCENT EXCEEDS	6.6		7.2		7.6	
50 PERCENT EXCEEDS	2.7		2.7		1.6	
90 PERCENT EXCEEDS	.28		.07		.11	

a Oct. 7-9.
b Aug. 18 and Sept. 1-3, 1991.
c From rating curve extended above 40 ft^3/s on basis of computation of peak flow through culvert.
d Oct. 1-3, 6-10.



01640965 HUNTING CREEK NEAR FOXVILLE, MD--Continued

WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1987 to July 1991.
WATER TEMPERATURE: October 1987 to July 1991.

INSTRUMENTATION.--Water-quality monitor October 1987 to July 1991.

REMARKS.--Periods of missing record are due to instrument malfunction.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE (water year 1990): Maximum, 121 microsiemens, Dec. 31, 1989; minimum, 64 microsiemens, May 10, 11, 30, 31, June 16 and July 5, 1990.
WATER TEMPERATURE (water years 1989-90): Maximum daily, 21.5°C, July 25, 1989; minimum daily, 0.0°C, on many days during winter periods.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
OCT 1990							
18...	0820	1.8	86	7.2	16.0	7.5	3.5
25...	0915	8.5	--	7.0	11.0	5.9	2.7
NOV							
15...	0930	2.8	74	7.1	6.0	5.7	2.8
DEC							
13...	0845	2.7	74	7.2	6.0	6.1	2.9
JAN 1991							
17...	0910	--	70	7.1	4.0	5.3	2.4
FEB							
15...	1230	5.1	68	7.4	0.0	5.5	2.8
MAR							
13...	0910	4.1	70	7.2	3.0	5.4	2.7
APR							
18...	0900	4.7	73	--	11.5	5.9	2.9
MAY							
16...	0910	1.5	82	7.3	15.0	6.8	3.2
JUN							
13...	1130	0.26	85	7.1	16.0	7.1	2.9
JUL							
18...	1305	0.08	84	7.1	20.0	7.4	2.6
AUG							
15...	1130	0.05	78	7.1	18.0	6.7	2.3
SEP							
12...	1145	0.05	80	7.1	16.0	7.7	2.5

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE WATER WH IT LAB MG/L AS HCO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SILICA, DIS-SOLVED (MG/L AS SIO2)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS NO3)
OCT 1990							
18...	2.3	0.36	28	9.0	4.8	11	1.3
25...	2.1	0.27	18	10	4.0	9.8	2.6
NOV							
15...	2.3	0.22	19	8.3	4.6	9.9	2.0
DEC							
13...	2.4	0.17	18	8.2	5.2	9.1	2.8
JAN 1991							
17...	2.8	0.21	12	8.3	5.3	8.2	3.5
FEB							
15...	2.8	0.17	15	9.0	6.4	9.0	3.3
MAR							
13...	2.8	0.17	16	8.1	6.7	9.4	3.2
APR							
18...	2.7	0.18	18	8.6	5.2	10	2.6
MAY							
16...	3.1	0.26	26	7.4	6.0	11	1.7
JUN							
13...	4.1	0.36	28	4.1	8.1	11	1.4
JUL							
18...	4.0	0.46	26	4.7	7.8	11	1.3
AUG							
15...	3.7	0.43	30	2.4	7.5	11	2.0
SEP							
12...	3.8	0.48	28	3.5	7.7	11	1.3

01640965 HUNTING CREEK NEAR FOXVILLE, MD--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	86	84	85	74	72	73	---	---	---	70	68	69
2	85	83	84	75	72	73	---	---	---	71	69	70
3	85	84	84	75	73	74	---	---	---	72	70	71
4	87	84	85	76	73	75	78	68	75	73	71	72
5	87	84	85	76	74	75	---	---	---	74	72	73
6	87	84	85	80	74	77	85	76	78	80	73	75
7	87	83	85	77	75	76	---	---	---	78	74	76
8	---	---	---	76	74	75	---	---	---	78	76	77
9	---	---	---	76	73	75	---	---	---	82	75	77
10	91	84	87	76	72	74	---	---	---	83	79	81
11	100	87	95	74	63	67	---	---	---	81	73	77
12	104	82	100	---	---	---	---	---	---	87	78	84
13	82	31	70	---	---	---	76	73	75	86	81	83
14	80	75	77	---	---	---	76	74	75	81	78	80
15	83	79	80	---	---	---	78	70	74	84	78	81
16	81	80	81	75	67	70	75	73	74	90	69	77
17	82	80	81	79	69	72	75	73	74	73	68	70
18	83	74	80	79	70	73	77	72	74	73	70	71
19	79	75	77	---	---	---	75	73	74	74	71	72
20	79	78	78	81	72	75	78	73	74	75	71	73
21	80	78	79	---	---	---	77	73	75	76	72	74
22	84	77	80	---	---	---	76	74	75	73	71	72
23	79	56	65	76	73	75	77	72	74	73	70	72
24	68	65	66	---	---	---	72	66	68	73	71	72
25	69	66	68	87	75	79	---	---	---	73	71	72
26	69	68	69	78	74	76	71	68	69	74	71	72
27	70	68	69	81	77	78	71	67	69	75	72	73
28	71	69	70	89	76	79	72	66	69	75	73	74
29	72	70	71	84	76	79	74	71	72	76	73	74
30	72	70	71	---	---	---	74	67	71	79	74	76
31	73	71	72	---	---	---	70	66	68	81	75	77
MONTH	---	---	---	---	---	---	---	---	---	90	68	75
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	76	74	75	69	66	67	74	72	73	77	74	76
2	76	74	75	72	67	70	74	71	72	77	75	76
3	77	74	75	79	69	71	73	70	72	77	74	76
4	77	73	76	80	53	63	73	70	71	77	74	76
5	78	75	76	67	63	64	74	71	72	78	75	77
6	80	77	78	69	66	67	74	71	73	79	71	76
7	81	77	79	70	67	68	75	72	74	78	75	77
8	77	74	75	69	65	68	75	72	74	80	76	78
9	75	73	74	70	68	69	76	73	74	80	77	78
10	74	71	72	71	68	69	76	73	75	80	78	79
11	73	70	71	71	69	70	79	74	76	80	78	79
12	70	68	70	71	69	70	76	73	74	81	78	80
13	70	66	68	71	69	70	76	73	74	81	79	80
14	72	68	70	72	69	70	76	73	75	81	79	80
15	69	67	67	76	70	73	76	71	73	83	79	81
16	67	65	67	77	72	74	73	70	72	81	78	80
17	67	64	65	76	73	75	73	70	72	84	72	80
18	67	65	66	81	72	76	73	70	72	83	78	82
19	69	66	67	76	73	75	73	71	72	84	80	82
20	69	67	68	75	73	74	73	71	73	82	77	79
21	68	66	67	76	73	74	73	70	72	81	78	79
22	67	66	67	76	73	75	71	69	70	83	80	81
23	67	66	67	77	64	71	72	69	70	84	82	83
24	67	65	67	71	69	70	72	69	71	85	83	84
25	68	66	67	72	70	71	73	70	71	86	83	85
26	67	65	67	73	71	72	74	70	72	86	83	84
27	67	65	67	75	72	73	75	71	73	87	84	85
28	68	65	67	75	72	73	75	72	74	87	85	86
29	---	---	---	75	72	73	75	73	74	87	84	86
30	---	---	---	75	73	73	79	73	75	87	85	86
31	---	---	---	73	72	73	---	---	---	87	86	87
MONTH	81	64	70	81	53	71	79	69	73	87	71	81

01640965 HUNTING CREEK NEAR FOXVILLE, MD--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	87	86	87	---	---	---	---	---	---	---	---	---
2	87	85	86	---	---	---	---	---	---	---	---	---
3	88	85	86	---	---	---	---	---	---	---	---	---
4	86	84	85	---	---	---	---	---	---	---	---	---
5	86	83	84	---	---	---	---	---	---	---	---	---
6	85	83	84	---	---	---	---	---	---	---	---	---
7	85	83	84	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	85	83	84	---	---	---	---	---	---	---	---	---
11	85	83	84	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	83	81	82	---	---	---	---	---	---	---	---	---
16	87	79	83	---	---	---	---	---	---	---	---	---
17	88	86	87	---	---	---	---	---	---	---	---	---
18	87	63	81	Monitor Removed			---	---	---	---	---	---
19	90	86	88	---	---	---	---	---	---	---	---	---
20	91	89	90	---	---	---	---	---	---	---	---	---
21	93	89	90	---	---	---	---	---	---	---	---	---
22	97	90	91	---	---	---	---	---	---	---	---	---
23	91	89	90	---	---	---	---	---	---	---	---	---
24	91	89	90	---	---	---	---	---	---	---	---	---
25	95	89	90	---	---	---	---	---	---	---	---	---
26	91	89	90	---	---	---	---	---	---	---	---	---
27	90	88	89	---	---	---	---	---	---	---	---	---
28	90	87	89	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	13.6	12.0	12.8	11.1	8.8	10.0	6.0	3.4	4.6	3.4	1.9	2.6
2	13.0	11.7	12.3	11.6	9.4	10.6	6.9	4.9	5.8	3.9	1.8	2.7
3	12.6	10.6	11.6	12.1	10.1	11.1	7.9	5.3	6.0	4.1	2.7	3.3
4	13.7	12.0	12.9	12.0	10.0	11.0	8.7	5.3	7.3	2.7	1.5	2.0
5	13.6	11.8	12.7	12.1	9.8	11.1	5.3	4.3	4.8	3.0	1.1	2.1
6	14.6	12.8	13.6	11.8	8.3	9.8	6.4	4.3	5.2	4.3	3.0	3.8
7	14.8	13.1	13.9	9.1	7.0	8.1	6.1	4.7	5.4	3.9	1.8	2.5
8	---	---	---	8.0	6.2	7.4	5.6	4.8	5.1	1.9	.9	1.5
9	---	---	---	7.4	5.7	6.6	5.6	4.1	4.8	3.3	1.2	2.6
10	16.2	14.7	15.5	8.8	7.3	8.1	6.3	4.9	5.5	3.9	2.6	3.2
11	17.1	15.8	16.5	7.7	6.4	7.2	5.0	3.6	4.3	3.2	.0	1.1
12	17.5	15.9	16.6	7.0	5.6	6.3	5.9	3.1	4.4	3.6	1.9	3.0
13	17.9	17.2	17.5	6.1	4.9	5.5	7.4	4.8	5.9	3.2	1.6	2.5
14	17.5	16.1	17.0	6.4	4.6	5.4	4.8	2.5	3.6	3.0	1.1	2.0
15	16.4	14.3	15.7	8.5	5.2	6.8	4.8	2.5	3.7	4.3	2.2	3.1
16	14.7	12.8	13.8	9.5	6.8	8.2	5.3	4.5	4.9	4.3	3.1	3.7
17	15.2	12.6	14.0	9.1	6.6	8.3	5.4	4.1	4.9	4.3	3.7	3.9
18	16.3	13.2	15.2	6.7	5.2	5.9	7.4	5.1	6.3	4.2	3.0	3.6
19	13.2	11.2	12.1	6.2	4.3	5.3	7.1	4.8	6.1	4.9	2.8	3.7
20	11.9	9.9	10.9	7.0	5.5	6.1	5.3	3.9	4.7	5.7	3.8	4.6
21	12.6	10.1	11.3	7.2	4.9	6.1	6.7	5.3	6.0	4.7	1.8	3.8
22	13.0	11.5	12.4	8.1	5.5	6.9	9.0	6.6	8.0	1.8	.5	1.1
23	13.9	13.0	13.5	9.7	7.8	8.5	10.3	9.0	9.7	2.2	.4	1.4
24	13.3	11.8	12.7	8.0	6.1	7.0	10.1	4.2	7.2	3.0	1.6	2.4
25	12.3	11.0	11.6	8.9	6.5	7.6	4.2	3.1	3.7	1.6	.5	1.0
26	11.0	8.5	10.0	9.1	7.2	8.0	4.3	2.9	3.5	2.2	.4	1.3
27	9.7	7.8	8.7	9.5	7.5	8.5	3.0	.0	2.1	2.8	.9	1.9
28	9.7	8.3	8.9	11.4	8.2	9.8	3.1	.1	1.7	4.3	2.4	3.2
29	8.5	7.4	8.0	11.2	5.7	8.3	4.2	3.1	3.6	4.4	2.2	3.2
30	9.2	6.6	8.0	5.8	4.3	5.1	5.1	3.8	4.5	4.7	3.2	4.0
31	10.5	8.5	9.5	---	---	---	5.3	2.7	4.1	4.7	1.1	2.8
MONTH	---	---	---	12.1	4.3	7.8	10.3	.0	5.1	5.7	.0	2.7

01640965 HUNTING CREEK NEAR FOXVILLE, MD--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	2.5	.7	1.5	7.2	3.1	5.2	8.8	5.2	6.7	---	---	---
2	4.0	1.2	2.4	10.6	6.1	8.2	7.7	5.1	6.2	---	---	---
3	5.3	2.4	3.7	9.5	7.1	8.5	9.9	4.2	6.7	13.7	10.8	12.0
4	5.9	2.7	4.2	8.5	5.2	7.1	10.8	5.3	8.0	13.2	9.7	11.4
5	7.4	3.6	5.5	7.9	4.6	5.9	10.5	8.1	9.0	14.4	9.0	11.7
6	6.8	6.4	6.7	6.8	4.6	5.9	12.9	7.6	10.1	15.3	12.6	13.4
7	6.7	6.0	6.3	7.5	4.4	6.0	15.2	8.7	11.7	13.6	11.2	12.3
8	6.2	4.6	5.7	6.4	3.6	4.6	15.2	10.4	12.8	14.2	8.8	12.2
9	6.1	3.8	4.8	6.2	2.7	4.3	16.9	12.4	14.3	12.9	12.2	12.5
10	5.5	3.7	4.5	6.3	3.4	4.5	15.0	9.5	12.6	15.1	11.9	13.5
11	4.2	1.4	3.2	5.5	2.5	3.7	12.3	7.4	9.7	15.1	12.3	13.8
12	2.7	.6	1.6	5.7	1.7	3.5	12.6	7.4	9.7	16.6	13.5	15.0
13	3.5	1.6	2.7	3.2	2.1	2.7	9.0	8.6	8.9	16.8	14.7	15.6
14	5.1	3.3	4.2	3.0	2.1	2.7	8.8	8.4	8.7	17.1	14.8	15.9
15	3.4	.5	2.1	5.4	2.8	3.8	10.5	8.8	9.5	17.0	15.0	16.0
16	.9	.3	.5	6.8	2.2	4.2	15.4	8.9	11.9	17.2	14.7	15.8
17	2.2	.4	1.4	7.5	2.8	5.1	16.4	11.0	13.4	17.4	15.0	16.2
18	2.7	1.8	2.3	7.5	5.2	6.2	15.3	11.2	13.0	16.2	14.1	15.3
19	5.6	2.7	4.3	7.7	5.2	6.2	12.4	10.6	11.5	14.0	12.3	13.1
20	7.7	4.5	6.2	9.0	4.9	6.7	10.6	9.9	10.1	13.2	11.6	12.4
21	6.7	3.5	5.1	9.5	6.2	7.6	10.2	9.0	9.7	14.8	11.6	13.2
22	7.5	4.6	5.7	8.6	7.0	7.7	11.0	8.5	9.4	15.9	13.6	14.8
23	4.7	2.4	3.7	7.6	6.4	6.8	13.6	7.7	10.4	17.1	14.6	15.8
24	4.6	1.8	3.2	7.7	5.9	6.7	13.1	9.6	10.8	17.6	15.3	16.4
25	5.4	3.7	4.4	8.4	6.0	6.8	13.4	8.6	10.9	18.6	16.2	17.3
26	4.9	2.4	3.7	8.3	4.8	6.6	14.0	7.5	11.3	19.5	16.8	18.0
27	3.5	1.5	2.5	9.5	6.7	7.9	14.8	10.5	12.3	19.7	17.4	18.5
28	5.4	2.0	3.6	12.3	8.6	9.9	14.3	11.8	13.0	20.6	18.3	19.3
29	---	---	---	9.2	8.0	8.5	12.5	10.6	11.7	20.7	18.4	19.5
30	---	---	---	8.1	5.5	6.8	15.9	5.1	11.9	21.4	18.8	19.9
31	---	---	---	8.8	4.5	6.4	---	---	---	21.9	19.5	20.4
MONTH	7.7	.3	3.8	12.3	1.7	6.0	16.9	4.2	10.5	---	---	---

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

01640970 HUNTING CREEK TRIBUTARY NEAR FOXVILLE, MD

LOCATION.--Lat 39°37'42", long 77°27'44", Frederick County, Hydrologic Unit 02070009, on left downstream wingwall of culvert of park road in Cunningham Falls State Park, 600 ft upstream from Hunting Creek Lake, and 2.7 mi west of Thurmont.

DRAINAGE AREA.--4.01 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1981 to Sept. 1991.

REVISED RECORDS.--WDR MD-DE-88-1: 1984(P), 1987(M).

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 1,030 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Water-discharge records good except those below 1.0 ft^3/s and those for estimated daily discharges (inside-outside difference), which are fair.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 90 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct. 13	0400	*590	*3.29	Mar 4	0630	102	2.10
Oct. 23	0900	333	2.92				

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	7.0	4.1	15	7.7	5.9	10	6.5	1.8	.65	.51	e.11
2	1.0	6.5	4.1	13	7.6	7.9	9.4	6.0	1.7	2.7	e.40	e.15
3	.95	6.2	14	12	7.7	8.9	8.9	5.8	1.6	1.6	e.31	e.70
4	1.1	6.0	28	11	7.6	39	8.6	5.4	1.6	.86	e.28	1.6
5	1.2	5.9	11	9.8	7.5	14	9.2	5.2	1.5	1.0	e.28	2.9
6	.97	8.4	9.0	12	10	13	8.6	14	1.5	.95	e.28	e.70
7	.92	6.2	8.2	12	12	12	7.9	8.2	1.5	.70	e.30	e.40
8	.91	5.7	7.6	9.9	9.1	10	7.5	6.3	1.4	.65	.52	e.33
9	.94	5.5	7.1	9.7	8.4	9.5	7.3	6.4	1.2	.65	.86	e.31
10	.97	18	6.7	9.7	8.0	9.2	8.1	5.9	1.2	.65	1.0	e.27
11	9.2	9.4	6.2	10	7.6	8.6	6.6	5.3	1.1	.65	.58	e.22
12	2.9	7.6	6.0	15	6.9	8.1	6.2	5.0	1.1	.58	e.40	e.23
13	93	6.9	5.9	12	7.6	8.0	7.7	4.9	1.1	1.7	e.32	e.29
14	10	6.5	5.5	10	14	8.1	10	4.7	1.0	.58	e.29	e.36
15	7.1	6.3	13	10	8.6	8.6	15	4.2	.99	e.50	e.29	e.30
16	5.8	6.1	9.2	42	8.4	9.4	11	3.8	1.2	e.45	e.29	e.29
17	5.2	6.8	7.5	31	8.1	8.8	9.3	6.3	2.1	e.44	e.29	e.60
18	17	5.9	13	18	7.6	17	8.5	5.0	5.1	e.43	e.45	5.8
19	10	5.6	11	16	9.9	10	8.0	4.3	1.9	e.43	.73	13
20	7.3	5.4	8.8	15	9.8	9.3	10	3.9	1.4	e.43	3.5	1.1
21	6.6	5.2	11	17	8.0	8.9	14	3.5	1.1	e.43	1.5	e.80
22	6.5	5.1	10	11	7.5	9.1	14	3.3	.96	e.43	.72	e.60
23	89	6.5	15	11	7.0	37	10	3.0	1.3	e.40	e.36	e.56
24	24	5.4	21	11	6.8	19	9.8	2.8	1.1	e.35	e.29	e.84
25	15	5.0	12	9.3	6.7	13	8.8	2.7	.93	.41	e.34	1.4
26	12	4.7	10	9.4	6.6	12	8.3	2.5	.84	1.5	e.27	e.82
27	10	4.6	9.3	8.9	6.2	14	7.9	2.3	.81	.46	e.23	e.60
28	9.3	4.6	10	8.9	6.1	11	7.5	2.3	.77	e.38	e.21	e.50
29	8.5	4.4	10	8.6	---	10	7.4	2.1	.73	e.37	e.17	e.49
30	8.0	4.2	34	9.8	---	14	7.2	2.0	.65	e.38	e.14	e.48
31	7.6	---	28	11	---	11	---	1.9	---	e.45	e.13	---
TOTAL	374.06	191.6	356.2	409.0	229.0	384.3	272.7	145.5	41.18	22.16	16.24	36.75
MEAN	12.1	6.39	11.5	13.2	8.18	12.4	9.09	4.69	1.37	.71	.52	1.22
MAX	93	18	34	42	14	39	15	14	5.1	2.7	3.5	13
MIN	.91	4.2	4.1	8.6	6.1	5.9	6.2	1.9	.65	.35	.13	.11
CFSM	3.01	1.59	2.87	3.29	2.04	3.09	2.27	1.17	.34	.18	.13	.31
IN.	3.47	1.78	3.30	3.79	2.12	3.57	2.53	1.35	.38	.21	.15	.34

e Estimated

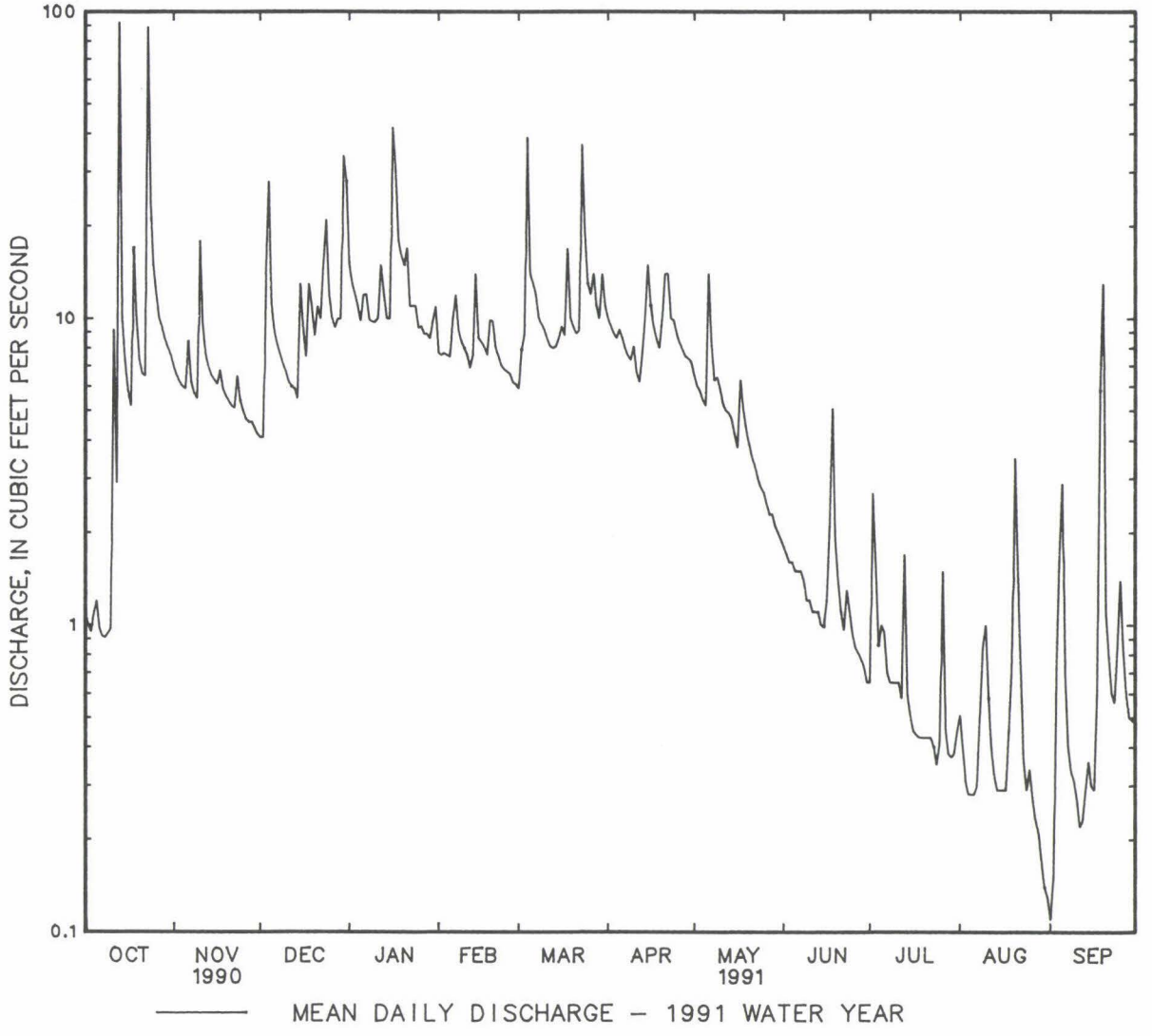
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1982 - 1991, BY WATER YEAR (WY)

MEAN	2.69	5.10	6.62	5.96	10.4	11.1	12.3	11.9	4.59	2.27	2.49	.99
MAX	12.1	17.0	18.9	13.2	29.8	17.4	25.6	30.9	11.3	7.03	15.4	2.37
(WY)	1991	1986	1984	1991	1984	1984	1983	1988	1982	1989	1984	1984
MIN	.38	1.27	1.50	2.73	4.55	4.77	5.04	4.69	1.37	.71	.30	.26
(WY)	1983	1982	1989	1983	1987	1988	1988	1991	1991	1991	1987	1983

01640970 HUNTING CREEK TRIBUTARY NEAR FOXVILLE, MD--Continued

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1982 - 1991	
ANNUAL TOTAL	2457.57		2478.69			
ANNUAL MEAN	6.73		6.79		6.34	
HIGHEST ANNUAL MEAN					12.0	1984
LOWEST ANNUAL MEAN					4.27	1985
HIGHEST DAILY MEAN	93	Oct 13	93	Oct 13	258	Feb 14 1984
LOWEST DAILY MEAN	.91	Oct 8	.11	Sep 1	.11	Sep 1 1991
ANNUAL SEVEN-DAY MINIMUM	1.0	Oct 3	.16	Aug 27	.13	Sep 5 1983
INSTANTANEOUS PEAK FLOW	590	Oct 13	590	Oct 13	a1905	May 19 1988
INSTANTANEOUS PEAK STAGE	3.29	Oct 13	3.29	Oct 13	3.78	May 19 1988
INSTANTANEOUS LOW FLOW	.81	(b)	UNKNOWN		UNKNOWN	
ANNUAL RUNOFF (CFSM)	1.68		1.69		1.58	
ANNUAL RUNOFF (INCHES)	22.80		22.99		21.49	
10 PERCENT EXCEEDS	12		13		13	
50 PERCENT EXCEEDS	5.1		6.1		3.7	
90 PERCENT EXCEEDS	1.3		.40		.49	

a From rating curve extended above 80 ft^3/s on basis of computation of peak flow through culvert.
b July 10, 11.



01640970 HUNTING CREEK TRIBUTARY NEAR FOXVILLE, MD--Continued

WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1987 to July 1991.
WATER TEMPERATURE: October 1987 to July 1991.

INSTRUMENTATION.--Water-quality monitor October 1987 to July 1991.

REMARKS.--Periods of missing record are due to instrument malfunction.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE (water years 1989-90): Maximum, 360 microsiemens, Jan. 8, 1989; minimum, 61 microsiemens, Sept. 11, 1989.
WATER TEMPERATURE: Maximum, 36.0°C, Aug. 15, 17, 1988; minimum, 0.0°C, on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum, 22.4°C, July 17; minimum, 0.0°C, Jan. 31, Feb. 1.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
OCT 1990							
18...	0845	4.8	111	7.5	14.0	9.2	3.3
25...	0950	15	--	7.2	11.0	7.4	2.8
NOV							
15...	0950	6.4	100	7.5	5.0	7.5	3.0
DEC							
13...	0925	6.0	100	7.5	5.0	7.7	3.0
JAN 1991							
17...	1010	30	120	7.2	3.5	7.1	2.8
FEB							
15...	1130	8.6	107	7.3	--	7.5	3.0
MAR							
13...	0930	7.9	99	7.4	2.5	7.3	2.9
APR							
18...	0955	8.6	109	--	10.5	7.8	3.0
MAY							
16...	0955	4.1	107	7.6	16.0	8.4	3.1
JUN							
13...	1100	1.1	111	7.5	17.0	9.5	3.3
JUL							
18...	1200	0.52	130	8.0	22.0	12	3.8
AUG							
15...	1200	0.65	132	7.9	19.0	--	--
SEP							
12...	1200	0.52	135	8.1	18.0	13	4.0

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE WATER WH IT LAB MG/L AS HCO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SILICA, DIS-SOLVED (MG/L AS SIO2)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS NO3)
OCT 1990							
18...	5.8	1.2	32	6.8	12	14	2.2
25...	5.3	0.85	19	7.6	9.6	12	3.2
NOV							
15...	5.3	0.72	23	6.4	11	12	3.4
DEC							
13...	5.1	0.69	21	6.4	12	12	4.3
JAN 1991							
17...	9.0	0.60	14	8.5	19	10	4.1
FEB							
15...	7.2	0.64	16	7.5	17	11	4.6
MAR							
13...	6.1	0.64	18	6.5	14	12	5.5
APR							
18...	6.3	0.62	21	6.9	15	12	3.3
MAY							
16...	5.7	0.75	28	5.3	13	13	3.4
JUN							
13...	5.7	0.97	35	3.5	13	14	2.5
JUL							
18...	5.9	1.4	46	3.6	6.1	16	1.2
AUG							
15...	--	--	49	3.6	14	15	1.0
SEP							
12...	7.0	1.5	49	4.5	15	15	1.3

01640970 HUNTING CREEK TRIBUTARY NEAR FOXVILLE, MD--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	127	119	121	105	103	104	104	102	103	112	106	108
2	124	118	121	106	104	105	104	102	103	107	104	105
3	125	118	121	---	---	---	105	97	101	105	103	104
4	127	118	122	114	104	106	99	88	94	104	102	103
5	128	118	122	107	104	106	98	95	97	104	102	103
6	128	119	122	113	104	110	99	97	98	128	104	111
7	125	119	121	110	107	108	99	97	98	149	123	134
8	127	118	122	111	105	106	99	98	98	138	119	125
9	142	125	129	106	104	105	99	97	98	145	126	140
10	141	125	131	---	---	---	100	98	99	144	136	140
11	155	124	141	---	---	---	100	98	99	227	131	150
12	156	144	154	---	---	---	100	98	99	237	184	214
13	144	107	116	114	101	105	101	99	100	184	147	165
14	128	122	125	102	100	101	101	99	100	149	134	142
15	126	122	124	102	100	101	176	99	118	134	129	132
16	122	115	118	103	101	102	114	108	110	141	125	131
17	115	111	113	103	101	102	109	106	107	126	121	123
18	116	101	109	103	101	102	108	104	106	124	118	121
19	112	106	110	102	100	101	108	106	107	123	117	119
20	111	108	110	102	101	102	107	104	106	122	118	120
21	110	107	109	102	100	101	108	105	106	123	119	121
22	108	104	107	103	100	102	108	106	107	123	118	120
23	105	78	90	105	101	102	108	104	106	122	115	119
24	99	93	97	105	103	104	105	100	102	117	115	116
25	101	96	98	104	102	103	102	100	101	120	114	117
26	102	99	99	105	103	104	102	100	100	116	111	114
27	101	99	100	105	103	104	114	99	101	114	112	113
28	102	100	101	106	103	104	130	101	113	115	112	113
29	102	100	101	106	104	105	132	110	120	115	112	113
30	103	101	102	105	103	104	150	115	131	120	112	114
31	104	102	103	---	---	---	129	111	117	123	116	120
MONTH	156	78	115	---	---	---	176	88	105	237	102	125
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	119	112	116	108	92	97	109	104	105	108	105	107
2	115	111	114	116	99	107	104	101	103	107	104	105
3	115	111	113	118	100	110	104	102	103	104	102	103
4	115	112	113	115	84	93	104	100	102	102	100	101
5	114	112	113	98	94	96	106	99	102	100	99	99
6	124	113	117	101	97	98	106	102	104	105	96	101
7	128	118	123	104	100	102	106	103	104	108	100	105
8	125	113	117	103	101	102	114	104	108	109	106	107
9	115	110	112	102	100	101	126	113	120	110	107	108
10	114	108	111	102	100	102	124	109	115	110	107	109
11	109	105	107	102	101	102	117	106	112	109	106	108
12	108	103	106	102	100	101	124	116	119	109	106	107
13	106	102	104	150	100	110	125	118	121	107	105	106
14	117	104	111	187	136	157	128	112	117	113	105	109
15	109	105	107	179	138	153	112	96	103	114	103	109
16	117	102	106	150	120	133	103	95	97	107	103	106
17	106	98	102	120	115	117	107	97	101	122	92	106
18	105	97	102	143	114	128	113	106	108	124	117	121
19	113	100	104	121	114	117	116	108	110	117	112	115
20	122	102	110	115	110	112	111	92	108	116	105	109
21	106	99	101	112	108	110	109	105	107	108	104	106
22	---	---	---	116	108	111	107	104	106	110	107	108
23	---	---	---	118	90	105	106	104	105	111	105	108
24	94	93	93	103	99	101	106	102	104	108	102	105
25	95	92	94	103	100	101	106	103	104	105	99	102
26	---	---	---	104	99	101	106	102	104	105	96	101
27	99	90	94	107	99	103	107	103	105	102	92	97
28	98	91	95	104	102	103	108	104	106	99	92	96
29	---	---	---	105	101	102	106	104	105	104	94	99
30	---	---	---	121	101	110	107	105	106	115	100	106
31	---	---	---	108	104	105	---	---	---	113	93	103
MONTH	---	---	---	187	84	109	128	92	107	124	92	106

01640970 HUNTING CREEK TRIBUTARY NEAR FOXVILLE, MD--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

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

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	13.5	12.2	12.9	10.0	8.4	9.3	4.1	2.9	3.6	2.6	1.7	2.3
2	13.1	11.5	12.3	10.4	9.0	9.8	4.9	3.7	4.4	3.1	1.7	2.5
3	12.4	10.5	11.6	11.0	9.6	10.3	6.9	4.2	4.9	3.7	2.9	3.3
4	13.8	12.1	13.1	10.9	9.7	10.4	7.8	4.7	6.6	2.9	1.4	2.0
5	13.6	12.0	12.8	11.2	9.3	10.3	4.7	3.3	3.9	2.4	.8	1.6
6	14.8	12.9	13.8	11.0	7.7	9.2	4.6	3.3	3.9	3.7	2.4	3.2
7	15.3	13.6	14.4	7.7	6.6	7.2	4.6	3.8	4.2	3.7	1.3	2.2
8	15.3	14.2	14.8	7.0	5.1	6.3	4.3	3.8	4.1	1.3	.4	.7
9	16.9	15.0	15.9	5.9	4.6	5.2	4.3	3.5	4.0	1.9	.4	1.3
10	16.8	15.4	16.1	7.6	5.9	6.9	5.0	4.1	4.6	2.4	1.8	2.2
11	17.2	16.2	16.7	6.7	5.8	6.2	4.3	3.1	3.7	2.3	.0	.6
12	17.0	16.1	16.6	5.9	4.7	5.3	4.5	2.8	3.7	2.5	.5	1.8
13	17.7	16.8	17.4	4.7	4.0	4.4	6.3	4.5	5.3	2.5	1.1	1.8
14	17.1	15.6	16.5	4.7	3.6	4.2	4.7	2.4	3.5	1.5	.5	1.1
15	15.6	13.6	15.0	6.4	4.2	5.4	4.0	2.4	3.1	2.8	1.4	2.1
16	13.6	12.2	12.8	7.9	5.9	7.0	4.5	4.0	4.3	3.7	2.7	3.3
17	13.3	11.7	12.5	8.1	6.1	7.5	4.4	3.7	4.2	3.7	3.3	3.5
18	14.7	12.1	13.8	6.1	4.2	5.0	6.8	4.4	5.7	3.3	2.7	3.0
19	12.0	9.7	10.6	4.2	3.5	4.0	6.8	4.8	6.0	3.6	2.3	2.9
20	9.8	8.7	9.3	4.8	4.0	4.4	4.8	4.0	4.4	4.4	3.2	3.8
21	10.6	8.8	9.8	4.9	3.5	4.3	6.1	4.6	5.4	4.3	1.1	3.2
22	11.9	10.4	11.1	5.8	4.0	5.0	8.8	6.1	7.5	1.1	.3	.4
23	13.3	11.9	12.9	7.4	5.8	6.7	10.3	8.8	9.9	.3	.3	.3
24	12.8	11.3	12.0	6.7	5.4	5.7	10.4	4.0	7.3	1.3	.3	.9
25	11.3	10.2	10.8	6.8	5.5	6.2	4.0	2.1	2.8	.6	.2	.2
26	10.5	7.8	9.2	7.1	6.3	6.8	2.6	1.9	2.2	.2	.2	.2
27	8.0	6.8	7.5	7.5	6.6	7.1	1.9	.4	1.2	1.0	.1	.4
28	8.4	7.5	7.9	10.1	7.3	8.7	1.2	.4	.6	2.0	1.0	1.6
29	7.5	6.6	7.1	10.0	5.4	7.6	3.0	1.2	2.1	2.2	1.2	1.7
30	7.6	5.9	6.9	5.4	3.6	4.5	5.2	3.0	4.2	3.3	2.0	2.6
31	9.3	7.6	8.5	---	---	---	5.1	2.6	3.9	3.3	.0	1.7
MONTH	17.7	5.9	12.3	11.2	3.5	6.7	10.4	.4	4.4	4.4	.0	1.9

01640970 HUNTING CREEK TRIBUTARY NEAR FOXVILLE, MD--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	.4	.0	.2	5.5	3.0	4.3	7.0	5.1	6.1	14.1	11.5	13.1
2	1.7	.1	.9	8.9	5.5	7.6	6.5	5.1	5.8	13.1	11.2	12.3
3	3.2	1.5	2.4	9.4	7.9	8.7	7.0	4.0	5.7	11.5	10.0	10.9
4	4.0	2.4	3.2	9.4	5.6	7.6	8.5	5.3	7.1	11.9	9.6	11.0
5	5.6	2.9	4.3	6.4	4.8	5.6	9.8	8.1	8.9	13.0	10.7	12.0
6	6.3	5.6	6.0	6.6	4.9	5.8	11.4	8.5	10.1	14.3	12.4	13.1
7	6.3	5.9	6.1	6.6	4.9	6.1	13.1	9.6	11.5	12.7	11.3	12.1
8	6.0	4.6	5.5	4.9	3.7	4.3	13.8	11.3	12.7	13.2	10.7	12.2
9	4.7	3.8	4.3	4.3	2.8	3.7	15.5	13.2	14.4	12.9	12.4	12.7
10	4.2	3.5	3.9	4.7	3.2	4.0	14.4	10.6	13.1	14.4	12.4	13.5
11	3.6	1.3	2.7	3.8	2.6	3.3	10.6	8.9	9.8	14.7	12.9	14.0
12	1.3	.5	.9	3.5	1.7	2.7	9.8	7.8	8.9	16.1	14.0	15.2
13	2.3	.8	1.6	2.9	1.6	2.3	8.4	7.6	8.0	16.8	15.2	16.0
14	4.0	2.3	3.4	2.2	1.7	2.0	7.6	7.1	7.3	16.8	15.4	16.2
15	3.2	.6	1.7	3.9	2.1	2.9	8.6	7.2	7.9	17.3	15.8	16.5
16	.6	.6	.6	4.2	2.0	3.3	11.4	7.7	9.7	17.2	15.4	16.3
17	.9	.6	.7	5.1	2.5	3.9	12.4	9.7	11.2	17.5	15.7	16.7
18	1.7	.7	1.2	6.2	4.7	5.4	11.6	9.9	10.8	17.0	14.8	16.1
19	4.7	1.7	3.1	6.2	5.0	5.6	10.4	8.7	9.5	14.8	12.5	13.5
20	6.4	4.6	5.5	6.5	4.7	5.7	8.7	8.1	8.3	12.7	11.8	12.3
21	5.3	3.7	4.6	7.6	5.6	6.6	8.3	7.7	8.1	14.0	11.6	12.9
22	6.2	4.6	5.3	7.7	6.8	7.3	8.6	7.3	7.9	15.1	13.5	14.4
23	4.6	2.1	3.3	7.5	6.1	6.6	10.5	7.2	9.0	16.5	14.6	15.6
24	3.1	1.6	2.4	7.1	5.9	6.5	11.4	9.5	10.2	17.3	15.5	16.4
25	4.0	3.0	3.5	7.1	6.0	6.5	11.6	8.9	10.4	18.6	16.5	17.6
26	3.5	2.2	3.1	7.2	5.1	6.3	12.5	10.2	11.5	19.5	17.4	18.5
27	2.2	1.4	1.8	9.1	6.9	7.8	13.8	11.0	12.6	20.1	18.3	19.3
28	3.5	1.7	2.6	11.1	9.1	10.1	14.1	12.6	13.3	21.0	19.3	20.0
29	---	---	---	9.6	8.5	9.1	12.8	11.5	11.9	21.2	19.4	20.3
30	---	---	---	8.5	5.8	6.8	14.4	11.5	12.9	22.0	19.9	20.9
31	---	---	---	6.8	4.7	5.9	---	---	---	22.3	20.4	21.1
MONTH	6.4	.0	3.0	11.1	1.6	5.6	15.5	4.0	9.8	22.3	9.6	15.2

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	21.5	19.9	20.5	20.4	18.7	19.3	---	---	---	---	---	---
2	20.9	19.3	20.0	19.8	18.7	19.1	---	---	---	---	---	---
3	20.4	19.0	19.5	19.8	18.8	19.3	---	---	---	---	---	---
4	19.3	16.4	18.3	19.3	18.7	19.0	---	---	---	---	---	---
5	18.0	15.2	16.4	19.2	18.4	18.7	---	---	---	---	---	---
6	16.6	14.2	15.0	20.8	18.1	19.4	---	---	---	---	---	---
7	17.3	13.4	14.9	22.2	19.1	20.3	---	---	---	---	---	---
8	16.9	13.3	14.9	21.8	19.6	20.3	---	---	---	---	---	---
9	18.6	13.8	15.7	22.1	18.7	20.1	---	---	---	---	---	---
10	18.5	14.6	16.3	19.4	17.9	18.5	---	---	---	---	---	---
11	18.8	15.4	16.8	21.3	17.9	19.2	---	---	---	---	---	---
12	18.6	16.3	17.0	20.1	17.3	18.7	---	---	---	---	---	---
13	17.4	14.4	15.7	20.7	18.8	19.6	---	---	---	---	---	---
14	16.9	13.4	15.1	21.3	18.7	19.8	---	---	---	---	---	---
15	18.4	14.6	16.5	21.3	17.3	19.0	---	---	---	---	---	---
16	20.1	16.9	18.4	21.4	16.3	18.7	---	---	---	---	---	---
17	20.1	18.1	18.7	22.4	17.5	19.9	---	---	---	---	---	---
18	18.6	16.9	17.8	Monitor Removed		---	---	---	---	---	---	---
19	17.2	16.5	16.9	---	---	---	---	---	---	---	---	---
20	20.3	16.4	18.1	---	---	---	---	---	---	---	---	---
21	21.4	17.6	18.9	---	---	---	---	---	---	---	---	---
22	18.6	18.0	18.4	---	---	---	---	---	---	---	---	---
23	18.0	15.9	16.9	---	---	---	---	---	---	---	---	---
24	17.5	15.1	16.1	---	---	---	---	---	---	---	---	---
25	17.8	15.1	16.2	---	---	---	---	---	---	---	---	---
26	18.3	15.0	16.5	---	---	---	---	---	---	---	---	---
27	19.1	15.7	17.2	---	---	---	---	---	---	---	---	---
28	20.2	16.7	18.3	---	---	---	---	---	---	---	---	---
29	20.6	18.1	19.2	---	---	---	---	---	---	---	---	---
30	21.6	18.9	20.0	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	21.6	13.3	17.3	---	---	---	---	---	---	---	---	---

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.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1990 to September 1991.

GAGE.--Water-stage recorder. Elevation of gage is 763.75 ft above National Geodetic Vertical Datum of 1929.

