

Water Resources Data Maryland and Delaware Water Year 1996

Volume 1. Surface-Water Data



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT MD-DE-96-1
Prepared in cooperation with the States of Maryland and Delaware
and with other agencies

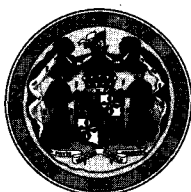
CALENDAR FOR WATER YEAR 1996

1995

OCTOBER							NOVEMBER							DECEMBER						
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22	23	24	25	26	27	28	19	20	21	22	23	24	25	17	18	19	20	21	22	23
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1996

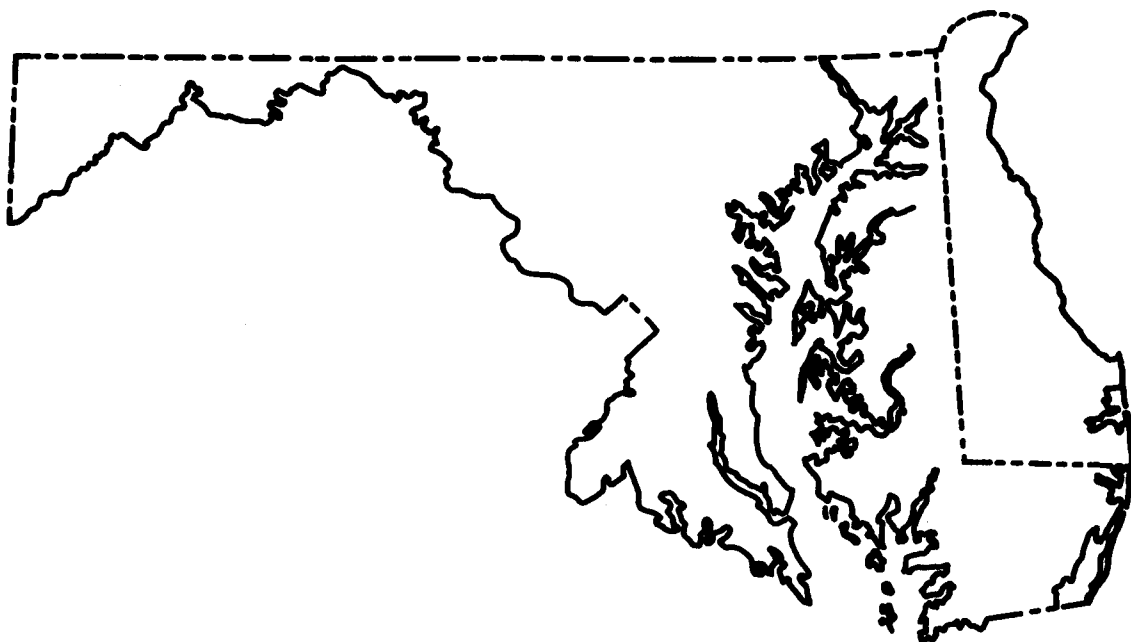
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28	29	30	31				25	26	27	28	29			24	25	26	27	28	29	30
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APRIL							MAY							JUNE						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
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JULY							AUGUST							SEPTEMBER						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
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14	15	16	17	18	19	20	11	12	13	14	15	16	17	15	16	17	18	19	20	21
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by R.W. James, B.M. Helinsky, R.H. Simmons, and A.J. Tallman



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT MD-DE-96-1
Prepared in cooperation with the States of Maryland and Delaware
and with other agencies

UNITED STATES DEPARTMENT OF THE INTERIOR

BRUCE BABBITT, Secretary

U.S. GEOLOGICAL SURVEY

GORDON P. EATON, Director

*
* Dedicated to the Memory of Robert H. Simmons (1928-1996) *
* for his exemplary service with the U.S. Geological Survey (1954-1996) *
* in Surface Water studies, especially his expertise in the quality and *
* accuracy in this series of reports for the Maryland, Delaware, and *
* Washington, D.C., Water Resources Division District. *
*

For additional information write to
District Chief, Water Resources Division
U.S. Geological Survey
8983 Yellow Brick Road
Baltimore, Maryland 21237

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:

S. W. Ator	J. L. Griffith	R. H. Pentz
D. A. Bringman	J. R. Jeffries	R. W. Saffer
D. P. Brower	J. J. Kvech	C. J. Strain
F. A. Danner	B. F. Majedi	A. J. Tallman
J. M. Denis	J. J. Manning	J. L. Tegeler
A. L. Derosier	M. M. Mount	G. L. Zynjuk

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

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[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]

	Station number	Page
<u>NORTH ATLANTIC SLOPE BASINS</u>		
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Delaware River:		
Shellpot Creek at Wilmington, DE (d).....	01477800	32
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White Clay Creek near Newark, DE (d).....	01479000	38
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<u>DELAWARE BAY NEAR LEWES, DE (c,t).....</u>	01484450	54
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Stockley Branch at Stockley, DE (d).....	01484500	60
Millsboro Pond Outlet at Millsboro, DE (d).....	01484525	62
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Unicorn Branch near Millington, MD (d).....	