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

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)
July 5, 1990	1615	*2.1	*3.89	June 18, 1991	0500	5.7	4.04
Oct. 23, 1990	1200	*9.5	*4.18				

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	e.75	.28	.17	.25
2	---	---	---	---	---	---	---	---	e.75	.26	.17	.25
3	---	---	---	---	---	---	---	---	e.75	.24	.17	.24
4	---	---	---	---	---	---	---	---	e.75	.23	.17	.22
5	---	---	---	---	---	---	---	---	e.70	.34	.18	.22
6	---	---	---	---	---	---	---	---	e.65	.25	.22	.22
7	---	---	---	---	---	---	---	---	e.65	.24	.18	.22
8	---	---	---	---	---	---	---	---	e.60	.22	.17	.22
9	---	---	---	---	---	---	---	---	e.55	.22	.17	.22
10	---	---	---	---	---	---	---	---	e.50	.22	.15	.22
11	---	---	---	---	---	---	---	---	e.45	.28	.15	.22
12	---	---	---	---	---	---	---	---	e.45	.33	.15	.22
13	---	---	---	---	---	---	---	---	e.42	.34	.15	.22
14	---	---	---	---	---	---	---	---	e.40	.43	.15	.21
15	---	---	---	---	---	---	---	---	e.38	.44	.13	.20
16	---	---	---	---	---	---	---	---	e.38	.42	.13	.22
17	---	---	---	---	---	---	---	---	e.38	.35	.12	.23
18	---	---	---	---	---	---	---	---	e.40	.32	.12	.20
19	---	---	---	---	---	---	---	---	e.38	.28	.12	.19
20	---	---	---	---	---	---	---	---	e.38	.27	.26	.21
21	---	---	---	---	---	---	---	---	.35	.28	.16	.19
22	---	---	---	---	---	---	---	---	.35	.27	.25	.26
23	---	---	---	---	---	---	---	---	.35	.26	.47	.21
24	---	---	---	---	---	---	---	---	.32	.23	.41	.19
25	---	---	---	---	---	---	---	---	.31	.22	.39	.18
26	---	---	---	---	---	---	---	---	.28	.20	.35	.17
27	---	---	---	---	---	---	---	---	.26	.20	.31	.17
28	---	---	---	---	---	---	---	---	.26	.20	.29	.16
29	---	---	---	---	---	---	---	---	.25	.20	.27	.13
30	---	---	---	---	---	---	---	---	.28	.19	.27	.13
31	---	---	---	---	---	---	---	---	---	.17	.26	---
TOTAL	---	---	---	---	---	---	---	---	13.68	8.38	6.66	6.19
MEAN	---	---	---	---	---	---	---	---	.46	.27	.21	.21
MAX	---	---	---	---	---	---	---	---	.75	.44	.47	.26
MIN	---	---	---	---	---	---	---	---	.25	.17	.12	.13
CFSM	---	---	---	---	---	---	---	---	1.20	.71	.57	.54
IN.	---	---	---	---	---	---	---	---	1.34	.82	.65	.61

e Estimated

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

MEAN	---	---	---	---	---	---	---	---	.46	.27	.21	.21
MAX	---	---	---	---	---	---	---	---	.46	.27	.21	.21
(WY)	---	---	---	---	---	---	---	---	1990	1990	1990	1990
MIN	---	---	---	---	---	---	---	---	.46	.27	.21	.21
(WY)	---	---	---	---	---	---	---	---	1990	1990	1990	1990

01640980 BEAR BRANCH NEAR THURMONT, MD--Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.13	.78	.41	1.9	.92	.50	1.3	.86	.24	.10	.05	.04
2	.13	.64	.41	1.9	.82	.50	1.1	.82	.22	.15	.05	.04
3	.12	.58	.55	1.7	.77	.54	1.1	.82	.21	.15	.05	.04
4	.13	.55	1.0	1.5	.71	1.3	1.1	.82	.21	.13	.05	.16
5	.13	.55	1.0	1.4	.67	1.5	1.1	.72	.21	.13	.05	.10
6	.13	.59	1.1	1.3	.64	1.6	1.0	.86	.21	.13	.05	.06
7	.11	.53	1.1	1.2	.61	1.5	.94	.73	.20	.11	.05	.05
8	.11	.46	.99	1.1	.61	1.3	.90	.65	.18	.10	.05	.04
9	.11	.45	.94	.99	.61	1.1	.90	.61	.15	.10	.12	.04
10	.13	.63	.90	.94	.61	1.1	.90	.61	.13	.09	.08	.04
11	.33	.57	.85	.96	.61	.99	.90	.61	.13	.09	.05	.04
12	.21	.55	.82	1.1	.61	.93	.84	.56	.13	.07	.05	.04
13	.89	.50	.77	1.1	.62	.90	.82	.53	.12	.12	.05	.04
14	.37	.49	.73	1.1	.67	.90	.82	.50	.12	.09	.05	.04
15	.35	.48	.73	1.2	.67	.82	.89	.50	.11	.08	.05	.04
16	.33	.50	.69	2.1	.67	.77	.90	.46	.10	.07	.05	.04
17	.33	.49	.67	3.6	.64	.70	.90	.48	.12	.07	.05	.04
18	.46	.50	.68	3.8	.61	.77	.90	.46	.75	.07	.05	.16
19	.46	.50	.61	3.2	.61	.70	.91	.41	.24	.07	.05	.18
20	.45	.50	.61	2.8	.61	.67	.99	.39	.19	.06	.08	.05
21	.47	.48	.66	2.4	.61	.67	1.0	.37	.17	.06	.06	.05
22	.47	.43	.67	2.2	.61	.67	1.1	.37	.17	.06	.05	.05
23	4.6	.41	.78	2.0	.61	1.6	1.0	.33	.17	.06	.04	.05
24	4.5	.41	.98	1.7	.61	2.4	1.0	.29	.15	.06	.04	.05
25	2.9	.39	1.1	1.6	.61	2.5	1.0	.29	.13	.06	.04	.06
26	2.1	.37	1.2	1.5	.55	2.2	.99	.29	.13	.07	.04	.05
27	1.7	.37	1.2	1.3	.50	2.0	.99	.26	.12	.07	.04	.05
28	1.4	.37	1.1	1.2	.50	1.8	.95	.24	.12	.06	.04	.04
29	1.3	.37	1.0	1.1	---	1.6	.90	.24	.12	.06	.04	.04
30	1.1	.41	1.1	1.0	---	1.6	.90	.24	.10	.06	.04	.04
31	.93	---	1.7	.99	---	1.5	---	.24	---	.06	.04	---
TOTAL	26.88	14.85	27.05	51.88	17.89	37.63	29.04	15.56	5.35	2.66	1.60	1.76
MEAN	.87	.49	.87	1.67	.64	1.21	.97	.50	.18	.086	.052	.059
MAX	4.6	.78	1.7	3.8	.92	2.5	1.3	.86	.75	.15	.12	.18
MIN	.11	.37	.41	.94	.50	.50	.82	.24	.10	.06	.04	.04
CFSM	2.28	1.30	2.30	4.40	1.68	3.19	2.55	1.32	.47	.23	.14	.15
IN.	2.63	1.45	2.65	5.08	1.75	3.68	2.84	1.52	.52	.26	.16	.17

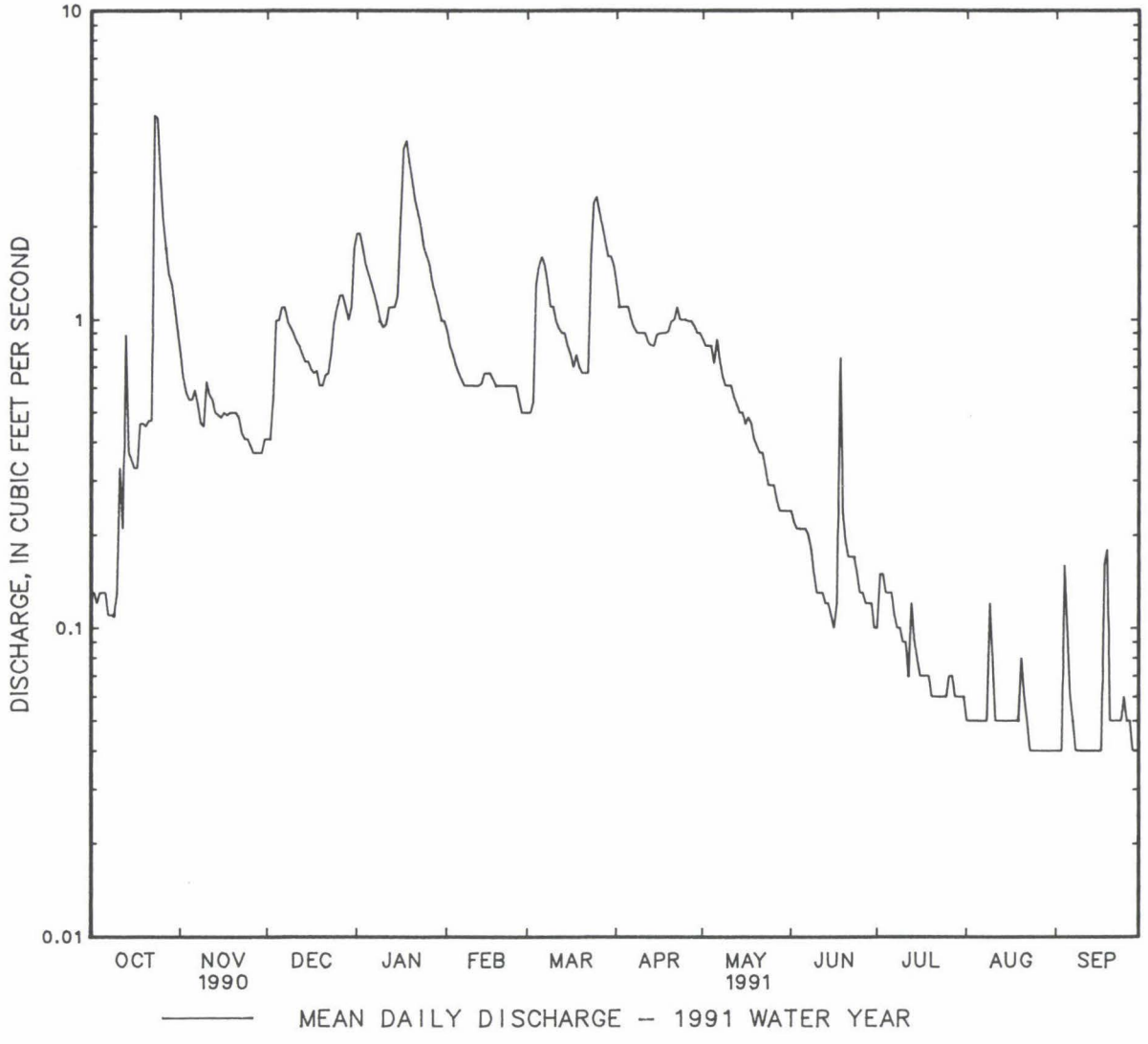
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 1991, BY WATER YEAR (WY)

MEAN	.87	.49	.87	1.67	.64	1.21	.97	.50	.32	.18	.13	.13
MAX	.87	.49	.87	1.67	.64	1.21	.97	.50	.46	.27	.21	.21
(WY)	1991	1991	1991	1991	1991	1991	1991	1991	1990	1990	1990	1990
MIN	.87	.49	.87	1.67	.64	1.21	.97	.50	.18	.086	.052	.059
(WY)	1991	1991	1991	1991	1991	1991	1991	1991	1991	1991	1991	1991

01640980 BEAR BRANCH NEAR THURMONT, MD--Continued

SUMMARY STATISTICS	FOR 1991 WATER YEAR		WATER YEARS 1990 - 1991	
ANNUAL TOTAL	232.15			
ANNUAL MEAN	.64		---	
HIGHEST DAILY MEAN	4.6	Oct 23	4.6	Oct 23 1990
LOWEST DAILY MEAN	.04	(a)	.04	many days
ANNUAL SEVEN-DAY MINIMUM	.04	Aug 23	.04	Aug 23 1991
INSTANTANEOUS PEAK FLOW	9.5	Oct 23	9.5	Oct 23 1990
INSTANTANEOUS PEAK STAGE	4.18	Oct 23	4.18	Oct 23 1990
INSTANTANEOUS LOW FLOW	.04	(b)	.04	many days
ANNUAL RUNOFF (CFSM)	1.67		1.67	
ANNUAL RUNOFF (INCHES)	22.73		22.74	
10 PERCENT EXCEEDS	1.3		1.1	
50 PERCENT EXCEEDS	.50		.37	
90 PERCENT EXCEEDS	.05		.05	

a Aug. 23 to Sept. 3, Sept. 8-17, Sept. 28-30.
b Aug. 18, 19, Aug. 23 to Sept. 4, Sept. 8-18, Sept. 27-30.



01640980 BEAR BRANCH NEAR THURMONT, MD--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.-June 1990 to current year.

WATER QUALITY DATA, JUNE 1990 TO SEPTEMBER 1990

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
JUN 1990								
19...	1110	--	22	5.4	15.0	0.87	0.64	0.62
26...	1150	0.27	20	5.4	14.0	0.77	0.59	0.68
JUL								
03...	1340	0.22	20	5.4	16.0	0.71	0.54	0.69
10...	1140	0.22	20	5.4	18.0	0.69	0.50	0.67
17...	1115	0.37	21	5.3	17.0	0.80	0.59	0.68
24...	1210	0.22	20	5.3	17.0	0.78	0.58	0.66
31...	1350	0.17	19	5.3	18.0	0.75	0.56	0.70
AUG								
07...	1220	0.18	21	5.3	17.0	0.78	0.58	0.69
14...	1210	0.13	19	5.3	18.0	0.72	0.54	0.69
21...	1145	0.15	21	5.2	16.0	0.77	0.57	0.66
28...	1125	0.30	25	5.3	18.0	1.0	0.74	0.68
SEP								
04...	1040	0.22	22	5.4	16.0	0.94	0.68	0.64
11...	1055	0.22	20	5.4	16.0	0.87	0.62	0.67
18...	1110	0.19	21	5.4	12.0	0.76	0.60	0.68
25...	1045	0.18	18	5.4	12.0	0.71	0.56	0.69

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE WATER WH IT LAB MG/L AS HCO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SILICA, DIS-SOLVED (MG/L AS SIO2)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS NO3)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)
JUN 1990							
19...	0.68	<1	4.8	1.2	5.1	1.2	50
26...	0.55	1	4.2	1.2	5.5	0.78	40
JUL							
03...	0.47	<1	4.0	1.2	5.6	0.70	40
10...	0.45	1	3.8	1.2	5.8	0.67	40
17...	0.68	<1	4.0	1.2	5.6	1.4	40
24...	0.57	1	4.1	1.2	5.7	1.1	40
31...	0.49	<1	4.1	1.3	5.6	0.88	40
AUG							
07...	0.56	<1	4.0	1.3	5.6	1.0	50
14...	0.54	<1	3.9	1.3	5.7	0.80	40
21...	0.65	<1	4.1	1.2	5.5	1.0	50
28...	0.74	<1	4.8	1.3	5.4	2.3	40
SEP							
04...	0.60	<1	4.6	1.4	5.5	1.4	40
11...	0.56	<1	4.6	1.3	5.5	1.1	30
18...	0.53	<1	4.4	1.3	5.5	0.95	40
25...	0.52	<1	4.2	1.2	5.5	0.88	40

01640980 BEAR BRANCH NEAR THURMONT, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
OCT 1990								
02...	1100	0.13	18	5.4	13.0	0.68	0.54	0.71
09...	1130	0.11	18	5.3	15.0	0.65	0.50	0.70
16...	0940	0.33	20	5.2	13.0	0.81	0.58	0.76
23...	0940	4.7	37	4.9	13.0	1.9	0.99	0.60
24...	1040	4.6	35	5.0	12.0	1.5	0.96	0.75
30...	0935	1.1	28	5.1	9.0	1.3	0.80	0.74
NOV								
06...	1125	0.55	37	4.4	11.0	1.0	0.72	0.72
13...	1000	0.50	23	5.5	7.0	0.93	0.72	0.72
20...	1000	0.50	22	5.6	7.0	1.0	0.72	0.73
27...	0950	0.37	--	5.7	9.0	0.94	0.63	0.71
DEC								
04...	0925	1.1	30	5.6	8.0	1.3	0.86	0.73
11...	0950	0.82	25	5.7	6.0	1.3	0.75	0.73
18...	1015	0.74	25	5.6	7.0	1.2	0.82	0.68
26...	1250	1.2	31	5.6	6.0	1.2	0.85	0.71
JAN 1991								
02...	1040	1.9	28	5.4	6.0	1.2	0.87	0.73
08...	1205	1.1	27	5.4	5.0	1.1	0.83	0.71
15...	1000	1.2	26	5.6	6.0	1.2	0.84	0.77
22...	1030	2.2	28	5.3	4.0	1.2	0.87	0.73
29...	0945	1.1	25	5.5	5.0	1.3	0.78	0.74
FEB								
05...	1005	0.67	25	5.4	7.0	1.1	0.74	0.72
12...	0915	0.61	25	5.6	3.0	1.1	0.71	0.72
19...	1015	0.61	25	5.5	5.0	1.2	0.75	0.70
26...	1030	0.61	25	5.5	5.0	1.1	0.74	0.72
MAR								
05...	1000	1.4	27	5.5	7.0	1.2	0.87	0.74
12...	1015	0.90	26	5.5	5.0	1.2	0.81	0.75
19...	1000	0.67	26	5.5	7.0	1.1	0.79	0.73
26...	1015	2.2	27	5.4	8.0	1.2	0.85	0.76
APR								
02...	1015	1.1	27	5.4	7.0	1.1	0.81	0.72
09...	1000	0.90	24	5.5	13.0	1.1	0.74	0.71
16...	1315	0.90	25	5.5	11.0	1.0	0.77	0.72
23...	1015	0.99	25	5.6	9.0	1.1	0.82	0.74
29...	0935	0.90	25	5.6	11.0	1.2	0.80	0.76
MAY								
07...	1030	0.67	24	5.6	11.0	1.0	0.75	0.70
14...	1200	0.50	22	5.5	15.0	0.89	0.70	0.72
21...	1015	0.37	21	5.5	13.0	0.90	0.68	0.72
28...	1045	0.24	19	5.6	17.0	0.79	0.60	0.73
JUN								
04...	1000	0.21	18	5.5	16.0	0.75	0.56	0.71
11...	1045	0.13	18	5.4	16.0	0.71	0.52	0.72
18...	1140	0.55	23	5.4	17.0	0.98	0.67	0.66
25...	1030	0.13	16	5.3	16.0	0.64	0.46	0.72
JUL								
02...	1200	0.10	17	5.3	18.0	0.65	0.44	0.75
09...	1130	0.10	15	5.4	18.0	0.55	0.40	0.73
17...	1300	0.07	16	5.4	18.0	0.51	0.39	0.72
23...	1000	0.06	16	5.4	21.0	0.45	0.38	0.68
30...	1100	0.06	16	5.4	18.0	0.44	0.39	0.68
AUG								
06...	0945	0.05	16	5.3	17.0	0.47	0.39	0.75
13...	1200	0.50	17	5.3	18.0	0.49	0.40	0.67
20...	1100	0.12	21	5.0	19.0	0.70	0.55	0.71
27...	1400	0.04	16	5.3	19.0	0.46	0.39	0.70
SEP								
03...	1030	0.04	15	5.3	16.0	0.49	0.39	0.71
10...	1045	0.04	16	5.2	17.0	0.48	0.38	0.72
17...	1120	0.04	15	5.6	19.0	0.44	0.34	0.71
24...	1045	0.05	15	5.3	14.0	0.49	0.37	0.67

01640980 BEAR BRANCH NEAR THURMONT, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE WATER WH IT LAB MG/L AS HCO3	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	SILICA, DISSOLVED (MG/L AS SIO2)	NITROGEN, NITRATE DISSOLVED (MG/L AS NO3)	ALUMINUM, DISSOLVED (UG/L AS AL)
OCT 1990							
02...	0.46	<1	4.1	1.3	5.7	0.66	40
09...	0.39	<1	3.6	1.2	5.8	0.56	40
16...	0.72	<1	3.7	1.4	5.6	0.95	50
23...	1.7	<1	7.4	1.4	3.2	3.9	280
24...	1.2	<1	5.6	1.5	4.9	5.6	140
30...	0.93	<1	5.1	1.4	4.9	2.9	80
NOV							
06...	1.0	<1	4.7	1.4	5.0	1.6	50
13...	0.94	<1	4.4	1.3	5.0	1.6	40
20...	0.91	1	4.6	1.4	5.0	1.8	40
27...	0.93	1	4.5	1.3	5.2	1.6	30
DEC							
04...	1.4	1	5.9	1.5	4.5	2.3	60
11...	0.96	<1	4.8	1.4	5.0	2.5	20
18...	1.0	<1	5.4	1.4	4.7	2.4	50
26...	1.0	<1	5.1	1.5	5.2	3.3	40
JAN 1991							
02...	1.0	<1	5.1	1.4	5.0	3.5	50
08...	0.99	<1	5.1	1.4	5.0	2.9	50
15...	1.1	<1	5.0	1.5	5.2	3.0	20
22...	0.99	<1	5.3	1.5	4.9	3.3	70
29...	1.0	<1	4.7	1.4	4.9	2.5	50
FEB							
05...	0.99	<1	4.4	1.4	4.9	2.4	40
12...	0.93	<1	4.2	1.3	4.9	2.2	40
19...	0.95	<1	4.6	1.4	4.9	2.3	40
26...	0.95	<1	4.4	1.4	4.9	2.4	30
MAR							
05...	1.1	<1	5.4	1.4	4.8	3.1	50
12...	1.1	1	4.9	1.4	5.0	2.8	40
19...	1.1	1	5.0	1.4	4.7	2.6	40
26...	1.1	1	5.2	1.4	4.8	3.4	50
APR							
02...	1.0	<1	5.1	1.4	4.7	2.8	50
09...	1.0	<1	4.8	1.4	4.7	2.4	30
16...	1.1	<1	5.1	1.4	4.9	2.5	40
23...	1.0	<1	5.1	1.4	4.9	2.6	40
29...	1.0	<1	5.1	1.4	4.9	2.6	30
MAY							
07...	0.90	<1	4.9	1.4	4.9	2.0	30
14...	0.81	<1	4.7	1.4	5.0	1.7	30
21...	0.74	1	4.4	1.3	5.0	1.2	30
28...	0.72	1	4.3	1.4	5.3	0.55	30
JUN							
04...	0.52	<1	4.0	1.3	5.2	0.73	30
11...	0.40	<1	3.8	1.3	5.4	0.80	40
18...	1.2	<1	5.0	1.1	4.0	1.5	80
25...	0.47	<1	3.6	1.3	5.6	0.32	40
JUL							
02...	0.42	<1	3.3	1.3	5.8	0.61	40
09...	0.49	<1	3.3	1.3	5.9	0.18	40
17...	0.44	1	3.2	1.3	6.3	0.16	40
23...	0.32	<1	3.0	1.3	5.9	0.45	20
30...	0.40	<1	2.8	1.3	6.1	0.42	20
AUG							
06...	0.43	<1	2.8	1.4	6.4	0.48	20
13...	0.36	<1	2.8	1.3	6.4	0.54	20
20...	0.81	<1	4.0	1.1	4.6	1.5	30
27...	0.28	<1	2.8	1.2	5.8	0.50	3
SEP							
03...	0.25	<1	2.8	1.3	5.6	0.49	20
10...	0.40	1	2.9	1.3	6.6	0.53	40
17...	0.28	<1	2.7	1.2	5.8	0.51	20
24...	0.31	<1	3.0	1.2	5.5	0.49	20

01641000 HUNTING CREEK AT JIMTOWN, MD

LOCATION.--Lat 39°35'40", long 77°23'50", Frederick County, Hydrologic Unit 02070009, on right bank just downstream from highway bridge, 0.4 mi southwest of Jimtown, about 2.2 mi southeast of Thurmont, 2.2 mi upstream from Little Hunting Creek, and 5.2 mi upstream from mouth.

DRAINAGE AREA.--18.4 mi^2.

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

REVISED RECORDS.--WSP 1332: 1952.

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 355 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good except those for estimated daily discharges (backwater from beaverdams), which are fair. Slight regulation at irregular intervals caused by pumpage at recreation camp near Foxville, and from occasional draining and refilling of pond near Thurmont by Maryland Game and Inland Fish Commission. Regulation since spring of 1970 at low flow by Hunting Creek Lake, 5.6 miles 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 350 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct. 5	1100	352	3.20	Oct. 23	1100	*1,140	*4.67
Oct. 13	0745	691	3.95	Mar. 23	1200	371	3.25

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e8.0	26	20	79	31	22	39	24	9.6	7.6	e4.0	3.3
2	e7.5	25	20	65	29	26	36	23	9.2	11	e3.6	3.4
3	e7.0	24	48	56	28	29	32	21	9.1	9.0	e3.4	3.4
4	e7.5	22	83	49	27	128	31	21	8.5	8.3	e3.2	16
5	e8.0	22	50	46	27	69	32	20	7.7	11	e3.0	17
6	e8.0	27	42	50	32	54	32	33	7.8	9.7	e3.0	4.3
7	e7.5	21	37	69	43	53	29	31	7.8	8.0	e2.8	3.7
8	e7.0	21	33	49	36	43	28	22	7.6	7.7	e3.6	3.6
9	e8.0	21	30	46	32	38	27	21	7.0	7.1	e6.0	3.6
10	e12	62	28	48	29	36	27	20	6.9	6.5	e6.0	3.7
11	40	43	27	57	28	33	24	18	6.5	5.6	e4.0	3.6
12	14	32	26	101	26	31	22	17	6.5	5.4	e3.0	3.6
13	177	28	25	75	28	31	26	18	6.0	8.5	e2.8	3.6
14	49	25	23	58	47	33	33	18	5.8	6.0	e2.8	3.8
15	26	24	46	53	36	32	51	16	5.8	5.5	e3.0	3.8
16	21	23	41	167	29	30	42	15	5.7	e5.0	e2.8	3.7
17	20	23	33	150	28	30	35	20	6.6	e3.8	e2.6	3.7
18	42	22	55	97	28	58	31	19	58	e3.6	e6.0	15
19	39	22	47	76	32	43	29	16	12	e3.6	e20	26
20	29	21	39	68	36	37	34	14	9.5	e3.8	e20	4.9
21	22	21	47	68	31	34	37	13	8.4	e4.6	e6.0	4.0
22	23	21	45	54	28	34	49	13	8.1	e4.2	3.6	3.6
23	379	23	62	47	27	148	38	12	9.0	e3.6	3.6	4.1
24	120	21	91	46	26	98	37	12	8.1	e3.4	3.5	4.0
25	71	21	61	41	26	66	33	11	7.9	e3.4	3.7	7.2
26	51	21	51	38	25	53	30	11	7.4	e4.6	3.6	3.6
27	42	21	46	38	24	58	29	11	6.9	e6.0	3.6	3.5
28	37	21	46	37	23	49	28	12	e6.5	e4.0	3.6	3.3
29	32	20	45	34	---	42	27	11	e6.0	e4.4	3.6	3.5
30	29	20	104	35	---	49	27	11	e6.5	e5.0	3.5	3.4
31	28	---	138	38	---	43	---	10	---	e4.6	3.5	---
TOTAL	1371.5	744	1489	1935	842	1530	975	534	278.4	184.5	147.4	173.9
MEAN	44.2	24.8	48.0	62.4	30.1	49.4	32.5	17.2	9.28	5.95	4.75	5.80
MAX	379	62	138	167	47	148	51	33	58	11	20	26
MIN	7.0	20	20	34	23	22	22	10	5.7	3.4	2.6	3.3
CFSM	2.40	1.35	2.61	3.39	1.63	2.68	1.77	.94	.50	.32	.26	.32
IN.	2.77	1.50	3.01	3.91	1.70	3.09	1.97	1.08	.56	.37	.30	.35

e Estimated

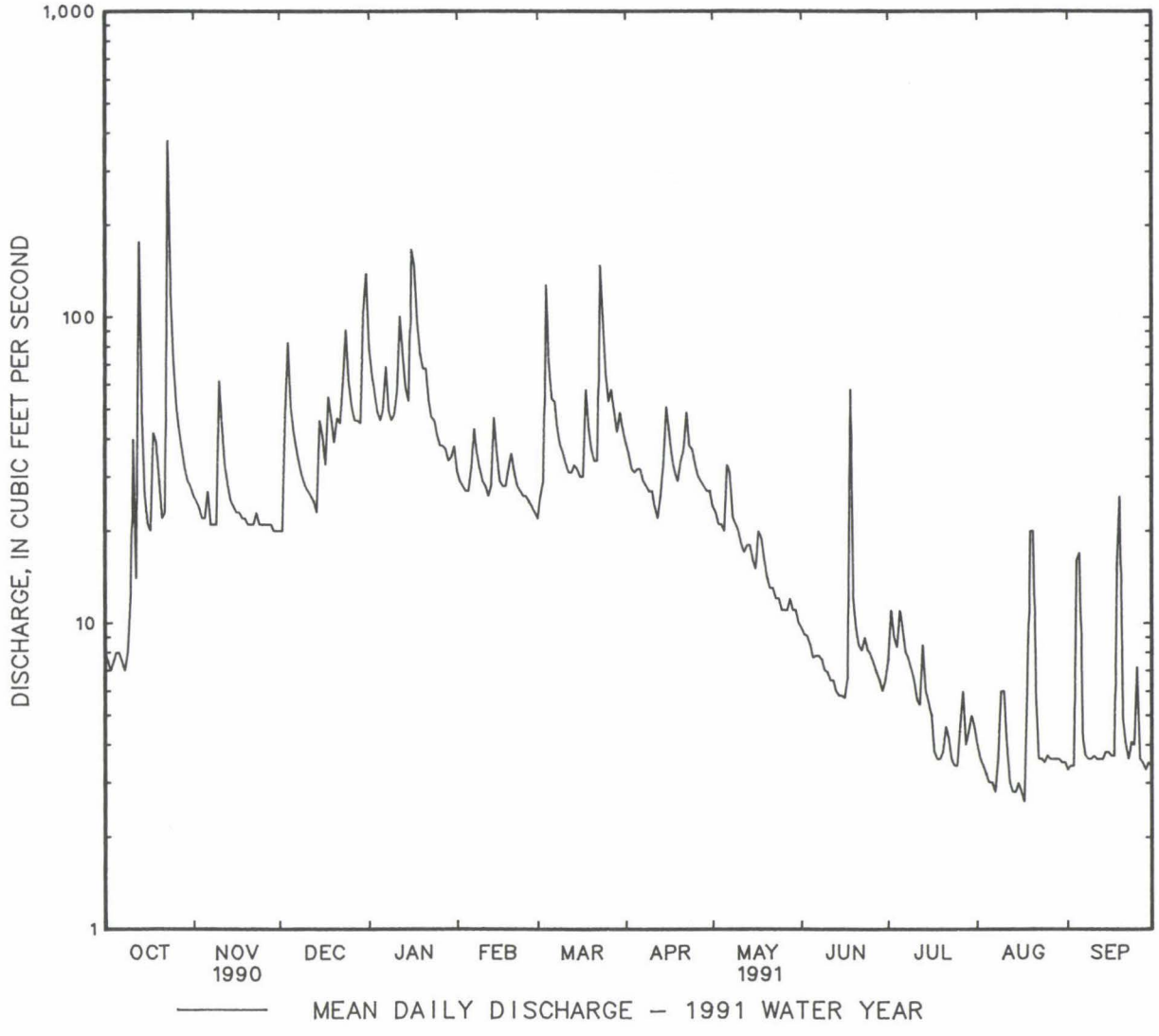
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1950 - 1991, BY WATER YEAR (WY)

MEAN	15.6	17.6	25.6	29.0	39.8	51.4	50.3	39.3	21.6	10.8	9.25	11.9
MAX	125	58.4	68.1	84.4	119	92.1	141	114	116	34.9	67.0	125
(WY)	1977	1986	1951	1979	1984	1979	1983	1989	1972	1972	1984	1975
MIN	1.85	1.95	2.51	3.22	9.17	17.2	19.1	13.6	4.43	1.51	1.35	1.66
(WY)	1964	1966	1961	1966	1963	1988	1963	1955	1966	1966	1966	1965

01641000 HUNTING CREEK AT JIMTOWN, MD--Continued

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1950 - 1991	
ANNUAL TOTAL	10583.7		10204.7			
ANNUAL MEAN	29.0		28.0		26.8	
HIGHEST ANNUAL MEAN					47.6	1984
LOWEST ANNUAL MEAN					11.3	1969
HIGHEST DAILY MEAN	379	Oct 23	379	Oct 23	1330	Oct 9 1976
LOWEST DAILY MEAN	4.7	Aug 4	2.6	Aug 17	.60	Sep 9 1966
ANNUAL SEVEN-DAY MINIMUM	6.2	Jul 29	3.0	Aug 11	.86	Aug 29 1966
INSTANTANEOUS PEAK FLOW	1140	Oct 23	1140	Oct 23	2670	Oct 9 1976
INSTANTANEOUS PEAK STAGE	4.67	Oct 23	4.67	Oct 23	6.32	Oct 9 1976
INSTANTANEOUS LOW FLOW	4.5	(a)	UNKNOWN		.40	Sep 9 1966
ANNUAL RUNOFF (CFSM)	1.58		1.52		1.46	
ANNUAL RUNOFF (INCHES)	21.40		20.63		19.77	
10 PERCENT EXCEEDS	54		53		59	
50 PERCENT EXCEEDS	21		23		14	
90 PERCENT EXCEEDS	7.8		3.6		3.3	

a Aug. 3-5.



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. Elevation of gage is 542.30 ft above National Geodetic Vertical Datum of 1929.

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

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)
June 18	0430	*7.4	*2.08	No peak greater than base discharge.			

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.09	.40	.46	1.4	1.0	.67	1.1	.87	.26	.21	.12	.07
2	.08	.40	.46	1.2	1.0	.67	1.0	.83	.26	.28	.11	.07
3	.07	.40	.79	1.2	.98	.72	.91	.83	.30	.28	.09	.07
4	.10	.40	.97	1.2	.91	1.2	.91	.78	.30	.26	.09	.21
5	.09	.41	.59	1.2	.88	.75	.91	.71	.30	.26	.09	.16
6	.07	.52	.50	1.2	.83	.68	.83	.80	.30	.21	.09	.07
7	.07	.35	.46	1.3	.74	.74	.83	.75	.30	.18	.09	.07
8	.07	.35	.46	1.2	.74	.74	.83	.74	.30	.18	.07	.07
9	.08	.35	.45	1.2	.74	.67	.83	.74	.30	.18	.09	.07
10	.09	.72	.40	1.2	.74	.67	.84	.74	.29	.16	.09	.07
11	.44	.47	.40	1.3	.74	.67	.85	.67	.26	.14	.08	.06
12	.19	.45	.40	1.4	.74	.67	.83	.62	.26	.16	.07	.06
13	.74	.40	.37	1.2	.77	.67	.89	.59	.26	.24	.07	.06
14	.14	.32	.35	1.1	.87	.63	.95	.56	.26	.18	.07	.06
15	.14	.24	.58	1.0	.82	.67	.99	.53	.26	.17	.07	.07
16	.13	.24	.50	1.7	.74	.67	.92	.48	.24	.14	.07	.06
17	.12	.31	.39	1.8	.74	.64	.85	.57	.21	.14	.07	.07
18	.32	.35	.51	1.9	.74	.78	.74	.56	1.3	.12	.07	.19
19	.32	.31	.53	1.9	.74	.74	.74	.51	.39	.12	.16	.12
20	.30	.30	.53	1.9	.69	.74	.74	.46	.30	.12	.22	.10
21	.30	.30	.53	1.9	.67	.68	.79	.46	.26	.12	.12	.09
22	.30	.30	.53	1.8	.67	.67	.91	.46	.26	.12	.09	.09
23	1.4	.33	.66	1.7	.67	1.3	.91	.43	.26	.11	.09	.09
24	.42	.30	1.0	1.5	.67	1.2	.91	.35	.26	.11	.09	.08
25	.40	.30	.91	1.5	.67	1.1	.91	.35	.23	.09	.09	.18
26	.40	.30	.78	1.4	.67	1.1	.91	.35	.21	.16	.09	.09
27	.40	.28	.74	1.3	.67	1.2	.91	.35	.21	.15	.09	.09
28	.40	.26	.74	1.2	.67	1.2	.91	.32	.21	.11	.09	.09
29	.40	.40	.82	1.1	---	1.2	.91	.30	.21	.11	.08	.08
30	.40	.46	1.4	1.1	---	1.1	.91	.30	.21	.12	.07	.07
31	.40	---	1.7	1.0	---	1.1	---	.30	---	.12	.07	---
TOTAL	8.87	10.92	19.91	43.0	21.51	26.24	26.47	17.31	8.97	5.05	2.85	2.73
MEAN	.29	.36	.64	1.39	.77	.85	.88	.56	.30	.16	.092	.091
MAX	1.4	.72	1.7	1.9	1.0	1.3	1.1	.87	1.3	.28	.22	.21
MIN	.07	.24	.35	1.0	.67	.63	.74	.30	.21	.09	.07	.06
CFSM	.72	.91	1.61	3.47	1.92	2.12	2.21	1.40	.75	.41	.23	.23
IN.	.82	1.02	1.85	4.00	2.00	2.44	2.46	1.61	.83	.47	.27	.25

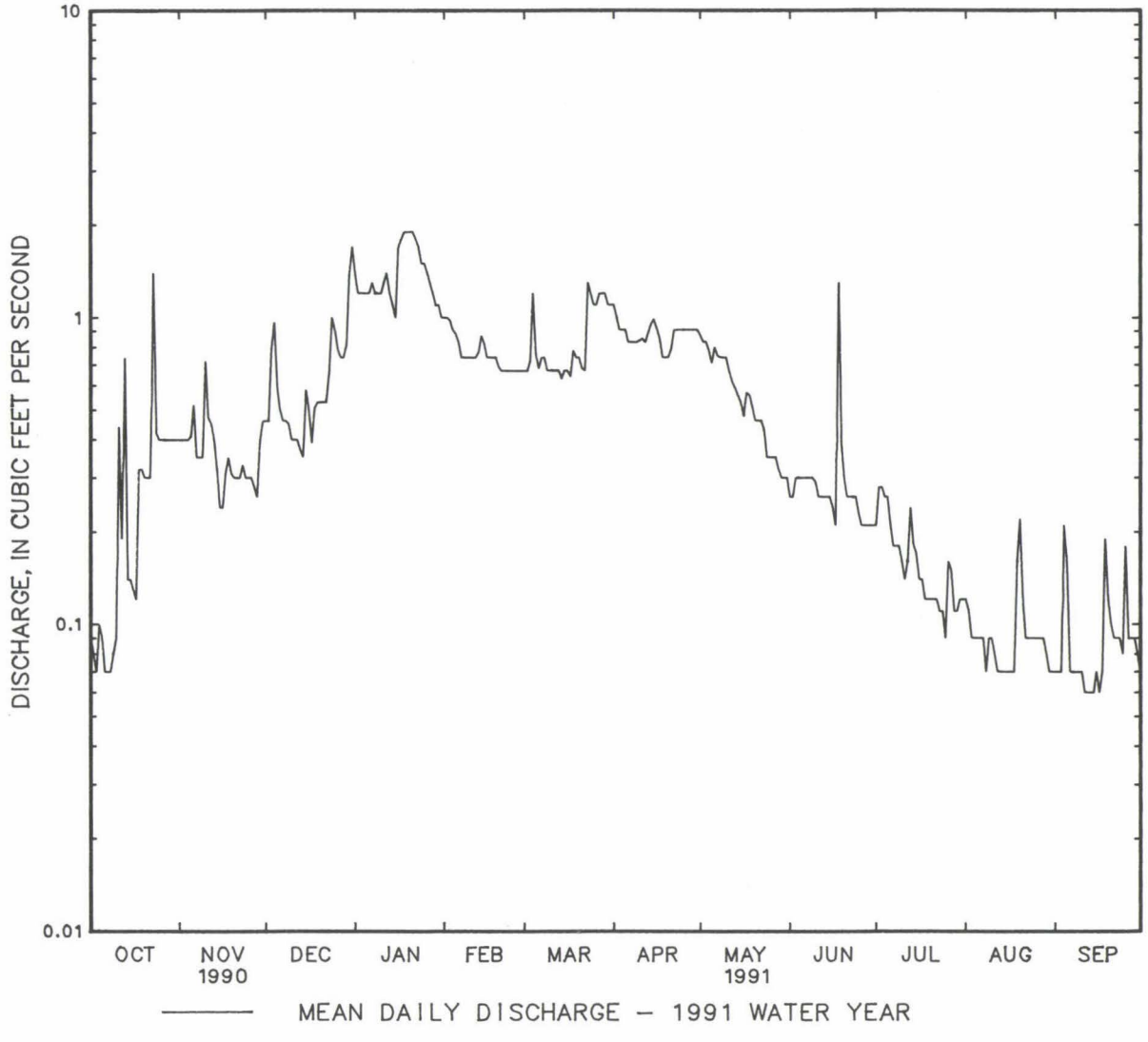
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 1991, BY WATER YEAR (WY)

MEAN	.17	.25	.36	.63	.58	.63	.72	1.64	.59	.28	.16	.13
MAX	.29	.36	.64	1.39	.77	.85	.88	2.47	.70	.46	.25	.19
(WY)	1991	1991	1991	1991	1991	1991	1991	1988	1989	1989	1989	1989
MIN	.093	.14	.12	.25	.26	.53	.58	.56	.30	.16	.092	.091
(WY)	1989	1989	1989	1989	1989	1989	1988	1991	1991	1991	1991	1991

01641510 FISHING CREEK TRIBUTARY NEAR LEWISTOWN, MD

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1988 - 1991	
ANNUAL TOTAL	185.86		193.83			
ANNUAL MEAN	.51		.53		.51	
HIGHEST ANNUAL MEAN					.57	1988
LOWEST ANNUAL MEAN					.45	1990
HIGHEST DAILY MEAN	2.1	May 16	1.9	Jan 18	11	May 19 1988
LOWEST DAILY MEAN	.07	(a)	.06	(b)	.06	(c)
ANNUAL SEVEN-DAY MINIMUM	.08	Oct 2	.06	Sep 10	.06	Sep 8 1991
INSTANTANEOUS PEAK FLOW	8.2	Oct 13	7.4	Jun 18	33	May 18 1988
INSTANTANEOUS PEAK STAGE	2.14	Oct 13	2.08	Jun 18	2.60	May 18 1988
INSTANTANEOUS LOW FLOW	.07	(d)	.06	(f)	.03	Aug 15 1988
ANNUAL RUNOFF (CFSM)	1.27		1.33		1.28	
ANNUAL RUNOFF (INCHES)	17.28		18.03		17.41	
10 PERCENT EXCEEDS	.99		1.1		1.0	
50 PERCENT EXCEEDS	.46		.40		.35	
90 PERCENT EXCEEDS	.11		.09		.10	

a Oct. 3, 6-8.
b Sept. 11-14, 16.
c Oct. 15, 17, 20, 1988, Sept. 11-14, 16, 1991.
d Oct. 2-9.
f Sept. 11-14, 16, 17.



01641510 FISHING CREEK TRIBUTARY NEAR LEWISTOWN, MD--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1988 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1987 to September 1990.
WATER TEMPERATURE: October 1987 to September 1990.

INSTRUMENTATION.--Water-quality monitor October 1987 to September 1990.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 90 microsiemens, Oct. 29, 1988; minimum, 13 microsiemens, Sept. 6, 7, 1989.
WATER TEMPERATURE: Maximum daily, 23.0°C, Aug. 15, 1988; minimum daily, 1.0°C, Jan. 6, 7, 8, 15, 16, 1988, Mar. 6, 1989.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
OCT 1990							
02...	1210	0.09	15	6.4	14.0	0.54	0.46
09...	1310	0.09	17	6.4	16.0	0.60	0.49
16...	1240	0.12	17	6.2	15.0	0.61	0.52
23...	1040	2.9	30	5.3	14.0	1.3	1.1
24...	0855	0.40	21	6.1	14.0	0.86	0.68
30...	1040	0.40	16	6.4	11.0	0.53	0.44
NOV							
06...	0940	0.40	21	6.4	11.0	0.71	0.57
13...	1130	0.46	16	6.5	9.0	0.57	0.50
20...	1055	0.30	15	6.5	8.0	0.58	0.46
27...	1050	0.26	--	6.5	10.0	0.65	0.51
DEC							
04...	1315	0.59	31	6.4	9.0	1.1	1.0
11...	1100	0.46	16	6.4	7.0	0.60	0.47
18...	1130	0.35	22	6.2	8.0	0.89	0.78
26...	1030	0.30	17	6.3	4.0	0.66	0.52
JAN 1991							
02...	1135	1.2	18	6.2	6.0	0.52	0.51
08...	1315	1.2	18	6.4	7.0	0.54	0.51
15...	1115	1.0	17	6.2	7.0	0.60	0.57
22...	1145	1.8	18	6.2	6.0	0.51	0.50
29...	1125	1.1	16	6.3	7.0	0.53	0.47
FEB							
05...	1125	0.91	17	6.2	8.0	0.53	0.49
12...	1125	0.74	17	6.4	5.0	0.54	0.49
19...	1155	0.74	18	6.3	7.0	0.56	0.52
26...	1150	0.67	17	6.4	7.0	0.54	0.50
MAR							
05...	1130	0.74	18	6.4	9.0	0.62	0.54
12...	1105	0.67	17	6.4	7.0	0.56	0.51
19...	1100	0.74	18	6.5	8.0	0.57	0.54
26...	1135	1.1	18	6.4	9.0	0.57	0.53
APR							
02...	1120	1.0	17	6.4	9.0	0.54	0.50
09...	1145	0.83	17	6.4	15.0	0.61	0.51
16...	1455	0.91	18	6.5	13.0	0.58	0.54
23...	1145	0.91	17	6.4	11.0	0.62	0.52
29...	1135	0.91	18	6.5	13.0	0.61	0.51
MAY							
07...	1315	0.74	17	6.4	13.0	0.60	0.53
14...	1340	0.53	17	6.5	15.0	0.69	0.53
21...	1245	0.46	16	6.4	14.0	0.59	0.50
28...	1200	0.30	16	6.5	18.0	0.63	0.53
JUN							
04...	1130	0.30	16	6.4	17.0	0.57	0.48
11...	1145	0.26	15	6.5	17.0	0.58	0.48
18...	1530	0.46	20	6.1	18.0	0.85	0.69
25...	1230	0.21	15	6.4	17.0	0.56	0.46
JUL							
02...	1330	0.21	16	6.4	19.0	0.58	0.48
09...	1400	0.18	15	6.5	19.0	0.57	0.45
17...	1100	0.14	17	6.4	19.0	0.58	0.46
23...	1115	0.12	16	6.5	21.0	0.51	0.46
30...	1200	0.12	17	6.4	19.0	0.56	0.50
AUG							
06...	1100	0.09	14	6.6	19.0	0.53	0.47
13...	1400	0.07	16	6.6	20.0	0.53	0.46
20...	1515	0.12	20	6.3	20.0	0.76	0.65
27...	1000	0.09	16	6.3	20.0	0.64	0.51
SEP							
03...	1130	0.07	15	6.5	18.0	0.57	0.49
10...	1300	0.07	15	6.3	19.0	0.55	0.48
17...	1240	0.06	15	6.4	21.0	0.53	0.45
24...	1245	0.06	14	6.5	16.0	0.52	0.45

01641510 FISHING CREEK TRIBUTARY NEAR LEWISTOWN, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE WATER WH IT LAB MG/L AS HCO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SILICA, DIS-SOLVED (MG/L AS SIO2)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS NO3)
OCT 1990							
02...	1.0	0.67	3	1.6	1.3	7.7	0.25
09...	1.0	0.76	4	1.6	1.3	7.8	0.01
16...	1.0	0.91	3	1.8	1.4	7.6	0.06
23...	0.92	1.5	<1	6.2	1.7	3.9	0.01
24...	0.94	0.98	2	3.9	1.5	6.8	0.07
30...	0.97	0.77	3	1.7	1.2	7.3	0.59
NOV							
06...	1.0	1.2	3	2.4	1.6	7.0	0.18
13...	1.0	0.96	3	2.0	1.3	7.1	0.13
20...	1.0	0.91	3	2.0	1.3	7.4	0.45
27...	1.1	0.96	3	2.0	1.3	7.5	0.49
DEC							
04...	1.1	1.5	1	5.8	1.8	6.3	0.09
11...	0.97	0.87	3	2.1	1.3	7.3	0.68
18...	1.0	1.2	2	3.9	1.4	6.4	0.46
26...	0.91	0.87	3	2.5	1.4	7.6	0.69
JAN 1991							
02...	0.87	0.82	2	2.3	1.4	7.3	0.92
08...	0.94	0.88	2	2.2	1.4	7.3	0.87
15...	1.0	0.96	2	2.2	1.4	7.3	0.89
22...	0.93	0.84	2	2.2	1.4	6.6	1.2
29...	0.93	0.86	2	1.8	1.3	6.6	1.1
FEB							
05...	0.95	0.88	3	1.8	1.3	6.6	0.94
12...	0.93	0.84	3	1.9	1.4	6.7	1.0
19...	0.94	0.88	2	2.1	1.3	6.6	0.96
26...	0.92	0.86	2	1.9	1.3	6.4	0.92
MAR							
05...	0.94	0.94	3	2.5	1.3	6.4	0.83
12...	0.97	0.92	3	1.8	1.3	6.6	0.98
19...	0.96	0.95	3	2.2	1.3	6.4	0.91
26...	0.96	0.95	3	2.1	1.3	6.6	0.90
APR							
02...	0.99	0.95	2	1.8	1.3	6.3	0.88
09...	0.98	0.94	3	1.6	1.2	5.9	0.64
16...	0.97	0.97	3	2.3	1.3	6.5	0.62
23...	0.98	0.91	3	2.0	1.3	6.2	0.79
29...	0.99	0.89	3	1.9	1.3	6.1	0.90
MAY							
07...	0.95	0.85	3	2.0	1.3	6.4	0.69
14...	1.0	0.82	3	1.7	1.3	6.9	0.89
21...	0.97	0.78	3	1.6	1.3	6.9	0.77
28...	1.0	0.78	4	1.5	1.3	7.1	0.71
JUN							
04...	0.99	0.69	3	1.5	1.3	6.7	0.74
11...	1.0	0.62	3	1.5	1.3	6.9	0.74
18...	0.87	1.0	2	3.3	1.0	5.2	0.79
25...	1.0	0.73	3	1.6	1.3	7.4	0.60
JUL							
02...	1.0	0.67	3	1.5	1.3	7.6	0.65
09...	1.0	0.72	3	1.5	1.3	7.6	0.54
17...	1.0	0.60	3	1.5	1.3	7.8	0.54
23...	0.98	0.49	3	1.5	1.4	5.9	0.59
30...	0.98	0.59	4	1.7	1.3	7.8	0.46
AUG							
06...	0.98	0.50	3	1.7	1.3	8.1	0.54
13...	0.99	0.52	3	1.5	1.3	8.0	0.30
20...	0.96	0.68	2	3.0	1.3	6.6	0.49
27...	1.0	0.55	3	1.3	2.1	7.1	0.28
SEP							
03...	1.0	0.51	2	1.3	1.7	7.3	0.32
10...	1.0	0.66	3	1.5	1.3	8.2	0.36
17...	1.0	0.52	1	1.5	1.3	7.8	0.34
24...	1.0	0.52	2	1.7	1.2	7.6	0.34

01642500 LINGANORE CREEK NEAR FREDERICK, MD

WATER-QUALITY RECORDS

LOCATION.--Lat 39°24'55", long 77°20'00", Frederick County, Hydrologic Unit 02070009, on left bank 2.4 mi upstream from mouth and 4.0 mi east of Frederick.

DRAINAGE AREA--82.3 mi^2.

PERIOD OF RECORD.--Water years 1982-83, October 1990 to September 1991.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (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)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
JUN 1991											
27...	1600	20	213	7.8	24.5	27.0	762	9.2	110	25	5.9
AUG											
29...	0845	--	--	--	--	--	--	--	--	--	--

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, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)
JUN 1991											
27...	5.1	2.5	70	6.4	13	0.10	6.1	112	1.32	0.090	0.080
AUG											
29...	--	--	--	--	--	--	--	--	--	0.140	--

DATE	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS ORTHO TOTAL (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)	HARD-NESS TOTAL (MG/L AS CACO3)
JUN 1991											
27...	1.40	1.40	0.200	0.200	0.90	0.070	0.020	<0.010	13	93	87
AUG											
29...	1.20	--	0.440	--	2.3	0.150	0.060	--	--	--	--

DATE	ALA-CHLOR (LASSO) WATER DISSOLV (UG/L)	AMETRYN WATER, DISS, REC, (UG/L)	ATRA-ZINE, WATER, DISS, REC (UG/L)	METO-LACHLOR WATER DISSOLV (UG/L)	METRI-BUZIN SENCOR WATER DISSOLV (UG/L)	ALDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	CHLOR-DANE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDD, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDT, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
JUN 1991										
27...	0.1	<0.05	0.89	0.8	<0.0	<0.1	1.0	<0.1	0.6	<0.1
AUG										
29...	<0.0	<0.05	0.17	0.4	<0.0	--	--	--	--	--

DATE	DI-AZINON, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DI-ELDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ENDO-SULFAN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ENDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ETHION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	HEPTA-CHLOR, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	HEPTA-CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	MALA-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	METH-OXY-CHLOR, TOT. IN BOTTOM MATL. (UG/KG)
JUN 1991										
27...	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	1.0
AUG										
29...	--	--	--	--	--	--	--	--	--	--

DATE	METHYL PARA-THION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRI-THION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	PARA-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	PCB, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	PCN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	PER-THANE IN BOT-TOM MA-TERIAL (UG/KG)	PROP-AZINE SED, BOT MAT REC (UG/L)	TRI-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	TOXA-PHENE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
JUN 1991										
27...	<0.1	<0.1	<0.1	<0.1	33	<1.0	<1.00	<0.05	<0.1	<10
AUG										
29...	--	--	--	--	--	--	--	<0.05	--	--

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 0.2 mi upstream from Jug Bridge on U.S. Highway 40, 0.4 mi downstream from Linganore Creek, 2.0 mi east of Frederick, and 16.9 mi upstream from mouth.

DRAINAGE AREA.--817 mi^2.

PERIOD OF RECORD.--October 1929 to current year. Monthly discharge only for October, November 1929, published in WSP 1302.

REVISED RECORDS.--WSP 711: 1930.

GAGE.--Water-stage recorder. Nonrecording gage at site 0.2 mile downstream. Datum of gage is 231.92 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good. 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)
Oct. 24	1100	*16,000	*15.18	Jan. 17	0600	12,100	13.00
Dec. 04	1730	9,020	10.97	Mar. 24	0330	9,790	11.49
Dec. 31	1000	9,850	11.53				

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	162	601	375	3530	1100	640	1310	626	234	115	98	83
2	154	558	368	2180	862	654	1180	579	235	112	90	76
3	148	523	437	1810	831	776	1050	536	258	146	82	73
4	149	489	6210	1570	817	1580	949	511	228	153	76	96
5	150	470	3610	1320	799	2560	912	485	213	148	71	176
6	152	502	1550	1240	839	1360	937	545	196	249	67	241
7	148	534	1200	2010	1330	1430	877	1280	191	218	66	177
8	142	479	1010	2050	1650	1280	793	886	184	192	66	145
9	145	425	876	1490	1180	1010	749	610	178	154	79	123
10	149	1710	776	1570	1010	908	715	560	169	134	80	107
11	213	5330	712	1970	913	841	677	527	163	122	102	97
12	445	1550	646	4320	814	768	615	484	159	114	89	90
13	2250	1040	619	4570	759	732	622	459	151	117	76	85
14	3890	828	591	2890	1410	775	782	567	142	122	73	82
15	924	717	723	2160	1960	922	1230	588	135	116	83	80
16	565	658	2190	4990	1150	1110	1920	467	139	103	78	78
17	425	644	1270	9980	836	959	1190	456	146	96	70	76
18	709	638	1380	4830	877	1540	933	537	552	89	71	79
19	3420	575	2550	3080	930	2470	814	467	337	83	81	1800
20	1230	534	1420	2580	1290	1400	807	427	216	81	372	1170
21	725	508	1260	2430	1250	1130	870	391	187	77	1330	335
22	588	482	2070	2140	990	1040	1300	364	169	75	417	201
23	4710	504	1670	1510	867	3280	1240	343	170	78	225	154
24	12100	578	4290	1480	766	6560	932	322	168	74	155	131
25	2500	550	3130	1320	746	2600	851	319	163	75	130	204
26	1590	479	1740	1130	739	1900	764	318	156	79	114	451
27	1190	445	1430	1130	706	1880	709	305	145	81	104	262
28	962	425	1280	1110	669	2170	680	281	133	101	117	185
29	813	416	1380	1080	---	1530	657	270	124	111	110	148
30	711	398	2380	1020	---	1510	642	254	119	105	97	129
31	648	---	8430	1200	---	1690	---	263	---	101	90	---
TOTAL	42107	23590	57573	75690	28090	49005	27707	15027	5760	3621	4759	7134
MEAN	1358	786	1857	2442	1003	1581	924	485	192	117	154	238
MAX	12100	5330	8430	9980	1960	6560	1920	1280	552	249	1330	1800
MIN	142	398	368	1020	669	640	615	254	119	74	66	73
CFSM	1.66	.96	2.27	2.99	1.23	1.93	1.13	.59	.24	.14	.19	.29
IN.	1.92	1.07	2.62	3.45	1.28	2.23	1.26	.68	.26	.16	.22	.32

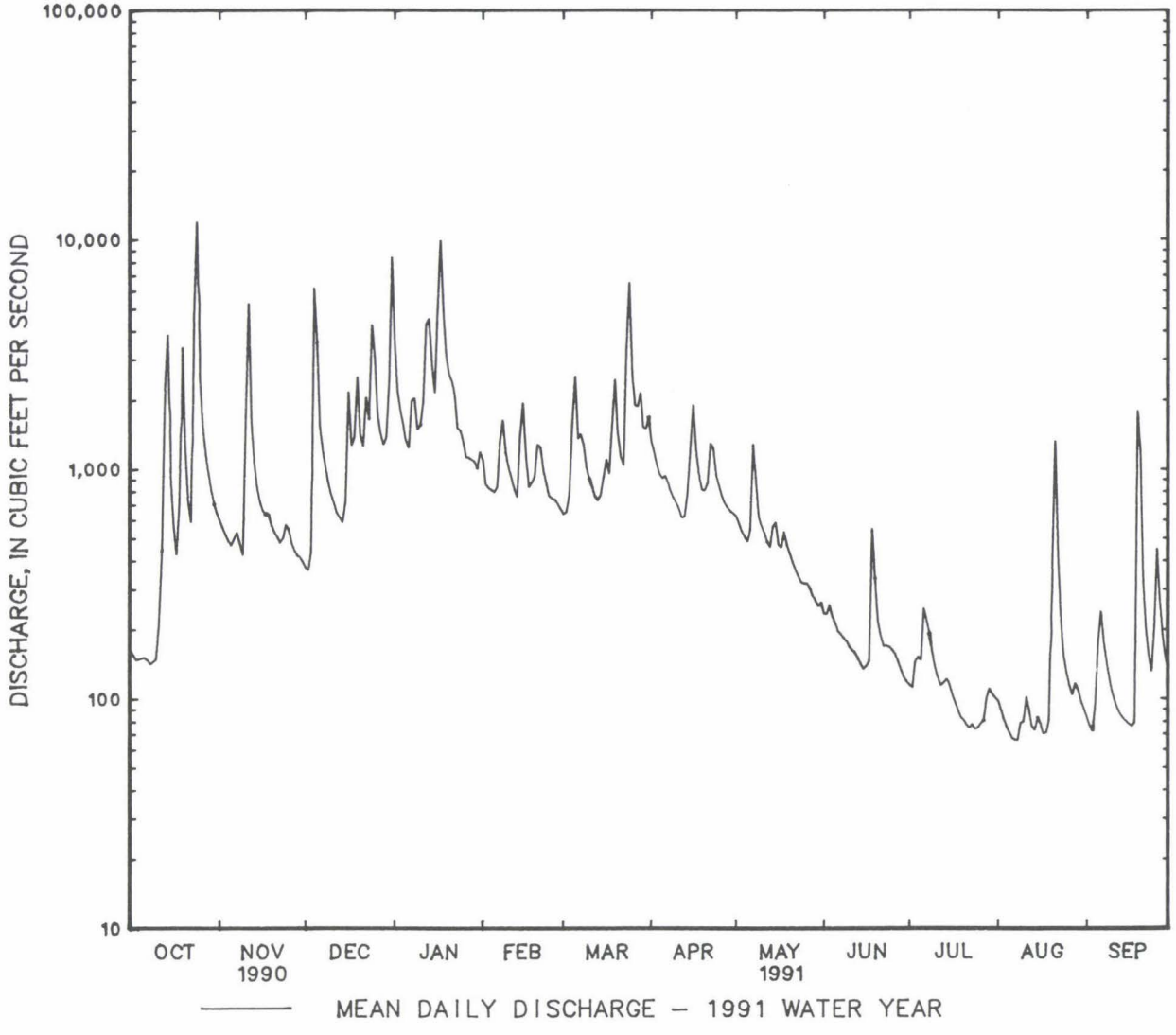
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1930 - 1991, BY WATER YEAR (WY)

MEAN	518	689	987	1167	1475	1708	1506	1037	709	443	413	480
MAX	3943	2504	3007	3664	4062	4345	4533	3773	6826	2571	3233	5165
(WY)	1977	1933	1973	1979	1984	1936	1983	1989	1972	1949	1933	1975
MIN	46.8	65.1	108	123	175	589	453	296	158	64.5	36.4	59.9
(WY)	1931	1931	1966	1981	1931	1981	1947	1963	1966	1966	1966	1963

01643000 MONOCACY RIVER AT JUG BRIDGE NEAR FREDERICK, MD--Continued

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1930 - 1991	
ANNUAL TOTAL	360008		340063			
ANNUAL MEAN	986		932		924	
HIGHEST ANNUAL MEAN					1834	1972
LOWEST ANNUAL MEAN					329	1931
HIGHEST DAILY MEAN	12100	Oct 24	12100	Oct 24	74000	Jun 23 1972
LOWEST DAILY MEAN	142	Oct 8	66	(a)	19	(b)
ANNUAL SEVEN-DAY MINIMUM	148	Oct 3	72	Aug 4	19	Sep 7 1966
INSTANTANEOUS PEAK FLOW	16000	Oct 24	16000	Oct 24	81600	Jun 23 1972
INSTANTANEOUS PEAK STAGE	15.18	Oct 24	15.18	Oct 24	c35.90	Jun 23 1972
ANNUAL RUNOFF (CFSM)	1.21		1.14		1.13	
ANNUAL RUNOFF (INCHES)	16.39		15.48		15.37	
10 PERCENT EXCEEDS	1760		2030		1950	
50 PERCENT EXCEEDS	648		588		465	
90 PERCENT EXCEEDS	204		90		120	

a Aug. 7, 8.
b Sept. 7-13, 1966.
c From floodmark.



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 current year.
SUSPENDED-SEDIMENT DISCHARGE: October 1960 to current year.

REMARKS.--Water temperatures are measured daily in field by local observer at time of sampling. Missing record November 1 to January 17 when local observer resigned. 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: 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: Maximum daily, 134,000 tons, June 22, 1972; minimum daily, 0.25 ton, Oct. 14, 1988.

EXTREMES FOR CURRENT YEAR.--
SEDIMENT CONCENTRATION: Maximum daily mean, 511 mg/L, Oct. 19; minimum daily mean, 2 mg/L, Sept. 12, 13.
SEDIMENT LOAD: Maximum daily, 7,570 tons, Oct. 24; minimum daily, 0.46 ton, Sept. 13.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	TEMPER-ATURE WATER (DEG C)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)
AUG 1991								
29...	0945	108	--	0.020	4.10	0.180	0.80	0.540

DATE	PHOS-PHORUS ORTHO TOTAL (MG/L AS P)	ALA-CHLOR (LASSO) WATER DISSOLV (UG/L)	AMETRYN WATER, DISS, REC, (UG/L)	ATRA-ZINE, WATER, DISS, REC (UG/L)	METO-LACHLOR WATER DISSOLV (UG/L)	METRI-BUZIN SENCOR WATER DISSOLV (UG/L)	PROP-AZINE SED, BOT MAT REC (UG/L)
AUG 1991							
29...	0.430	<0.0	<0.05	0.23	0.3	<0.0	<0.05

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

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. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM
MAY 1990							
11...	0845	8940	588	14200	36	49	67
30...	0735	10200	291	8010	47	53	59

DATE	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .031 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 2.00 MM
MAY 1990								
11...	83	92	96	98	99	99	100	100
30...	73	88	94	96	97	98	99	100

01643020 MONOCACY RIVER AT REICH'S FORD BRIDGE NEAR FREDERICK, MD--Continued

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM
OCT 1990							
23...	1730	7780	437	9180	38	46	59
24...	1820	9850	81	2150	27	50	50
MAR 1991							
24...	0830	5070	437	5980	35	47	63

DATE	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .031 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 2.00 MM
OCT 1990								
23...	73	87	96	99	99	100	100	100
24...	69	78	94	97	98	99	99	100
MAR 1991								
24...	76	83	86	87	88	90	96	100

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20.0	18.0	12.0	---	3.5	---	10.0	26.0	30.0	25.0	---	30.0
2	---	19.0	---	---	6.0	13.0	10.0	---	---	---	30.0	25.0
3	19.0	18.0	10.0	3.5	15.0	8.0	15.0	17.0	---	26.0	32.0	25.0
4	18.0	18.0	10.0	3.0	15.0	13.0	---	15.0	27.0	---	---	25.0
5	25.0	20.0	10.0	4.0	15.0	10.0	---	17.0	20.0	25.0	23.0	25.0
6	21.0	17.0	12.0	---	---	---	18.0	---	21.0	27.0	---	25.0
7	20.0	17.0	---	---	8.0	---	---	20.0	23.0	---	28.0	25.0
8	---	14.0	11.0	---	10.0	---	17.0	20.0	---	27.0	30.0	29.0
9	25.0	15.0	10.0	2.0	---	---	---	19.0	28.0	28.0	31.0	25.0
10	23.0	12.0	---	---	8.0	---	---	20.0	25.0	27.0	---	---
11	---	15.0	---	3.0	6.0	---	18.0	16.0	25.0	---	---	27.0
12	26.0	---	8.0	4.0	5.0	13.0	20.0	---	---	---	---	---
13	25.0	---	15.0	4.5	---	9.0	13.0	25.0	24.0	26.0	---	---
14	24.0	12.0	10.0	---	5.0	8.0	10.0	26.0	20.0	---	---	30.0
15	24.0	15.0	---	3.0	5.0	8.0	13.0	26.0	27.0	---	---	24.0
16	23.0	---	8.0	4.0	---	10.0	18.0	26.0	26.0	29.0	25.0	26.0
17	21.0	12.0	---	4.5	7.0	8.0	---	---	23.0	---	---	29.0
18	20.0	15.0	---	---	5.0	---	15.0	23.0	20.0	---	---	---
19	19.0	---	---	---	5.0	8.0	15.0	22.0	28.0	17.0	27.0	28.0
20	---	---	15.0	10.0	8.0	8.0	14.0	20.0	30.0	---	---	20.0
21	19.0	---	10.0	9.0	10.0	15.0	12.0	20.0	21.0	---	25.0	20.0
22	20.0	---	12.0	10.0	15.0	12.0	14.0	25.0	21.0	---	23.0	20.0
23	17.5	---	14.0	---	8.0	10.0	---	27.0	23.0	---	---	---
24	18.0	---	12.0	5.0	8.0	10.0	17.0	17.0	23.0	---	29.0	---
25	18.0	---	12.0	---	---	10.0	18.0	---	21.0	---	28.0	20.0
26	---	---	11.0	---	---	12.0	20.0	18.0	---	---	25.0	---
27	---	---	4.0	4.0	---	13.0	20.0	29.0	---	---	30.0	20.0
28	---	17.0	---	---	---	14.0	20.0	20.0	---	---	28.0	---
29	---	17.0	---	6.0	---	15.0	17.0	---	---	---	30.0	20.0
30	---	15.0	---	---	---	12.0	15.0	---	---	---	---	20.0
31	---	---	---	---	---	11.0	---	28.0	---	---	---	---

01643020 MONOCACY RIVER AT REICH'S FORD BRIDGE NEAR FREDERICK, MD--Continued

SEDIMENT, SUSPENDED CONCENTRATION (MG/L), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	5	2.2	10	16	8	8.1	e45	429	e16	48	4	6.9
2	5	2.1	13	20	8	7.9	22	129	11	26	3	5.3
3	4	1.6	10	14	9	11	9	44	9	20	9	19
4	11	4.4	6	7.9	161	3020	8	34	10	22	42	179
5	8	3.2	7	8.9	84	819	6	21	19	41	74	511
6	6	2.5	7	9.5	65	272	8	27	22	50	28	103
7	7	2.8	6	8.7	40	130	e36	195	24	86	e30	116
8	8	3.1	4	5.2	15	41	e30	166	50	223	e25	86
9	8	3.1	3	3.4	9	21	e22	89	30	96	e20	55
10	7	2.8	113	1030	e9	19	e20	85	10	27	e18	44
11	8	4.6	198	2850	e8	15	29	154	6	15	e16	36
12	19	23	35	146	e12	21	61	712	3	6.6	16	33
13	194	1600	22	62	7	12	50	617	3	6.1	8	16
14	200	2480	12	27	9	14	22	172	28	107	11	23
15	50	125	10	19	e9	18	20	117	24	127	24	60
16	23	35	10	18	e42	248	109	1990	15	47	30	90
17	10	11	10	17	e17	58	105	3060	6	14	11	28
18	126	241	7	12	e22	82	e34	443	7	17	22	91
19	511	4720	e7	11	e52	358	26	216	18	45	69	460
20	90	299	e7	10	e23	88	22	153	13	45	29	110
21	25	49	e6	8.2	16	54	21	138	11	37	16	49
22	21	33	e6	7.8	29	162	20	116	8	21	9	25
23	293	5480	e10	14	26	117	16	65	7	16	205	3250
24	204	7570	e15	23	74	857	13	52	7	14	306	6300
25	28	189	e10	15	e39	330	15	53	6	12	55	386
26	e25	107	e8	10	21	99	16	49	e6	12	21	108
27	e20	64	e6	7.2	e18	69	10	31	e6	11	29	147
28	e15	39	4	4.6	e14	48	e8	24	e5	9.0	26	152
29	e10	22	4	4.5	e16	60	e20	58	---	---	24	99
30	e10	19	4	4.3	e40	257	e15	41	---	---	19	77
31	e10	17	---	---	e140	3190	e20	65	---	---	18	82
TOTAL	---	23155.4	---	4394.2	---	10506.0	---	9545	---	1200.7	---	12747.2
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	12	42	8	14	16	10	e22	6.8	e20	5.3	19	4.3
2	16	51	e15	23	e18	11	23	7.0	16	3.9	9	1.8
3	e28	79	18	26	e18	13	15	5.9	18	4.0	3	.59
4	e20	51	8	11	18	11	8	3.3	18	3.7	15	3.9
5	e20	49	15	20	20	12	6	2.4	17	3.3	50	24
6	e16	40	22	32	10	5.3	13	8.7	12	2.2	37	24
7	e14	33	47	162	12	6.2	15	8.8	7	1.2	16	7.6
8	10	21	28	67	13	6.5	11	5.7	4	.71	6	2.3
9	e10	20	15	25	11	5.3	9	3.7	6	1.3	6	2.0
10	e20	39	11	17	8	3.7	8	2.9	7	1.5	6	1.7
11	e30	55	12	17	8	3.5	e7	2.3	6	1.7	3	.79
12	25	42	12	16	7	3.0	e7	2.2	4	.96	e2	.49
13	8	13	10	12	5	2.0	e6	1.9	e4	.82	e2	.46
14	8	17	11	17	5	1.9	5	1.6	e4	.79	4	.89
15	20	66	8	13	5	1.8	6	1.9	e8	1.8	7	1.5
16	68	353	10	13	6	2.3	8	2.2	5	1.1	6	1.3
17	57	183	15	18	9	3.5	8	2.1	e5	.94	5	1.0
18	29	73	19	28	28	42	6	1.4	e5	.96	5	1.1
19	12	26	22	28	32	29	5	1.1	6	1.3	267	2820
20	21	46	20	23	21	12	6	1.3	e20	20	210	663
21	30	70	17	18	20	10	5	1.0	260	1010	50	45
22	33	116	17	17	19	8.7	e5	1.0	30	34	30	16
23	23	77	20	19	20	9.2	e5	1.1	19	12	e20	8.3
24	11	28	15	13	18	8.2	e15	3.0	15	6.3	e18	6.4
25	10	23	12	10	19	8.4	12	2.4	13	4.6	25	14
26	9	19	10	8.6	e20	8.4	e10	2.1	23	7.1	e35	43
27	8	15	12	9.9	e20	7.8	e7	1.5	20	5.6	12	8.5
28	e7	13	13	9.9	e18	6.5	e10	2.7	22	6.9	10	5.0
29	e20	35	e11	8.0	e18	6.0	26	7.8	25	7.4	9	3.6
30	e15	26	e11	7.5	e18	5.8	32	9.1	28	7.3	8	2.8
31	---	---	11	7.8	---	---	e25	6.8	24	5.8	---	---
TOTAL	---	1721	---	710.7	---	264.0	---	111.7	---	1164.48	---	3715.32

TOTAL LOAD FOR YEAR: 69235.70 TONS.

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.

PERIOD OF RECORD.--July 1948 to September 1958. Annual maximum, water years 1960-66. August 1966 to current year.

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 240 ft above National Geodetic Vertical Datum of 1929, from topographic 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 1,200 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct. 23	1430	*1,850	*6.26	Mar. 23	1515	1,310	5.31
Nov. 10	1415	1,620	5.87				

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	35	32	158	71	49	92	50	22	13	8.0	4.6
2	13	34	32	125	69	55	85	50	23	15	7.0	4.1
3	12	33	49	109	68	57	79	45	85	17	6.1	4.3
4	13	32	89	94	66	76	75	44	29	16	6.0	6.3
5	17	31	56	86	64	59	77	42	25	18	6.0	27
6	13	38	45	96	73	56	74	50	24	22	5.3	11
7	12	33	42	119	79	71	69	50	24	16	5.1	9.2
8	12	31	40	99	70	58	66	42	22	21	6.4	7.8
9	87	29	39	94	66	54	64	43	22	19	11	7.2
10	23	577	38	96	65	53	61	43	21	15	11	6.5
11	50	153	36	156	61	51	56	40	21	15	7.3	6.9
12	37	89	34	434	58	49	54	39	23	12	5.7	5.8
13	69	69	34	211	60	50	67	38	20	14	5.6	5.6
14	43	59	33	159	87	57	90	37	18	13	5.6	5.6
15	28	54	90	144	70	59	128	34	18	11	6.6	5.6
16	22	50	85	445	59	52	102	32	18	10	7.2	5.6
17	21	52	56	292	61	49	81	38	18	9.9	5.8	5.2
18	281	46	78	211	60	132	72	50	48	9.4	7.2	6.0
19	126	42	70	172	68	95	67	41	28	8.8	14	15
20	47	41	55	153	71	77	74	39	23	8.6	33	8.4
21	36	39	78	139	62	69	75	37	20	8.2	24	7.4
22	33	38	77	113	60	69	85	36	18	8.1	11	6.3
23	760	43	121	108	56	493	68	34	27	11	8.8	6.6
24	152	40	295	100	54	244	64	32	22	8.2	7.8	7.9
25	83	37	124	93	55	155	59	32	19	7.7	7.7	38
26	61	36	97	91	55	123	57	31	17	8.1	7.6	16
27	50	35	85	85	52	128	55	27	16	8.5	7.6	10
28	45	35	104	85	50	108	53	25	16	7.7	7.2	8.1
29	40	34	80	80	---	98	54	25	15	9.2	6.6	7.7
30	37	33	409	82	---	125	53	24	14	11	5.8	7.7
31	37	---	340	93	---	100	---	22	---	10	5.4	---
TOTAL	2276	1898	2843	4522	1790	2971	2156	1172	716	381.4	269.4	273.4
MEAN	73.4	63.3	91.7	146	63.9	95.8	71.9	37.8	23.9	12.3	8.69	9.11
MAX	760	577	409	445	87	493	128	50	85	22	33	38
MIN	12	29	32	80	50	49	53	22	14	7.7	5.1	4.1
CFSM	1.17	1.01	1.46	2.32	1.02	1.53	1.14	.60	.38	.20	.14	.15
IN.	1.35	1.12	1.68	2.68	1.06	1.76	1.28	.69	.42	.23	.16	.16

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1949 - 1991, BY WATER YEAR (WY)

MEAN	38.9	45.7	72.6	84.7	101	106	103	88.6	67.8	43.4	34.6	40.2
MAX	245	119	180	237	229	195	274	302	498	178	148	211
(WY)	1980	1972	1949	1978	1979	1958	1983	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

POTOMAC RIVER BASIN

01643500 BENNETT CREEK AT PARK MILLS, MD--Continued

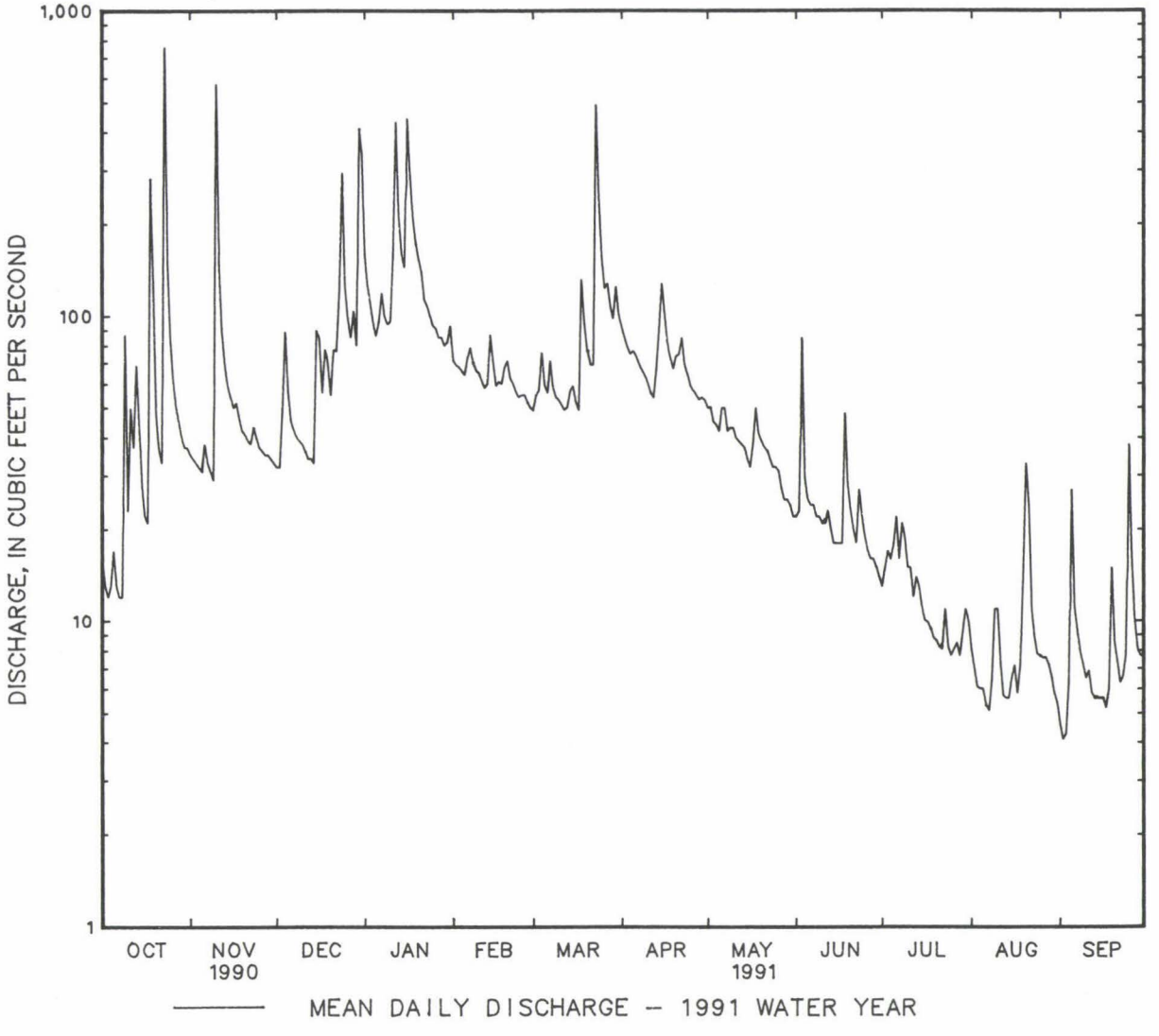
SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1949 - 1991	
ANNUAL TOTAL	22832		21268.2			
ANNUAL MEAN	62.6		58.3		68.6	
HIGHEST ANNUAL MEAN					141	1972
LOWEST ANNUAL MEAN					32.0	1981
HIGHEST DAILY MEAN	760	Oct 23	760	Oct 23	5500	Jun 22 1972
LOWEST DAILY MEAN	12	(a)	4.1	Sep 2	.40	Sep 8 1966
ANNUAL SEVEN-DAY MINIMUM	13	Sep 6	5.3	Aug 29	.91	Sep 3 1966
INSTANTANEOUS PEAK FLOW	1850	Oct 23	1850	Oct 23	b32200	Jun 21 1972
INSTANTANEOUS PEAK STAGE	6.26	Oct 23	6.26	Oct 23	c22.10	Jun 21 1972
INSTANTANEOUS LOW FLOW	10	Oct 04	3.5	(d)	.30	Sep 8 1966
ANNUAL RUNOFF (CFSM)	1.00		.93		1.09	
ANNUAL RUNOFF (INCHES)	13.52		12.60		14.84	
10 PERCENT EXCEEDS	102		108		127	
50 PERCENT EXCEEDS	46		40		42	
90 PERCENT EXCEEDS	17		7.5		14	

a Sept 9, 11, 12, Oct 3, 7, 8.

b 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.

c From floodmark.

d Sept 2, 3.



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.

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 National Geodetic Vertical Datum of 1929. Sept. 26 to Nov. 9, 1930, chain gage, and Nov. 10, 1930 to Apr. 6, 1934, water-stage recorder, at highway bridge 60 ft upstream at same datum.

REMARKS.--No estimated daily discharges. Records good. Small diversion at times for irrigation upstream from station. 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 1,300 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct. 23	2315	*5,120	*9.03	Jan. 16	1715	1,360	5.71
Nov. 10	1315	2,690	7.65	Mar. 23	1345	3,320	8.13
Dec. 31	0015	1,600	6.30	Sept. 5	0330	1,390	5.78
Jan. 12	0215	1,600	6.30				

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	61	80	287	104	80	157	74	46	34	27	20
2	29	58	81	210	100	84	134	77	49	87	25	20
3	27	49	103	172	99	91	119	68	172	96	24	20
4	37	49	272	152	97	132	110	66	62	42	23	83
5	56	48	136	139	96	99	114	64	52	42	23	496
6	36	59	99	158	103	90	115	84	49	62	22	51
7	33	54	90	222	113	123	106	86	50	45	21	36
8	32	55	88	191	105	93	114	65	48	79	23	30
9	37	52	87	167	101	86	135	65	46	56	90	28
10	37	1320	88	175	97	85	133	66	45	40	48	26
11	61	370	86	304	95	86	125	60	44	38	29	26
12	59	164	80	1030	90	80	121	59	47	36	26	25
13	102	118	73	401	91	80	145	57	43	63	24	24
14	63	94	70	256	129	92	200	56	38	42	24	24
15	41	85	235	218	105	98	257	54	38	36	24	24
16	36	81	200	779	91	88	190	52	37	32	24	25
17	34	83	103	473	86	85	151	65	37	30	23	25
18	284	78	190	291	89	304	138	75	154	30	21	26
19	377	70	175	232	102	165	134	57	85	29	21	26
20	110	66	138	206	113	121	144	57	53	29	169	27
21	88	63	148	187	96	106	138	55	47	29	77	27
22	86	62	147	161	91	103	151	54	51	29	33	26
23	2400	72	212	147	87	1770	133	52	95	29	28	28
24	1380	71	621	141	85	732	130	51	59	27	26	31
25	201	64	212	136	86	276	120	51	60	26	24	209
26	135	62	157	128	86	198	93	50	49	29	24	79
27	108	74	139	129	84	198	75	49	41	41	25	37
28	101	82	156	125	82	164	94	49	37	29	25	30
29	87	85	145	114	---	156	78	47	36	30	23	29
30	59	84	748	116	---	258	78	46	35	33	22	29
31	78	---	871	133	---	185	---	46	---	29	21	---
TOTAL	6246	3733	6030	7580	2703	6308	3932	1857	1705	1279	1039	1587
MEAN	201	124	195	245	96.5	203	131	59.9	56.8	41.3	33.5	52.9
MAX	2400	1320	871	1030	129	1770	257	86	172	96	169	496
MIN	27	48	70	114	82	80	75	46	35	26	21	20
CFSM	1.99	1.23	1.93	2.42	.96	2.01	1.30	.59	.56	.41	.33	.52
IN.	2.30	1.37	2.22	2.79	1.00	2.32	1.45	.68	.63	.47	.38	.58

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 1991, BY WATER YEAR (WY)

MEAN	66.6	77.6	102	123	146	150	143	127	102	75.3	65.1	75.1
MAX	479	238	287	402	484	296	397	510	747	273	248	566
(WY)	1980	1972	1973	1979	1979	1953	1983	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 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1931 - 1991	
ANNUAL TOTAL	46082		43999			
ANNUAL MEAN	126		121		104	
HIGHEST ANNUAL MEAN					251	1972
LOWEST ANNUAL MEAN					32.8	1931
HIGHEST DAILY MEAN	2400	Oct 23	2400	Oct 23	9900	Jun 22 1972
LOWEST DAILY MEAN	27	Oct 3	20	(a)	1.8	Sep 12 1966
ANNUAL SEVEN-DAY MINIMUM	31	Sep 27	22	Aug 28	2.3	Sep 6 1966
INSTANTANEOUS PEAK FLOW	5120	Oct 23	5120	Oct 23	b26100	Jun 22 1972
INSTANTANEOUS PEAK STAGE	9.03	Oct 23	9.03	Oct 23	c16.40	Jun 22 1972
INSTANTANEOUS LOW FLOW	22	Oct 3	19	(d)	1.7	(f)
ANNUAL RUNOFF (CFSM)	1.25		1.19		1.03	
ANNUAL RUNOFF (INCHES)	16.97		16.21		13.98	
10 PERCENT EXCEEDS	205		200		182	
50 PERCENT EXCEEDS	86		80		67	
90 PERCENT EXCEEDS	36		26		26	

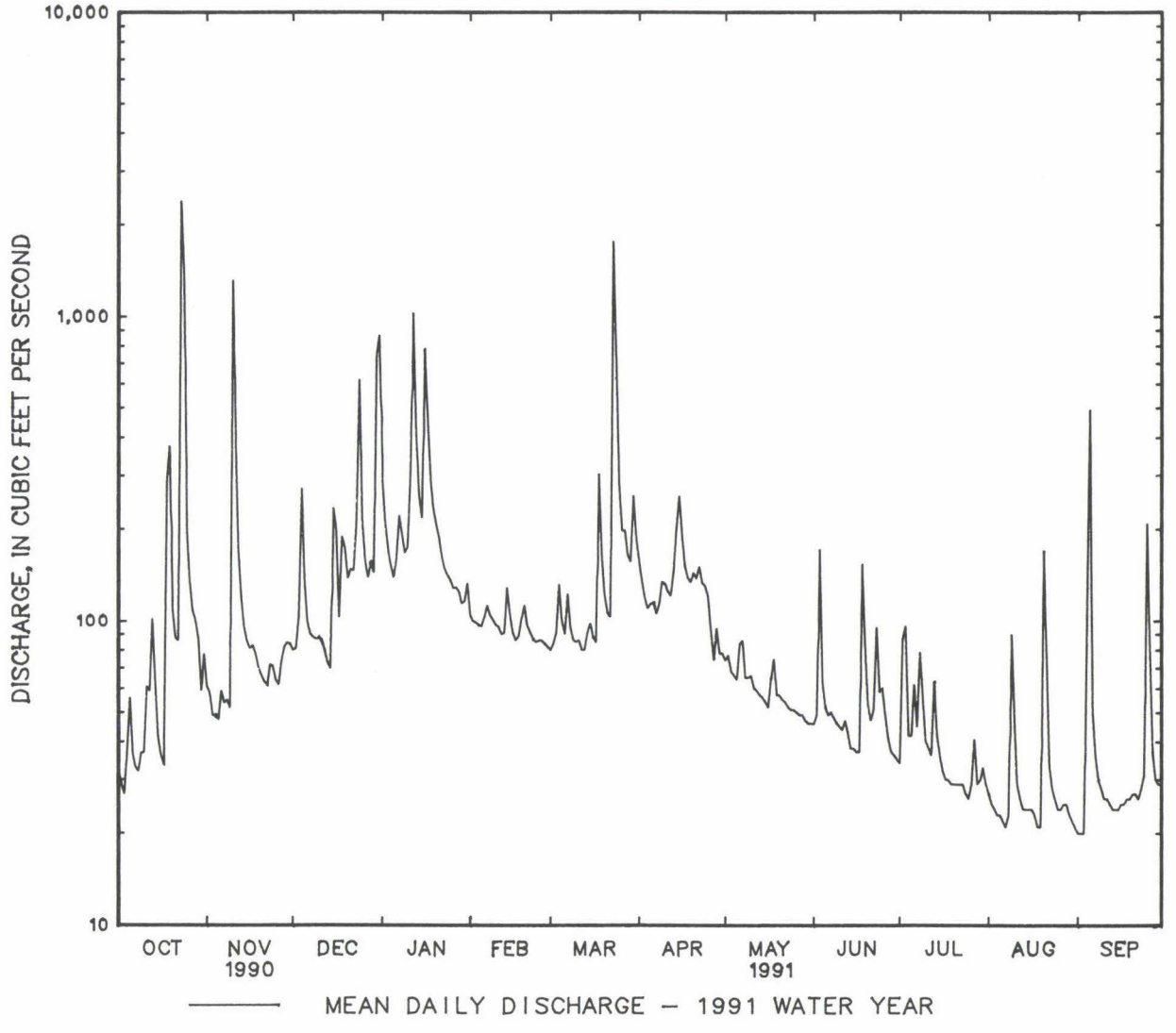
a Sept. 1, 2, 3, 1991.

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. 1, 2, 3, 4, 1991.

f Sept. 28, 29, 1930.



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 National Geodetic Vertical Datum of 1929. Prior to June 7, 1930, nonrecording gage, and June 7, 1930, to Jan. 22, 1965, water-stage recorder at site 1 mi upstream on right bank at same datum.
REMARKS.--No estimated daily discharges. Water-discharge records good. 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. Gage-height 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)
Oct. 14	1845	55,400	6.97	Jan. 18	1430	102,000	8.93
Oct. 25	0115	*102,000	*8.94	Mar. 6	1200	58,100	7.10
Jan. 1	1845	83,200	8.21	Mar. 25	1130	*102,000	*8.94

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2060	10800	4280	67800	13400	9670	23700	10500	3320	1760	3430	946
2	1890	9650	3970	65700	12800	9440	22100	9870	3360	1870	4840	858
3	1850	8860	3850	44500	11900	9240	19800	9020	4900	2430	3430	724
4	1900	8160	5510	34300	11300	9700	18000	8400	4040	1710	2790	785
5	1780	7380	17100	28100	11000	16600	16300	7760	3370	1690	2380	1460
6	1610	6990	21700	23900	10800	52500	15300	7490	3070	2160	2100	1240
7	1690	6730	17400	21700	11100	42000	14400	7430	2990	2590	1780	1170
8	1530	6540	14400	22200	12600	31500	13700	8370	2940	3980	1670	1100
9	1500	6180	12200	21300	16500	26600	13100	8220	2830	5000	1690	1070
10	1600	11700	10600	21300	17000	22300	12200	7470	2470	3930	1600	1010
11	1790	15900	9360	21600	15800	19000	11400	6810	2200	3180	1350	886
12	2460	12100	8490	31900	14300	16800	10900	6480	2020	2620	1330	784
13	5030	9730	7710	35800	13100	15300	10600	6130	2150	2180	1450	845
14	41500	8910	7140	43700	12700	14300	10900	5800	1870	2160	1420	843
15	43200	8090	7130	42900	13200	13800	11800	6030	1510	2260	1480	700
16	24800	7600	8590	39700	13500	13400	20800	6420	1560	1780	1420	527
17	17100	7030	9820	57600	12800	12900	31200	6390	1570	1790	1280	514
18	13200	6660	11000	96600	11700	13500	28400	6310	2160	1710	1260	601
19	17600	6360	13200	78000	11100	14300	23400	5780	2860	1550	1250	714
20	17100	5720	17200	53600	11300	14400	19600	5240	2680	1360	1380	1870
21	17900	5560	19800	41800	11600	15100	17300	4830	2140	1270	1560	5210
22	15100	5380	18100	36000	11600	16000	16300	4900	2110	1220	2540	2720
23	25400	5180	18000	31000	11700	28000	16400	4650	2270	1150	2430	1640
24	59300	5020	21000	26100	11700	54000	15400	4330	2220	1060	1950	1470
25	83800	5090	27500	22200	11200	95000	13900	4180	2040	1490	1620	2670
26	46000	4880	28000	19800	10800	64100	12600	4030	1970	1250	1450	1660
27	29700	4640	25000	17600	10400	41500	11600	3660	2070	1350	1230	1420
28	22000	4580	22500	16100	10000	32900	10900	3510	2410	1290	1180	1510
29	17300	4430	19400	15200	---	28400	10500	3440	2210	1230	1110	1200
30	14400	4280	20200	14700	---	25600	10300	3480	1970	1180	1260	1080
31	12400	---	34600	14000	---	23100	---	3570	---	2700	1230	---
TOTAL	544490	220130	464750	1106700	346900	800950	482800	190500	75280	62900	56890	39227
MEAN	17560	7338	14990	35700	12390	25840	16090	6145	2509	2029	1835	1308
MAX	83800	15900	34600	96600	17000	95000	31200	10500	4900	5000	4840	5210
MIN	1500	4280	3850	14000	10000	9240	10300	3440	1510	1060	1110	514
(†)	628	583	547	539	520	536	550	636	707	738	749	703
MEAN≠	18190	7924	15540	36230	12900	26360	16650	6781	3216	2767	2583	2010
CFSM≠	1.57	.69	1.34	3.13	1.12	2.28	1.44	.59	.28	.24	.22	.17
IN≠	1.81	.76	1.55	3.61	1.16	2.63	1.61	.68	.31	.28	.26	.19

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1930 - 1991, BY WATER YEAR (WY)

MEAN	6270	7037	10410	13120	16880	22120	19720	14580	8745	4873	4673	4232
MAX	44100	42030	35690	37190	39460	76510	48260	40410	46630	21040	28210	25310
(WY)	1943	1986	1973	1937	1984	1936	1983	1989	1972	1949	1955	1975
MIN	583	700	1038	1682	2982	6505	7058	3921	2216	695	538	679
(WY)	1931	1931	1966	1981	1934	1931	1969	1969	1969	1966	1966	1930

† 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.

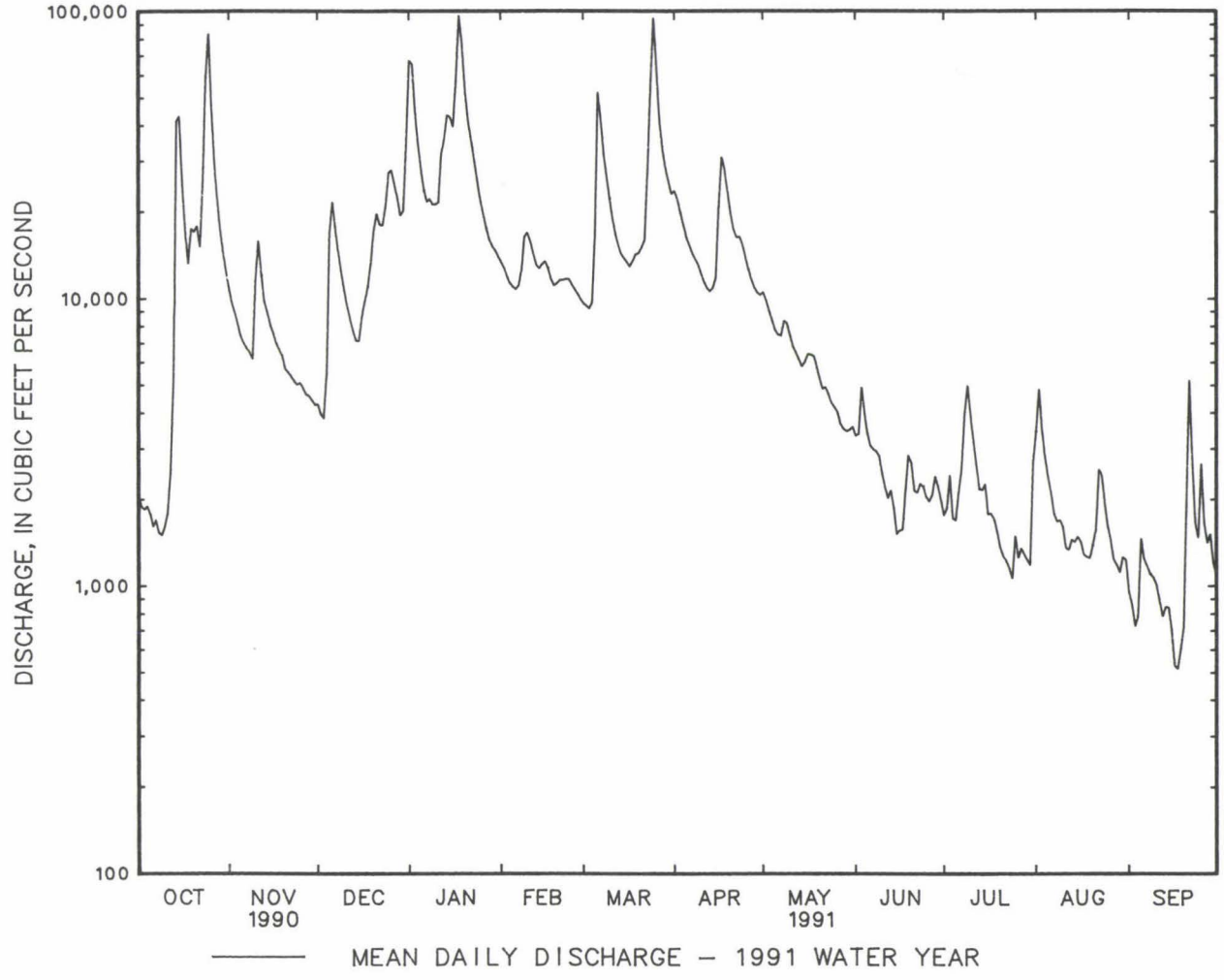
01646500 POTOMAC RIVER NEAR WASHINGTON, DC--Continued

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1930 - 1991	
ANNUAL TOTAL	3812810		4391517			
ANNUAL MEAN	10450		12030		11070	
ANNUAL MEAN≠	11310		12650		11500	
HIGHEST ANNUAL MEAN					18580	1972
LOWEST ANNUAL MEAN					4900	1969
HIGHEST ANNUAL MEAN≠					19030	1972
LOWEST ANNUAL MEAN≠					5306	1969
HIGHEST DAILY MEAN	83800	Oct 25	96600	Jan 18	426000	Mar 19 1936
LOWEST DAILY MEAN	1500	Oct 9	514	Sep 17	a121	Sep 9 1966
LOWEST DAILY MEAN≠	2150	Cct 9	1280	Sep 16	b601	Sep 10 1966
ANNUAL SEVEN-DAY MINIMUM	1640	Oct 5	678	Sep 13	181	Sep 7 1966
INSTANTANEOUS PEAK FLOW	102000	Oct 25	102000	(c)	484000	Mar 19 1936
INSTANTANEOUS PEAK STAGE	8.94	Oct 25	8.94	(d)	f28.10	Mar 19 1936
INSTANTANEOUS LOW FLOW	1420	(g)	486	(h)	66	Sep 9 1966
ANNUAL RUNOFF (CFSM)≠	.98		1.09		.99	
ANNUAL RUNOFF (INCHES)≠	13.28		14.86		13.51	
10 PERCENT EXCEEDS	19700		28000		24600	
50 PERCENT EXCEEDS	8020		7470		6420	
90 PERCENT EXCEEDS	2450		1310		1670	

≠ Adjusted for diversion.

a Minimum daily discharge observed at gaging station, does not include diversion of 489 ft^3/s.

b Includes diversion of 449 ft^3/s for municipal use.
c Oct. 25, 1990, Jan. 18, 1991, and Mar. 25, 1991.
d Oct. 25, 1990 and Mar. 25, 1991.
f At previous site, 1 mi upstream at same datum.
g Aug. 18, Oct. 5, 9.
h Sept. 16, 17.



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: Maximum, 32.4°C, July 23, 1991; minimum, 0.0°C, on many days during winter periods.

EXTREMES FOR CURRENT PERIOD.--
SPECIFIC CONDUCTANCE: Maximum, 747 microsiemens, Jan. 11; minimum, 68 microsiemens, Oct. 23.
WATER TEMPERATURE: Maximum, 32.4°C, July 23; minimum, 1.8°C, Jan. 26, 27.

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	337	335	336	241	230	236	310	303	306	231	203	220
2	336	330	333	250	241	246	316	305	312	203	185	190
3	330	327	329	259	250	255	315	311	314	191	183	185
4	327	324	326	269	259	265	310	249	282	204	191	197
5	324	313	320	278	269	274	304	234	286	216	203	210
6	327	317	323	285	278	282	321	231	291	230	216	221
7	339	327	335	291	284	287	312	212	256	273	229	242
8	348	339	345	298	291	294	253	212	236	284	267	277
9	355	348	353	306	298	302	250	247	249	375	279	307
10	358	355	356	307	76	223	260	250	255	367	328	348
11	361	356	359	240	210	223	264	260	262	747	305	375
12	359	349	355	241	235	239	264	262	263	699	268	311
13	349	333	344	278	239	256	263	259	261	282	268	278
14	341	303	324	298	278	290	261	259	260	281	268	275
15	303	205	233	309	298	304	267	186	251	268	244	253
16	205	198	201	310	303	307	252	195	239	246	221	237
17	209	198	204	303	293	299	261	252	257	222	216	219
18	224	193	212	297	293	295	266	249	258	231	176	208
19	210	191	201	300	297	299	277	265	269	195	158	177
20	227	192	209	299	295	297	278	264	272	191	177	184
21	249	226	239	299	295	296	271	256	262	201	187	195
22	253	242	248	301	298	299	254	232	240	216	201	208
23	252	68	168	303	299	301	236	211	232	233	216	223
24	221	157	188	302	299	301	218	201	213	239	224	231
25	210	154	172	305	299	302	230	218	223	245	234	239
26	174	168	172	302	294	299	236	229	233	254	240	247
27	187	174	182	303	295	299	229	213	222	258	253	256
28	194	186	190	303	298	300	293	212	252	272	257	262
29	205	194	199	307	300	304	289	270	278	276	267	272
30	217	205	211	307	301	305	292	243	269	324	276	287
31	230	218	224	---	---	---	251	206	217	284	280	283
MONTH	361	68	264	310	76	283	321	186	259	747	158	246

01646500 POTOMAC RIVER NEAR WASHINGTON, DC--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	291	285	288	269	261	265	230	220	226	260	252	256
2	295	291	294	267	261	264	236	231	234	265	259	262
3	301	295	299	269	262	265	238	236	237	266	264	265
4	302	300	301	268	259	263	241	238	240	271	265	268
5	302	300	301	266	260	263	241	238	239	278	270	273
6	307	301	305	273	221	252	244	240	242	277	264	270
7	311	307	310	221	178	194	248	244	247	268	265	266
8	311	307	309	178	168	171	252	248	250	274	267	269
9	310	307	308	176	168	172	258	252	256	276	274	275
10	307	293	302	184	176	180	262	257	259	284	276	280
11	293	272	280	192	184	189	264	259	261	286	284	285
12	272	261	266	201	192	197	268	261	263	288	283	285
13	264	261	263	206	201	205	272	266	267	292	288	290
14	267	262	265	243	206	226	266	258	261	292	287	289
15	271	267	269	248	236	242	268	257	264	297	290	293
16	273	271	272	236	229	231	273	260	263	301	296	299
17	281	273	278	230	228	229	277	248	262	301	295	299
18	283	280	282	242	213	225	251	210	227	299	289	294
19	280	273	276	230	224	227	210	206	207	300	296	298
20	280	273	276	231	226	229	218	208	215	305	300	302
21	281	278	280	235	227	232	227	218	222	306	304	305
22	281	278	279	239	231	236	228	224	226	312	306	309
23	286	280	281	234	114	181	233	227	230	324	312	317
24	286	282	284	196	146	163	233	232	233	325	320	323
25	280	277	278	195	151	165	242	233	238	324	319	321
26	280	277	279	178	152	165	244	241	243	331	324	328
27	279	273	277	189	178	184	250	242	244	330	325	327
28	273	266	269	197	189	192	246	242	244	332	326	329
29	---	---	---	207	197	203	251	244	247	335	332	334
30	---	---	---	210	206	207	252	250	251	341	335	337
31	---	---	---	221	210	215	---	---	---	340	335	337
MONTH	311	261	285	273	114	214	277	206	243	341	253	296

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	344	340	342	375	365	369	394	366	383	392	381	385
2	340	335	337	372	363	368	399	370	385	389	383	386
3	340	304	331	369	339	350	381	359	368	393	385	388
4	304	275	293	355	327	343	363	349	357	393	386	390
5	290	276	283	355	339	346	353	336	345	390	371	384
6	326	290	309	351	339	347	336	307	322	373	363	369
7	341	324	335	367	349	358	320	301	310	369	366	367
8	346	339	343	382	364	374	317	306	311	367	356	360
9	354	345	350	371	358	366	329	308	320	365	358	362
10	357	352	355	364	353	360	324	287	314	373	364	369
11	354	349	352	370	356	362	328	310	319	382	372	376
12	356	347	352	395	372	386	338	319	329	383	378	380
13	359	349	353	404	390	399	347	333	340	389	378	382
14	361	352	356	401	380	396	358	342	349	391	383	386
15	358	353	355	383	368	377	359	346	351	392	378	385
16	359	353	354	371	360	365	364	350	356	388	375	379
17	360	354	357	367	356	360	366	350	357	386	371	377
18	358	336	352	374	360	367	372	355	363	381	374	377
19	336	310	323	378	369	372	376	360	369	382	375	379
20	351	324	342	380	368	373	375	360	368	384	379	381
21	357	350	354	385	371	377	369	354	363	428	382	407
22	357	338	351	382	366	375	375	355	365	431	412	427
23	347	335	341	370	352	361	385	372	380	414	397	405
24	356	346	351	358	351	354	389	383	386	412	396	404
25	363	353	358	353	307	329	387	377	383	404	258	311
26	366	357	362	335	311	326	374	359	366	339	291	319
27	365	360	362	339	325	331	366	358	361	355	326	341
28	368	358	364	340	327	331	367	358	362	378	349	366
29	372	362	366	340	326	334	368	362	366	393	375	386
30	378	361	368	348	339	344	374	367	371	398	392	395
31	---	---	---	366	338	350	383	374	380	---	---	---
MONTH	378	275	345	404	307	360	399	287	355	431	258	377

01646500 POTOMAC RIVER NEAR WASHINGTON, DC--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	21.5	20.3	20.9	12.4	11.5	11.8	9.1	7.5	8.1	4.3	3.7	3.9
2	20.8	19.9	20.4	13.0	11.6	12.2	8.2	7.1	7.7	4.6	3.8	4.2
3	20.4	19.2	19.9	13.6	12.0	12.7	8.0	7.3	7.6	4.5	4.2	4.4
4	19.9	19.2	19.4	13.6	12.6	13.0	9.2	7.9	8.6	4.4	3.9	4.1
5	20.3	18.5	19.3	14.0	12.5	13.1	7.9	5.5	6.6	3.9	3.3	3.6
6	20.4	18.8	19.5	13.9	13.0	13.4	6.0	5.1	5.5	4.1	3.6	3.8
7	20.6	19.4	19.9	13.0	12.0	12.4	5.6	5.0	5.3	4.2	3.4	3.7
8	20.9	19.9	20.4	12.0	11.2	11.5	5.9	5.4	5.5	3.4	2.7	2.9
9	22.6	20.5	21.4	11.2	10.0	10.4	5.6	4.9	5.2	3.2	2.6	2.9
10	22.9	21.7	22.3	11.1	10.2	10.5	5.6	4.9	5.2	3.5	2.9	3.2
11	22.8	22.1	22.5	10.2	9.3	9.6	5.5	4.8	5.1	3.5	2.4	3.0
12	22.8	21.9	22.3	9.3	8.3	8.9	5.6	4.6	4.9	3.0	2.2	2.7
13	23.3	21.9	22.5	8.8	7.7	8.2	6.0	4.7	5.3	3.5	2.9	3.1
14	22.5	20.4	21.6	8.4	7.3	7.7	5.8	5.0	5.3	3.4	2.8	3.1
15	20.4	19.2	19.7	8.6	7.3	7.8	5.1	4.6	4.8	3.9	3.0	3.4
16	19.2	18.1	18.6	9.2	7.6	8.3	5.6	4.9	5.2	4.6	3.7	4.1
17	18.6	17.5	18.0	9.4	8.4	9.0	5.2	4.8	5.0	5.0	4.6	4.7
18	18.2	17.3	18.0	8.9	8.0	8.5	6.7	4.9	5.8	5.2	4.5	4.8
19	17.3	15.4	16.1	8.1	7.0	7.6	7.4	6.7	6.9	5.6	5.0	5.3
20	15.4	14.4	14.9	8.2	6.9	7.5	6.9	6.3	6.4	6.0	5.5	5.7
21	14.9	14.0	14.5	8.2	6.7	7.4	6.5	6.0	6.3	6.0	5.2	5.7
22	15.0	14.3	14.6	8.4	6.8	7.6	7.9	6.6	7.1	5.2	3.9	4.4
23	17.1	14.8	15.7	9.4	7.9	8.5	10.5	7.9	8.7	3.9	3.2	3.5
24	15.4	14.1	14.9	9.5	8.5	8.9	10.5	7.9	9.5	3.6	3.0	3.2
25	14.4	14.1	14.2	9.7	8.5	9.0	7.9	6.4	7.1	3.2	2.3	2.6
26	14.1	13.3	13.8	10.2	8.8	9.4	6.4	5.6	5.8	2.6	1.8	2.1
27	13.3	12.3	12.7	10.7	9.1	9.8	5.6	3.8	4.7	2.6	1.8	2.2
28	12.5	11.8	12.2	11.3	9.8	10.4	3.8	2.7	3.0	3.6	2.6	3.0
29	12.1	10.9	11.4	11.4	10.5	11.0	2.9	2.4	2.6	4.3	3.1	3.6
30	11.3	10.4	10.9	10.6	9.1	9.6	5.0	2.9	3.9	4.8	4.1	4.3
31	11.5	10.9	11.2	---	---	---	6.3	4.3	5.1	5.0	4.2	4.7
MONTH	23.3	10.4	17.5	14.0	6.7	9.9	10.5	2.4	5.9	6.0	1.8	3.7

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	4.3	3.4	3.8	7.7	5.6	6.4	11.4	10.3	11.0	20.4	18.3	19.2
2	4.3	3.6	3.8	10.1	6.9	8.6	11.5	10.3	11.0	20.8	19.4	19.9
3	5.0	3.6	4.1	10.9	9.7	10.3	11.7	10.1	11.0	20.3	18.7	19.4
4	5.7	4.2	4.7	11.2	10.1	10.8	12.3	10.6	11.5	20.6	18.5	19.4
5	6.5	4.8	5.6	10.3	9.1	9.8	12.3	11.6	12.0	20.5	19.1	19.8
6	6.9	6.0	6.5	10.1	9.0	9.5	13.7	11.7	12.6	21.1	19.3	20.0
7	7.4	6.7	7.0	9.4	8.7	9.0	15.3	13.3	14.2	21.5	19.5	20.4
8	7.6	7.2	7.3	8.7	7.9	8.2	16.6	15.3	15.8	21.5	19.5	20.4
9	7.8	6.8	7.2	8.2	6.9	7.6	18.3	16.6	17.6	20.7	19.7	20.4
10	7.5	6.8	7.2	8.0	7.0	7.5	19.3	17.3	18.5	21.5	19.2	20.3
11	7.3	6.4	6.9	7.5	6.3	6.9	17.5	16.0	16.9	22.4	20.4	21.4
12	6.4	5.1	5.6	7.1	6.0	6.6	17.3	15.6	16.2	24.2	20.9	22.5
13	5.4	5.1	5.2	7.1	6.0	6.5	15.9	14.2	15.4	25.1	22.6	23.9
14	6.5	5.4	5.9	6.0	5.6	5.7	14.2	13.2	13.9	26.0	23.7	24.8
15	6.2	4.4	5.5	5.9	5.3	5.6	13.2	12.5	12.7	26.8	24.2	25.4
16	4.4	2.3	3.2	7.2	5.6	6.3	14.3	12.3	13.3	27.1	24.7	25.8
17	2.5	2.2	2.3	8.0	6.9	7.4	14.9	13.5	14.3	26.5	25.0	25.8
18	3.1	2.3	2.8	8.2	7.8	8.0	14.4	13.1	13.9	25.4	24.1	25.0
19	4.6	3.2	3.8	8.9	8.1	8.4	14.1	13.3	13.7	24.1	22.1	23.0
20	6.3	4.7	5.6	10.0	8.3	9.0	13.7	12.8	13.1	22.0	20.7	21.4
21	6.4	5.2	5.7	10.6	9.9	10.2	12.9	12.3	12.7	23.5	20.8	22.1
22	7.2	5.9	6.4	10.9	10.4	10.7	12.3	11.8	12.1	25.1	21.9	23.5
23	6.8	5.6	6.2	10.8	8.3	9.6	13.8	11.6	12.6	26.8	23.7	25.3
24	6.3	5.6	5.8	9.9	9.1	9.4	14.2	13.5	13.8	27.8	25.1	26.6
25	6.6	5.7	6.2	10.3	9.5	9.8	15.3	13.4	14.3	28.6	25.8	27.3
26	7.1	5.9	6.4	10.5	9.7	10.1	16.1	14.9	15.5	30.2	27.2	28.8
27	6.6	5.5	6.0	11.1	10.0	10.5	18.0	16.1	17.1	30.4	28.0	29.4
28	6.8	5.3	5.8	12.5	11.1	11.8	19.3	18.0	18.7	30.5	28.4	29.6
29	---	---	---	12.2	11.7	12.0	18.4	17.4	18.1	30.4	28.4	29.7
30	---	---	---	11.8	10.9	11.3	19.3	17.4	18.2	31.2	28.7	30.1
31	---	---	---	11.4	10.1	10.8	---	---	---	31.3	29.3	30.5
MONTH	7.8	2.2	5.4	12.5	5.3	8.8	19.3	10.1	14.4	31.3	18.3	23.9

01646500 POTOMAC RIVER NEAR WASHINGTON, DC--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	30.9	29.1	30.1	30.1	29.4	29.7	28.5	26.2	27.3	29.6	28.1	28.6
2	30.2	28.3	29.4	30.2	28.7	29.3	29.9	27.3	28.7	28.1	26.6	27.0
3	29.5	28.0	28.8	28.9	27.8	28.4	30.5	28.3	29.5	26.8	25.9	26.2
4	28.0	26.4	27.1	28.3	27.1	27.6	29.9	28.8	29.4	26.2	25.5	25.8
5	26.4	24.7	25.5	27.2	26.5	27.0	29.8	28.0	29.0	25.9	24.9	25.4
6	25.1	23.7	24.6	27.5	26.2	26.8	28.9	27.5	28.2	25.3	24.8	25.0
7	25.5	23.2	24.3	29.6	27.0	28.0	28.1	27.2	27.6	26.0	24.3	25.0
8	25.4	23.1	24.4	29.9	28.2	29.1	28.4	26.7	27.5	26.4	24.6	25.4
9	26.3	23.9	25.1	29.5	27.8	28.7	27.8	26.9	27.2	26.9	24.9	25.8
10	27.1	25.0	25.9	28.7	27.7	28.1	28.5	26.6	27.5	26.5	25.4	25.9
11	27.8	26.3	26.9	28.5	26.8	27.8	28.2	26.7	27.5	26.4	25.5	26.0
12	27.9	27.2	27.5	28.6	27.0	27.9	27.8	26.7	27.2	26.2	25.3	25.7
13	27.8	26.5	27.2	28.7	27.5	28.0	27.7	26.7	27.0	25.4	24.5	24.9
14	27.2	25.7	26.5	28.5	27.8	28.1	27.8	26.7	27.3	26.2	24.7	25.2
15	27.4	26.0	26.6	29.1	27.5	28.3	27.8	26.7	27.2	25.9	25.0	25.4
16	29.1	27.0	27.9	29.3	27.9	28.5	27.6	26.4	26.9	26.0	25.4	25.7
17	29.9	28.0	28.9	30.2	28.3	29.2	28.6	26.7	27.5	28.2	25.8	26.5
18	29.1	26.2	27.9	30.6	29.0	29.7	29.1	27.2	28.0	28.4	26.8	27.4
19	26.0	25.0	25.5	31.2	29.6	30.3	29.4	27.5	28.2	27.2	25.0	26.4
20	26.6	24.5	25.4	31.6	30.0	30.6	28.6	27.6	28.0	24.9	23.1	24.2
21	28.3	25.9	26.7	32.0	30.2	31.1	27.9	26.7	27.3	23.2	21.3	22.3
22	28.2	27.3	27.7	31.9	30.6	31.1	27.3	25.9	26.7	22.5	20.7	21.7
23	27.3	25.2	26.3	32.4	30.3	31.1	27.7	25.7	26.7	21.6	20.6	20.9
24	25.8	24.4	25.1	31.6	30.3	31.0	28.1	26.8	27.3	21.2	20.3	20.8
25	25.9	24.5	25.2	31.0	29.3	29.9	27.8	27.1	27.5	20.7	19.6	20.1
26	26.9	24.9	25.8	30.5	29.3	29.8	27.7	26.3	26.9	20.9	19.6	20.2
27	27.1	25.8	26.4	29.5	28.6	28.9	27.3	26.4	26.8	20.4	19.2	19.8
28	28.2	26.2	27.0	28.8	27.3	28.1	28.4	26.4	27.3	19.9	18.5	19.2
29	29.6	27.6	28.4	28.3	26.8	27.4	28.8	27.2	27.9	20.2	18.3	19.1
30	30.4	29.1	29.7	26.9	26.1	26.5	29.5	28.0	28.6	20.1	18.8	19.5
31	---	---	---	27.3	25.8	26.6	30.2	28.8	29.4	---	---	---
MONTH	30.9	23.1	26.8	32.4	25.8	28.8	30.5	25.7	27.7	29.6	18.3	24.0

01646580 POTOMAC RIVER AT CHAIN BRIDGE AT WASHINGTON, DC
(National stream-quality accounting network station)

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 (discontinued).
pH: June 1978 to September 1981 (discontinued).
WATER TEMPERATURE: June 1978 to September 1981 (discontinued).
DISSOLVED OXYGEN: June 1978 to September 1981 (discontinued).
SUSPENDED SEDIMENT DISCHARGE: October 1978 to September 1981 (discontinued).

INSTRUMENTATION.--Water-quality monitor June 1978 to September 1981.

REMARKS--High flows are sampled from the George Mason Memorial Bridge (14th Street) located 6 mi downstream from Chain Bridge. Duplicate samples taken on some days for quality-assurance checks.

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 1990 TO SEPTEMBER 1991

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	SPE-CIFIC CON-DUCT-ANCE LAB (US/CM)	PH (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)
OCT 1990											
23...	1145	29000	195	198	6.6	15.0	20.0	762	95	10.0	99
JAN 1991											
14...	1030	43800	270	252	7.4	4.0	12.0	769	18	14.0	106
*14...	1035	43800	262	253	6.6	4.0	12.0	769	--	14.0	106
MAR											
19...	1100	14100	260	252	6.6	8.0	17.0	759	5.5	11.7	99
*19...	1105	14100	255	249	7.2	8.0	17.0	759	--	11.7	99
MAY											
07...	1045	7500	265	267	8.4	20.0	20.0	769	3.1	8.6	94
*07...	1050	7500	267	267	8.5	20.0	20.0	769	--	8.6	94
JUL											
09...	1115	4900	348	353	8.2	28.0	27.0	764	4.5	7.8	100
*09...	1120	4900	342	355	8.1	28.0	27.0	764	--	7.8	100
SEP											
10...	1115	1130	363	362	8.2	25.0	30.0	764	2.4	7.6	92
*10...	1120	1130	352	360	8.4	25.0	30.0	764	--	7.6	92

*Note: Water-quality samples collected from an automatic sampler on same day for quality-assurance purposes.

01646580 POTOMAC RIVER AT CHAIN BRIDGE AT WASHINGTON, DC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	COLIFORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	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 FET FIELD MG/L AS CACO3	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)
OCT 1990										
23...	--	--	24	5.3	5.5	3.2	56	--	68	19
JAN 1991										
14...	K300	720	30	6.6	8.5	2.2	70	--	85	26
14...	K300	720	--	--	--	--	71	--	--	--
MAR										
19...	--	--	32	7.2	7.1	1.7	78	--	95	28
19...	--	--	--	--	--	--	78	--	--	--
MAY										
07...	K30	210	34	8.0	6.7	2.0	91	--	111	28
07...	--	--	--	--	--	--	89	--	--	--
JUL										
09...	--	--	39	12	13	3.2	--	117	140	33
09...	--	--	--	--	--	--	113	--	--	--
SEP										
10...	--	--	40	12	16	3.6	--	103	126	39
10...	--	--	--	--	--	--	106	--	--	--

DATE	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)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRATE DISSOLVED (MG/L AS N)	NITROGEN, NITRITE TOTAL (MG/L AS N)	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 TOTAL (MG/L AS N)
OCT 1990											
23...	9.0	<0.10	6.7	112	112	--	0.040	<0.010	1.30	1.20	0.130
JAN 1991											
14...	13	0.20	7.0	147	143	--	0.020	<0.010	1.70	1.70	0.060
14...	--	--	7.0	--	--	1.69	--	0.006	--	1.70	--
MAR											
19...	12	<0.10	3.5	141	145	1.49	0.020	0.010	1.50	1.50	<0.010
19...	--	--	3.2	--	--	1.49	--	0.013	--	1.50	--
MAY											
07...	10	0.10	0.97	147	149	0.990	0.030	0.010	1.10	1.00	0.050
07...	--	--	1.1	--	--	--	--	--	--	1.10	--
JUL											
09...	16	0.10	6.2	193	312	1.19	0.020	0.010	1.20	1.20	0.030
09...	--	--	6.1	--	--	1.19	--	0.013	--	1.20	--
SEP											
10...	17	0.20	2.6	203	298	--	<0.010	<0.010	0.470	0.490	0.050
10...	--	--	2.6	--	--	0.435	--	0.005	--	0.440	--

DATE	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO TOTAL (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC DISSOLVED (UG/L AS AS)
OCT 1990										
23...	0.050	1.6	--	2.9	0.160	0.060	0.140	0.050	80	<1
JAN 1991										
14...	0.060	0.40	--	2.1	0.100	0.030	0.020	0.020	--	--
14...	0.070	0.40	0.30	--	0.100	0.030	--	0.031	30	--
MAR										
19...	<0.010	0.30	--	1.8	0.040	<0.010	<0.010	<0.010	20	<1
19...	0.010	0.30	0.20	--	0.030	<0.010	--	0.001	<10	--
MAY										
07...	0.070	0.50	--	1.6	0.040	0.020	<0.010	<0.010	20	<1
07...	0.040	0.40	0.30	--	0.040	0.040	--	--	10	--
JUL										
09...	0.030	0.50	--	1.7	0.110	0.070	0.080	0.070	--	--
09...	0.020	0.50	0.30	--	0.110	0.060	--	0.076	20	--
SEP										
10...	0.020	0.50	--	0.97	0.070	0.040	0.010	<0.010	30	1
10...	0.010	0.40	0.60	--	0.060	0.040	--	0.030	20	--

K: Results based on colony count outside the acceptance range (non-ideal colony count).

01646580 POTOMAC RIVER AT CHAIN BRIDGE AT WASHINGTON, DC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
OCT 1990										
23...	26	<0.5	<1.0	5	<3	2	140	2	4	25
JAN 1991										
14...	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--
MAR										
19...	33	<0.5	<1.0	<1	<3	1	20	<1	5	12
19...	--	--	--	--	--	--	--	--	--	--
MAY										
07...	38	<0.5	<1.0	<1	<3	2	18	<1	8	15
07...	--	--	--	--	--	--	--	--	--	--
JUL										
09...	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--
SEP										
10...	38	0.8	<1.0	<1	<3	3	6	<1	6	7
10...	--	--	--	--	--	--	--	--	--	--

DATE	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	HARD-NESS TOTAL (MG/L AS CACO3)
OCT 1990										
23...	<0.1	<10	2	<1	<1.0	100	<6	18	13	82
JAN 1991										
14...	--	--	--	--	--	--	--	--	3.4	100
14...	--	--	--	--	--	--	--	--	4.7	--
MAR										
19...	<0.1	<10	<1	<1	<1.0	140	<6	5	2.5	110
19...	--	--	--	--	--	--	--	--	2.7	--
MAY										
07...	<0.1	<10	<1	<1	<1.0	150	<6	16	2.9	120
07...	--	--	--	--	--	--	--	--	3.0	--
JUL										
09...	--	--	--	--	--	--	--	--	--	150
09...	--	--	--	--	--	--	--	--	4.4	--
SEP										
10...	<0.1	<10	<1	<1	<1.0	230	<6	4	3.2	150
10...	--	--	--	--	--	--	--	--	3.4	--

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 1990					
23...	1145	29000	269	21100	88
JAN 1991					
14...	1030	43800	45	5320	92
14...	1035	43800	44	5200	--
MAR					
19...	1100	14100	11	419	94
MAY					
07...	1045	7500	8	162	100
07...	1050	7500	9	182	--
JUL					
09...	1115	4940	12	159	96
09...	1120	4940	12	159	--
SEP					
10...	1115	1130	11	34	81
10...	1120	1130	4	12	--

01646580 POTOMAC RIVER AT CHAIN BRIDGE AT WASHINGTON, DC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
RADIOCHEMICAL ANALYSES

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90)	URANIUM NATURAL DIS-SOLVED (UG/L AS U)
SEP 1990										
05...	1100	2550	0.8	0.7	3.7	0.7	--	0.7	2.8	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
RADIOCHEMICAL ANALYSES

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90)	URANIUM NATURAL DIS-SOLVED (UG/L AS U)
MAR 1991										
19...	1100	14100	0.9	<0.6	2.3	<0.6	0.05	<0.6	1.8	0.14
SEP										
10...	1115	1130	1.2	<0.6	5.0	<0.6	0.06	<0.6	3.7	0.33

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.

PERIOD OF RECORD.--October 1929 to current year.

REVISED RECORDS.--WSP 1432: 1933(M).

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Datum of gage is 148.87 ft above National Geodetic Vertical Datum of 1929.

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

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)
Oct. 23	1730	*2,900	*9.55	Jan. 12	0015	1,260	5.87
Nov. 10	1900	1,510	6.66	Mar. 23	2030	1,770	7.29

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	36	25	152	48	38	90	40	17	13	9.3	5.6
2	13	30	25	123	46	43	71	51	28	205	9.0	5.3
3	12	27	78	98	45	73	61	37	27	121	8.6	5.6
4	63	24	184	75	45	103	54	34	23	38	8.0	17
5	35	24	74	64	44	53	61	33	20	27	7.3	116
6	15	35	52	61	49	46	56	121	18	31	6.8	28
7	13	25	42	150	60	70	52	69	17	152	6.5	18
8	12	23	36	98	50	45	49	44	16	230	6.7	13
9	12	22	37	93	47	40	47	47	15	59	164	9.8
10	12	785	32	85	45	38	46	40	15	31	35	9.0
11	50	213	30	255	43	37	42	34	15	25	18	8.2
12	27	149	30	522	41	35	40	32	16	20	13	7.9
13	26	121	30	191	41	37	95	31	14	21	11	7.1
14	19	91	29	145	81	90	115	31	12	16	9.4	6.3
15	15	64	181	122	50	59	132	29	12	15	28	6.3
16	14	47	99	207	42	44	94	27	12	13	20	6.2
17	13	61	62	154	39	41	69	63	13	11	9.4	10
18	131	38	113	117	45	238	57	49	387	11	8.5	8.9
19	98	34	85	94	57	96	49	32	121	10	7.7	23
20	40	31	54	78	55	70	60	28	30	9.9	68	19
21	27	29	126	71	46	56	63	27	23	9.2	37	7.9
22	23	29	66	61	44	65	70	25	129	11	16	6.8
23	1460	43	128	55	42	983	49	25	74	17	12	6.3
24	340	32	241	52	39	301	45	24	34	9.7	10	35
25	220	29	101	50	39	217	42	23	23	121	8.9	450
26	183	28	73	48	46	184	40	21	19	14	8.0	109
27	157	28	58	48	49	170	62	21	17	43	8.8	42
28	128	27	125	48	39	139	65	20	15	11	8.4	25
29	103	27	110	49	---	187	46	19	15	43	7.4	18
30	70	25	245	49	---	210	44	19	13	20	6.9	14
31	47	---	355	58	---	115	---	18	---	11	6.3	---
TOTAL	3396	2177	2926	3473	1317	3923	1866	1114	1190	1368.8	583.9	1044.2
MEAN	110	72.6	94.4	112	47.0	127	62.2	35.9	39.7	44.2	18.8	34.8
MAX	1460	785	355	522	81	983	132	121	387	230	164	450
MIN	12	22	25	48	39	35	40	18	12	9.2	6.3	5.3
CFSM	1.76	1.17	1.52	1.80	.76	2.03	1.00	.58	.64	.71	.30	.56
IN.	2.03	1.30	1.75	2.08	.79	2.35	1.12	.67	.71	.82	.35	.62

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1930 - 1991, BY WATER YEAR (WY)

MEAN	41.0	50.4	60.1	70.3	83.1	87.4	84.2	73.9	60.0	49.2	47.4	44.4
MAX	196	165	184	201	210	198	215	232	456	192	174	348
(WY)	1980	1953	1973	1978	1979	1953	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

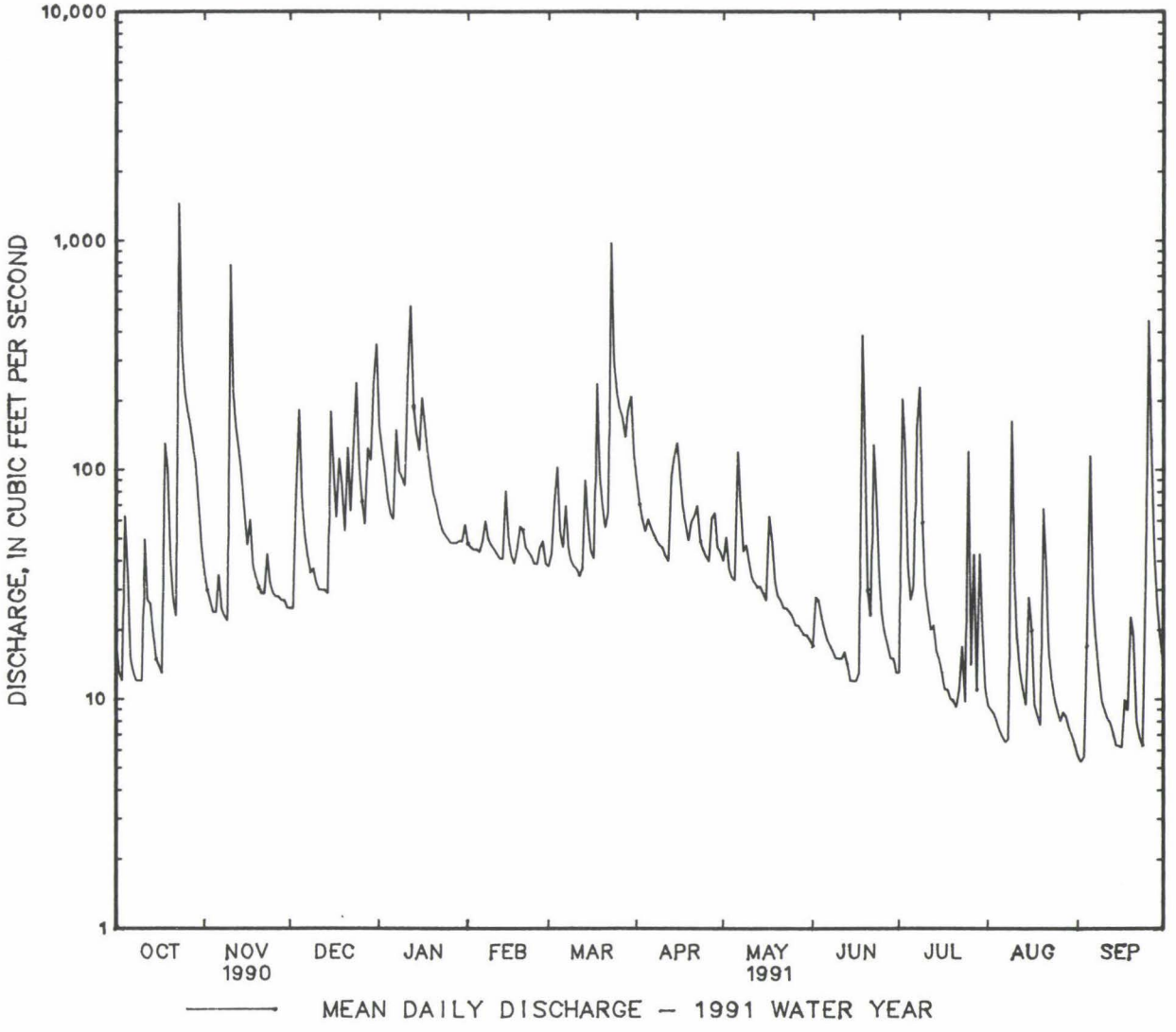
SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1930 - 1991	
ANNUAL TOTAL	28444		24378.9			
ANNUAL MEAN	77.9		66.8		62.5	
HIGHEST ANNUAL MEAN					142	1972
LOWEST ANNUAL MEAN					16.1	1931
HIGHEST DAILY MEAN	1460	Oct 23	1460	Oct 23	5000	Jun 22 1972
LOWEST DAILY MEAN	12	Oct 3	5.3	Sep 2	.50	(a)
ANNUAL SEVEN-DAY MINIMUM	15	Sep 27	6.5	Aug 28	.50	Oct 1 1930
INSTANTANEOUS PEAK FLOW	2900	Oct 23	2900	Oct 23	b12500	Jun 22 1972
INSTANTANEOUS PEAK STAGE	9.55	Oct 23	9.55	Oct 23	c16.20	Jun 22 1972
INSTANTANEOUS LOW FLOW	11	(d)	5.0	Sep 2	.50	(a)
ANNUAL RUNOFF (CFSM)	1.25		1.07		1.00	
ANNUAL RUNOFF (INCHES)	17.01		14.58		13.65	
10 PERCENT EXCEEDS	162		135		119	
50 PERCENT EXCEEDS	45		40		37	
90 PERCENT EXCEEDS	19		9.9		12	

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 Oct. 3, 4, 9, 10.



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.

PERIOD OF RECORD.--August 1938 to current year.

REVISED RECORDS.--WDR MD-DE-75-1: 1972(M).

GAGE.--Water-stage recorders, crest-stage gage, and concrete control. Datum of gage is 12.68 ft above National Geodetic Vertical Datum of 1929 (Washington Suburban Sanitary Commission bench mark). Prior to June 12, 1942, nonrecording gage; June 12, 1942 to Mar. 22, 1966, and Apr. 12, 1967 to Sept. 3, 1969, water-stage recorder, all at bridge at datum 14.00 ft above mean sea level. Mar. 23, 1966 to Apr. 11, 1967, nonrecording gage 600 ft downstream from bridge at datum 9.25 ft above mean sea level.

REMARKS.--Records good except those for estimated daily discharges (missing record), which are fair. Some regulation at low flow by sand and gravel plants 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 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)
Oct. 23	1430	2,580	5.65	June 18	0415	3,460	6.48
Jan. 11	2330	3,260	6.29	July 25	0515	3,560	6.57
Mar. 23	1500	*4,380	*7.27	Aug. 9	0900	2,070	5.11

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27	33	29	126	46	40	75	44	57	13	19	13
2	27	34	30	81	45	e45	e70	46	34	179	17	12
3	25	31	95	69	45	e70	e65	36	29	63	18	12
4	64	31	249	60	44	e140	60	33	21	28	16	24
5	45	32	76	53	43	e80	64	32	18	25	17	69
6	28	32	49	56	53	e50	61	139	17	32	16	23
7	25	28	41	207	63	e70	55	71	16	172	15	18
8	23	26	38	125	51	51	51	43	17	101	18	16
9	23	28	38	120	46	47	50	43	15	39	331	14
10	22	640	36	120	43	45	47	41	14	26	67	13
11	24	141	34	638	42	42	43	36	13	23	35	10
12	28	58	34	1200	40	41	41	35	15	19	24	9.5
13	43	43	34	247	51	43	93	32	13	20	17	9.5
14	35	37	32	121	91	122	113	30	11	21	15	9.5
15	26	33	254	93	54	83	131	31	10	23	60	9.5
16	23	32	135	249	45	55	86	28	11	26	47	9.5
17	23	50	63	176	43	48	61	186	11	20	24	24
18	279	34	106	98	54	475	50	104	463	12	19	35
19	111	31	79	80	73	146	45	47	58	14	17	30
20	41	30	51	70	66	80	48	36	28	14	95	29
21	29	30	210	70	54	62	58	30	21	13	97	15
22	31	30	120	59	50	69	61	28	65	12	30	13
23	695	42	167	57	47	1660	46	26	60	22	22	13
24	167	35	390	57	45	318	45	25	30	27	17	40
25	56	30	114	55	45	120	41	24	21	538	16	334
26	38	28	68	54	45	93	38	22	18	56	15	95
27	32	29	64	52	43	102	59	21	17	37	25	29
28	30	31	240	53	41	227	83	20	15	23	19	19
29	28	32	200	51	---	405	51	18	14	49	15	15
30	30	30	361	51	---	152	50	18	13	29	14	13
31	33	---	504	52	---	97	---	17	---	21	13	---
TOTAL	2111	1721	3941	4600	1408	5078	1841	1342	1145	1697	1170	975.5
MEAN	68.1	57.4	127	148	50.3	164	61.4	43.3	38.2	54.7	37.7	32.5
MAX	695	640	504	1200	91	1660	131	186	463	538	331	334
MIN	22	26	29	51	40	40	38	17	10	12	13	9.5
CFSM	.94	.79	1.75	2.04	.69	2.25	.84	.59	.52	.75	.52	.45
IN.	1.08	.88	2.01	2.35	.72	2.59	.94	.69	.59	.87	.60	.50

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 1991, BY WATER YEAR (WY)

MEAN	53.4	70.7	90.5	100	114	123	112	94.8	69.0	60.3	65.7	58.3
MAX	234	205	248	325	265	257	322	329	353	335	243	449
(WY)	1943	1973	1984	1979	1972	1953	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 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1939 - 1991	
ANNUAL TOTAL	34024		27029.5			
ANNUAL MEAN	93.2		74.1		84.1	
HIGHEST ANNUAL MEAN					150	1972
LOWEST ANNUAL MEAN					49.3	1981
HIGHEST DAILY MEAN	1150	May 29	1660	Mar 23	6830	Sep 26 1975
LOWEST DAILY MEAN	14	Aug 3	9.5	(a)	1.4	Sep 12 1966
ANNUAL SEVEN-DAY MINIMUM	17	Jul 29	10	Sep 10	1.7	Sep 7 1966
INSTANTANEOUS PEAK FLOW	3610	Aug 6	4380	Mar 23	b12000	Jun 22 1972
INSTANTANEOUS PEAK STAGE	6.61	Aug 6	7.27	Mar 23	c12.93	Oct 16 1942
INSTANTANEOUS LOW FLOW	14	(d)	9.5	(f)	UNKNOWN	
ANNUAL RUNOFF (CFSM)	1.28		1.02		1.16	
ANNUAL RUNOFF (INCHES)	17.39		13.81		15.70	
10 PERCENT EXCEEDS	212		137		161	
50 PERCENT EXCEEDS	45		41		44	
90 PERCENT EXCEEDS	25		15		16	

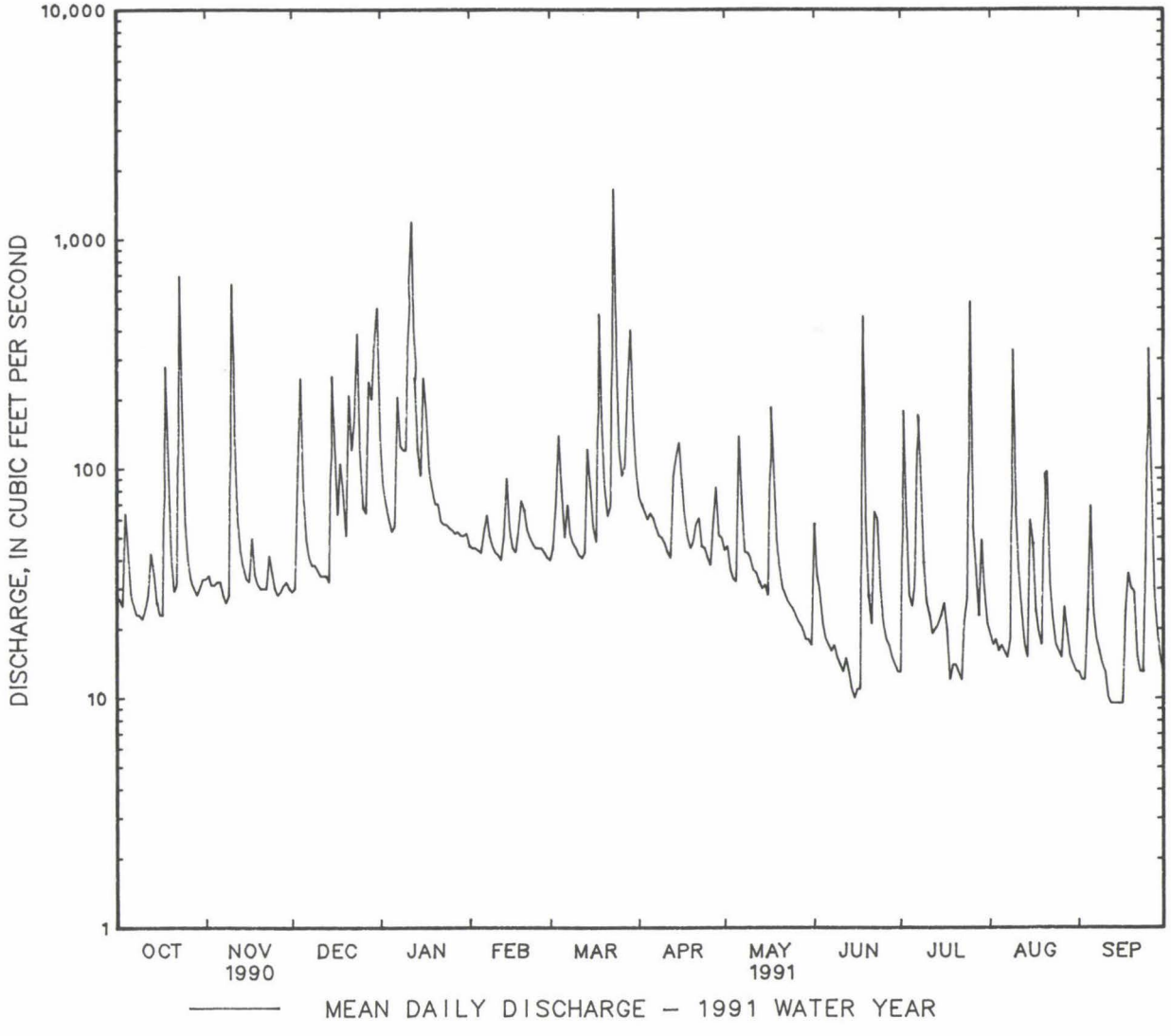
a Sept. 12-16.

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 Prior to major channel improvements.

d Aug. 3, 4.

f June 14, Sept. 11-17.



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.

PERIOD OF RECORD.--July 1938 to current year. Monthly discharge only for July 1938 published in WSP 1302.

REVISED RECORDS.--WSP 971: 1942(M).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 17.10 ft above National Geodetic Vertical Datum of 1929 (Washington Suburban Sanitary Commission bench mark). Prior to Oct. 22, 1938, nonrecording gage; Oct. 22, 1938 to Sept. 17, 1951, water-stage recorder; Sept. 17, 1951 to Aug. 29, 1952, nonrecording gage and crest-stage gage.

REMARKS.--No estimated daily discharges. Records 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. 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 1,700 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct. 23	1230	2,430	4.88	July 25	0500	*4,900	*6.31
Mar. 23	1245	2,010	4.56				

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	18	19	64	31	25	50	29	16	7.8	8.9	2.5
2	11	20	19	49	30	33	44	32	17	170	6.5	2.5
3	11	17	74	43	30	65	39	25	20	96	5.3	2.5
4	45	16	173	38	32	94	38	23	20	27	4.2	22
5	33	16	45	35	32	40	42	22	16	20	3.6	52
6	15	21	30	41	39	33	41	80	15	31	3.2	15
7	12	19	27	131	47	51	37	57	15	123	3.1	8.3
8	11	21	25	69	36	31	36	26	15	131	3.4	6.1
9	12	22	25	69	32	28	33	23	15	36	166	5.0
10	11	630	24	67	30	28	32	23	14	20	27	4.0
11	12	92	26	300	29	26	28	19	14	18	12	3.4
12	15	37	23	453	28	25	26	19	14	17	9.3	2.7
13	26	30	22	122	34	27	72	21	14	16	7.5	2.6
14	16	26	21	70	65	80	79	21	13	16	6.8	2.3
15	11	25	163	60	34	58	88	23	12	14	32	2.5
16	8.5	25	77	158	27	55	55	22	13	13	17	2.3
17	9.1	44	35	93	26	55	37	92	12	12	7.6	9.5
18	156	28	84	59	34	253	34	43	330	11	4.9	19
19	66	24	57	51	47	67	31	35	77	9.3	4.3	23
20	19	24	33	48	42	44	37	27	22	8.4	43	14
21	16	24	120	48	32	37	38	22	14	7.6	32	7.5
22	17	24	59	40	30	48	43	19	55	7.2	10	5.1
23	906	36	114	37	28	960	30	19	39	7.5	6.9	5.1
24	100	27	240	38	26	152	31	18	17	9.8	5.4	52
25	35	23	57	36	26	71	30	18	13	403	4.9	295
26	24	22	40	34	27	55	29	17	11	22	4.6	54
27	20	23	35	35	26	64	46	17	10	26	14	13
28	20	22	140	35	25	51	62	17	9.5	13	6.6	8.4
29	18	22	100	35	---	131	35	17	9.3	32	4.1	7.5
30	18	19	241	34	---	175	35	17	8.3	19	3.4	5.8
31	18	---	294	39	---	64	---	16	---	12	2.7	---
TOTAL	1703.6	1397	2442	2431	925	2926	1258	859	870.1	1355.6	470.2	654.6
MEAN	55.0	46.6	78.8	78.4	33.0	94.4	41.9	27.7	29.0	43.7	15.2	21.8
MAX	906	630	294	453	65	960	88	92	330	403	166	295
MIN	8.5	16	19	34	25	25	26	16	8.3	7.2	2.7	2.3
CFSM	1.11	.94	1.59	1.59	.67	1.91	.85	.56	.59	.89	.31	.44
IN.	1.28	1.05	1.84	1.83	.70	2.20	.95	.65	.66	1.02	.35	.49

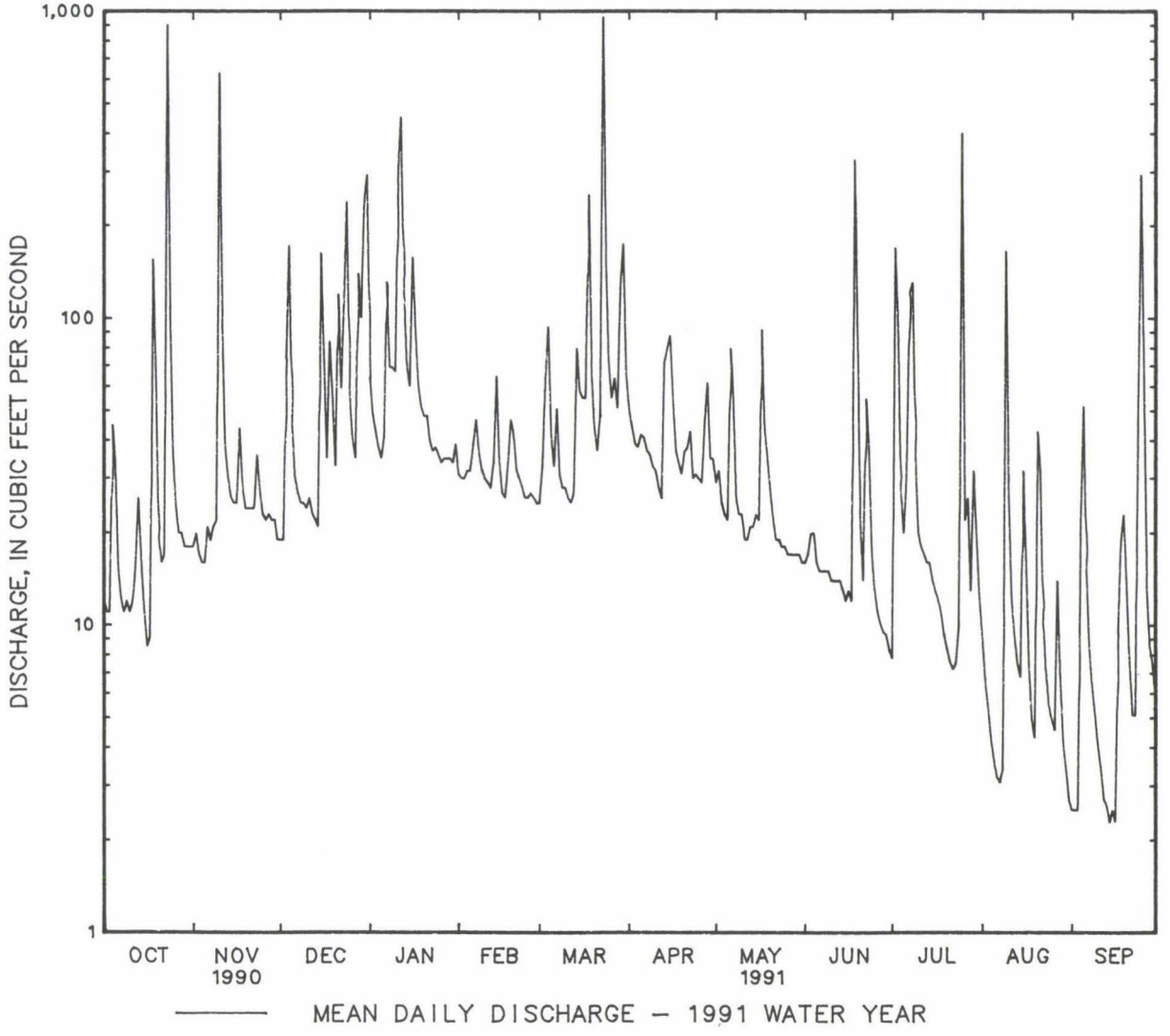
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 1991, BY WATER YEAR (WY)

MEAN	28.6	38.8	47.7	52.4	63.1	67.0	61.6	54.8	42.5	34.3	37.9	37.0
MAX	129	109	136	173	183	156	167	198	237	159	193	327
(WY)	1980	1953	1984	1979	1979	1953	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 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1938 - 1991	
ANNUAL TOTAL	22038.6		17292.1			
ANNUAL MEAN	a60.4		a47.4		a47.2	
HIGHEST ANNUAL MEAN					96.9	1979
LOWEST ANNUAL MEAN					20.8	1947
HIGHEST DAILY MEAN	906	Oct 23	960	Mar 23	5050	Sep 26 1975
LOWEST DAILY MEAN	8.5	Oct 16	2.3	(b)	.40	(c)
ANNUAL SEVEN-DAY MINIMUM	12	Sep 27	2.8	Sep 10	.60	Sep 7 1966
INSTANTANEOUS PEAK FLOW	3570	Aug 5	4900	Jul 25	d18000	Jun 22 1972
INSTANTANEOUS PEAK STAGE	5.60	Aug 5	6.31	Jul 25	14.47	Jun 22 1972
INSTANTANEOUS LOW FLOW	UNKNOWN		2.2	(f)	.20	Sep 11 1966
ANNUAL RUNOFF (CFSM)	1.22		.96		.95	
ANNUAL RUNOFF (INCHES)	16.60		13.02		12.97	
10 PERCENT EXCEEDS	121		86		89	
50 PERCENT EXCEEDS	33		26		23	
90 PERCENT EXCEEDS	14		7.5		6.4	

a Unadjusted.
b Sept. 14, 16.
c Sept. 8, 11, 1966.
d 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 14.47 ft.
f Sept. 14, 16, 17.



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 National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good except those for estimated daily discharges (backwater from beaver dams), 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 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. 12	0400	*583	*6.12	No other peak greater than base discharge.			

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.4	e9.5	e10	e55	28	24	80	28	5.2	.06	e5.0	.00
2	5.5	e9.5	e10	e42	29	28	66	26	11	.01	e3.5	.00
3	5.6	e9.5	e12	e36	29	85	55	23	8.0	e.90	e2.0	.00
4	6.7	e9.5	e50	e32	28	65	52	19	8.2	e1.5	e1.0	.00
5	11	e9.0	31	e30	28	36	52	18	5.4	e2.0	e.60	.00
6	7.8	e8.5	20	e30	35	33	51	97	3.5	e2.6	e.10	.00
7	6.3	e8.0	16	e60	36	29	47	108	3.0	e2.1	.01	.00
8	5.9	e7.5	15	e70	29	26	43	40	2.5	e6.2	.01	.00
9	5.4	e7.5	14	e50	28	25	40	29	2.1	e4.0	9.7	.00
10	4.6	e100	e13	71	26	24	38	30	1.6	e2.6	23	.00
11	4.6	49	e13	125	24	e23	34	26	1.1	e1.7	5.4	.00
12	4.9	19	e12	501	24	e23	31	22	.90	e1.3	1.7	.00
13	7.7	14	e12	133	35	23	39	18	.61	e1.0	.81	.00
14	6.0	15	e12	91	30	35	106	17	.34	e.90	.35	.00
15	4.9	13	e35	70	23	36	71	16	.19	e.70	.39	.00
16	4.0	13	e90	111	22	28	59	13	.14	e.50	1.7	.00
17	3.7	17	e45	118	25	25	46	17	.24	e.35	2.0	.00
18	8.8	18	e40	73	30	167	39	34	.97	e.20	.42	.00
19	42	14	e50	62	40	88	36	18	4.0	e.10	.06	.00
20	11	13	e40	57	39	55	34	15	2.7	e.06	.02	e.00
21	7.4	12	e50	52	29	44	36	13	1.7	e.03	.01	e.00
22	7.0	12	e65	44	25	41	36	12	3.1	e.02	.00	e.00
23	99	14	e45	40	23	235	32	10	12	e.01	.00	e.00
24	67	14	e70	41	23	144	33	8.9	13	e.00	.00	.11
25	21	13	e45	38	24	76	32	8.2	5.0	.01	.00	2.4
26	14	12	e35	35	24	57	27	7.5	2.2	e15	.00	e15
27	11	12	e32	35	21	56	26	6.5	1.4	e30	.00	e5.0
28	e10	e11	e120	37	22	50	26	6.2	1.1	e20	.00	e1.5
29	e9.5	e12	e90	34	---	125	31	6.3	.60	e9.0	.00	e.70
30	e9.0	e11	e80	34	---	259	31	4.5	.27	e10	.00	e.30
31	e9.0	---	e70	32	---	103	---	3.7	---	e7.0	.00	---
TOTAL	426.7	486.5	1242	2239	779	2068	1329	700.8	102.06	119.85	57.78	25.01
MEAN	13.8	16.2	40.1	72.2	27.8	66.7	44.3	22.6	3.40	3.87	1.86	.83
MAX	99	100	120	501	40	259	106	108	13	30	23	15
MIN	3.7	7.5	10	30	21	23	26	3.7	.14	.00	.00	.00
CFSM	.35	.41	1.01	1.83	.70	1.69	1.12	.57	.09	.10	.05	.02
IN.	.40	.46	1.17	2.11	.73	1.95	1.25	.66	.10	.11	.05	.02

e Estimated

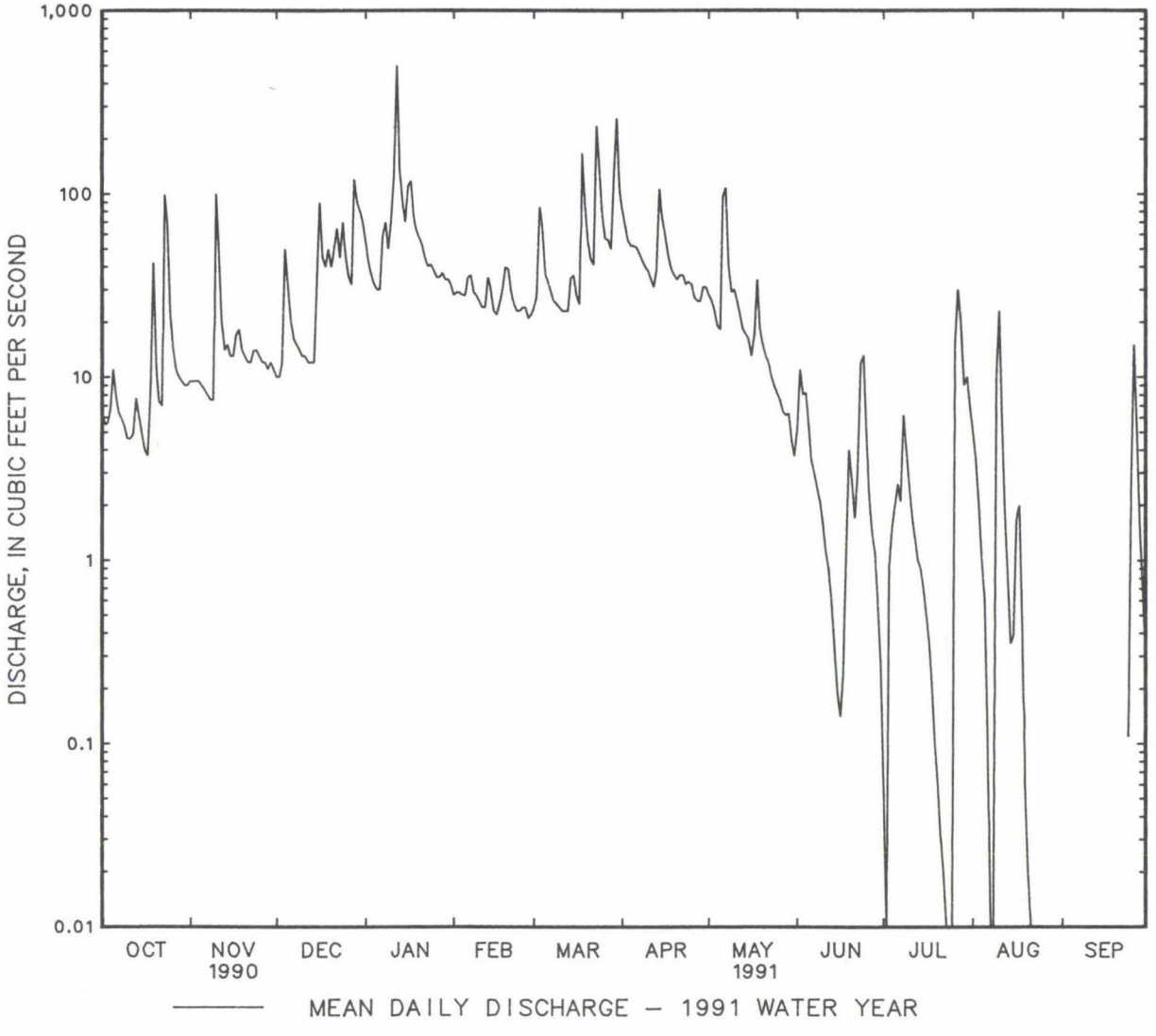
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 1991, BY WATER YEAR (WY)

MEAN	30.2	33.5	52.7	62.3	69.9	70.7	66.0	50.8	33.6	19.6	21.4	29.3
MAX	177	95.8	153	217	188	131	218	189	173	92.7	88.8	256
(WY)	1980	1973	1973	1978	1972	1984	1983	1989	1972	1975	1971	1975
MIN	1.31	3.87	5.26	5.96	23.6	17.5	18.1	11.1	1.42	.14	.006	.000
(WY)	1987	1966	1966	1981	1977	1981	1985	1986	1986	1966	1966	1977

01653600 PISCATAWAY CREEK AT PISCATAWAY, MD--Continued

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1966 - 1991	
ANNUAL TOTAL	16535.1		9575.70			
ANNUAL MEAN	45.3		26.2		44.9	
HIGHEST ANNUAL MEAN					85.9	1972
LOWEST ANNUAL MEAN					13.4	1981
HIGHEST DAILY MEAN	500	Jan 1	501	Jan 12	4500	Sep 6 1979
LOWEST DAILY MEAN	2.4	Aug 5	.00	(a)	.00	(b)
ANNUAL SEVEN-DAY MINIMUM	5.1	Oct 11	.00	Aug 22	.00	many days
INSTANTANEOUS PEAK FLOW	569	Jul 6	583	Jan 12	c8540	Sep 6 1979
INSTANTANEOUS PEAK STAGE	d6.51	Jan 1	6.12	Jan 12	11.21	Sep 6 1979
INSTANTANEOUS LOW FLOW	2.2	Aug 5	.00	(f)	.00	(g)
ANNUAL RUNOFF (CFSM)	1.15		.66		1.14	
ANNUAL RUNOFF (INCHES)	15.57		9.02		15.43	
10 PERCENT EXCEEDS	86		63		86	
50 PERCENT EXCEEDS	33		13		24	
90 PERCENT EXCEEDS	8.6		.01		1.6	

a July 24, Aug. 22 to Sept. 23.
b Many days in 1966, 1970, 1977, 1980-83, 1985-89, 1991.
c From rating curve extended above 1,700 ft^3/s on basis of contracted-opening measurement of peak flow at bridge 100 ft upstream.
d Ice jam.
f July 23-25, Aug. 21 to Sept. 23.
g At times in 1966, 1970, 1977, 1980-83, 1985-89, 1991.



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 miles southeast of Newtown, and 1.7 miles downstream from Kerrick Swamp.

DRAINAGE AREA.--79.9 mi^2.

PERIOD OF RECORD.--June 1983 to current year.

GAGE.--Water-stage recorder. Datum of gage is 34.88 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for Oct. 1 to Dec. 12 and Aug. 29 to Sept. 30 (backwater from beaver dams), which are fair. Low flow affected by ground-water diversions from municipal well fields at Waldorf and St. Charles, and occasional farm irrigation upstream from station during summer months. 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)
Jan. 13	0500	*825	*3.88	No other peak greater than base discharge.			

DISCHARGE IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e10	e26	e24	145	64	45	195	49	5.4	2.7	5.5	e.22
2	e9.0	e27	e23	106	61	51	132	44	12	2.3	3.9	e.30
3	e8.0	e27	e23	89	62	70	110	37	10	2.0	2.8	e.30
4	e7.5	e27	e55	78	60	162	97	33	11	1.8	2.0	e.22
5	e15	e26	e90	68	59	182	94	31	9.7	3.7	1.3	e.40
6	e20	e25	e70	66	60	105	98	66	6.5	4.2	1.0	e.50
7	e14	e23	e60	100	83	83	91	138	5.6	3.8	.72	e.65
8	e11	e21	e50	164	97	68	81	74	4.6	11	e.45	e.55
9	e10	e21	e44	159	78	57	77	50	3.6	8.3	e7.0	e.40
10	e9.0	e70	e40	187	66	53	70	55	3.2	4.4	83	e.25
11	e8.0	e100	e38	204	58	50	58	45	2.5	3.0	37	e.15
12	e8.0	e80	e36	640	52	46	53	34	1.7	1.9	13	e.12
13	e11	e45	36	717	52	46	61	28	1.5	1.8	6.3	e.11
14	e16	e35	34	335	71	55	199	26	1.1	1.7	5.1	e.10
15	e15	e32	62	188	73	77	216	26	.77	1.2	7.4	e.08
16	e10	e30	186	175	53	63	159	21	.62	.88	13	e.05
17	e8.0	e35	166	218	48	51	114	18	.45	.63	7.9	e.01
18	e12	e42	104	184	55	183	89	41	.51	e.30	4.7	e.00
19	e29	e40	109	141	67	320	74	38	1.0	e.20	3.3	e.00
20	e32	e35	100	127	86	192	70	32	1.9	e.10	3.5	e.00
21	e21	e32	89	117	74	112	71	25	2.7	e.08	5.4	e.04
22	e17	e31	123	102	60	95	72	20	16	e.06	3.1	e.10
23	e100	e32	109	89	52	106	66	16	33	e.04	1.9	e.12
24	e250	e36	122	95	46	192	60	13	37	e.03	1.2	e2.5
25	e170	e34	122	94	46	165	58	11	15	e.10	.88	e8.0
26	e70	e30	82	89	49	107	51	8.1	7.3	6.7	.58	e20
27	e40	e28	62	91	51	94	48	6.7	5.3	61	.92	e13
28	e30	e27	162	88	47	90	45	5.6	4.3	46	.66	e5.0
29	e27	e28	254	82	---	124	43	4.9	3.5	17	e.55	e3.0
30	e25	e27	198	77	---	338	50	4.2	3.2	12	e.45	e2.0
31	e25	---	168	75	---	349	---	3.8	---	9.0	e.35	---
TOTAL	1037.5	1072	2841	5090	1730	3731	2702	1004.3	210.95	207.92	224.86	58.17
MEAN	33.5	35.7	91.6	164	61.8	120	90.1	32.4	7.03	6.71	7.25	1.94
MAX	250	100	254	717	97	349	216	138	37	61	83	20
MIN	7.5	21	23	66	46	45	43	3.8	.45	.03	.35	.00
CFSM	.42	.45	1.15	2.05	.77	1.51	1.13	.41	.09	.08	.09	.02
IN.	.48	.50	1.32	2.37	.81	1.74	1.26	.47	.10	.10	.10	.03

e Estimated

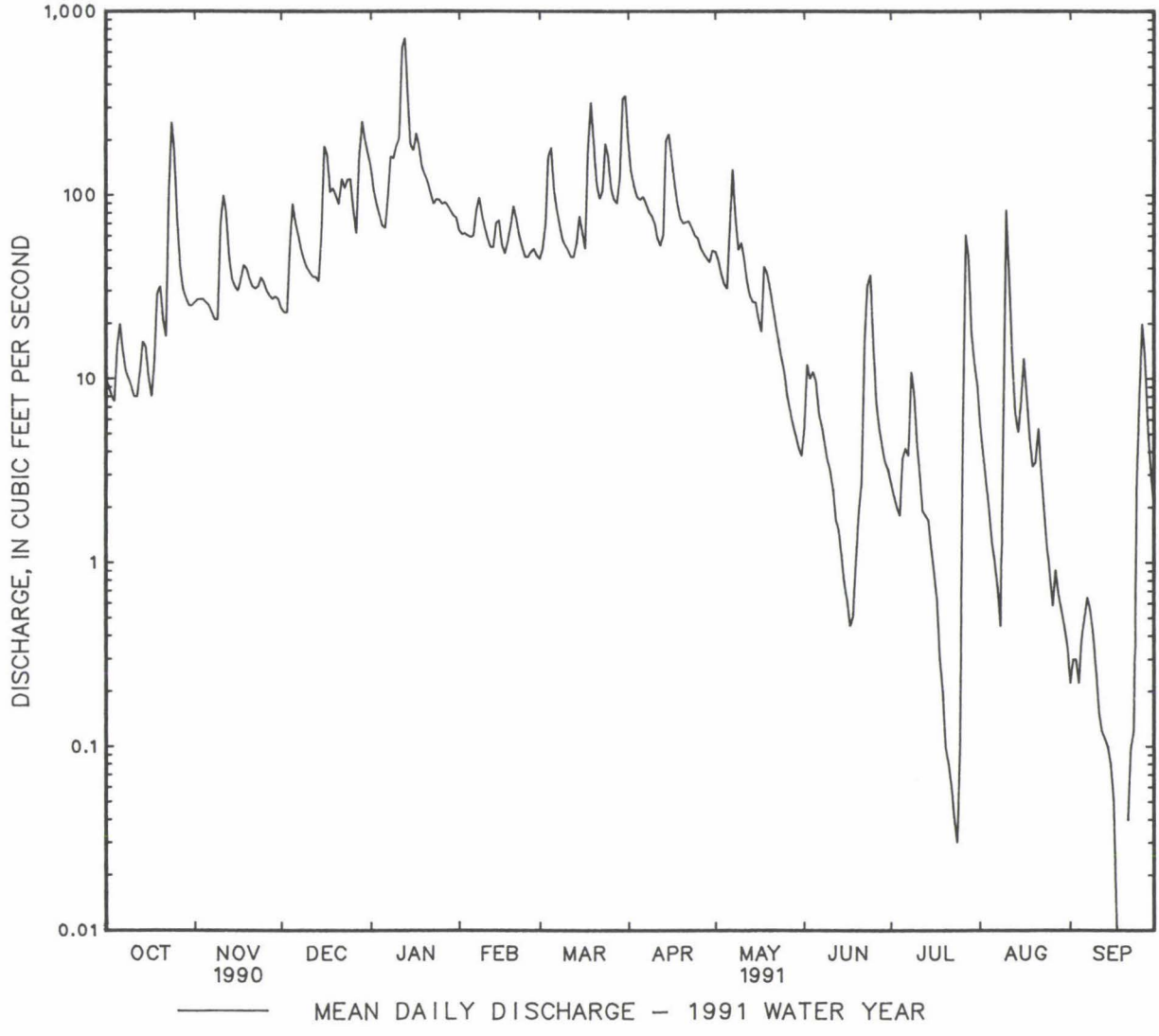
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 1991, BY WATER YEAR (WY)

MEAN	46.0	78.9	110	129	137	136	133	128	77.0	29.1	26.2	25.8
MAX	163	139	226	248	187	265	260	334	311	93.5	113	111
(WY)	1990	1986	1984	1990	1985	1984	1984	1989	1989	1989	1990	1989
MIN	8.22	35.7	41.9	49.1	61.8	57.0	30.5	25.5	2.07	4.47	.68	1.94
(WY)	1989	1991	1985	1985	1991	1985	1985	1986	1986	1987	1987	1991

01660920 ZEKIAH SWAMP RUN NEAR NEWTOWN, MD--Continued

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1983 - 1991	
ANNUAL TOTAL	44923.5		19909.70			
ANNUAL MEAN	123		54.5		88.3	
HIGHEST ANNUAL MEAN					137	1990
LOWEST ANNUAL MEAN					45.1	1985
HIGHEST DAILY MEAN	1110	May 30	717	Jan 13	1400	Mar 30 1984
LOWEST DAILY MEAN	7.5	Oct 4	.00	(a)	.00	many days
ANNUAL SEVEN-DAY MINIMUM	9.5	Sep 28	.03	Sep 15	.00	many days
INSTANTANEOUS PEAK FLOW	1250	May 29	825	Jan 13	1740	Mar 29 1984
INSTANTANEOUS PEAK STAGE	b4.30	Jan 2	3.88	Jan 13	4.71	Mar 29 1984
INSTANTANEOUS LOW FLOW	7.5	Oct 4	.00	(a)	.00	(c)
ANNUAL RUNOFF (CFSM)	1.54		.68		1.11	
ANNUAL RUNOFF (INCHES)	20.92		9.27		15.02	
10 PERCENT EXCEEDS	253		129		190	
50 PERCENT EXCEEDS	84		33		51	
90 PERCENT EXCEEDS	18		.57		1.7	

a Sept. 18-20.
b Ice jam.
c No flow for several days in 1983, 1985-89, 1991.



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 National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good. Several measurements of water temperature were made during the year.

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)
Jan. 12	Unknown	*303	*4.08	No other peak greater than base discharge.			

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.6	5.3	7.9	14	11	9.0	25	8.1	2.4	.60	2.0	.34
2	2.1	5.4	7.1	12	11	11	20	6.5	22	5.3	1.5	.50
3	1.8	5.4	7.2	12	11	18	18	5.7	13	6.2	1.2	.27
4	1.8	5.2	17	11	12	31	17	5.4	5.3	2.7	.78	.27
5	2.5	5.2	16	10	11	17	17	5.2	3.7	9.8	.58	.57
6	2.8	5.0	10	10	11	11	19	8.2	2.7	6.2	.37	.67
7	2.2	4.4	8.6	15	16	9.4	16	13	2.0	3.1	.23	1.0
8	1.8	4.3	7.9	22	17	10	15	7.7	1.8	7.3	.18	.91
9	1.9	4.4	7.5	66	13	9.5	14	6.6	1.4	11	23	.61
10	1.8	17	7.4	34	12	9.3	13	7.6	1.2	5.3	37	.33
11	1.9	21	7.4	63	11	9.3	11	6.8	.98	2.8	9.3	.19
12	3.9	10	6.8	e200	9.7	9.0	9.9	5.3	.75	1.8	3.2	.14
13	5.0	7.6	6.8	49	9.9	8.9	12	4.4	.54	1.5	2.1	.18
14	4.7	6.5	6.9	29	16	12	47	4.1	.32	1.2	2.2	.17
15	4.2	6.3	18	23	13	15	28	4.3	.22	.92	7.3	.11
16	3.3	6.5	34	25	9.2	12	22	3.7	.25	.58	4.2	.07
17	2.8	7.8	16	29	8.8	10	16	3.2	.20	.42	2.4	.02
18	5.2	8.7	13	20	11	65	14	3.9	.18	.26	1.6	.00
19	19	7.6	15	18	15	43	13	4.1	.76	.17	1.3	.00
20	10	6.8	12	18	19	20	13	3.9	1.1	.15	1.6	.00
21	5.3	6.5	17	18	13	16	14	3.4	1.1	.10	7.2	.00
22	4.5	6.4	21	14	12	16	14	3.0	5.4	.08	4.6	.09
23	69	7.6	15	12	10	16	12	2.5	29	.04	2.2	.14
24	62	8.2	44	13	9.0	17	11	1.8	15	.00	1.5	.15
25	15	7.3	21	13	9.2	13	10	1.6	5.3	.53	1.1	5.8
26	9.0	7.0	13	11	11	13	9.8	1.5	2.9	1.0	.95	19
27	6.4	6.5	11	12	11	13	9.1	1.3	2.0	35	1.3	9.4
28	5.7	6.8	85	14	9.4	14	8.5	1.0	1.6	22	1.1	3.8
29	5.3	11	42	13	---	56	7.9	.90	1.2	5.7	.92	2.0
30	5.1	10	22	13	---	105	8.3	.79	.87	3.7	.73	1.3
31	5.1	---	17	12	---	38	---	.64	---	2.6	.53	---
TOTAL	273.7	227.7	540.5	825	332.2	656.4	464.5	136.13	125.17	138.05	124.17	48.03
MEAN	8.83	7.59	17.4	26.6	11.9	21.2	15.5	4.39	4.17	4.45	4.01	1.60
MAX	69	21	85	200	19	105	47	13	29	35	37	19
MIN	1.8	4.3	6.8	10	8.8	8.9	7.9	.64	.18	.00	.18	.00
CFSM	.48	.41	.94	1.44	.64	1.14	.84	.24	.23	.24	.22	.09
IN.	.55	.46	1.09	1.66	.67	1.32	.93	.27	.25	.28	.25	.10

e Estimated

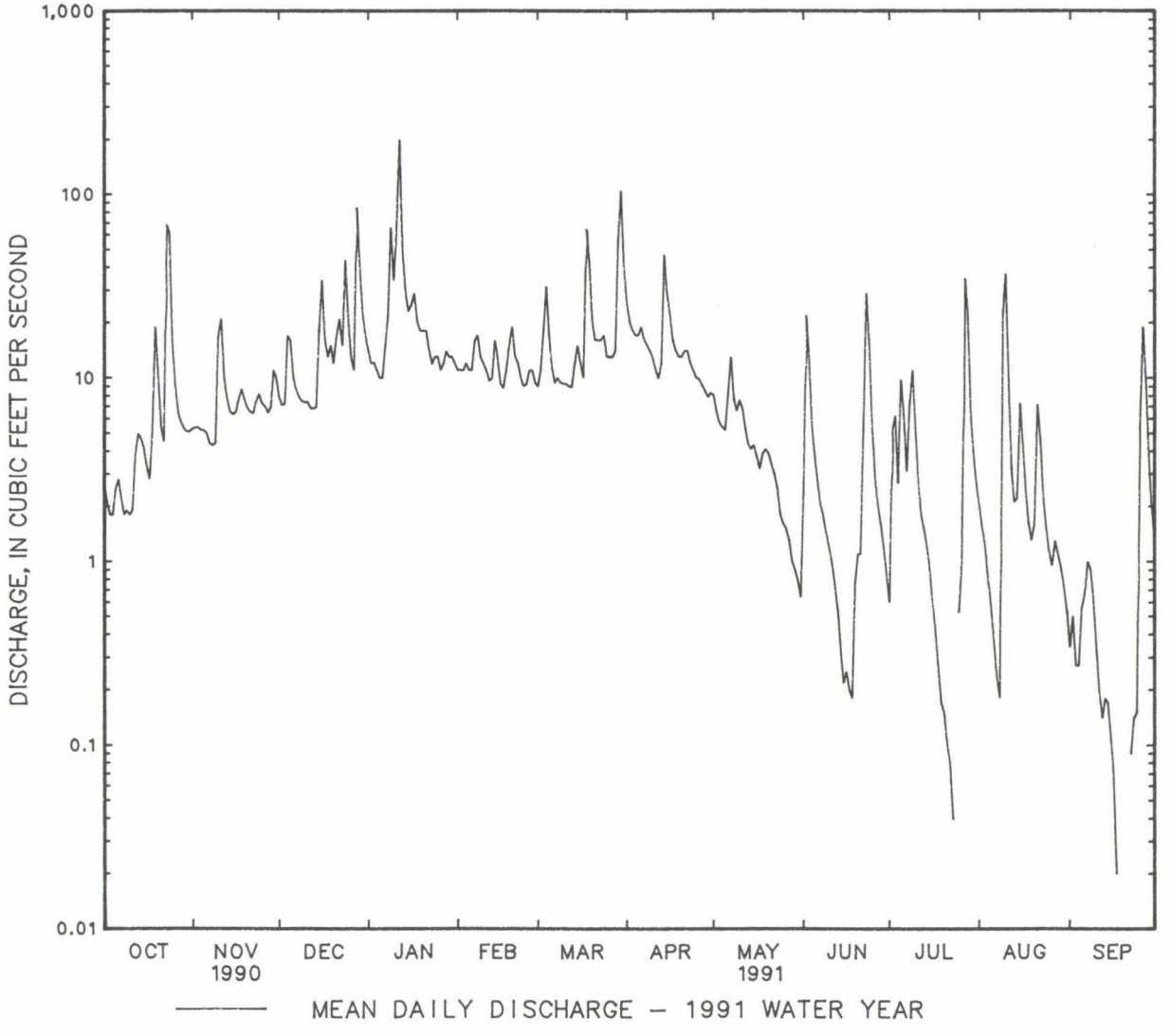
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1969 - 1991, BY WATER YEAR (WY)

MEAN	10.6	15.5	20.9	26.6	28.7	29.4	26.1	23.2	17.5	12.3	11.9	11.0
MAX	46.8	45.3	40.3	77.4	85.7	58.5	54.7	57.9	116	56.4	45.0	75.2
(WY)	1980	1980	1973	1978	1979	1984	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 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1969 - 1991	
ANNUAL TOTAL	7297.1		3891.55			
ANNUAL MEAN	20.0		10.7		19.4	
HIGHEST ANNUAL MEAN					34.5	1972
LOWEST ANNUAL MEAN					9.19	1981
HIGHEST DAILY MEAN	495	May 29	200	Jan 12	1580	Jun 22 1972
LOWEST DAILY MEAN	1.8	(a)	.00	(b)	.00	many days
ANNUAL SEVEN-DAY MINIMUM	2.1	Oct 3	.03	Sep 16	.00	many days
INSTANTANEOUS PEAK FLOW	1230	May 29	303	Jan 12	c4500	Sep 6 1979
INSTANTANEOUS PEAK STAGE	5.55	May 29	4.08	Jan 12	d6.96	Sep 6 1979
INSTANTANEOUS LOW FLOW	1.7	(f)	.00	(g)	.00	(h)
ANNUAL RUNOFF (CFSM)	1.08		.58		1.05	
ANNUAL RUNOFF (INCHES)	14.67		7.83		14.28	
10 PERCENT EXCEEDS	41		20		37	
50 PERCENT EXCEEDS	15		7.3		12	
90 PERCENT EXCEEDS	3.4		.53		1.3	

a Oct. 3, 4, 8, 10.
b July 24, Sept. 18-21.
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 July 27, Oct. 3, 4, 10, 11.
g July 24, 25, Sept. 17-22.
h No flow at times in 1977, 1980, 1981, 1983, 1985-89.



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 National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good. Occasional regulation by reservoir on Western Branch of St. Marys River, 2.0 mi upstream since 1975, total capacity, 3,200 acre feet. 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)
Jan. 12	0500	*664	*6.15	June 22	1730	417	4.38

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.8	5.2	8.0	19	8.6	7.4	56	9.1	17	4.5	6.3	11
2	3.8	4.8	7.4	17	8.5	10	38	7.8	26	6.1	4.8	4.5
3	4.3	5.9	7.1	15	8.2	19	36	7.2	24	4.9	3.9	3.2
4	3.4	5.8	13	15	8.1	31	26	9.3	14	4.9	3.2	2.7
5	4.3	5.7	13	13	7.8	16	21	6.2	7.9	8.1	3.8	2.5
6	3.4	5.8	9.4	12	7.8	11	18	20	5.8	5.0	8.0	7.0
7	2.7	5.1	8.3	16	21	9.9	17	17	4.5	3.2	4.0	5.7
8	2.2	4.7	7.9	28	14	8.5	16	12	3.8	2.7	1.9	4.2
9	3.3	4.6	7.6	200	11	8.1	16	10	3.3	4.0	16	3.2
10	3.1	18	7.2	80	9.9	7.7	14	11	2.9	3.1	45	2.6
11	2.2	15	6.9	131	9.0	7.4	12	9.6	2.4	2.9	12	2.4
12	3.6	9.6	6.5	359	8.1	7.1	10	6.5	2.1	2.4	6.7	2.2
13	4.9	7.6	6.5	75	8.6	7.3	12	6.3	1.9	2.3	5.4	2.1
14	4.7	7.7	6.6	34	11	11	37	7.7	2.9	2.1	4.7	2.1
15	3.4	6.7	17	24	9.2	12	30	6.8	3.1	2.0	22	2.1
16	2.7	6.3	32	27	7.6	9.0	27	5.0	2.8	1.8	12	2.1
17	2.4	7.1	17	25	7.6	7.9	23	5.7	1.7	1.7	8.0	1.9
18	12	6.6	80	17	9.3	128	19	8.2	4.1	1.6	7.5	1.8
19	38	6.1	150	15	10	59	15	5.8	4.0	1.5	32	1.7
20	15	6.1	144	15	11	28	18	5.4	3.8	1.4	21	4.3
21	9.1	6.0	155	14	10	21	25	4.9	3.2	1.4	23	3.2
22	7.2	6.0	137	11	9.4	19	19	4.6	175	1.4	15	2.5
23	91	6.3	88	10	8.3	18	15	4.1	103	1.3	10	2.0
24	59	6.5	89	12	7.8	17	14	3.6	46	1.2	7.5	2.7
25	22	6.4	44	11	7.8	15	12	3.4	24	7.5	6.1	10
26	14	6.4	29	9.5	9.2	14	11	3.2	15	7.5	4.6	61
27	9.3	8.3	21	10	8.4	14	11	3.0	11	64	4.5	18
28	7.4	7.7	91	10	7.4	14	9.6	2.9	8.2	30	3.7	9.5
29	6.5	12	45	9.6	---	103	9.2	2.6	6.5	13	2.9	6.3
30	5.9	9.3	30	10	---	207	11	2.3	5.4	10	3.0	5.5
31	5.8	---	26	9.8	---	94	---	2.4	---	7.6	3.0	---
TOTAL	360.4	219.3	1310.4	1253.9	264.6	941.3	597.8	213.6	535.3	211.1	311.5	190.0
MEAN	11.6	7.31	42.3	40.4	9.45	30.4	19.9	6.89	17.8	6.81	10.0	6.33
MAX	91	18	155	359	21	207	56	20	175	64	45	61
MIN	2.2	4.6	6.5	9.5	7.4	7.1	9.2	2.3	1.7	1.2	1.9	1.7
CFSM	.48	.30	1.76	1.69	.39	1.27	.83	.29	.74	.28	.42	.26
IN.	.56	.34	2.03	1.94	.41	1.46	.93	.33	.83	.33	.48	.29

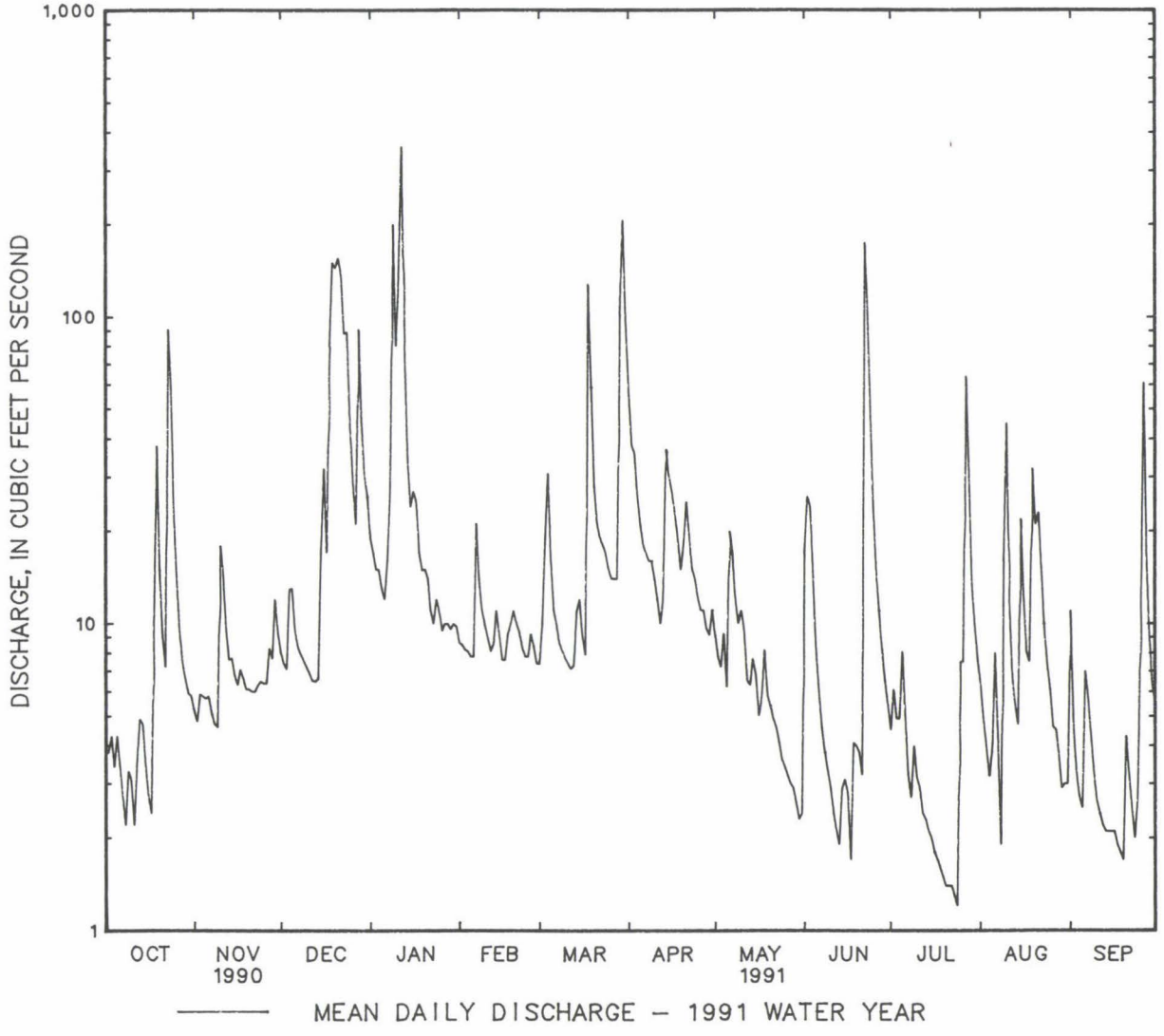
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1946 - 1991, BY WATER YEAR (WY)

MEAN	11.7	18.9	27.9	33.8	35.0	41.4	32.8	26.2	15.6	13.3	17.4	12.0
MAX	39.9	84.4	68.7	125	114	121	95.9	97.4	68.4	63.7	118	112
(WY)	1980	1957	1949	1978	1979	1984	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	1.46	2.02
(WY)	1969	1982	1966	1955	1968	1981	1985	1985	1986	1985	1966	1988

01661500 ST. MARYS RIVER AT GREAT MILLS, MD--Continued

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1946 - 1991	
ANNUAL TOTAL	10862.6		6409.2			
ANNUAL MEAN	29.8		17.6		23.8	
HIGHEST ANNUAL MEAN					49.1	1958
LOWEST ANNUAL MEAN					11.1	1966
HIGHEST DAILY MEAN	977	May 29	359	Jan 12	2260	Aug 13 1955
LOWEST DAILY MEAN	2.1	Jul 27	1.2	Jul 24	.30	Sep 7 1966
ANNUAL SEVEN-DAY MINIMUM	2.9	Oct 6	1.4	Jul 18	.39	Sep 3 1966
INSTANTANEOUS PEAK FLOW	2360	May 29	664	Jan 12	a7950	Aug 20 1969
INSTANTANEOUS PEAK STAGE	10.28	May 29	6.15	Jan 12	13.34	Aug 20 1969
INSTANTANEOUS LOW FLOW	2.1	(b)	1.0	(c)	.20	Sep 7 1966
ANNUAL RUNOFF (CFSM)	1.24		.73		.99	
ANNUAL RUNOFF (INCHES)	16.84		9.93		13.45	
10 PERCENT EXCEEDS	60		31		46	
50 PERCENT EXCEEDS	14		8.1		12	
90 PERCENT EXCEEDS	4.3		2.6		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 July 26-28, Oct. 8, 9, 11.
c July 24, 25.



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 National Geodetic Vertical Datum of 1929. Prior to Aug. 1, 1946, nonrecording gage at bridge 200 ft upstream at same datum.

REMARKS.--No estimated daily discharges. Records good. Town of Oakland diverted an average of 0.4 ft^3/s for water supply. The diversion is returned upstream from station as sewage. 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)
Dec. 19	0515	2,850	6.12	Jan. 17	0115	2,390	5.67
Dec. 31	0615	*3,910	*7.07				

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	125	159	105	1480	625	242	286	200	38	13	16	6.7
2	101	144	100	876	462	252	259	175	30	15	12	7.1
3	82	129	289	614	387	259	229	158	31	15	11	7.5
4	99	119	800	465	365	1060	212	144	51	16	11	8.3
5	153	115	512	384	369	728	231	134	38	17	12	11
6	100	138	399	363	930	638	282	148	27	15	11	13
7	79	122	331	420	1360	1010	231	164	23	13	8.8	14
8	71	108	270	349	1050	676	210	123	23	56	7.2	11
9	67	97	223	324	719	508	226	153	22	32	9.4	9.5
10	62	212	198	418	546	426	387	154	20	20	45	8.8
11	332	223	179	424	424	358	284	120	18	16	24	8.3
12	312	165	164	824	338	297	246	112	18	16	15	8.2
13	260	145	156	920	304	280	535	102	18	35	11	8.1
14	223	132	144	591	578	252	1660	93	16	36	11	9.3
15	184	129	719	476	521	224	1510	85	15	21	12	9.6
16	160	123	1160	1260	396	201	1260	74	17	16	18	13
17	141	155	649	1840	401	247	816	67	35	13	12	9.8
18	272	156	1440	1030	330	881	578	67	32	11	7.3	9.9
19	453	131	2370	681	576	1280	453	64	20	9.0	6.6	12
20	285	125	1150	547	1600	947	406	69	18	9.0	7.0	13
21	232	117	779	538	1230	809	355	57	15	39	6.8	8.7
22	231	111	582	438	767	782	530	53	15	18	6.7	6.7
23	1250	205	1040	391	546	1370	484	50	56	24	7.0	8.6
24	1050	198	1460	340	434	1110	439	47	52	29	6.8	8.7
25	673	168	931	299	364	764	456	45	25	23	7.0	9.0
26	479	152	620	264	308	562	367	41	18	15	7.3	9.3
27	354	139	468	242	266	464	322	38	16	13	7.7	9.5
28	281	131	437	251	243	432	288	37	14	12	7.9	7.3
29	228	127	649	240	---	341	262	34	13	15	8.5	6.9
30	195	115	2170	298	---	325	242	33	12	23	7.9	7.5
31	175	---	3280	1140	---	293	---	36	---	21	8.1	---
TOTAL	8709	4290	23774	18727	16439	18018	14046	2877	746	626.0	349.0	280.3
MEAN	281	143	767	604	587	581	468	92.8	24.9	20.2	11.3	9.34
MAX	1250	223	3280	1840	1600	1370	1660	200	56	56	45	14
MIN	62	97	100	240	243	201	210	33	12	9.0	6.6	6.7
CFSM	2.10	1.07	5.72	4.51	4.38	4.34	3.49	.69	.19	.15	.08	.07
IN.	2.42	1.19	6.60	5.20	4.56	5.00	3.90	.80	.21	.17	.10	.08

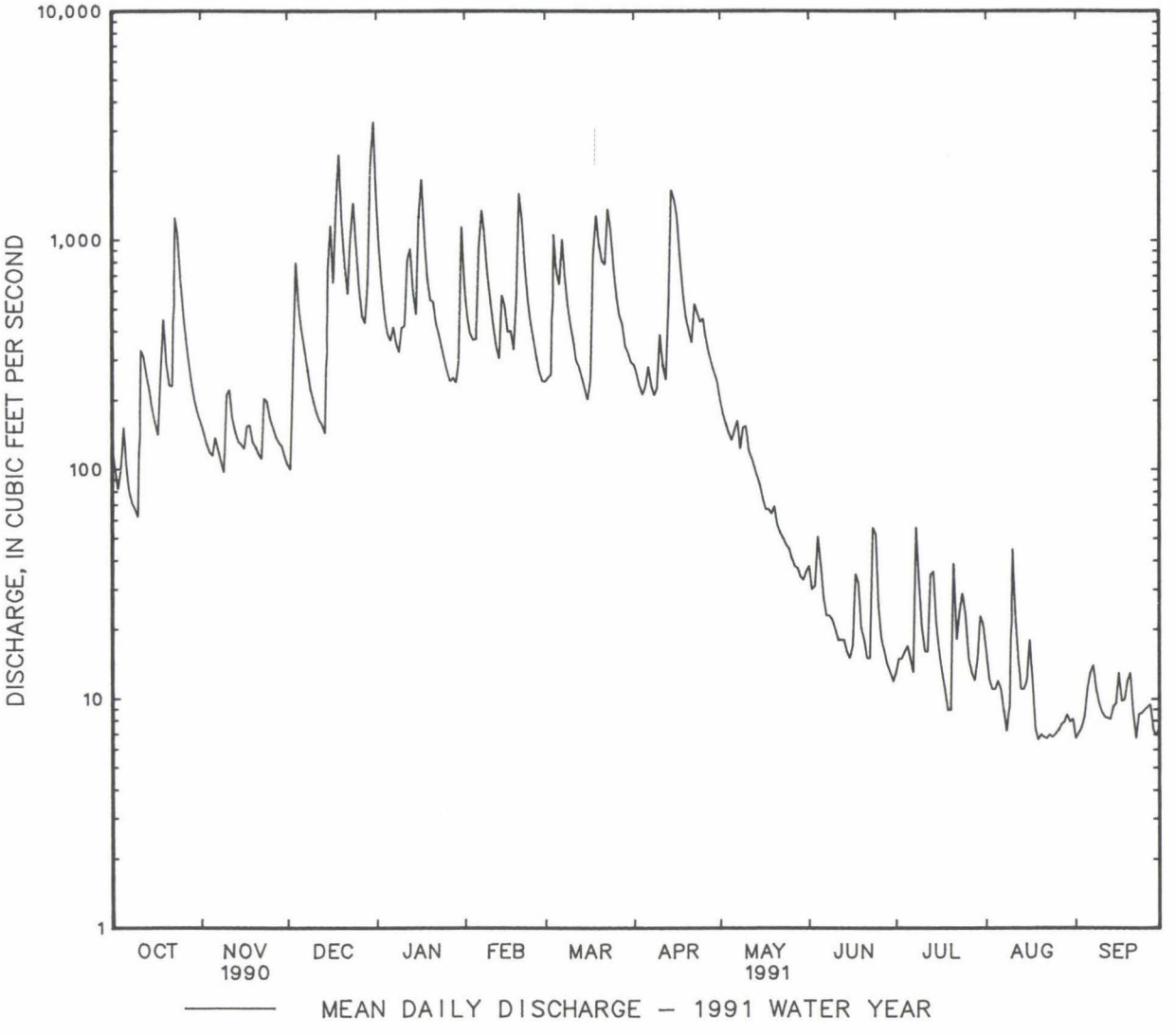
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1942 - 1991, BY WATER YEAR (WY)

MEAN	120	243	408	424	488	587	454	329	208	156	130	82.0
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 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1942 - 1991	
ANNUAL TOTAL	137627		108881.3			
ANNUAL MEAN	377		298		302	
HIGHEST ANNUAL MEAN					390	1980
LOWEST ANNUAL MEAN					193	1947
HIGHEST DAILY MEAN	4120	Jul 13	3280	Dec 31	8570	Nov 5 1985
LOWEST DAILY MEAN	29	Aug 18	6.6	Aug 19	2.5	Oct 4 1953
ANNUAL SEVEN-DAY MINIMUM	39	Aug 12	6.8	Aug 19	2.7	Oct 2 1953
INSTANTANEOUS PEAK FLOW	6420	Jul 13	3910	Dec 31	a11800	Oct 16 1954
INSTANTANEOUS PEAK STAGE	8.95	Jul 13	7.07	Dec 31	12.16	Oct 16 1954
INSTANTANEOUS LOW FLOW	28	(b)	5.8	(c)	UNKNOWN	
ANNUAL RUNOFF (CFSM)	2.81		2.23		2.25	
ANNUAL RUNOFF (INCHES)	38.21		30.23		30.57	
10 PERCENT EXCEEDS	802		804		716	
50 PERCENT EXCEEDS	224		153		164	
90 PERCENT EXCEEDS	72		9.4		24	

a From rating curve extended above 7,000 ft^3/s.
b Aug. 17, 18.
c Aug. 19-21, 28, Sept. 1.



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 mean 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, 88,900 acre-ft, Apr. 28, elevation, 2,460.9 ft; minimum, 69,400 acre-ft, Feb. 26, elevation, 2,455.5 ft.

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTBER 1990 TO SEPTEMBER 1991

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	2458.5	80000	
Oct. 31	2457.8	77500	-2500
Nov. 30	2456.4	72500	-5000
Dec. 31	2456.8	73900	+1400
CAL YR 1990			+7200
Jan. 31	2456.5	72900	-1000
Feb. 28	2455.6	69800	-3100
Mar. 31	2458.5	80000	+10200
Apr. 30	2460.9	88900	+8900
May 31	2459.8	84800	-4100
June 30	2459.0	81900	-2900
July 31	2458.6	80400	-1500
Aug. 31	2457.9	77900	-2500
Sept. 30	2457.1	75000	-2900
WTR YR 1991			-5000

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 National Geodetic Vertical Datum of 1929. Aug. 17, 1898, to Dec. 31, 1904, and Sept. 1, 1922, to Sept. 30, 1926, nonrecording gages at bridge 0.7 mi downstream at datum 16.24 ft and 16.29 ft lower, respectively.

REMARKS.--No estimated daily discharges. Records good. 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 5,910 ft^3/s, Dec. 31, gage height, 6.11 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	320	540	234	3290	1250	463	542	517	143	80	43	33
2	385	526	200	2260	751	435	495	480	80	38	78	92
3	335	447	442	1800	615	450	483	444	137	35	37	33
4	369	264	1570	1490	726	1530	445	313	172	53	34	27
5	446	390	1150	1060	796	1250	457	257	151	105	32	29
6	298	430	949	1040	1430	1080	448	374	123	50	39	71
7	177	442	698	1140	2530	1640	387	440	168	42	34	39
8	410	432	474	857	2280	1200	402	381	61	123	30	34
9	269	350	408	691	1650	876	414	355	57	92	72	73
10	290	376	481	791	1310	714	712	361	124	61	44	35
11	661	438	438	810	1090	650	538	278	64	48	61	31
12	709	321	412	921	916	554	466	216	53	84	47	32
13	549	367	382	1370	839	566	733	423	48	58	35	73
14	426	347	376	1110	1350	560	3350	260	109	62	32	33
15	461	350	887	921	1380	440	2840	174	48	104	42	31
16	352	324	2100	1910	1020	360	2330	156	43	48	160	164
17	421	273	1260	3260	997	396	1440	215	193	51	73	68
18	493	314	2900	1970	923	1170	1090	189	96	47	51	28
19	952	361	4410	1190	1040	2150	878	146	69	103	48	35
20	572	236	2900	949	3100	1670	703	208	54	37	50	96
21	416	305	2160	1070	2770	1410	619	173	118	41	44	33
22	462	225	1530	895	2100	1320	943	169	57	95	44	32
23	1850	317	1870	733	1700	2180	870	159	54	54	78	69
24	1950	407	2840	711	1450	1870	803	175	140	69	40	35
25	1290	327	2080	629	1050	1390	859	142	74	68	32	30
26	969	462	1560	453	555	1030	730	93	53	97	30	30
27	750	631	1270	419	502	851	627	157	67	41	28	75
28	505	438	1170	634	460	753	511	209	94	34	77	36
29	613	446	1320	565	---	639	594	418	41	81	58	28
30	619	450	3640	631	---	540	579	178	35	53	70	69
31	548	---	5220	1730	---	488	---	208	---	48	39	---
TOTAL	18867	11536	47331	37300	36580	30625	26288	8268	2726	2002	1582	1494
MEAN	609	385	1527	1203	1306	988	876	267	90.9	64.6	51.0	49.8
MAX	1950	631	5220	3290	3100	2180	3350	517	193	123	160	164
MIN	177	225	200	419	460	360	387	93	35	34	28	27
(>)	-40.6	-84.2	+22.8	-16.3	-56.0	+166	+150	-66.6	-48.8	-24.4	-40.6	-48.8
MEAN≠	568	301	1550	1187	1250	1104	1026	200	42.1	40.2	10.4	1.0
CFSM≠	1.93	1.02	5.25	4.02	4.24	3.74	3.48	0.68	0.14	0.14	0.04	0.00
IN≠	2.22	1.14	6.05	4.64	4.42	4.31	3.88	0.78	0.16	0.16	0.05	0.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1899 - 1991, BY WATER YEAR (WY)

MEAN	295	513	861	875	994	1210	955	698	484	358	291	231
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	78.0	118	145	140	337	285	342	176	84.2	64.6	51.0	49.8
(WY)	1902	1954	1944	1981	1954	1990	1946	1982	1969	1991	1991	1991

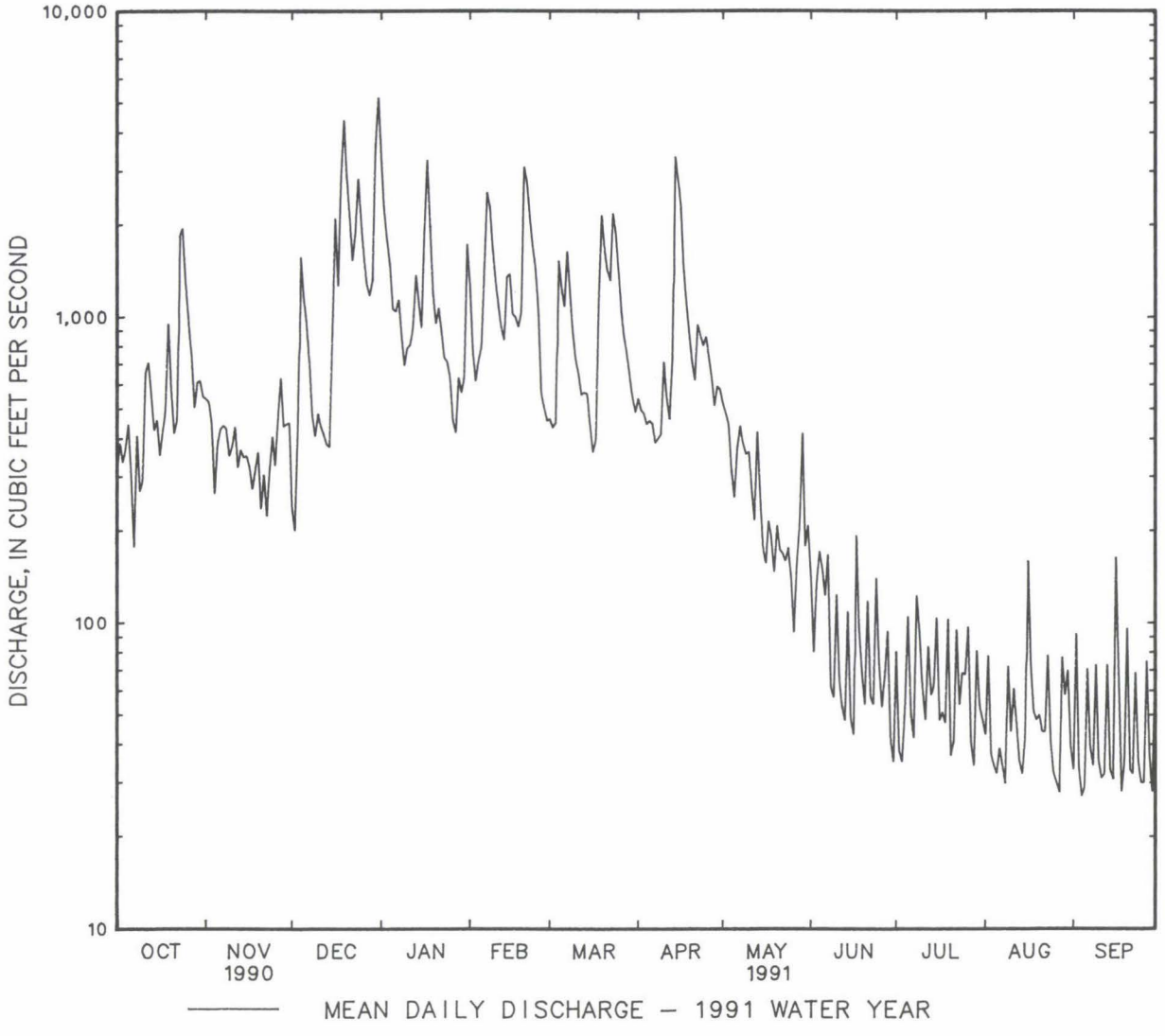
† Change in contents in Deep Creek Reservoir, equivalent in cubic feet per second, provided by Pennsylvania Electric Co.
≠ Adjusted for change in reservoir contents.

03076500 YOUGHIOGHENY RIVER AT FRIENDSVILLE, MD--Continued

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1899 - 1991	
ANNUAL TOTAL	268914		224599			
ANNUAL MEAN	737		615		641	
ANNUAL MEAN≠	747		608		629	
HIGHEST ANNUAL MEAN					1052	1903
LOWEST ANNUAL MEAN					375	1954
HIGHEST DAILY MEAN	6300	Jul 13	5220	Dec 31	10000	Aug 6 1956
LOWEST DAILY MEAN	62	Aug 19	27	Sep 4	8.2	Sep 11 1966
ANNUAL SEVEN-DAY MINIMUM	115	Aug 14	40	Aug 3	29	Sep 21 1972
INSTANTANEOUS PEAK FLOW	8490	Jul 13	5910	Dec 31	a15600	Mar 29 1924
INSTANTANEOUS PEAK STAGE	7.05	Jul 13	6.11	Dec 31	b14.20	Mar 29 1924
INSTANTANEOUS LOW FLOW	58	(c)	26	(d)	UNKNOWN	
ANNUAL RUNOFF (CFSM)≠	2.53		2.06		2.13	
ANNUAL RUNOFF (INCHES)≠	34.36		28.00		28.94	
10 PERCENT EXCEEDS	1560		1540		1430	
50 PERCENT EXCEEDS	446		408		410	
90 PERCENT EXCEEDS	217		39		110	

≠ 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 Aug. 18, 19.
d Sept. 3, 4.



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.

GAGE.--Water-stage recorder. Datum of gage is 1,551.34 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges (ice effect), which are fair. 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)
Oct. 23	1245	728	3.54	Jan. 16	2045	852	4.06
Dec. 18	2300	1,770	5.21	Apr. 14	0615	1,030	4.37
Dec. 31	0730	*1,920	*5.45				

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	45	53	32	473	178	74	96	73	19	6.5	4.3	2.7
2	40	48	32	316	144	85	88	65	16	6.5	3.6	2.6
3	35	45	106	243	120	89	82	59	15	6.4	3.2	2.4
4	41	42	264	169	108	300	77	53	16	44	12	2.5
5	46	40	160	130	112	261	79	50	12	27	8.2	4.1
6	33	43	122	124	220	246	75	54	12	11	5.0	3.4
7	30	37	97	127	385	277	68	48	12	9.1	4.1	3.1
8	28	34	82	108	331	242	64	43	11	23	3.6	2.7
9	27	32	71	105	277	187	70	48	11	11	4.9	2.5
10	25	66	63	122	217	148	77	44	10	8.5	6.9	2.3
11	155	57	56	127	158	118	65	40	9.8	7.8	4.5	3.8
12	119	49	52	165	118	101	61	38	19	7.2	3.5	3.4
13	113	46	50	216	109	89	204	36	12	14	3.2	2.8
14	101	44	46	179	211	82	798	35	9.6	8.7	3.2	4.9
15	86	42	254	153	214	71	622	33	8.7	6.8	11	4.0
16	71	40	436	482	169	67	496	30	8.6	6.0	6.6	3.1
17	61	48	299	623	145	76	327	30	12	5.6	4.3	2.8
18	105	44	1070	387	114	226	249	34	9.9	5.2	3.6	2.7
19	105	40	936	277	163	350	181	32	9.5	5.0	5.0	2.6
20	88	39	433	232	453	320	147	27	8.6	5.0	8.4	2.8
21	81	37	303	197	396	294	135	25	7.7	5.5	5.6	2.8
22	84	37	237	150	288	293	205	23	7.6	4.7	4.9	2.5
23	530	48	329	154	218	465	201	22	12	5.0	4.1	2.5
24	501	45	395	112	159	386	195	21	9.6	6.5	3.6	2.7
25	326	42	326	e100	127	286	169	20	7.9	5.0	3.3	3.1
26	210	40	244	e98	104	228	142	19	6.9	4.4	3.2	3.4
27	134	39	173	e94	88	194	125	18	6.8	4.1	3.0	3.1
28	103	38	149	82	80	151	108	17	6.3	4.0	3.0	2.8
29	81	37	253	68	---	123	95	16	6.3	4.3	3.0	2.7
30	68	34	820	95	---	110	85	23	6.2	5.3	2.8	2.7
31	60	---	1180	232	---	96	---	30	---	5.3	2.7	---
TOTAL	3532	1286	9070	6140	5406	6035	5386	1106	319.0	278.4	148.3	89.5
MEAN	114	42.9	293	198	193	195	180	35.7	10.6	8.98	4.78	2.98
MAX	530	66	1180	623	453	465	798	73	19	44	12	4.9
MIN	25	32	32	68	80	67	61	16	6.2	4.0	2.7	2.3
CFSM	2.33	.88	5.98	4.05	3.95	3.98	3.67	.73	.22	.18	.10	.06
IN.	2.69	.98	6.90	4.67	4.11	4.59	4.10	.84	.24	.21	.11	.07

e Estimated

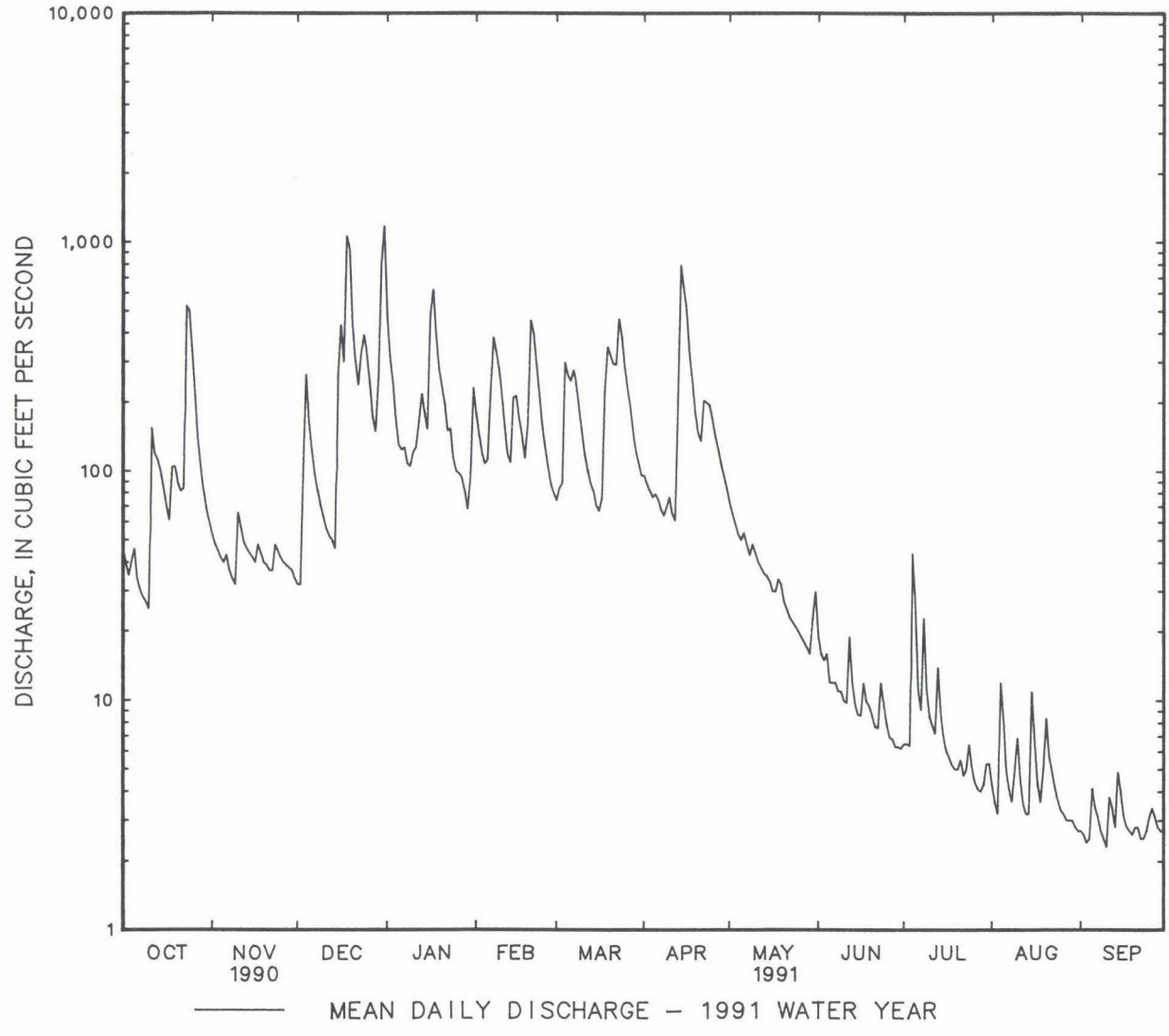
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 1991, BY WATER YEAR (WY)

MEAN	38.7	74.2	124	109	152	181	155	104	54.5	54.3	31.5	31.9
MAX	187	341	293	248	387	347	293	215	153	274	117	256
(WY)	1980	1986	1991	1975	1986	1967	1984	1989	1981	1990	1980	1971
MIN	5.34	14.2	23.2	19.1	48.0	45.5	66.0	23.5	10.6	6.35	4.32	2.98
(WY)	1965	1975	1966	1977	1978	1990	1968	1982	1991	1965	1966	1991

03076600 BEAR CREEK AT FRIENDSVILLE, MD--Continued

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1965 - 1991	
ANNUAL TOTAL	46925		38796.2			
ANNUAL MEAN	129		106		92.2	
HIGHEST ANNUAL MEAN					122	1978
LOWEST ANNUAL MEAN					53.4	1966
HIGHEST DAILY MEAN	1800	Jul 13	1180	Dec 31	3100	Sep 14 1971
LOWEST DAILY MEAN	12	(a)	2.3	Sep 10	1.6	(b)
ANNUAL SEVEN-DAY MINIMUM	14	Aug 13	2.7	Sep 18	2.0	Sep 7 1966
INSTANTANEOUS PEAK FLOW	2360	Jul 13	1920	Dec 31	c4650	Sep 14 1971
INSTANTANEOUS PEAK STAGE	6.16	Jul 13	5.45	Dec 31	d9.60	Sep 14 1971
INSTANTANEOUS LOW FLOW	12	Aug 18	2.2	Sep 10	1.5	Sep 12 1966
ANNUAL RUNOFF (CFSM)	2.63		2.17		1.89	
ANNUAL RUNOFF (INCHES)	35.70		29.51		25.62	
10 PERCENT EXCEEDS	321		281		226	
50 PERCENT EXCEEDS	65		48		50	
90 PERCENT EXCEEDS	25		3.5		8.9	

a Aug. 17-19.
b Sept. 12, 13, 1966.
c From rating curve extended above 2,000 ft^3/s on basis of slope-area measurement of peak flow.
d 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 National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges (ice effect), which are fair. U. S. Army Corps of Engineers satellite 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)
Oct. 23	1300	1,330	4.12	Dec. 31	0230	*1,750	*4.55
Dec. 19	0145	1,280	4.07	Jan. 16	2300	1,100	3.86

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	62	79	39	432	178	119	153	108	28	5.5	3.3	2.5
2	52	71	39	303	153	147	146	95	23	5.5	1.8	1.1
3	45	65	193	246	129	150	119	87	22	5.6	1.3	.93
4	62	59	413	195	146	449	107	80	27	9.6	5.7	1.0
5	75	55	191	166	214	251	108	74	21	34	9.7	1.2
6	48	67	141	169	428	244	109	79	18	16	5.5	1.5
7	41	56	120	190	669	346	94	89	16	11	3.1	1.3
8	40	49	104	151	434	223	84	70	15	25	1.8	1.2
9	38	45	93	143	294	182	93	80	14	15	5.5	1.0
10	36	154	86	167	234	163	158	89	13	11	6.8	.98
11	266	125	79	152	190	146	107	71	12	8.8	3.8	1.2
12	210	83	73	186	155	130	88	62	21	7.8	2.0	1.8
13	222	69	70	202	148	125	275	58	16	12	1.4	2.0
14	163	61	63	160	314	118	835	58	11	10	1.2	3.9
15	119	57	280	149	253	104	664	53	9.7	7.6	5.4	4.5
16	95	55	405	610	173	102	502	46	10	6.0	6.1	2.3
17	82	76	206	692	172	125	320	43	15	4.8	2.7	1.5
18	189	73	739	352	144	323	242	58	14	3.6	1.4	1.2
19	205	60	809	264	195	364	199	68	12	2.7	1.1	1.4
20	128	55	349	230	539	280	205	55	11	2.5	1.7	1.2
21	106	49	317	228	361	268	199	44	9.5	2.1	2.9	1.3
22	116	48	261	180	255	301	327	38	8.8	2.1	2.6	1.3
23	823	75	469	166	204	563	263	35	14	3.5	2.4	1.3
24	436	75	492	e150	172	410	220	32	13	3.9	1.7	1.3
25	266	59	296	e110	156	316	226	30	10	3.1	1.3	1.5
26	203	49	223	e110	139	241	173	29	8.5	2.5	1.2	1.7
27	164	46	183	e120	124	246	152	28	7.5	1.7	1.1	1.4
28	139	45	166	125	118	203	137	25	6.3	1.6	1.0	1.3
29	117	44	292	168	---	168	127	24	5.4	2.1	1.1	1.3
30	101	41	959	134	---	163	126	23	5.2	3.2	1.1	1.2
31	90	---	1110	248	---	150	---	29	---	4.1	1.3	---
TOTAL	4739	1945	9260	6898	6691	7120	6558	1760	416.9	233.9	89.0	47.31
MEAN	153	64.8	299	223	239	230	219	56.8	13.9	7.55	2.87	1.58
MAX	823	154	1110	692	669	563	835	108	28	34	9.7	4.5
MIN	36	41	39	110	118	102	84	23	5.2	1.6	1.0	.93
CFSM	2.45	1.04	4.78	3.56	3.82	3.67	3.50	.91	.22	.12	.05	.03
IN.	2.82	1.16	5.51	4.11	3.98	4.24	3.90	1.05	.25	.14	.05	.03

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1948 - 1991, BY WATER YEAR (WY)

MEAN	49.0	87.3	149	158	196	259	210	136	73.3	49.4	35.9	31.2
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

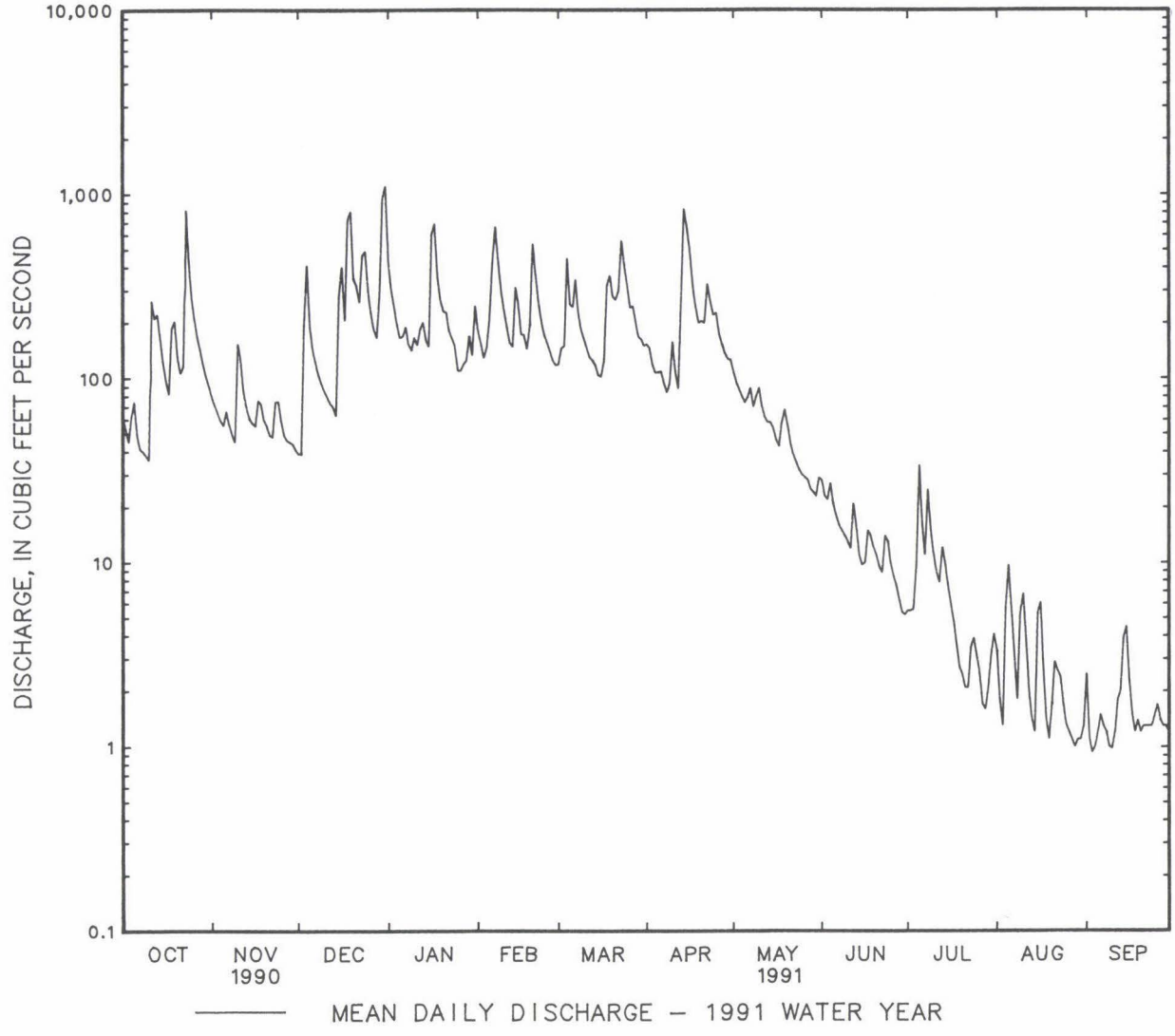
03078000 CASSELMAN RIVER AT GRANTSVILLE, MD--Continued

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1948 - 1991	
ANNUAL TOTAL	50024.5		45758.11			
ANNUAL MEAN	137		125		119	
HIGHEST ANNUAL MEAN					158	1971
LOWEST ANNUAL MEAN					64.2	1954
HIGHEST DAILY MEAN	1250	Jul 13	1110	Dec 31	2630	Oct 15 1954
LOWEST DAILY MEAN	7.4	Aug 19	.93	Sep 3	a.00	Aug 31 1962
ANNUAL SEVEN-DAY MINIMUM	11	Aug 13	1.2	Aug 25	.89	Aug 27 1962
INSTANTANEOUS PEAK FLOW	1750	Dec 31	1750	Dec 31	b8400	Oct 15 1954
INSTANTANEOUS PEAK STAGE	4.55	Dec 31	4.55	Dec 31	10.70	Oct 15 1954
INSTANTANEOUS LOW FLOW	6.7	Aug 19	.82	Sep 4	a.00	(c)
ANNUAL RUNOFF (CFSM)	2.19		2.01		1.91	
ANNUAL RUNOFF (INCHES)	29.77		27.24		25.90	
10 PERCENT EXCEEDS	305		298		280	
50 PERCENT EXCEEDS	86		75		66	
90 PERCENT EXCEEDS	23		1.7		8.1	

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 and 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 1991 maximum			Period of record maximum		
			Date	Gage height (ft)	Discharge (ft^3/s)	Date	Gage height (ft)	Discharge (ft^3/s)
DELAWARE RIVER BASIN								
Christina River near Bear, De. (01478040)	Lat 39°38'12", long 75°40'53", New Castle County, Hydrologic Unit 02040205, on right bank 500 ft upstream from highway bridge, 1.3 mi northwest of Bear, 1.6 mi downstream from Belltown Run, and 17.7 mi upstream from mouth. Drainage area is 40.6 mi^2.	1979-82≠, 1983-91 (Discontinued)	1-12-91	8.89	1,590	7-05-89	14.34	7,500
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≠, 1986-91	12-31-90	7.97	6,220	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≠, 1986-91	4-13-901	6.04	2,820	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≠, 1986-91	12-31-90	7.79	5,910	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 1991

Station No.	Station Name	Location	Period of Record	Annual Maximum Date	Annual Maximum Elevation, in feet NGVD
		CEDAR CREEK BASIN			
01484235	Cedar Creek near Slaughter Beach, De.	Lat 38°56'06", long 75°19'26", Sussex County, Hydrologic Unit 02040207, at bridge No. S-164 on State Highway 36, 1.8 mi northwest of Slaughter Beach.	1966-91 (Discontinued)	12-03-90	4.76
		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.	1985-91	10-26-90	3.42
01484670	Rehoboth Bay at Dewey Beach, De.	Lat 38°41'40", long 75°05'05", Sussex County, Hydrologic Unit 02060010, on north shore of Rehoboth Bay at Head of Bay Cove, at Dewey Beach and at south end of Ventian Drive on bulkhead of a boat slip.	1985-91	10-26-90	2.68

Mill Creek seepage investigation--Headwaters to gaging station at Mill Creek Road, New Castle County, DE

Two series of discharge measurements was made during the 1991 water year, Oct. 3 and April 4, on Mill Creek and its main tributaries in Delaware, to study the effects of ground-water withdrawals on channel gains and losses. The reach is 1.65 mi in length and extends from the headwaters to 7.33 mi upstream from the mouth. The measurements were made during periods of base flow; for 4 days before the investigation no measurable precipitation had fallen. Tributary flow was considered a contribution and not a gain. Indicated gains or losses may be substantially in error as affected by small inaccuracies in open-channel measurements.

Mill Creek mile	Stream	Location	Meas. discharge (ft^3/s)	Gain or loss	Water temp. (°C)
				October 3, 1990	
8.96	Mill Creek	Lat 39°47'47", long 75°42'23", New Castle Co., 0.75 mi northwest of Hockessin.	0.21	-	12.5
8.66	....do....	Lat. 39°47'41", long 75°42'08", New Castle Co., 0.55 mi northwest of Hockessin.	0.34	+0.13	15.0
8.34	....do....	Lat 39°47'25", long 75°42'02", New Castle Co., 0.20 mi northwest of Hockessin.	0.36	+0.02	12.5
-	Mill Creek tributary	Lat 39°47'39", long 75°41'52", New Castle Co., 0.33 mi upstream from mouth and 0.45 mi north of Hockessin.	0.17	-	10.5
-	....do....	Lat 39°47'33", long 75°41'57", New Castle Co., 0.19 mi upstream from mouth and 0.33 mi north of Hockessin.	0.18	+0.01	15.0
8.33	....do....	Lat 39°47'25", long 75°42'00", New Castle Co., at mouth and 0.18 mi northwest of Hockessin.	0.19	+0.01	13.5
		Overall net gain or loss Unnamed Mill Creek tributary		+0.02	
8.06	Mill Creek	Lat 39°47'12", long 75°42'01", New Castle Co., 0.18 mi southwest of Hockessin.	0.57	+0.02	12.0
7.92	....do....	Lat 39°47'05". long 75°42'02", New Castle Co., 0.26 mi southwest of Hockessin.	0.38	-0.19	12.5
-	Mill Creek tributary	Lat 39°47'14", long 75°41'33", New Castle Co., 0.27 mi east of Hockessin and 0.55 mi upstream from mouth.	dry	-	--
7.87	....do....	Lat 39°47'03", long 75°42'02", New Castle Co., 100 ft upstream from mouth and 0.30 mi south of Hockessin.	dry	0.0	--
		Overall net gain or loss Unnamed Mill Creek tributary		0.0	
7.76	Mill Creek	Lat 39°46'59", long 75°42'07", New Castle Co., 0.62 mi southwest of Hockessin.	0.32	-0.06	10.5
-	Mill Creek tributary	Lat 39°47'06", long 75°42'23", New Castle Co., 0.26 mi upstream from mouth and 0.51 mi southwest of Hockessin.	dry	-	--
7.68	....do....	Lat 39°46'56", long 75°42'12", New Castle Co., 50 ft upstream from mouth and 0.49 mi south of Hockessin.	dry	0.0	--
		Overall net gain or loss Unnamed Mill Creek Tributary		0.0	

Headwaters to gaging station at Mill Creek Road, New Castle County, DE

Mill Creek mile	Stream	Location	Meas. discharge (ft^3/s)	Gain or loss	Water temp. (°C)
				October 3, 1990	
7.33	Mill Creek	Lat 39°46'49", long 75°41'52", New Castle Co., 0.52 south of Hockessin.	0.25	-0.07	14.0
-	North Fork Mill Creek tributary	Lat 39°47'13", long 75°43'13", New Castle Co., 1.32 mi west of Hockessin and 1.48 mi upstream from mouth.	0.10	-	12.5
-	Tributary to North Fork Mill Creek tributary	Lat 39°47'05", long 75°42'40", New Castle Co., 0.11 mi upstream from mouth and 0.74 mi west of Hockessin.	0.06	-	13.5
-	North Fork Mill Creek tributary	Lat 39°47'05", long 75°42'37", New Castle Co., 0.72 mi west of Hockessin and 0.92 mi upstream from mouth.	0.45	+0.29	15.5
-	....do....	Lat 39°46'56", long 75°42'28", New Castle Co., 0.65 mi upstream from mouth and 0.68 mi southwest of Hockessin.	0.35	-0.10	12.0
-	....do....	Lat 39°46'51", long 75°42'07", New Castle Co., 0.27 mi upstream from mouth and 0.55 mi southwest of Hockessin.	0.30	-0.05	13.0
		Overall net gain or loss North Fork Mill Creek tribtary		+0.14	
-	South Fork Mill Creek tributary	Lat 39°46'29", long 75°42'57", New Castle Co., 0.98 mi upstream from mouth and 1.33 mi southwest of Hockessin.	0.12	-	11.0
-	....do....	Lat 39°46'37", long 75°42'22", New Castle Co., 0.37 mi upstream from mouth and 0.91 mi southwest of Hockessin.	0.35	+0.23	13.0
-	....do....	Lat 39°46'45", long 75°42'12", New Castle Co., 0.23 mi upstream from mouth and 0.78 mi southwest of Hockessin.	0.31	-0.04	15.0
-	....do....	Lat 39°46'49", long 75°42'08", New Castle Co., at mouth and 0.65 mi southwest of Hockessin.	0.31	0.0	13.0
		Overall net gain or loss South Fork Mill Creek tributary		+0.19	
7.33	Mill Creek	Lat 39°46'48", long 75°41'48", Gaging station at Mill Creek Road at Hockessin (01479197).	0.75	-0.11	14.0
		Overall net gain or loss on Mill Creek		-0.07	

Headwaters to gaging station at Mill Creek Road, New Castle County, DE

Mill Creek mile	Stream	Location	Meas. discharge (ft^3/s)	Gain or loss	Water temp. (°C)
				April 4, 1991	
8.98	Mill Creek	Lat 39°47'47", long 75°42'23", New Castle Co., 0.75 mi northwest of Hockessin.	0.44	-	15.0
8.67	....do....	Lat. 39°47'41", long 75°42'08", New Castle Co., 0.55 mi northwest of Hockessin.	0.72	+0.28	14.5
8.36	....do....	Lat 39°47'25", long 75°42'02", New Castle Co., 0.20 mi northwest of Hockessin.	0.68	-0.04	9.0
-	Mill Creek tributary	Lat 39°47'39", long 75°41'52", New Castle Co., 0.33 mi upstream from mouth and 0.45 mi north of Hockessin.	0.27	-	15.5
-	....do....	Lat 39°47'33", long 75°41'57", New Castle Co., 0.19 mi upstream from mouth and 0.33 mi north of Hockessin.	0.25	-0.02	14.5
8.34	....do....	Lat 39°47'25", long 75°42'00", New Castle Co., at mouth and 0.18 mi northwest of Hockessin.	0.26	+0.01	12.5
		Overall net gain or loss Unnamed Mill Creek tributary		-0.01	
8.28	Mill Creek	Lat 39°47'20", long 75°42'01", New Castle Co., at Hockessin.	1.25	+0.31	16.0
8.07	....do....	Lat 39°47'12", long 75°42'01", New Castle Co., 0.18 mi southwest of Hockessin.	1.06	-0.19	9.5
7.94	....do....	Lat 39°47'05". long 75°42'02", New Castle Co., 0.27 mi southwest of Hockessin.	0.80	-0.26	11.0
-	Mill Creek tributary	Lat 39°47'14", long 75°41'33", New Castle Co., 0.27 mi east of Hockessin and 0.55 mi upstream from mouth.	0.01	-	--
7.88	....do....	Lat 39°47'03", long 75°42'02", New Castle Co., 100 ft upstream from mouth and 0.30 mi south of Hockessin.	0.01	0.0	--
		Overall net gain or loss Unnamed Mill Creek tributary		0.0	
7.78	Mill Creek	Lat 39°46'59", long 75°42'07", New Castle Co., 0.62 mi southwest of Hockessin.	0.90	+0.09	14.5
-	Mill Creek tributary	Lat 39°47'06", long 75°42'23", New Castle Co., 0.26 mi upstream from mouth and 0.51 mi southwest of Hockessin.	0.04	-	12.0
7.70	....do....	Lat 39°46'56", long 75°42'12", New Castle Co., 50 ft upstream from mouth and 0.49 mi south of Hockessin.	dry	-0.04	--
		Overall net gain or loss Unnamed Mill Creek Tributary		-0.04	
7.65	Mill Creek	Lat 39°46'52", long 75°42'09", New Castle Co., 0.52 mi southwest of Hockessin.	0.60	-0.30	10.0

Headwaters to gaging station at Mill Creek Road, New Castle County, DE

Mill Creek mile	Stream	Location	Meas. discharge (ft^3/s)	Gain or loss	Water temp. (°C)
				April 4, 1991	
-	North Fork Mill Creek tributary	Lat 39°47'13", long 75°43'13", New Castle Co., 1.19 mi upstream from mouth and 1.32 mi west of Hockessin.	0.15	-	11.0
-	Tributary to North Fork Mill Creek tributary	Lat 39°47'05", long 75°42'40", New Castle Co., 0.11 mi upstream from mouth and 0.74 mi west of Hockessin.	0.15	-	14.0
-	North Fork Mill Creek tributary	Lat 39°47'05", long 75°42'37", New Castle Co., 0.56 mi upstream from mouth and 0.72 mi west of Hockessin.	0.62	+0.32	10.5
7.63	....do....	Lat 39°46'56", long 75°42'28", New Castle Co., 0.35 mi upstream from mouth and 0.68 mi southwest of Hockessin.	0.56	-0.06	15.0
		Overall net gain or loss North Fork Mill Creek tribtary		+0.26	
7.60	Mill Creek	Lat 39°46'51", long 75°42'07", New Castle Co., 0.55 mi southwest of Hockessin.	1.45	+0.29	12.0
-	South Fork Mill Creek tributary	Lat 39°46'29", long 75°42'57", New Castle Co., 0.98 mi upstream from mouth and 1.33 mi southwest of Hockessin.	0.33	-	10.0
-	Tributary to South Fork Mill Creek tributary	Lat 39°46'30", long 75°42'55", New Castle Co., at mouth and 1.29 mi southwest of Hockessin.	0.05	-	8.5
-	Tributary to South Fork Mill Creek tributary	Lat 39°46'30", long 75°42'48", New Castle Co., 0.01 mi above mouth and 1.34 mi southwest of Hockessin.	0.08	-	16.5
-	South Fork Mill Creek tributary	Lat 39°46'37", long 75°42'22", New Castle Co., 0.36 mi upstream from mouth and 0.91 mi southwest of Hockessin.	0.52	+0.06	13.0
7.59	....do....	Lat 39°46'49", long 75°42'08", New Castle Co., at mouth and 0.65 mi southwest of Hockessin.	0.62	+0.10	12.5
		Overall net gain or loss South Fork Mill Creek tributary		+0.16	
7.33	Mill Creek	Lat 39°46'48", long 75°41'48", Gaging station at Mill Creek Road at Hockessin (01479197).	1.88	-0.19	14.0
		Overall net gain or loss on Mill Creek		-0.01	

Shields Run and McMillan Fork seepage investigation--Headwaters to mouth, Garrett County, MD

One series of discharge measurements was made during the 1991 water year, on June 10, on Shields Run and McMillan Fork and their tributaries in Maryland, to document channel gains and losses. The reach on Shields Run is 1.95 mi in length and extends from its mouth near Wilson, Md., to its headwaters. The reach on McMillan Fork is 1.45 mi in length and extends from its mouth near Fort Pendleton, Md., to its headwaters. The measurements were made during a period of base flow; for 5 days before the investigation no measurable precipitation had fallen. Tributary flow was considered a contribution and not a gain. Indicated gains or losses may be substantially in error as affected by small inaccuracies in open-channel measurements. Previous seepage investigations were conducted during July 1987 and August 1988 on this basin.

Run mile	Stream	Location	Meas. discharge (ft^3/s)	Gain or loss	Water temp. (°C)	pH (units)	Conductivity (microsiemens)
				June 10, 1991			
1.45	McMillan Fork	Lat 39°17'03", long 79°24'43", Garrett Co., 2.2 mi north of Wilson.	0.08	-	-	5.34	244
1.35	McMillan Fork tributary	Lat 39°16'55", long 79°24'40", Garrett Co., at mouth.	.01	-	-	5.90	40
1.30	McMillan Fork	Lat 39°16'54", long 79°24'38", Garrett Co., 2.0 mi north of Wilson.	.06	- .03	-	5.57	204
1.10	....do....	Lat 39°16'54", long 79°24'26", Garrett Co., 1.8 mi north of Wilson.	.03	- .03	-	5.68	180
.95	McMillan Fork tributary	Lat 39°16'44", long 79°24'18", Garrett Co., 1.7 mi north of Wilson.	Dry				
.80	....do....	Lat 39°16'37", long 79°24'14", Garrett Co., at mouth.	.04	-	-	5.83	156
.75	McMillan Fork	Lat 39°16'37", long 79°24'10", Garrett Co., 1.6 mi north of Wilson.	.04	- .03	-	6.29	171
.60	....do....	Lat 39°16'35", long 79°23'55", Garrett Co., 1.5 mi north of Wilson.	.03	- .01	-	6.32	96
.20	....do....	Lat 39°16'33", long 79°23'40", Garrett Co., 1.5 mi north of Wilson.	.07	+ .04	-	6.41	134
.05	....do....	Gaging station near Fort Pendleton (01594950).	.20	+ .13	16.1	6.73	132
		Overall net gain or loss McMillan Fork		+ .07			
1.95	Shields Run	Lat 39°17'36", long 79°24'04", Garrett Co., 2.5 mi north of Wilson.	.05	-	14.5	7.47	15
1.80	....do....	Lat 39°17'19", long 79°23'57", Garrett Co., 2.3 mi north of Wilson.	.07	+ .02	16.0	7.42	16
1.60	....do....	Lat 39°17'11", long 79°23'49", Garrett Co., 2.2 mi north of Wilson.	.04	- .03	14.5	7.37	17
1.40	....do....	Lat 39°17'02", long 79°23'41", Garrett Co., 2.0 mi north of Wilson.	.06	+ .02	20.0	7.21	32
1.25	....do....	Lat 39°16'55", long 79°23'33", Garrett Co., 1.9 mi north of Wilson.	.10	+ .04	-	7.12	36
1.20	Aronhalt Fork	Lat 39°16'53", long 79°23'31", Garrett Co., at mouth.	.16	-	18.0	6.87	172
1.00	Shields Run	Lat 39°16'45", long 79°23'26", Garrett Co., 1.8 mi north of Wilson.	.26	.00	16.0	6.81	148

Shields Run and McMillan Fork seepage investigation--Headwaters to mouth, Garrett County, MD

Run mile	Stream	Location	Meas. discharge (ft^3/s)	Gain or loss	Water temp. (°C)	pH (units)	Conductivity (microsiemens)
					June 10, 1991		
.85	Shields Run	Lat 39°16'38", long 79°23'26", Garrett Co., 1.7 mi north of Wilson.	.29	+ .03	22.3	6.67	147
		Overall net gain or loss upper Shields Run.		+ .08			
.70	Shields Run main stem	Lat 39°16'35", long 79°23'21", Garrett Co., 1.6 mi northeast of Wilson.	.38	- .11	20.2	6.57	144
.55	....do....	Lat 39°16'28", long 79°23'15", Garrett Co., 1.5 mi northeast of Wilson.	.54	+ .16	15.9	6.65	145
.40	....do....	Lat 39°16'23", long 79°23'09", Garrett Co., 1.4 mi northeast of Wilson.	.52	- .02	16.9	6.99	147
.25	....do....	Lat 39°16'18", long 79°22'58", Garrett Co., 1.6 mi northeast of Wilson.	.50	- .02	15.4	6.47	144
.05	....do....	Lat 39°16'18", long 79°22'47", Garrett Co., at mouth.	.54	+ .04	15.4	6.40	140
		Overall net gain or loss Shields Run and McMillan Fork		+ .20			

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 1990 TO SEPTEMBER 1991

DELAWARE RIVER BASIN

01479175 - MILL CREEK TRIBUTARY AT HOCKESSIN, DE

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	TEMPERATURE AIR (DEG C)	OXYGEN, DISSOLVED (MG/L)	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 FET FIELD MG/L AS CACO3
APR 1991 01...	1200	203	6.3	12.0	11.0	13.0	17	7.3	7.1	2.1	29

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, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRITE DISSOLVED (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 ORTHO, DISSOLVED (MG/L AS P)	ALUMINUM, DISSOLVED (UG/L AS AL)
APR 1991 01...	20	16	<0.10	20	113	<0.010	1.30	<0.010	<0.20	<0.010	<10

DATE	ANTIMONY, DISSOLVED (UG/L AS SB)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	BORON, DISSOLVED (UG/L AS B)	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)
APR 1991 01...	<1	<1	82	<0.5	10	<1.0	<5	<3	<10	27	<10

DATE	LITHIUM DISSOLVED (UG/L AS LI)	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)	HARDNESS TOTAL (MG/L AS CACO3)
APR 1991 01...	4	67	<10	<10	<1	<1.0	100	<6	10	73

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DELAWARE RIVER BASIN--Continued

01479189 - MILL CREEK AT MILL CREEK, DE

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TEMPER-ATURE AIR (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	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 FET FIELD MG/L AS CACO3
APR 1991 01...	1030	300	6.9	8.0	11.0	14.2	25	9.6	9.9	4.1	44

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, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (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 ORTHO, DIS-SOLVED (MG/L AS P)
APR 1991 01...	35	24	<0.10	13	154	1.58	0.020	1.60	0.020	<0.20	<0.010

DATE	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ANTI-MONY, DIS-SOLVED (UG/L AS SB)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	BORON, DIS-SOLVED (UG/L AS B)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)
APR 1991 01...	<10	<1	<1	52	<0.5	10	<1.0	<5	<3	<10	60

DATE	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)	HARD-NESS TOTAL (MG/L AS CACO3)
APR 1991 01...	<10	<4	43	<10	<10	<1	<1.0	120	<6	4	100

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DELAWARE RIVER BASIN--Continued

01479191 - MILL CREEK AT EVANSON ROAD AT HOCKESSIN, DE

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	TEMPERATURE AIR (DEG C)	OXYGEN, DISSOLVED (MG/L)	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 FET FIELD MG/L AS CACO3
APR 1991 01...	1400	269	8.0	11.0	11.0	15.3	25	9.4	9.9	4.0	43

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, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRATE DISSOLVED (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (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 ORTHO, DISSOLVED (MG/L AS P)
APR 1991 01...	36	21	0.10	10	145	0.830	0.010	0.840	0.020	0.20	<0.010

DATE	ALUMINUM, DISSOLVED (UG/L AS AL)	ANTIMONY, DISSOLVED (UG/L AS SB)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	BORON, DISSOLVED (UG/L AS B)	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)
APR 1991 01...	<10	<1	<1	43	<0.5	10	<1.0	<5	<3	<10	21

DATE	LEAD, DISSOLVED (UG/L AS PB)	LITHIUM DISSOLVED (UG/L AS LI)	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)	HARDNESS TOTAL (MG/L AS CACO3)
APR 1991 01...	<10	<4	20	<10	<10	<1	<1.0	120	<6	<3	100

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DELAWARE RIVER BASIN--Continued

01479193 - MILL CREEK TRIBUTARY NEAR HOCKESSIN, DE

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	TEMPERATURE AIR (DEG C)	OXYGEN, DISSOLVED (MG/L)	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 FET FIELD MG/L AS CACO3
APR 1991 05...	1135	232	4.9	11.5	12.0	12.3	21	7.6	9.2	2.7	9

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, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRATE DISSOLVED (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (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 ORTHO, DISSOLVED (MG/L AS P)
APR 1991 05...	32	10	<0.10	16	119	3.38	0.020	3.40	0.080	0.40	0.010

DATE	ALUMINUM, DISSOLVED (UG/L AS AL)	ANTIMONY, DISSOLVED (UG/L AS SB)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	BORON, DISSOLVED (UG/L AS B)	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)
APR 1991 05...	20	<1	<1	36	<0.5	<10	<1.0	<5	<3	<10	24

DATE	LEAD, DISSOLVED (UG/L AS PB)	LITHIUM DISSOLVED (UG/L AS LI)	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)	HARDNESS TOTAL (MG/L AS CACO3)
APR 1991 05...	<10	5	58	<10	<10	<1	<1.0	130	<6	11	84

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DELAWARE RIVER BASIN--Continued

01479195 - TRIBUTARY TO MILL CREEK TRIBUTARY AT HOCKESSIN, DE

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	TEMPERATURE AIR (DEG C)	OXYGEN, DISSOLVED (MG/L)	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 FET FIELD MG/L AS CACO3
APR 1991											
01...	1315	182	6.6	11.0	11.0	8.3	16	5.4	7.0	3.5	31
05...	1150	259	7.4	12.0	12.0	--	17	6.1	8.2	19	59

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, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRATE DISSOLVED (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (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 ORTHO, DISSOLVED (MG/L AS P)
APR 1991											
01...	18	15	<0.10	15	103	--	<0.010	0.920	0.030	<0.20	<0.010
05...	20	15	<0.10	13	149	2.48	0.020	2.50	1.90	5.5	0.450

DATE	ALUMINUM, DISSOLVED (UG/L AS AL)	ANTIMONY, DISSOLVED (UG/L AS SB)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	BORON, DISSOLVED (UG/L AS B)	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)
APR 1991											
01...	<10	<1	<1	58	<0.5	<10	<1.0	<5	<3	<10	48
05...	20	<1	1	63	<0.5	<10	<1.0	<5	<3	<10	93

DATE	LEAD, DISSOLVED (UG/L AS PB)	LITHIUM DISSOLVED (UG/L AS LI)	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)	HARDNESS TOTAL (MG/L AS CACO3)
APR 1991											
01...	<10	15	30	<10	<10	<1	<1.0	110	<6	7	62
05...	<10	6	58	<10	<10	<1	<1.0	110	<6	12	68

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DELAWARE RIVER BASIN--Continued

01483151 - WIGGINS MILLPOND OUTLET NEAR TOWNSEND, DE

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (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)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
MAR 1991											
05...	1530	9.2	194	6.1	12.0	15.0	--	9.4	--	16	6.8
JUN											
12...	1330	0.94	162	6.2	19.5	30.5	760	7.0	77	23	3.2

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	BICAR-BONATE WATER WH 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)	BROMIDE DIS-SOLVED (MG/L AS BR)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)
MAR 1991											
05...	6.2	2.5	26	32	18	17	<0.10	0.030	9.4	116	5.36
JUN											
12...	5.8	2.5	55	66	5.6	10	<0.10	0.020	19	116	2.96

DATE	NITRO-GEN, NITRITE DIS-SOLVED (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 ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ANTI-MONY, DIS-SOLVED (UG/L AS SB)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)
MAR 1991										
05...	0.040	5.40	0.020	0.40	<0.010	<10	<1	<1	57	<0.5
JUN										
12...	0.040	3.00	0.200	0.40	<0.010	20	<1	1	85	<0.5

DATE	BORON, DIS-SOLVED (UG/L AS B)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)
MAR 1991										
05...	<10	<1.0	<5	<3	<10	47	<10	<4	130	<0.1
JUN										
12...	<10	<1.0	<5	<3	<10	57	<10	5	590	<0.1

DATE	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)	HARD-NESS TOTAL (MG/L AS CACO3)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)
MAR 1991										
05...	<10	<10	<1	<1.0	130	<6	23	68	2.4	--
JUN										
12...	<10	<10	<1	1.0	73	<6	28	71	1.3	0.03

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

SMYRNA RIVER BASIN

01483300 - PROVIDENCE CREEK AT CLAYTON, DE

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (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)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
JUN 1991 06...	0930	8.1	258	6.8	16.5	21.5	766	8.0	81	15	8.3

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	BICAR-BONATE WATER WH 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)	BROMIDE DIS-SOLVED (MG/L AS BR)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)
JUN 1991 06...	17	3.6	23	28	32	43	0.10	<0.010	15	167	4.05

DATE	NITRO-GEN, NITRITE DIS-SOLVED (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 ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ANTI-MONY, DIS-SOLVED (UG/L AS SB)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)
JUN 1991 06...	0.050	4.10	0.080	0.60	<0.010	10	<1	<1	91	<0.5

DATE	BORON, DIS-SOLVED (UG/L AS B)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)
JUN 1991 06...	20	<1.0	<5	<3	<10	46	<10	<4	230	<0.1

DATE	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)	HARD-NESS TOTAL (MG/L AS CACO3)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)
JUN 1991 06...	<10	<10	<1	<1.0	190	<6	31	72	2.6	0.05

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

ST. JONES RIVER BASIN

01483655 - FORK BRANCH NEAR DOVER, DE

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (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)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
FEB 1991 28...	1600	5.2	160	7.3	8.0	9.5	760	11.8	99	17	3.1

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	BICAR-BONATE WATER WH 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)	BROMIDE DIS-SOLVED (MG/L AS BR)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)
FEB 1991 28...	8.3	1.7	44	54	17	13	<0.10	0.22	23	115

DATE	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (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 ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ANTI-MONY, DIS-SOLVED (UG/L AS SB)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)
FEB 1991 28...	0.980	0.020	1.00	0.040	0.40	0.050	30	<1	<1	46

DATE	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	BORON, DIS-SOLVED (UG/L AS B)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
FEB 1991 28...	<0.5	20	<1.0	<5	<3	<10	310	<10	<4	87

DATE	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)	HARD-NESS TOTAL (MG/L AS CACO3)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)
FEB 1991 28...	<0.1	<10	<10	<1	<1.0	120	<6	11	55	4.8

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

ST. JONES RIVER BASIN--Continued

01483720 - PUNCHEON BRANCH AT DOVER, DE

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (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)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
JUN 1991 12...	1500	1.2	308	6.6	24.0	33.5	760	7.2	86	17	6.5

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	BICAR-BONATE WATER WH 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)	BROMIDE DIS-SOLVED (MG/L AS BR)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)
JUN 1991 12...	34	3.5	108	132	10	14	0.20	0.030	26	197	4.48

DATE	NITRO-GEN, NITRITE DIS-SOLVED (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 ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ANTI-MONY, DIS-SOLVED (UG/L AS SB)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)
JUN 1991 12...	0.020	4.50	0.040	0.50	0.020	90	<1	1	80	<0.5

DATE	BORON, DIS-SOLVED (UG/L AS B)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)
JUN 1991 12...	180	<1.0	<5	<3	<10	35	<10	9	60	<0.1

DATE	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)	HARD-NESS TOTAL (MG/L AS CACO3)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)
JUN 1991 12...	<10	<10	<1	<1.0	200	<6	9	70	1.9	0.05

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

MURDERKILL RIVER BASIN

01484050 - PRATT BRANCH NEAR FELTON, DE

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	TEMPERATURE AIR (DEG C)	BAROMETRIC PRESSURE (MM OF HG)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)
NOV 1990											
07...	1300	1.3	126	6.4	10.0	16.5	--	7.5	--	12	5.8
FEB 1991											
28...	1030	2.3	182	6.7	6.5	9.5	760	10.4	84	12	5.9
JUN											
13...	0830	1.6	142	5.5	17.0	22.0	765	9.4	97	12	5.7

DATE	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WAT WH TOT IT FIELD MG/L AS CACO3	BICARBONATE WATER WH IT FIELD MG/L AS HCO3	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, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRATE DISSOLVED (MG/L AS N)
NOV 1990											
07...	7.5	2.5	12	14	14	14	<0.10	0.020	20	107	--
FEB 1991											
28...	8.8	2.1	12	15	19	17	<0.10	0.030	18	117	--
JUN											
13...	8.3	2.2	13	15	19	18	<0.10	0.030	21	119	5.56

DATE	NITROGEN, NITRITE DISSOLVED (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 ORTHO, DISSOLVED (MG/L AS P)	ALUMINUM, DISSOLVED (UG/L AS AL)	ANTIMONY, DISSOLVED (UG/L AS SB)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)
NOV 1990										
07...	<0.010	5.40	0.010	0.40	0.040	20	<1	<1	96	<0.5
FEB 1991										
28...	<0.020	6.00	0.020	0.70	<0.010	30	<1	<1	94	<0.5
JUN										
13...	0.040	5.60	0.080	0.70	<0.010	10	<1	<1	96	<0.5

DATE	BORON, DISSOLVED (UG/L AS B)	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)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)
NOV 1990										
07...	10	<1.0	<5	<3	<10	120	<10	<4	38	<0.1
FEB 1991										
28...	<10	<1.0	<5	<3	<10	64	<10	<4	51	<0.1
JUN										
13...	20	<1.0	<5	<3	<10	71	<10	<4	57	<0.1

DATE	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)	HARDNESS TOTAL (MG/L AS CACO3)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)
NOV 1990										
07...	<10	<10	<1	<1.0	170	<6	11	54	4.1	--
FEB 1991										
28...	<10	<10	<1	<1.0	180	<6	6	55	1.6	--
JUN										
13...	<10	<10	<1	<1.0	180	<6	8	54	2.5	0.09

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

INDIAN RIVER BASIN

01484550 - PEPPER CREEK AT DAGSBORO, DE

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (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)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
NOV 1990											
08...	1430	2.6	117	6.5	10.0	15.0	--	7.6	--	13	3.7
FEB 1991											
27...	1000	6.5	180	5.7	7.5	1.0	763	10.8	90	13	3.8
27...	1001	--	--	--	--	--	--	--	--	13	3.8
JUN											
05...	0830	2.9	156	6.4	16.5	17.0	--	8.3	--	13	3.1

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	BICAR-BONATE WATER WH 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)	BROMIDE DIS-SOLVED (MG/L AS BR)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)
NOV 1990											
08...	10	4.6	18	22	21	16	<0.10	0.030	18	106	1.59
FEB 1991											
27...	10	4.2	11	14	25	19	<0.10	0.020	14	111	3.09
27...	10	4.2	--	--	25	19	<0.10	0.030	14	97	--
JUN											
05...	10	3.0	19	23	22	17	0.20	0.010	20	106	1.18

DATE	NITRO-GEN, NITRITE DIS-SOLVED (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 ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ANTI-MONY, DIS-SOLVED (UG/L AS SB)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)
NOV 1990										
08...	0.010	1.60	0.120	0.60	0.040	50	<1	<1	69	<0.5
FEB 1991										
27...	0.010	3.10	0.210	0.20	<0.010	170	<1	<1	89	<0.5
27...	--	--	--	--	--	--	<1	<1	88	<0.5
JUN										
05...	0.020	1.20	0.210	0.90	<0.010	60	<1	<1	66	<0.5

DATE	BORON, DIS-SOLVED (UG/L AS B)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)
NOV 1990										
08...	20	<1.0	<5	<3	<10	1200	<10	<4	71	<0.1
FEB 1991										
27...	20	2.0	<5	<3	<10	1100	<10	<4	61	<0.1
27...	20	<1.0	<5	<3	<10	1100	<10	<4	61	<0.1
JUN										
05...	20	<1.0	<5	<3	<10	450	<10	<4	56	<0.1

DATE	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)	HARD-NESS TOTAL (MG/L AS CACO3)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)
NOV 1990										
08...	<10	<10	<1	<1.0	81	<6	29	48	--	--
FEB 1991										
27...	<10	<10	<1	<1.0	73	<6	32	48	7.6	--
27...	<10	<10	<1	<1.0	72	<6	28	48	--	--
JUN										
05...	<10	<10	<1	<1.0	84	<6	12	45	8.4	0.08

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

WALLS LANDING CREEK BASIN

0148476710 - WALLS LANDING CREEK AT TOWNSEND, VA

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	TEMPERATURE AIR (DEG C)	BAROMETRIC PRESSURE (MM OF HG)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)
NOV 1990 14...	0730	400	6.7	10.0	7.5	767	6.0	53	58	14

DATE	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WAT WH TOT IT FIELD MG/L AS CACO3	BICARBONATE WATER WH 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. CREEK DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)
NOV 1990 14...	15	4.2	44	54	100	34	<0.10	13	322	286

DATE	NITROGEN, NITRITE DISSOLVED (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 ORTHO, DISSOLVED (MG/L AS P)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)	HARDNESS TOTAL (MG/L AS CACO3)
NOV 1990 14...	<0.010	4.80	<0.010	0.40	0.50	<0.010	<0.010	44	11	200

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

POCOMOKE RIVER BASIN

01484980 - POCOMOKE RIVER AT CAREYTOWN, MD

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	TEMPERATURE AIR (DEG C)	BAROMETRIC PRESSURE (MM OF HG)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)
NOV 1990											
14...	1300	23	200	6.3	7.0	11.0	--	8.0	--	11	4.3
FEB 1991											
26...	1550	31	108	6.1	7.0	5.0	760	9.9	82	6.5	2.2
MAY											
31...	1130	16	100	6.5	26.0	31.0	752	4.2	53	6.0	2.0

DATE	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WAT WH TOT IT FIELD MG/L AS CACO3	BICARBONATE WATER WH IT FIELD MG/L AS HCO3	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, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRATE DISSOLVED (MG/L AS N)
NOV 1990											
14...	8.6	11	26	32	25	23	<0.10	0.020	18	136	2.97
FEB 1991											
26...	7.5	2.6	10	12	12	11	<0.10	0.030	20	77	--
MAY											
31...	8.4	2.9	19	23	7.6	9.9	0.20	0.020	26	77	0.490

DATE	NITROGEN, NITRITE DISSOLVED (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 ORTHO, DISSOLVED (MG/L AS P)	ALUMINUM, DISSOLVED (UG/L AS AL)	ANTIMONY, DISSOLVED (UG/L AS SB)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)
NOV 1990										
14...	0.030	3.00	3.20	4.0	0.200	330	<1	<1	72	<0.5
FEB 1991										
26...	<0.010	1.90	0.130	0.60	<0.010	230	<1	<1	82	<0.5
MAY										
31...	0.030	0.520	0.220	1.1	<0.010	50	<1	1	53	<0.5

DATE	BORON, DISSOLVED (UG/L AS B)	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)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)
NOV 1990										
14...	20	<1.0	<5	<3	<10	370	<10	<4	120	0.1
FEB 1991										
26...	20	<1.0	<5	4	<10	560	<10	<4	89	<0.1
MAY										
31...	10	<1.0	<5	<3	<10	130	<10	<4	90	<0.1

DATE	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)	HARDNESS TOTAL (MG/L AS CACO3)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)
NOV 1990										
14...	<10	<10	<1	<1.0	65	<6	39	45	17	--
FEB 1991										
26...	<10	<10	<1	1.0	73	<6	25	25	9.2	--
MAY										
31...	<10	<10	<1	<1.0	73	<6	9	23	9.4	0.04

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

POCOMOKE RIVER BASIN--Continued

01484985 - GREEN RUN NEAR CAREYTOWN, MD

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (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)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
FEB 1991											
21...	1000	12	155	6.3	9.0	13.0	770	8.2	71	10	3.3
MAY											
31...	1030	3.8	115	6.4	27.0	31.0	756	3.2	40	7.1	2.1

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	BICAR-BONATE WATER WH 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)	BROMIDE DIS-SOLVED (MG/L AS BR)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)
FEB 1991											
21...	8.3	4.6	13	16	14	12	<0.10	0.010	17	96	3.88
MAY											
31...	8.7	3.1	24	29	6.9	9.7	0.20	<0.010	27	81	0.320

DATE	NITRO-GEN, NITRITE DIS-SOLVED (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 ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ANTI-MONY, DIS-SOLVED (UG/L AS SB)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)
FEB 1991										
21...	0.020	3.90	0.230	0.80	<0.010	40	<1	<1	89	<0.5
MAY										
31...	0.020	0.340	0.120	0.60	<0.010	10	3	1	56	<0.5

DATE	BORON, DIS-SOLVED (UG/L AS B)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)
FEB 1991										
21...	20	2.0	<5	5	<10	740	<10	<4	87	<0.1
MAY										
31...	10	<1.0	<5	4	<10	87	<10	<4	160	<0.1

DATE	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)	HARD-NESS TOTAL (MG/L AS CACO3)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)
FEB 1991										
21...	<10	<10	<1	1.0	78	<6	19	39	5.6	--
MAY										
31...	<10	<10	<1	<1.0	79	<6	10	27	7.0	0.04

01484989 - DAVIS DITCH NEAR CAREYTOWN, MD

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	TEMPERATURE AIR (DEG C)	BAROMETRIC PRESSURE (MM OF HG)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)
FEB 1991											
21...	1230	0.08	229	6.1	12.0	15.0	768	13.4	123	20	5.3
MAY											
30...	1100	0.06	215	6.5	28.0	39.0	760	6.0	77	21	5.2

DATE	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WAT WH TOT IT FIELD MG/L AS CACO3	BICARBONATE WATER WH IT FIELD MG/L AS HCO3	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, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRATE DISSOLVED (MG/L AS N)
FEB 1991											
21...	6.5	8.8	10	12	34	16	<0.10	0.010	5.4	132	6.68
MAY											
30...	6.1	5.8	46	56	33	20	0.20	0.040	11	173	--

DATE	NITROGEN, NITRITE DISSOLVED (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 ORTHO, DISSOLVED (MG/L AS P)	ALUMINUM, DISSOLVED (UG/L AS AL)	ANTIMONY, DISSOLVED (UG/L AS SB)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)
FEB 1991										
21...	0.020	6.70	0.050	1.0	<0.010	70	<1	<1	71	<0.5
MAY										
30...	<0.010	8.00	<0.010	1.5	<0.010	330	<1	1	99	<0.5

DATE	BORON, DISSOLVED (UG/L AS B)	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)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)
FEB 1991										
21...	20	<1.0	<5	3	<10	76	<10	<4	66	<0.1
MAY										
30...	30	<1.0	<5	5	<10	6400	<10	<4	550	<0.1

DATE	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)	HARDNESS TOTAL (MG/L AS CACO3)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)
FEB 1991										
21...	<10	<10	<1	<1.0	86	<6	27	72	9.8	--
MAY										
30...	<10	<10	<1	<1.0	98	<6	5	74	15	0.09

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

POCOMOKE RIVER BASIN--Continued

01484990 - DAVIS DITCH AT CAREYTOWN, MD

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (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)
APR 1991								
25...	1040	--	168	6.1	16.0	17.0	766	9.4
25...	1041	--	--	--	--	--	--	--
MAY								
31...	0900	0.39	161	6.2	24.0	32.0	757	3.8
JUN								
27...	0930	0.38	159	6.1	21.5	26.0	771	6.3
JUL								
24...	0930	0.13	130	6.2	23.0	28.0	761	8.6
AUG								
21...	0930	0.21	138	6.1	21.0	24.0	763	1.7

DATE	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (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 ORTHO, DIS-SOLVED (MG/L AS P)
APR 1991							
25...	95	3.46	0.040	3.50	0.220	1.1	<0.010
25...	--	3.36	0.040	3.40	0.230	1.0	<0.010
MAY							
31...	45	0.800	0.040	0.840	0.950	1.9	<0.010
JUN							
27...	70	1.27	0.030	1.30	0.310	0.80	0.020
JUL							
24...	100	0.360	0.020	0.380	0.170	0.80	<0.010
AUG							
21...	19	0.180	0.010	0.190	0.100	0.70	0.010

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

POCOMOKE RIVER BASIN--Continued

01485200 - ADKINS RACE AT POWELLVILLE, MD

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TEMPER-ATURE AIR (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
JUN 1991 05...	1030	1.4	114	6.6	22.5	23.5	7.2	7.1	2.8	8.6

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT WH TOT IT FIELD MG/L AS CACO3	BICAR-BONATE WATER WH 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)	BROMIDE DIS-SOLVED (MG/L AS BR)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)
JUN 1991 05...	4.8	27	32	6.5	13	0.20	0.050	19	80	0.310

DATE	NITRO-GEN, NITRITE DIS-SOLVED (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 ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ANTI-MONY, DIS-SOLVED (UG/L AS SB)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)
JUN 1991 05...	0.030	0.340	0.110	1.0	<0.010	30	<1	2	45	<0.5

DATE	BORON, DIS-SOLVED (UG/L AS B)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)
JUN 1991 05...	20	<1.0	<5	<3	<10	670	<10	<4	89	<0.1

DATE	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)	HARD-NESS TOTAL (MG/L AS CACO3)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)
JUN 1991 05...	<10	<10	<1	<1.0	49	<6	6	29	15	0.06

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

WICOMICO RIVER BASIN

01486100 - ANDREWS BRANCH NEAR DELMAR, MD

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (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)	CALCIUM DIS-SOLVED (MG/L AS CA)
FEB 1991 21...	1500	4.6	68	5.4	10.5	16.0	767	9.4	83	3.4

DATE	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	BICAR-BONATE WATER WH 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)	BROMIDE DIS-SOLVED (MG/L AS BR)	SILICA, DIS-SOLVED (MG/L AS SIO2)
FEB 1991 21...	1.2	6.2	1.8	3	4	12	7.9	<0.10	0.030	16

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE DIS-SOLVED (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 ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ANTI-MONY, DIS-SOLVED (UG/L AS SB)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)
FEB 1991 21...	53	<0.010	0.400	0.030	0.40	<0.010	390	<1	<1	54

DATE	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	BORON, DIS-SOLVED (UG/L AS B)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
FEB 1991 21...	<0.5	10	1.0	<5	<3	<10	150	<10	<4	17

DATE	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)	HARD-NESS TOTAL (MG/L AS CACO3)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)
FEB 1991 21...	<0.1	<10	<10	<1	2.0	34	<6	12	14	9.7

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

WICOMICO RIVER BASIN--Continued

01486495 - BEAVERDAM CREEK AT MT HERMON, MD

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (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)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
FEB 1991											
27...	1500	6.7	123	6.1	7.0	6.0	760	11.4	95	7.4	2.6
JUN											
05...	1300	2.7	117	6.3	18.5	23.0	765	5.5	58	7.7	2.5

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	BICAR-BONATE WATER WH 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)	BROMIDE DIS-SOLVED (MG/L AS BR)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)
FEB 1991											
27...	8.6	3.0	9	11	9.3	12	<0.10	0.020	17	84	--
JUN											
05...	9.3	2.3	18	22	3.2	11	0.20	0.070	25	91	4.07

DATE	NITRO-GEN, NITRITE DIS-SOLVED (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 ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ANTI-MONY, DIS-SOLVED (UG/L AS SB)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)
FEB 1991										
27...	<0.010	4.00	0.030	<0.20	<0.010	90	<1	<1	110	<0.5
JUN										
05...	0.030	4.10	0.140	0.50	<0.010	30	<1	1	120	<0.5

DATE	BORON, DIS-SOLVED (UG/L AS B)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)
FEB 1991										
27...	<10	2.0	<5	<3	<10	100	<10	<4	23	<0.1
JUN										
05...	<10	<1.0	6	<3	<10	190	<10	<4	29	<0.1

DATE	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)	HARD-NESS TOTAL (MG/L AS CACO3)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)
FEB 1991										
27...	<10	<10	<1	<1.0	110	<6	13	29	5.6	--
JUN										
05...	<10	<10	<1	<1.0	140	<6	8	30	4.9	0.05

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

NANTICOKE RIVER BASIN

01486980 - TOMS DAM BRANCH NEAR GREENWOOD, DE

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (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)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
FEB 1991 25...	1400	5.8	86	6.2	10.5	10.5	759	8.2	74	4.6	1.4

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	BICAR-BONATE WATER WH 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)	BROMIDE DIS-SOLVED (MG/L AS BR)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)
FEB 1991 25...	7.9	1.8	12	15	7.4	8.6	<0.10	0.030	24	73

DATE	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (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 ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ANTI-MONY, DIS-SOLVED (UG/L AS SB)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)
FEB 1991 25...	1.88	0.020	1.90	0.070	0.30	0.020	10	<1	<1	78

DATE	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	BORON, DIS-SOLVED (UG/L AS B)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
FEB 1991 25...	0.6	<10	2.0	<5	5	<10	730	<10	<4	43

DATE	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)	HARD-NESS TOTAL (MG/L AS CACO3)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)
FEB 1991 25...	<0.1	<10	<10	<1	<1.0	83	<6	20	17	4.0

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

NANTICOKE RIVER BASIN--Continued

01489995 - CHICAMACOMICO RIVER NEAR HAWKEYE, MD

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	TEMPERATURE AIR (DEG C)	BAROMETRIC PRESSURE (MM OF HG)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)
NOV 1990											
09...	0930	3.1	43	5.9	7.0	8.5	--	7.6	--	2.7	1.1
FEB 1991											
22...	1000	7.6	88	5.7	9.0	15.5	761	10.8	94	4.2	1.9
JUN											
05...	1430	3.8	80	6.3	17.5	23.5	765	8.4	88	3.3	1.4

DATE	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WAT WH TOT IT FIELD MG/L AS CACO3	BICARBONATE WATER WH IT FIELD MG/L AS HCO3	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, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRATE DISSOLVED (MG/L AS N)
NOV 1990											
09...	7.3	2.4	7	9	2.2	12	<0.10	0.040	14	53	--
FEB 1991											
22...	6.9	2.8	9	11	6.3	12	0.10	0.020	14	64	--
JUN											
05...	7.8	2.2	7	9	2.5	11	0.10	0.020	15	57	1.99

DATE	NITROGEN, NITRITE DISSOLVED (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 ORTHO, DISSOLVED (MG/L AS P)	ALUMINUM, DISSOLVED (UG/L AS AL)	ANTIMONY, DISSOLVED (UG/L AS SB)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)
NOV 1990										
09...	<0.010	1.40	0.020	<0.20	<0.010	20	<1	<1	57	<0.5
FEB 1991										
22...	<0.010	2.30	0.030	0.40	<0.010	40	<1	<1	110	<0.5
JUN										
05...	0.010	2.00	0.090	0.30	<0.010	20	<1	<1	85	<0.5

DATE	BORON, DISSOLVED (UG/L AS B)	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)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)
NOV 1990										
09...	10	<1.0	<5	<3	<10	400	<10	<4	32	<0.1
FEB 1991										
22...	10	<1.0	<5	<3	<10	180	10	<4	24	<0.1
JUN										
05...	<10	<1.0	<5	<3	<10	180	<10	<4	15	<0.1

DATE	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)	HARDNESS TOTAL (MG/L AS CACO3)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)
NOV 1990										
09...	<10	<10	<1	<1.0	33	<6	7	11	4.0	--
FEB 1991										
22...	<10	<10	<1	<1.0	52	<6	27	18	2.2	--
JUN										
05...	<10	<10	<1	<1.0	44	<6	8	14	1.7	0.03

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

CHOPTANK RIVER BASIN

01490600 - MEREDITH BRANCH NEAR SANDTOWN, DE

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (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)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
NOV 1990											
06...	1430	1.5	136	6.0	13.5	22.0	--	7.9	--	9.8	4.0
FEB 1991											
28...	1430	6.6	119	6.7	10.5	10.0	--	10.4	--	6.9	2.8
JUN											
03...	1300	5.1	122	6.4	21.0	25.5	764	7.5	84	7.9	3.2

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	BICAR-BONATE WATER WH 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)	BROMIDE DIS-SOLVED (MG/L AS BR)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)
NOV 1990											
06...	8.1	2.8	9	11	23	15	<0.10	0.010	23	101	--
FEB 1991											
28...	9.4	1.5	10	12	19	12	<0.10	0.020	23	88	1.49
JUN											
03...	8.3	2.4	13	16	15	10	<0.10	0.010	22	83	1.28

DATE	NITRO-GEN, NITRITE DIS-SOLVED (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 ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ANTI-MONY, DIS-SOLVED (UG/L AS SB)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)
NOV 1990										
06...	<0.010	2.10	<0.010	<0.20	0.030	<10	<1	<1	100	<0.5
FEB 1991										
28...	0.010	1.50	<0.010	<0.20	<0.010	<10	<1	<1	78	<0.5
JUN										
03...	0.020	1.30	0.190	0.50	<0.010	<10	<1	<1	82	<0.5

DATE	BORON, DIS-SOLVED (UG/L AS B)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)
NOV 1990										
06...	10	1.0	<5	3	<10	270	<10	<4	100	<0.1
FEB 1991										
28...	<10	<1.0	<5	4	<10	190	<10	<4	60	<0.1
JUN										
03...	10	<1.0	<5	4	<10	69	<10	<4	100	<0.1

DATE	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)	HARD-NESS TOTAL (MG/L AS CACO3)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)
NOV 1990										
06...	<10	<10	<1	<1.0	150	<6	21	41	3.4	--
FEB 1991										
28...	<10	<10	<1	<1.0	110	<6	20	29	2.2	--
JUN										
03...	<10	<10	<1	<1.0	120	<6	13	33	4.0	0.04

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

CHOPTANK RIVER BASIN--Continued

01491010 - SANGSTON PRONG NEAR WHITELEYSBURG, DE

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (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)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
NOV 1990											
07...	1120	0.84	130	6.3	11.0	17.0	--	8.9	--	9.0	2.9
FEB 1991											
28...	1330	1.9	136	6.6	12.5	10.5	760	10.8	102	8.7	2.9
JUN											
13...	1130	0.92	136	5.8	20.0	29.0	765	8.6	94	9.4	3.0

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	BICAR-BONATE WATER WH 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)	BROMIDE DIS-SOLVED (MG/L AS BR)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)
NOV 1990											
07...	9.9	1.8	11	14	9.4	13	<0.10	0.020	28	100	--
FEB 1991											
28...	10	1.6	12	14	12	15	<0.10	0.020	26	103	4.28
JUN											
13...	10	1.7	12	15	8.2	14	<0.10	0.020	26	97	3.77

DATE	NITRO-GEN, NITRITE DIS-SOLVED (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 ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ANTI-MONY, DIS-SOLVED (UG/L AS SB)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)
NOV 1990										
07...	<0.010	4.20	0.010	0.20	0.030	<10	<1	<1	120	<0.5
FEB 1991										
28...	0.020	4.30	0.020	0.50	<0.010	<10	<1	<1	130	<0.5
JUN										
13...	0.030	3.80	0.030	0.40	<0.010	<10	<1	<1	140	0.6

DATE	BORON, DIS-SOLVED (UG/L AS B)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)
NOV 1990										
07...	<10	<1.0	<5	6	<10	73	<10	5	61	<0.1
FEB 1991										
28...	<10	<1.0	<5	20	<10	64	<10	<4	61	<0.1
JUN										
13...	<10	<1.0	<5	9	<10	63	<10	<4	52	<0.1

DATE	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)	HARD-NESS TOTAL (MG/L AS CACO3)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)
NOV 1990										
07...	<10	<10	<1	<1.0	160	<6	16	35	1.7	--
FEB 1991										
28...	<10	<10	<1	<1.0	150	<6	22	34	--	--
JUN										
13...	<10	<10	<1	<1.0	170	<6	18	36	2.5	0.04

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

CHOPTANK RIVER BASIN--Continued

01491050 - SPRING BRANCH NEAR GREENSBORO, MD

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (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)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
JUN 1991 10...	1330	1.4	95	5.9	18.5	32.0	767	7.2	77	5.3	3.0

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	BICAR-BONATE WATER WH 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)	BROMIDE DIS-SOLVED (MG/L AS BR)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)
JUN 1991 10...	5.6	2.5	8	10	3.3	9.6	0.20	0.030	17	75	5.29

DATE	NITRO-GEN, NITRITE DIS-SOLVED (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 ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ANTI-MONY, DIS-SOLVED (UG/L AS SB)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)
JUN 1991 10...	0.010	5.30	0.060	0.30	<0.010	30	<1	<1	140	<0.5

DATE	BORON, DIS-SOLVED (UG/L AS B)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)
JUN 1991 10...	30	<1.0	<5	<3	<10	88	<10	<4	30	<0.1

DATE	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)	HARD-NESS TOTAL (MG/L AS CACO3)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)
JUN 1991 10...	<10	<10	<1	<1.0	88	<6	8	26	1.4	0.05

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

CHOPTANK RIVER BASIN--Continued

01491800 - KNOTT MILLPOND NEAR HILLSBORO, MD

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (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)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
NOV 1990											
07...	0930	5.7	137	6.2	10.0	12.5	--	9.5	--	8.4	5.4
FEB 1991											
22...	1500	10	143	6.4	12.5	23.0	757	10.4	98	8.5	5.5
JUN											
10...	1500	4.8	135	6.0	25.0	34.0	767	7.0	84	8.4	5.3

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	BICAR-BONATE WATER WH 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)	BROMIDE DIS-SOLVED (MG/L AS BR)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)
NOV 1990											
07...	5.4	3.8	11	13	4.8	13	<0.10	0.020	14	91	--
FEB 1991											
22...	5.8	3.5	26	32	5.5	14	<0.10	0.020	13	78	1.29
JUN											
10...	5.6	3.4	9	11	4.3	15	<0.10	0.040	16	95	7.08

DATE	NITRO-GEN, NITRITE DIS-SOLVED (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 ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ANTI-MONY, DIS-SOLVED (UG/L AS SB)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)
NOV 1990										
07...	<0.010	6.60	0.020	0.50	0.040	10	<1	<1	210	<0.5
FEB 1991										
22...	0.010	1.30	0.020	0.50	<0.010	20	<1	<1	220	<0.5
JUN										
10...	0.020	7.10	0.050	0.60	<0.010	10	<1	<1	230	<0.5

DATE	BORON, DIS-SOLVED (UG/L AS B)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)
NOV 1990										
07...	<10	<1.0	<5	<3	<10	68	<10	<4	18	<0.1
FEB 1991										
22...	<10	<1.0	<5	<3	<10	31	10	<4	25	<0.1
JUN										
10...	<10	<1.0	<5	<3	<10	46	<10	<4	20	<0.1

DATE	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)	HARD-NESS TOTAL (MG/L AS CACO3)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)
NOV 1990										
07...	<10	<10	<1	<1.0	120	<6	19	44	3.1	--
FEB 1991										
22...	<10	<10	<1	<1.0	120	<6	9	44	2.2	--
JUN										
10...	<10	<10	<1	<1.0	130	<6	3	43	2.0	0.07

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

CHOPTANK RIVER BASIN--Continued

01491950 - KINGS CREEK NEAR EASTON, MD

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (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)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
JUN 1991 11...	1430	0.90	212	7.3	22.5	32.0	765	7.5	87	17	6.6

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	BICAR-BONATE WATER WH 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)	BROMIDE DIS-SOLVED (MG/L AS BR)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)
JUN 1991 11...	11	3.2	33	40	8.7	22	<0.10	0.020	18	126	4.27

DATE	NITRO-GEN, NITRITE DIS-SOLVED (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 ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ANTI-MONY, DIS-SOLVED (UG/L AS SB)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)
JUN 1991 11...	0.030	4.30	0.050	0.30	0.060	10	<1	<1	63	<0.5

DATE	BORON, DIS-SOLVED (UG/L AS B)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)
JUN 1991 11...	10	<1.0	<5	<3	<10	140	<10	<4	48	0.1

DATE	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)	HARD-NESS TOTAL (MG/L AS CACO3)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)
JUN 1991 11...	<10	<10	<1	<1.0	120	<6	<3	70	4.0	0.04

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

CHOPTANK RIVER BASIN--Continued

01492050 - GRAVEL RUN AT BEULAH, MD

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (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)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
JUN 1991 05...	1630	5.3	170	6.3	18.5	21.5	765	7.5	80	10	5.8

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	BICAR-BONATE WATER WH 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)	BROMIDE DIS-SOLVED (MG/L AS BR)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)
JUN 1991 05...	7.7	4.0	15	18	4.8	20	0.10	0.010	13	104	6.29

DATE	NITRO-GEN, NITRITE DIS-SOLVED (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 ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ANTI-MONY, DIS-SOLVED (UG/L AS SB)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)
JUN 1991 05...	0.110	6.40	0.550	1.1	<0.010	<10	<1	<1	300	<0.5

DATE	BORON, DIS-SOLVED (UG/L AS B)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)
JUN 1991 05...	10	<1.0	<5	<3	<10	110	<10	<4	130	<0.1

DATE	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)	HARD-NESS TOTAL (MG/L AS CACO3)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)
JUN 1991 05...	<10	<10	<1	<1.0	180	<6	10	49	2.0	0.06

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

CHOPTANK RIVER BASIN--Continued

01492080 - CABIN CREEK AT CABIN CREEK, MD

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (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)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
NOV 1990											
09...	1130	4.2	84	6.1	9.5	16.0	--	8.3	--	6.8	4.3
FEB 1991											
22...	1230	8.5	130	5.6	10.5	22.0	759	10.4	94	7.6	4.7
JUN											
03...	1700	5.6	125	6.8	23.5	27.5	762	7.5	88	7.5	4.6

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	BICAR-BONATE WATER WH 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)	BROMIDE DIS-SOLVED (MG/L AS BR)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)
NOV 1990											
09...	5.1	4.3	15	18	2.3	15	<0.10	0.020	10	80	--
FEB 1991											
22...	5.5	4.4	22	26	3.8	14	<0.10	0.020	9.6	68	1.19
JUN											
03...	5.8	4.1	18	22	2.0	14	<0.10	0.020	11	79	4.17

DATE	NITRO-GEN, NITRITE DIS-SOLVED (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 ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ANTI-MONY, DIS-SOLVED (UG/L AS SB)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)
NOV 1990										
09...	<0.010	5.20	0.010	0.60	<0.010	20	<1	<1	320	<0.5
FEB 1991										
22...	0.010	1.20	0.030	0.30	<0.010	30	<1	<1	350	0.5
JUN										
03...	0.030	4.20	0.050	0.60	<0.010	<10	<1	<1	400	<0.5

DATE	BORON, DIS-SOLVED (UG/L AS B)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)
NOV 1990										
09...	10	<1.0	<5	<3	<10	110	<10	<4	27	<0.1
FEB 1991										
22...	<10	<1.0	<5	<3	<10	68	<10	<4	27	<0.1
JUN										
03...	10	<1.0	5	<3	<10	84	<10	<4	54	<0.1

DATE	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)	HARD-NESS TOTAL (MG/L AS CACO3)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)
NOV 1990										
09...	<10	<10	<1	<1.0	110	<6	8	35	2.1	--
FEB 1991										
22...	<10	<10	<1	<1.0	120	<6	49	39	2.3	--
JUN										
03...	<10	<10	<1	<1.0	130	<6	25	38	2.6	0.06

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

WYE EAST RIVER BASIN

01492560 - MILL CREEK NEAR WYE MILLS, MD

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	TEMPERATURE AIR (DEG C)	BAROMETRIC PRESSURE (MM OF HG)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)
JUN 1991											
11...	1030	261	7.2	20.5	25.0	765	8.4	93	26	9.2	6.3

DATE	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WAT WH TOT IT FIELD MG/L AS CACO3	BICARBONATE WATER WH IT FIELD MG/L AS HCO3	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, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRATE DISSOLVED (MG/L AS N)
JUN 1991										
11...	3.1	29	35	23	20	0.30	0.030	18	160	8.17

DATE	NITROGEN, NITRITE DISSOLVED (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 ORTHO, DISSOLVED (MG/L AS P)	ALUMINUM, DISSOLVED (UG/L AS AL)	ANTIMONY, DISSOLVED (UG/L AS SB)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)
JUN 1991										
11...	0.030	8.20	0.030	0.50	<0.010	<10	<1	<1	120	<0.5

DATE	BORON, DISSOLVED (UG/L AS B)	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)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)
JUN 1991										
11...	10	<1.0	<5	<3	<10	40	<10	<4	52	<0.1

DATE	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)	HARDNESS TOTAL (MG/L AS CACO3)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)
JUN 1991										
11...	<10	<10	<1	<1.0	250	<6	6	100	2.3	0.05

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

CHESTER RIVER BASIN

01492960 - CYPRESS BRANCH NEAR VAN DYKE, DE

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (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)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
NOV 1990											
08...	0920	0.04	67	6.0	7.5	8.0	--	2.4	--	5.7	2.8
MAR 1991											
05...	1310	0.19	113	6.4	12.0	15.0	755	13.0	121	6.5	3.4
APR											
24...	1050	--	91	5.9	13.0	16.5	756	9.2	88	--	--
24...	1051	--	--	--	--	--	--	--	--	--	--
24...	1650	--	66	--	13.0	13.0	--	10.4	--	--	--
MAY											
29...	1130	0.06	102	6.1	--	30.5	--	3.7	--	5.9	2.6
JUN											
18...	1120	1.4	179	6.5	21.0	20.5	765	6.2	69	11	5.3
18...	1730	0.30	177	6.3	20.0	19.5	764	6.0	66	11	5.4
26...	0930	0.07	138	6.5	17.5	24.0	768	4.0	41	--	--
JUL											
23...	0900	--	167	6.3	25.0	29.0	758	8.4	102	--	--
AUG											
19...	1030	0.00	129	6.1	23.0	27.0	754	1.7	20	--	--

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	BICAR-BONATE WATER WH 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)	BROMIDE DIS-SOLVED (MG/L AS BR)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)
NOV 1990											
08...	7.3	4.1	17	21	6.3	9.4	<0.10	0.11	22	75	1.18
MAR 1991											
05...	8.1	2.4	33	40	11	13	<0.10	0.030	17	88	--
APR											
24...	--	--	--	--	--	--	--	--	--	--	1.32
24...	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	0.490
MAY											
29...	8.9	1.5	14	17	3.9	11	<0.10	0.040	24	76	1.95
JUN											
18...	6.6	6.8	--	--	15	17	0.20	0.040	15	108	4.97
18...	7.5	6.4	--	--	16	18	0.10	0.030	16	105	3.24
26...	--	--	--	--	--	--	--	--	--	--	1.71
JUL											
23...	--	--	--	--	--	--	--	--	--	--	--
AUG											
19...	--	--	--	--	--	--	--	--	--	--	0.170

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

CHESTER RIVER BASIN--Continued

01492960 - CYPRESS BRANCH NEAR VAN DYKE, DE--Continued

DATE	NITROGEN, NITRITE DISSOLVED (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 ORTHO, DISSOLVED (MG/L AS P)	ALUMINUM, DISSOLVED (UG/L AS AL)	ANTIMONY, DISSOLVED (UG/L AS SB)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)
NOV 1990										
08...	0.020	1.20	0.060	0.70	0.140	30	<1	<1	37	<0.5
MAR 1991										
05...	<0.010	1.50	0.040	0.90	0.010	140	<1	<1	55	<0.5
APR										
24...	0.080	1.40	0.130	0.70	0.040	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--
24...	0.090	0.580	0.100	0.90	0.090	--	--	--	--	--
MAY										
29...	0.050	2.00	0.170	0.80	0.020	10	<1	<1	44	0.7
JUN										
18...	0.130	5.10	2.10	3.6	0.630	70	<1	<1	66	<0.5
18...	0.160	3.40	1.20	2.6	0.220	50	2	<1	70	<0.5
26...	0.090	1.80	0.330	1.1	0.050	--	--	--	--	--
JUL										
23...	<0.010	<0.050	1.60	3.1	0.650	--	--	--	--	--
AUG										
19...	0.020	0.190	1.00	1.8	0.080	--	--	--	--	--

DATE	BORON, DISSOLVED (UG/L AS B)	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)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)
NOV 1990										
08...	10	<1.0	<5	<3	<10	580	<10	<4	89	<0.1
MAR 1991										
05...	10	<1.0	<5	<3	<10	230	<10	<4	19	0.2
APR										
24...	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--
MAY										
29...	<10	<1.0	<5	<3	10	190	<10	<4	61	<0.1
JUN										
18...	20	<1.0	<5	<3	<10	480	<10	<4	140	--
18...	10	<1.0	<5	<3	<10	500	<10	<4	150	--
26...	--	--	--	--	--	--	--	--	--	--
JUL										
23...	--	--	--	--	--	--	--	--	--	--
AUG										
19...	--	--	--	--	--	--	--	--	--	--

DATE	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)	HARDNESS TOTAL (MG/L AS CACO3)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)
NOV 1990										
08...	<10	<10	<1	<1.0	56	<6	8	26	7.5	--
MAR 1991										
05...	<10	<10	<1	<1.0	59	<6	18	30	10	--
APR										
24...	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--
MAY										
29...	<10	<10	<1	<1.0	67	<6	5	26	3.7	0.08
JUN										
18...	<10	<10	<1	<1.0	80	<6	21	49	15	--
18...	<10	<10	<1	<1.0	88	<6	20	50	13	--
26...	--	--	--	--	--	--	--	--	--	--
JUL										
23...	--	--	--	--	--	--	--	--	--	--
AUG										
19...	--	--	--	--	--	--	--	--	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

CHESTER RIVER BASIN--Continued

01492971 - CYPRESS BRANCH NEAR MILLINGTON, MD

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (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)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
NOV 1990											
08...	1110	0.24	77	6.1	9.0	15.0	--	3.3	--	7.6	3.8
MAR 1991											
06...	1200	14	78	6.0	11.0	17.0	755	11.6	106	4.7	2.3
JUN											
06...	1100	0.15	102	6.6	20.5	29.0	760	1.0	11	8.1	4.0

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	BICAR-BONATE WATER WH 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)	BROMIDE DIS-SOLVED (MG/L AS BR)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)
NOV 1990											
08...	5.0	4.0	12	14	12	12	0.10	0.020	16	70	--
MAR 1991											
06...	5.1	1.8	5	6	13	8.7	<0.10	0.030	11	51	--
JUN											
06...	5.6	2.5	28	34	3.0	12	0.20	0.070	17	75	0.140

DATE	NITRO-GEN, NITRITE DIS-SOLVED (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 ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ANTI-MONY, DIS-SOLVED (UG/L AS SB)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)
NOV 1990										
08...	<0.010	0.100	0.040	0.90	0.050	70	<1	<1	63	<0.5
MAR 1991										
06...	<0.010	0.220	0.020	0.60	<0.010	190	1	<1	45	<0.5
JUN										
06...	0.010	0.150	0.650	1.3	<0.010	70	<1	2	60	<0.5

DATE	BORON, DIS-SOLVED (UG/L AS B)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)
NOV 1990										
08...	20	<1.0	<5	<3	<10	1400	<10	<4	210	<0.1
MAR 1991										
06...	<10	1.0	<5	<3	<10	360	<10	<4	32	<0.1
JUN										
06...	20	<1.0	<5	10	<10	2500	<10	<4	1300	<0.1

DATE	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)	HARD-NESS TOTAL (MG/L AS CACO3)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)
NOV 1990										
08...	<10	<10	<1	<1.0	60	<6	110	35	12	--
MAR 1991										
06...	<10	<10	<1	<1.0	41	<6	21	21	12	--
JUN										
06...	<10	<10	<1	<1.0	71	<6	9	37	21	0.06

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

CHESTER RIVER BASIN--Continued

01492972 - JASON BRANCH NEAR MASSEY, MD

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (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)	CALCIUM DIS-SOLVED (MG/L AS CA)
MAR 1991 12...	1100	1.1	48	4.9	4.0	10.0	774	11.4	85	2.1

DATE	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	BICAR-BONATE WATER WH 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)	BROMIDE DIS-SOLVED (MG/L AS BR)	SILICA, DIS-SOLVED (MG/L AS SIO2)
MAR 1991 12...	1.2	3.5	0.90	<1	<1	8.5	5.0	<0.10	0.020	11

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE DIS-SOLVED (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 ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ANTI-MONY, DIS-SOLVED (UG/L AS SB)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)
MAR 1991 12...	34	<0.010	<0.050	0.050	0.40	<0.010	280	<1	<1	48

DATE	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	BORON, DIS-SOLVED (UG/L AS B)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
MAR 1991 12...	0.5	<10	<1.0	<5	5	<10	550	<10	<4	180

DATE	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)	HARD-NESS TOTAL (MG/L AS CACO3)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)
MAR 1991 12...	<0.1	<10	<10	<1	<1.0	22	<6	29	10	12

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

CHESTER RIVER BASIN--Continued

01492990 - MILL BRANCH NEAR MILLINGTON, MD

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (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)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
JUN 1991 06...	1400	3.0	248	7.6	17.0	28.5	760	6.6	68	37	4.3

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	BICAR-BONATE WATER WH 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)	BROMIDE DIS-SOLVED (MG/L AS BR)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)
JUN 1991 06...	5.6	3.0	92	112	14	14	0.30	<0.010	19	158	1.04

DATE	NITRO-GEN, NITRITE DIS-SOLVED (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 ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ANTI-MONY, DIS-SOLVED (UG/L AS SB)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)
JUN 1991 06...	0.060	1.10	0.080	0.40	<0.010	<10	<1	1	94	<0.5

DATE	BORON, DIS-SOLVED (UG/L AS B)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)
JUN 1991 06...	20	<1.0	<5	<3	<10	26	10	5	200	<0.1

DATE	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)	HARD-NESS TOTAL (MG/L AS CACO3)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)
JUN 1991 06...	<10	<10	<1	<1.0	120	<6	8	110	3.5	0.02

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

CHESTER RIVER BASIN--Continued

01493109 - JUSTIN BRANCH NEAR CHESTERVILLE, MD

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (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)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
MAR 1991											
06...	1400	0.15	205	6.1	12.0	17.0	755	9.6	90	15	8.7
MAY											
30...	1230	0.12	207	6.1	20.0	32.0	765	7.0	77	15	8.7

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	BICAR-BONATE WATER WH 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)	BROMIDE DIS-SOLVED (MG/L AS BR)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)
MAR 1991											
06...	4.4	3.6	10	12	18	16	<0.10	0.020	7.7	129	11.0
MAY											
30...	5.0	3.7	14	17	11	16	<0.10	0.020	10	127	10.9

DATE	NITRO-GEN, NITRITE DIS-SOLVED (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 ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ANTI-MONY, DIS-SOLVED (UG/L AS SB)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)
MAR 1991										
06...	0.010	11.0	0.100	0.80	<0.010	<10	<1	<1	150	<0.5
MAY										
30...	0.130	11.0	0.150	1.2	<0.010	<10	<1	<1	160	0.5

DATE	BORON, DIS-SOLVED (UG/L AS B)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)
MAR 1991										
06...	<10	<1.0	<5	<3	<10	27	<10	<4	370	<0.1
MAY										
30...	<10	<1.0	<5	<3	<10	25	<10	<4	150	<0.1

DATE	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)	HARD-NESS TOTAL (MG/L AS CACO3)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)
MAR 1991										
06...	<10	<10	<1	<1.0	100	<6	4	74	1.4	--
MAY										
30...	<10	<10	<1	<1.0	110	<6	11	74	1.5	0.08

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

CHESTER RIVER BASIN--Continued

01493110 - CHESTER RIVER TRIBUTARY AT CHESTERVILLE, MD

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (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)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
NOV 1990												
05...	1340	0.75	136	6.5	13.5	23.0	760	8.5	82	14	5.9	4.4
MAR 1991												
06...	1300	1.0	169	6.6	12.0	17.0	755	12.4	116	14	6.0	4.4
APR												
23...	1900	--	167	6.5	15.5	19.0	759	11.6	117	--	--	--
MAY												
28...	1300	1.0	172	6.6	20.0	33.0	765	11.0	121	14	6.0	4.4
29...	1200	--	163	6.3	20.0	29.0	--	--	--	--	--	--
JUN												
25...	1030	0.67	137	6.5	16.5	26.0	769	8.2	84	--	--	--
JUL												
22...	1030	0.75	162	6.1	21.0	33.0	764	7.9	88	--	--	--
AUG												
19...	0900	0.64	--	--	19.5	28.0	--	--	--	--	--	--
SEP												
16...	1030	0.55	167	6.7	18.5	26.0	766	9.7	103	--	--	--

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT WH TOT IT FIELD MG/L AS CACO3	BICAR-BONATE WATER WH 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)	BROMIDE DIS-SOLVED (MG/L AS BR)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)
NOV 1990											
05...	2.9	16	20	6.5	13	<0.10	0.020	11	109	9.29	0.010
MAR 1991											
06...	2.9	15	18	12	12	<0.10	0.020	8.8	110	--	<0.010
APR											
23...	--	--	--	--	--	--	--	--	--	--	<0.010
MAY											
28...	3.8	--	--	9.7	15	<0.10	0.020	11	115	9.17	0.030
29...	--	--	--	--	--	--	--	--	--	8.88	0.020
JUN											
25...	--	--	--	--	--	--	--	--	--	8.78	0.020
JUL											
22...	--	--	--	--	--	--	--	--	--	--	<0.010
AUG											
19...	--	--	--	--	--	--	--	--	--	8.09	0.010
SEP											
16...	--	--	--	--	--	--	--	--	--	5.35	0.050

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

CHESTER RIVER BASIN--Continued

01493110 - CHESTER RIVER TRIBUTARY AT CHESTERVILLE, MD--Continued

DATE	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	ALUMINUM, DISSOLVED (UG/L AS AL)	ANTIMONY, DISSOLVED (UG/L AS SB)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	BORON, DISSOLVED (UG/L AS B)	CADMIUM DISSOLVED (UG/L AS CD)
NOV 1990											
05...	9.30	0.010	0.90	0.020	<10	<1	<1	140	<0.5	<10	<1.0
MAR 1991											
06...	9.20	0.020	0.70	<0.010	20	<1	<1	130	<0.5	<10	<1.0
APR											
23...	8.50	0.030	0.50	<0.010	--	--	--	--	--	--	--
MAY											
28...	9.20	0.050	0.70	<0.010	<10	<1	<1	130	0.5	10	<1.0
29...	8.90	0.080	0.50	<0.010	--	--	--	--	--	--	--
JUN											
25...	8.80	0.050	0.50	<0.010	--	--	--	--	--	--	--
JUL											
22...	7.60	0.040	1.3	0.040	--	--	--	--	--	--	--
AUG											
19...	8.10	0.030	0.80	0.020	--	--	--	--	--	--	--
SEP											
16...	10.3	0.040	0.50	0.030	--	--	--	--	--	--	--

DATE	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)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)
NOV 1990											
05...	<5	<3	<10	29	<10	<4	52	<0.1	<10	<10	<1
MAR 1991											
06...	<5	<3	<10	13	<10	<4	36	<0.1	<10	<10	<1
APR											
23...	--	--	--	--	--	--	--	--	--	--	--
MAY											
28...	<5	<3	<10	21	<10	<4	63	<0.1	<10	<10	<1
29...	--	--	--	--	--	--	--	--	--	--	--
JUN											
25...	--	--	--	--	--	--	--	--	--	--	--
JUL											
22...	--	--	--	--	--	--	--	--	--	--	--
AUG											
19...	--	--	--	--	--	--	--	--	--	--	--
SEP											
16...	--	--	--	--	--	--	--	--	--	--	--

DATE	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)	ZINC, DISSOLVED (UG/L AS ZN)	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT)	GROSS BETA, DISSOLVED (PCI/L AS CS-137)	RADON 222 TOTAL (PCI/L)	GROSS BETA, DISSOLVED (PCI/L AS SR/YT-90)	HARDNESS TOTAL (MG/L AS CACO3)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)
NOV 1990											
05...	<1.0	85	<6	12	0.9	3.2	98	2.6	59	1.5	--
MAR 1991											
06...	<1.0	86	<6	7	--	--	96	--	60	1.2	--
APR											
23...	--	--	--	--	--	--	--	--	--	--	--
MAY											
28...	<1.0	87	<6	11	--	--	--	--	60	1.7	0.06
29...	--	--	--	--	--	--	--	--	--	--	--
JUN											
25...	--	--	--	--	--	--	--	--	--	--	--
JUL											
22...	--	--	--	--	--	--	--	--	--	--	--
AUG											
19...	--	--	--	--	--	--	--	--	--	--	--
SEP											
16...	--	--	--	--	--	--	--	--	--	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

CHESTER RIVER BASIN--Continued

01493112 - CHESTER RIVER TRIBUTARY NEAR CRUMPTON, MD

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (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)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
NOV 1990												
06...	1140	4.9	138	6.6	13.0	18.0	--	7.8	--	14	3.6	5.4
MAR 1991												
01...	1200	6.7	153	7.1	9.0	20.5	760	12.6	110	14	4.0	5.1
MAY												
29...	1500	6.4	148	6.5	24.0	31.5	765	8.2	97	14	4.0	5.2

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT WH TOT IT FIELD MG/L AS CACO3	BICAR-BONATE WATER WH 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)	BROMIDE DIS-SOLVED (MG/L AS BR)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)
NOV 1990											
06...	3.1	26	31	3.0	12	<0.10	0.010	11	96	6.36	0.040
MAR 1991											
01...	2.8	20	24	5.4	13	<0.10	0.020	9.5	97	6.98	0.020
MAY											
29...	2.9	24	29	3.2	12	<0.10	0.010	11	94	6.17	0.030

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 DIS. (MG/L AS N)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ANTI-MONY, DIS-SOLVED (UG/L AS SB)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	BORON, DIS-SOLVED (UG/L AS B)	CADMIUM DIS-SOLVED (UG/L AS CD)
NOV 1990											
06...	6.40	0.090	0.60	0.040	<10	<1	<1	90	<0.5	<10	<1.0
MAR 1991											
01...	7.00	0.030	0.60	<0.010	<10	<1	<1	90	<0.5	<10	<1.0
MAY											
29...	6.20	0.050	0.50	<0.010	<10	<1	<1	90	<0.5	<10	<1.0

DATE	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)
NOV 1990											
06...	<5	<3	<10	160	<10	<4	110	0.2	<10	<10	<1
MAR 1991											
01...	<5	<3	<10	53	<10	<4	59	0.1	<10	<10	<1
MAY											
29...	<5	<3	<10	46	<10	<4	40	<0.1	<10	<10	<1

DATE	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137)	RADON 222 TOTAL (PCI/L)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90)	HARD-NESS TOTAL (MG/L AS CACO3)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)
NOV 1990											
06...	<1.0	68	<6	14	<0.4	2.4	<80	2.0	50	2.2	--
MAR 1991											
01...	<1.0	70	<6	12	--	--	--	--	52	1.1	--
MAY											
29...	<1.0	74	<6	<3	--	--	--	--	52	1.4	0.05

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

CHESTER RIVER BASIN--Continued

01493490 - MORGAN CREEK TRIBUTARY AT BLACK, MD

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (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)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
MAR 1991											
06...	1500	<0.01	149	6.8	11.5	14.0	755	13.6	127	12	4.8
MAY											
30...	1100	0.01	192	6.6	24.0	31.0	760	0.4	5	14	5.9

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	BICAR-BONATE WATER WH 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)	BROMIDE DIS-SOLVED (MG/L AS BR)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)
MAR 1991											
06...	6.2	2.3	18	21	12	13	<0.10	0.020	3.5	84	4.38
MAY											
30...	7.2	2.1	38	46	11	12	<0.10	0.020	10	105	3.61

DATE	NITRO-GEN, NITRITE DIS-SOLVED (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 ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ANTI-MONY, DIS-SOLVED (UG/L AS SB)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)
MAR 1991										
06...	0.020	4.40	0.040	0.60	<0.010	20	<1	<1	58	<0.5
MAY										
30...	0.090	3.70	1.10	1.8	<0.010	<10	<1	1	160	<0.5

DATE	BORON, DIS-SOLVED (UG/L AS B)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)
MAR 1991										
06...	<10	<1.0	<5	<3	<10	67	<10	<4	170	<0.1
MAY										
30...	<10	<1.0	<5	3	<10	14	<10	<4	2500	<0.1

DATE	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)	HARD-NESS TOTAL (MG/L AS CACO3)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)
MAR 1991										
06...	<10	<10	<1	<1.0	98	<6	5	50	3.9	--
MAY										
30...	<10	<10	<1	<1.0	150	<6	5	60	4.1	0.06

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

CHESTER RIVER BASIN--Continued

01493495 - MORGAN CREEK NEAR LOCUST GROVE, MD

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (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)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
NOV 1990												
06...	0930	1.2	160	6.5	12.0	12.0	--	6.4	--	17	5.7	6.2
MAR 1991												
06...	1130	2.0	155	7.0	8.5	17.0	755	11.4	99	12	5.0	6.1
MAY												
30...	1000	1.4	167	6.4	20.5	26.5	760	7.4	83	15	5.8	6.8

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT WH TOT IT FIELD MG/L AS CACO3	BICAR-BONATE WATER WH 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)	BROMIDE DIS-SOLVED (MG/L AS BR)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)
NOV 1990											
06...	4.3	52	63	4.2	16	0.10	0.010	16	107	1.28	0.020
MAR 1991											
06...	3.7	29	36	8.1	13	<0.10	<0.010	8.8	87	2.69	0.010
MAY											
30...	3.4	45	55	4.4	15	<0.10	<0.010	15	104	2.47	0.030

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 DIS. (MG/L AS N)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ANTI-MONY, DIS-SOLVED (UG/L AS SB)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	BORON, DIS-SOLVED (UG/L AS B)	CADMIUM DIS-SOLVED (UG/L AS CD)
NOV 1990											
06...	1.30	0.030	0.30	0.030	<10	<1	<1	79	<0.5	10	<1.0
MAR 1991											
06...	2.70	0.030	0.40	<0.010	10	<1	<1	63	<0.5	<10	<1.0
MAY											
30...	2.50	0.050	0.60	<0.010	20	<1	<1	75	0.5	10	<1.0

DATE	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)
NOV 1990											
06...	<5	<3	<10	190	<10	<4	400	<0.1	<10	<10	<1
MAR 1991											
06...	<5	<3	<10	230	<10	<4	140	<0.1	<10	<10	<1
MAY											
30...	<5	<3	<10	23	<10	<4	220	<0.1	<10	<10	<1

DATE	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137)	RADON 222 TOTAL (PCI/L)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90)	HARD-NESS TOTAL (MG/L AS CACO3)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)
NOV 1990											
06...	<1.0	89	<6	51	<0.4	5.4	<80	4.3	66	5.8	--
MAR 1991											
06...	<1.0	69	<6	3	--	--	<80	--	51	3.9	--
MAY											
30...	<1.0	92	<6	21	--	--	--	--	62	3.4	0.04

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

CHESTER RIVER BASIN--Continued

01494035 - MILL POND OUTLET NEAR LANGFORD, MD

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (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)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
JUN 1991 07...	0930	3.1	122	7.0	19.0	23.5	760	6.8	73	12	4.1

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	BICAR-BONATE WATER WH 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)	BROMIDE DIS-SOLVED (MG/L AS BR)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)
JUN 1991 07...	3.9	2.4	36	44	4.2	9.9	0.20	<0.010	9.1	72	0.940

DATE	NITRO-GEN, NITRITE DIS-SOLVED (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 ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ANTI-MONY, DIS-SOLVED (UG/L AS SB)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)
JUN 1991 07...	0.020	0.960	0.050	0.30	<0.010	<10	<1	<1	43	<0.5

DATE	BORON, DIS-SOLVED (UG/L AS B)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)
JUN 1991 07...	10	<1.0	<5	<3	<10	24	<10	<4	120	<0.1

DATE	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)	HARD-NESS TOTAL (MG/L AS CACO3)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)
JUN 1991 07...	<10	<10	<1	1.0	55	<6	4	47	3.4	0.04

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

CHESTER RIVER BASIN--Continued

01494090 - OLD MILLSTREAM BRANCH NEAR CENTERVILLE, MD

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (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)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
JUN 1991 11...	1230	4.8	245	7.2	22.0	30.0	765	8.1	92	25	7.3

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	BICAR-BONATE WATER WH 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)	BROMIDE DIS-SOLVED (MG/L AS BR)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)
JUN 1991 11...	7.5	2.8	47	57	14	22	0.30	0.010	16	142	4.07

DATE	NITRO-GEN, NITRITE DIS-SOLVED (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 ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ANTI-MONY, DIS-SOLVED (UG/L AS SB)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)
JUN 1991 11...	0.030	4.10	0.040	0.40	0.010	10	<1	<1	75	<0.5

DATE	BORON, DIS-SOLVED (UG/L AS B)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)
JUN 1991 11...	10	<1.0	<5	<3	<10	26	<10	<4	54	<0.1

DATE	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)	HARD-NESS TOTAL (MG/L AS CACO3)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)
JUN 1991 11...	<10	10	<1	<1.0	230	<6	4	93	4.0	0.04

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

BOHEMIA RIVER BASIN

01495935 - LITTLE BOHEMIA CREEK NEAR WARWICK, MD

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	TEMPERATURE AIR (DEG C)	BAROMETRIC PRESSURE (MM OF HG)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)
MAR 1991											
06...	1440	2.4	175	6.9	12.0	17.0	754	12.2	114	13	5.3
JUN											
12...	1200	1.8	167	6.5	23.5	25.5	760	6.2	74	14	5.9

DATE	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WAT WH TOT IT FIELD MG/L AS CACO3	BICARBONATE WATER WH IT FIELD MG/L AS HCO3	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, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRATE DISSOLVED (MG/L AS N)
MAR 1991											
06...	8.1	2.8	20	24	15	18	<0.10	0.020	9.8	103	4.28
JUN											
12...	7.7	1.9	36	43	9.2	15	<0.10	<0.010	9.6	98	2.87

DATE	NITROGEN, NITRITE DISSOLVED (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 ORTHO, DISSOLVED (MG/L AS P)	ALUMINUM, DISSOLVED (UG/L AS AL)	ANTIMONY, DISSOLVED (UG/L AS SB)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)
MAR 1991										
06...	0.020	4.30	0.020	0.50	<0.010	<10	<1	<1	64	<0.5
JUN										
12...	0.030	2.90	0.070	0.50	<0.010	50	<1	1	58	<0.5

DATE	BORON, DISSOLVED (UG/L AS B)	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)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)
MAR 1991										
06...	<10	1.0	<5	<3	<10	92	<10	<4	130	<0.1
JUN										
12...	<10	<1.0	<5	<3	<10	75	<10	<4	92	<0.1

DATE	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)	HARDNESS TOTAL (MG/L AS CACO3)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)
MAR 1991										
06...	<10	<10	<1	<1.0	76	<6	11	54	2.9	--
JUN										
12...	<10	<10	<1	<1.0	88	<6	7	59	2.9	0.04

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

POTOMAC RIVER BASIN

01638985 - ALLOWAY CREEK NEAR GERMANTOWN, PA

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TEMPER-ATURE AIR (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	ALKA-LINITY WAT WH TOT IT FIELD MG/L AS CACO3	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)
JUN 1991 26...	0830	0.66	693	8.0	17.0	20.0	8.3	159	11.0	0.030

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 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS ORTHO TOTAL (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)
JUN 1991 26...	0.030	11.0	11.0	0.040	0.040	0.90	1.10	0.890	0.900

01638987 - ALLOWAY CREEK NEAR LITTLESTOWN, PA

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TEMPER-ATURE AIR (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	ALKA-LINITY WAT WH TOT IT FIELD MG/L AS CACO3	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)
JUN 1991 26...	1030	0.62	791	8.0	19.5	24.5	7.7	155	11.0	0.050

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 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS ORTHO TOTAL (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)
JUN 1991 26...	0.040	12.0	11.0	0.060	0.050	0.90	1.10	0.930	0.950

01638994 - ALLOWA CREEK NEAR HARNEY, MD

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TEMPER-ATURE AIR (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	ALKA-LINITY WAT WH TOT IT FIELD MG/L AS CACO3	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)
JUN 1991 26...	1230	0.61	610	8.4	22.5	25.0	10.8	1100	340	174	3.78

DATE	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	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 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS ORTHO TOTAL (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)
JUN 1991 26...	0.020	0.020	3.90	3.80	0.040	0.030	1.0	0.520	0.470	0.460

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

POTOMAC RIVER BASIN--Continued

01638996 - ALLOWAY CREEK AT HARNEY, MD

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	TEMPERATURE AIR (DEG C)	OXYGEN, DISSOLVED (MG/L)	COLIFORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)
JUN 1991											
26...	1400	0.97	439	9.0	26.5	26.5	12.3	520	250	58	12
AUG											
29...	0630	--	--	--	--	--	--	--	--	--	--

DATE	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)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)
JUN 1991											
26...	50	3.9	164	35	81	<0.10	16	356	0.010	<0.010	0.230
AUG											
29...	--	--	--	--	--	--	--	--	<0.010	--	0.068

DATE	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS ORTHO TOTAL (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)	HARDNESS TOTAL (MG/L AS CACO3)
JUN 1991										
26...	0.230	0.030	0.030	0.60	0.280	0.220	0.200	9	35	190
AUG										
29...	--	0.060	--	0.80	0.810	0.630	--	--	--	--

DATE	ALACHLOR (LASSO) WATER DISSOLV (UG/L)	AMETRYN WATER, DISS, REC, (UG/L)	ATRAZINE, WATER, DISS, REC (UG/L)	METOLACHLOR WATER DISSOLV (UG/L)	METRIBUZIN SENCOR WATER DISSOLV (UG/L)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)
JUN 1991										
26...	<0.0	<0.05	0.21	<0.0	<0.0	<0.1	3.0	0.6	0.6	1.0
AUG										
29...	<0.0	<0.05	<0.05	0.1	<0.0	--	--	--	--	--

DATE	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)
JUN 1991										
26...	<0.1	0.7	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	<0.1	10
AUG										
29...	--	--	--	--	--	--	--	--	--	--

DATE	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIAL (UG/KG)	PROPAZINE SED, BOT MAT REC (UG/L)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)
JUN 1991										
26...	<0.1	<0.1	<0.1	0.6	1	<1.0	<1.00	<0.05	<0.1	<10
AUG										
29...	--	--	--	--	--	--	--	<0.05	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

POTOMAC RIVER BASIN--Continued

01639080 - PINEY CREEK TRIBUTARY NEAR GEORGETOWN, PA

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (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)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)
JUN 1991										
26...	0830	0.21	178	6.6	17.0	24.5	756	9.3	97	1300
AUG										
29...	0445	--	221	7.2	20.5	--	--	6.1	--	--
29...	0800	--	216	7.3	21.0	--	--	7.2	--	--
29...	1200	--	210	7.4	26.0	--	--	8.3	--	--
29...	1415	--	206	7.6	27.0	--	--	7.7	--	--

DATE	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	ALKA-LINITY WAT WH TOT FET FIELD MG/L AS CACO3	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)
JUN 1991										
26...	2400	--	--	--	--	35	--	--	--	--
AUG										
29...	--	--	--	--	54	--	--	--	--	--
29...	--	18	6.6	11	55	--	7.8	25	<0.10	7.5
29...	--	--	--	--	51	--	--	--	--	--
29...	--	--	--	--	50	--	--	--	--	--

DATE	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	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 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS ORTHO TOTAL (MG/L AS P)
JUN 1991										
26...	3.28	0.030	0.020	3.30	3.30	0.050	0.040	0.50	0.020	0.010
AUG										
29...	--	0.020	--	1.70	--	0.050	--	0.60	0.030	<0.010
29...	--	0.020	--	1.70	--	0.040	--	0.30	0.030	0.020
29...	--	0.020	--	1.70	--	0.050	--	0.50	0.030	<0.010
29...	--	0.020	--	1.70	--	0.040	--	0.40	0.030	<0.010

DATE	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	HARD-NESS TOTAL (MG/L AS CACO3)	ALA-CHLOR (LASSO) WATER DISSOLV (UG/L)	AMETRYN WATER, DISS, REC, (UG/L)	ATRA-ZINE, WATER, DISS, REC (UG/L)	METO-LACHLOR WATER DISSOLV (UG/L)	METRI-BUZIN SENCOR WATER DISSOLV (UG/L)	PROP-AZINE SED, BOT MAT REC (UG/L)
JUN 1991										
26...	0.010	--	--	--	--	--	--	--	--	--
AUG										
29...	--	--	--	--	--	--	--	--	--	--
29...	--	49	86	72	<0.0	<0.05	0.19	<0.0	<0.0	<0.05
29...	--	--	--	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--	--	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

POTOMAC RIVER BASIN--Continued

01639082 - PINEY CREEK TRIBUTARY AT GEORGETOWN, PA

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (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)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)
JUN 1991										
26...	1030	0.39	152	7.5	19.0	28.0	757	9.0	98	830
AUG										
29...	0915	--	242	7.6	22.5	--	--	7.2	--	--
29...	1400	--	275	8.4	27.5	--	--	11.4	--	--

DATE	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	ALKA-LINITY WAT WH TOT FET FIELD MG/L AS CACO3	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)
JUN 1991										
26...	1400	--	--	--	--	41	--	--	--	--
AUG										
29...	--	30	6.6	6.9	83	--	18	14	0.10	7.1
29...	--	--	--	--	89	--	--	--	--	--

DATE	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	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 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS ORTHO TOTAL (MG/L AS P)
JUN 1991										
26...	2.39	0.010	0.010	2.50	2.40	0.050	0.030	0.30	0.040	0.020
AUG										
29...	--	0.020	--	0.740	--	0.050	--	0.60	0.070	<0.010
29...	--	0.020	--	0.900	--	0.040	--	0.60	0.040	0.020

DATE	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	HARD-NESS TOTAL (MG/L AS CACO3)	ALA-CHLOR (LASSO) WATER DISSOLV (UG/L)	AMETRYN WATER, DISS, REC, (UG/L)	ATRA-ZINE, WATER, DISS, REC (UG/L)	METO-LACHLOR WATER DISSOLV (UG/L)	METRI-BUZIN SENCOR WATER DISSOLV (UG/L)	PROP-AZINE SED, BOT MAT REC (UG/L)
JUN 1991										
26...	0.010	--	--	--	--	--	--	--	--	--
AUG										
29...	--	31	120	100	<0.0	<0.05	<0.05	<0.0	<0.0	<0.05
29...	--	--	--	--	--	--	--	--	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

POTOMAC RIVER BASIN--Continued

01639086 - PINEY CREEK AT MD 194 NEAR TANEYTOWN, MD

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (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)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)
JUN 1991										
26...	1220	0.62	230	7.7	21.0	27.0	756	9.4	106	K160
AUG										
29...	0515	--	250	7.4	22.0	--	--	5.6	--	--
29...	0900	--	252	7.4	22.5	--	--	4.4	--	--
29...	1230	--	252	7.6	24.0	--	--	6.7	--	--
29...	1235	--	242	7.5	24.0	--	--	7.5	--	--
29...	1445	--	252	7.7	25.0	--	--	7.7	--	--

DATE	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	ALKA-LINITY WAT WH TOT FET FIELD MG/L AS CACO3	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)
JUN 1991										
26...	280	--	--	--	--	67	--	--	--	--
AUG										
29...	--	--	--	--	85	--	--	--	--	--
29...	--	29	7.0	7.0	81	--	20	11	0.10	8.9
29...	--	--	--	--	80	--	--	--	--	--
29...	--	--	--	--	--	--	--	--	--	--
29...	--	--	--	--	79	--	--	--	--	--

DATE	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	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 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS ORTHO TOTAL (MG/L AS P)
JUN 1991										
26...	1.19	0.020	0.010	1.20	1.20	0.050	0.030	0.40	0.060	0.020
AUG										
29...	--	<0.010	--	0.120	--	0.050	--	0.70	0.080	0.010
29...	--	<0.010	--	0.091	--	0.050	--	0.60	0.090	0.010
29...	--	<0.010	--	0.087	--	0.050	--	0.80	0.080	<0.010
29...	--	<0.010	--	0.068	--	0.020	--	0.60	0.060	<0.010
29...	--	<0.010	--	0.067	--	0.030	--	0.70	0.080	0.020

DATE	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	HARD-NESS TOTAL (MG/L AS CACO3)	ALA-CHLOR (LASSO) WATER DISSOLV (UG/L)	AMETRYN WATER, DISS, REC, (UG/L)	ATRA-ZINE, WATER, DISS, REC (UG/L)	METO-LACHLOR WATER DISSOLV (UG/L)	METRI-BUZIN SENCOR WATER DISSOLV (UG/L)	PROP-AZINE SED, BOT MAT REC (UG/L)
JUN 1991										
26...	0.020	--	--	--	--	--	--	--	--	--
AUG										
29...	--	--	--	--	--	--	--	--	--	--
29...	--	67	410	100	<0.0	<0.05	0.18	0.1	<0.0	<0.05
29...	--	--	--	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--	--	--	--

K: Results based on colony count outside the accepted range (non-ideal colony).

01639088 - PINEY CREEK TRIBUTARY NEAR TANEYTOWN, MD

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (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)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)
JUN 1991										
26...	1400	0.07	220	8.0	26.0	28.0	756	9.0	112	1500
AUG										
29...	1015	--	259	7.6	24.5	--	--	6.2	--	--
29...	1330	--	273	7.8	26.5	--	--	7.4	--	--

DATE	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	ALKA-LINITY WAT WH TOT FET FIELD MG/L AS CACO3	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)
JUN 1991										
26...	1300	--	--	--	--	90	--	--	--	--
AUG										
29...	--	39	5.1	3.8	116	--	9.2	10	0.10	6.3
29...	--	--	--	--	112	--	--	--	--	--

DATE	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	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 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS ORTHO TOTAL (MG/L AS P)
JUN 1991										
26...	1.83	0.080	0.070	1.80	1.90	0.080	0.100	0.50	0.050	0.030
AUG										
29...	--	0.060	--	0.570	--	0.120	--	0.70	0.080	<0.010
29...	--	0.050	--	0.550	--	0.060	--	0.70	0.060	<0.010

DATE	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	HARD-NESS TOTAL (MG/L AS CACO3)	ALA-CHLOR (LASSO) WATER DISSOLV (UG/L)	AMETRYN WATER, DISS, REC, (UG/L)	ATRA-ZINE, WATER, DISS, REC (UG/L)	METO-LACHLOR WATER DISSOLV (UG/L)	METRI-BUZIN SENCOR WATER DISSOLV (UG/L)	PROP-AZINE SED, BOT MAT REC (UG/L)
JUN 1991										
26...	0.020	--	--	--	--	--	--	--	--	--
AUG										
29...	--	51	280	120	<0.0	<0.05	<0.05	<0.0	<0.0	<0.05
29...	--	--	--	--	--	--	--	--	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

POTOMAC RIVER BASIN--Continued

01639105 - PINEY CREEK AT FRINGER ROAD NEAR TANEYTOWN, MD

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (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)	CALCIUM DIS-SOLVED (MG/L AS CA)
JUN 1991										
26...	1500	0.74	230	8.0	25.0	28.0	757	9.8	119	--
AUG										
29...	0600	--	233	8.1	22.5	--	--	4.7	--	--
29...	1000	--	232	7.5	24.0	--	--	5.8	--	23
29...	1005	--	--	--	--	--	--	--	--	--
29...	1300	--	244	7.6	27.0	--	--	8.0	--	--
29...	1305	--	244	7.6	27.0	--	--	8.0	--	--
29...	1515	--	232	7.8	27.0	--	--	8.3	--	--

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	ALKA-LINITY WAT WH TOT FET FIELD MG/L AS CACO3	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)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)
JUN 1991										
26...	--	--	--	83	--	--	--	--	0.320	0.020
AUG										
29...	--	--	85	--	--	--	--	--	--	0.010
29...	7.3	8.4	77	--	18	14	0.20	10	--	<0.010
29...	--	--	--	--	--	--	--	--	--	--
29...	--	--	74	--	--	--	--	--	--	<0.010
29...	--	--	74	--	--	--	--	--	--	<0.010
29...	--	--	74	--	--	--	--	--	--	<0.010

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 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS ORTHO TOTAL (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)
JUN 1991									
26...	0.020	0.340	0.340	0.060	0.060	0.50	0.090	0.050	0.050
AUG									
29...	--	0.150	--	0.050	--	0.60	0.140	0.050	--
29...	--	0.140	--	0.100	--	0.70	0.130	0.060	--
29...	--	--	--	--	--	--	--	--	--
29...	--	0.130	--	0.100	--	0.90	0.140	0.060	--
29...	--	0.130	--	0.100	--	0.80	0.150	0.060	--
29...	--	0.130	--	0.080	--	0.80	0.140	0.060	--

DATE	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	HARD-NESS TOTAL (MG/L AS CACO3)	ALA-CHLOR (LASSO) WATER DISSOLV (UG/L)	AMETRYN WATER, DISS, REC, (UG/L)	ATRA-ZINE, WATER, DISS, REC (UG/L)	METO-LACHLOR WATER DISSOLV (UG/L)	METRI-BUZIN SENCOR WATER DISSOLV (UG/L)	PROP-AZINE SED, BOT MAT REC (UG/L)
JUN 1991									
26...	--	--	--	--	--	--	--	--	--
AUG									
29...	--	--	--	--	--	--	--	--	--
29...	130	290	88	<0.0	<0.05	0.17	0.2	<0.0	<0.05
29...	--	--	--	<0.0	<0.05	0.13	0.1	<0.0	<0.05
29...	--	--	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--	--	--

01642040 - ISREAL CREEK NEAR WOODSBORO, MD

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (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)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	ALKA-LINITY WAT WH TOT IT FIELD MG/L AS CACO3
JUN 1991												
27...	0815	0.86	228	7.6	19.5	27.0	759	8.0	88	8200	950	87

DATE	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	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 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS ORTHO TOTAL (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)
JUN 1991											
27...	1.48	0.030	0.020	1.50	1.50	0.050	0.030	0.50	0.050	0.020	0.020

01642042 - ISREAL CREEK AT WOODSBORO, MD

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (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)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	ALKA-LINITY WAT WH TOT IT FIELD MG/L AS CACO3
JUN 1991												
27...	0930	1.9	467	8.0	21.5	24.0	761	10.0	114	K600	500	132

DATE	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	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 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS ORTHO TOTAL (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)
JUN 1991											
27...	3.27	0.040	0.030	3.40	3.30	0.060	0.050	0.60	0.040	0.010	0.010

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

POTOMAC RIVER BASIN--Continued

01642044 - CABBAGE RUN AT WALKERSVILLE, MD

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	TEMPERATURE AIR (DEG C)	BAROMETRIC PRESSURE (MM OF HG)	COLIFORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	ALKALINITY WAT WH TOT IT FIELD MG/L AS CACO3	NITROGEN, NITRATE DISSOLVED (MG/L AS N)
JUN 1991 27...	1130	0.81	447	8.2	26.5	31.5	760	700	K3300	103	0.610

DATE	NITROGEN, NITRITE TOTAL (MG/L AS N)	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 TOTAL (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS ORTHO TOTAL (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)
JUN 1991 27...	0.030	0.030	0.660	0.640	0.070	0.050	1.0	0.090	0.040	0.030

01642046 - ISREAL CREEK TRIBUTARY NEAR WALKERSVILLE, MD

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	PH (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)	ALKALINITY WAT WH TOT IT FIELD MG/L AS CACO3
JUN 1991 27...	1230	0.51	100	7.2	18.5	25.5	760	8.8	95	540	2500	28

DATE	NITROGEN, NITRATE DISSOLVED (MG/L AS N)	NITROGEN, NITRITE TOTAL (MG/L AS N)	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 TOTAL (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS ORTHO TOTAL (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)
JUN 1991 27...	1.49	0.010	0.010	1.50	1.50	0.030	0.030	0.30	0.050	0.040	0.030

K: Results based on colony count outside the accepted range (non-ideal colony).

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

POTOMAC RIVER BASIN--Continued

01642050 - ISRAEL CREEK NEAR WALKERSVILLE, MD

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (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)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
JUN 1991											
27...	1345	2.7	452	8.1	24.0	28.5	762	10.1	120	310	700
AUG											
29...	0800	--	--	--	--	--	--	--	--	--	--

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 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, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)
JUN 1991											
27...	64	11	10	3.5	122	61	24	<0.10	7.2	266	2.66
AUG											
29...	--	--	--	--	--	--	--	--	--	--	--

DATE	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	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 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS ORTHO TOTAL (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)
JUN 1991											
27...	0.040	0.040	2.70	2.70	0.050	0.030	0.50	0.050	0.030	0.020	85
AUG											
29...	0.040	--	2.30	--	0.070	--	0.60	0.070	0.020	--	--

DATE	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	HARD-NESS TOTAL (MG/L AS CACO3)	ALA-CHLOR (LASSO) WATER DISSOLV (UG/L)	AMETRYN WATER, DISS, REC, (UG/L)	ATRA-ZINE, WATER, DISS, REC (UG/L)	METO-LACHLOR WATER DISSOLV (UG/L)	METRI-BUZIN SENCOR WATER DISSOLV (UG/L)	ALDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	CHLOR-DANE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDD, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
JUN 1991											
27...	72	210	0.1	<0.05	0.18	0.1	<0.0	<0.1	1.0	0.2	0.3
AUG											
29...	--	--	<0.0	<0.05	0.18	0.1	<0.0	--	--	--	--

DATE	DDT, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DI-AZINON, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DI-ELDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ENDO-SULFAN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ENDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ETHION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	HEPTA-CHLOR, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	HEPTA-CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	MALA-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	METH-OXY-CHLOR, TOT. IN BOTTOM MATL. (UG/KG)
JUN 1991											
27...	0.3	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	9.0
AUG											
29...	--	--	--	--	--	--	--	--	--	--	--

DATE	METHYL PARA-THION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRI-THION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	PARA-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	PCB, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	PCN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	PER-THANE IN BOT-TOM MA-TERIAL (UG/KG)	PROP-AZINE SED, BOT MAT REC (UG/L)	TRI-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	TOXA-PHENE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
JUN 1991										
27...	<0.1	<0.1	<0.1	<0.1	2	<1.0	<1.00	<0.05	<0.1	<10
AUG										
29...	--	--	--	--	--	--	--	<0.05	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

POTOMAC RIVER BASIN--Continued

01642410 - DOLLYHYDE CREEK NEAR LIBERTYTOWN, MD

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	TEMPERATURE AIR (DEG C)	OXYGEN, DISSOLVED (MG/L)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)
JUN 1991 27...	1200	1.2	340	8.1	20.0	25.5	10.4	1000	600	26	5.9

DATE	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)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRATE DISSOLVED (MG/L AS N)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)
JUN 1991 27...	5.3	2.0	117	6.7	14	0.20	6.5	150	2.78	0.030	0.020

DATE	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS ORTHO TOTAL (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)	HARDNESS TOTAL (MG/L AS CACO3)
JUN 1991 27...	2.80	2.80	0.050	0.040	0.40	0.100	0.050	0.030	66	83	89

01642420 - NORTH FORK LINGANORE CREEK NEAR LINGANORE, MD

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	TEMPERATURE AIR (DEG C)	OXYGEN, DISSOLVED (MG/L)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)
JUN 1991 27...	1300	7.1	204	8.1	21.0	28.5	7.9	K2800	1200	27	5.1

DATE	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)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRATE DISSOLVED (MG/L AS N)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)
JUN 1991 27...	4.7	1.9	64	5.9	14	0.20	6.8	118	3.15	0.050	0.050

DATE	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS ORTHO TOTAL (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)	HARDNESS TOTAL (MG/L AS CACO3)
JUN 1991 27...	3.20	3.20	0.040	0.050	0.40	0.050	0.030	0.040	72	46	88

K: Results based on colony count outside the accepted range (non-ideal colony).

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

POTOMAC RIVER BASIN--Continued

01642425 - SOUTH FORK LINGANORE CREEK AT LINGANORE, MD

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TEMPER-ATURE AIR (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
JUN 1991 27...	1415	6.1	107	8.0	21.0	27.0	9.8	730	370	14	3.9

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, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)
JUN 1991 27...	4.3	1.3	37	3.8	11	0.20	6.8	79	2.48	0.010	0.020

DATE	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS ORTHO TOTAL (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)	HARD-NESS TOTAL (MG/L AS CACO3)
JUN 1991 27...	2.50	2.50	0.040	0.030	0.40	0.020	0.020	<0.010	87	34	51

01642435 - TOWN BRANCH NEAR LIBERTYTOWN, MD

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TEMPER-ATURE AIR (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	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)
JUN 1991 27...	1030	0.86	310	8.2	20.0	26.5	9.7	39	10	11	2.5

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)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)
JUN 1991 27...	100	14	31	<0.10	8.8	193	3.58	0.020	0.020	3.60

DATE	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS ORTHO TOTAL (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)	HARD-NESS TOTAL (MG/L AS CACO3)
JUN 1991 27...	3.60	0.030	0.030	0.30	0.110	0.070	0.070	14	30	140

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

POTOMAC RIVER BASIN--Continued

01642440 - LINGANORE CREEK NEAR McKAIG, MD

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TEMPER-ATURE AIR (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
JUN 1991 27...	0915	15	203	7.9	20.0	24.5	8.5	K2800	1200	48	11

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, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)
JUN 1991 27...	5.9	2.1	66	13	18	<0.10	9.3	171	5.35	0.050	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 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS ORTHO TOTAL (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)	HARD-NESS TOTAL (MG/L AS CACO3)
JUN 1991 27...	5.40	5.40	0.040	0.040	1.0	0.110	0.060	0.050	11	50	170

01642445 - BENS BRANCH AT NEW LONDON, MD

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TEMPER-ATURE AIR (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
JUN 1991 27...	0800	3.0	223	8.0	18.5	21.0	8.8	440	1500	32	6.4

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, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)
JUN 1991 27...	3.5	1.4	840	9.2	11	<0.10	7.0	586	2.58	0.020	0.020

DATE	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS ORTHO TOTAL (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)	HARD-NESS TOTAL (MG/L AS CACO3)
JUN 1991 27...	2.60	2.60	0.050	0.040	0.50	0.050	0.030	0.030	23	35	110

K: Results based on colony count outside the accepted range (non-ideal colony).

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October 1, 1978

FACTORS FOR CONVERTING INCH-POUND UNITS TO INTERNATIONAL SYSTEM UNITS (SI)

The following factors may be used to convert the inch-pound units published herein to the International System of Units (SI).

Multiply inch-pound units	By	To obtain SI units
	Length	
inches (in)	2.54×10^{1}	millimeters (mm)
	2.54×10^{-2}	meters (m)
feet (ft)	3.048×10^{-1}	meters (m)
miles (mi)	1.609×10^{0}	kilometers (km)
	Area	
acres	4.047×10^{3}	square meters (m^2)
	4.047×10^{-1}	square hectometers (hm^2)
	4.047×10^{-3}	square kilometers (km^2)
square miles (mi^2)	2.590×10^{0}	square kilometers (km^2)
	Volume	
gallons (gal)	3.785×10^{0}	liters (L)
	3.785×10^{0}	cubic decimeters (dm^3)
	3.785×10^{-3}	cubic meters (m^3)
million gallons	3.785×10^{3}	cubic meters (m^3)
	3.785×10^{-3}	cubic hectometers (hm^3)
cubic feet (ft^3)	2.832×10^{1}	cubic decimeters (dm^3)
	2.832×10^{-2}	cubic meters (m^3)
cfs-days	2.447×10^{3}	cubic meters (m^3)
	2.447×10^{-3}	cubic hectometers (hm^3)
acre-feet (acre-ft)	1.233×10^{3}	cubic meters (m^3)
	1.233×10^{-3}	cubic hectometers (hm^3)
	1.233×10^{-6}	cubic kilometers (km^3)
	Flow	
cubic feet per second (ft^3/s)	2.832×10^{1}	liters per second (L/s)
	2.832×10^{1}	cubic decimeters per second (dm^3/s)
	2.832×10^{-2}	cubic meters per second (m^3/s)
gallons per minute (gal/min)	6.309×10^{-2}	liters per second (L/s)
	6.309×10^{-2}	cubic decimeters per second (dm^3/s)
	6.309×10^{-5}	cubic meters per second (m^3/s)
million gallons per day	4.381×10^{1}	cubic decimeters per second (dm^3/s)
	4.381×10^{-2}	cubic meters per second (m^3/s)
	Mass	
tons (short)	9.072×10^{-1}	megagrams (Mg) or metric tons

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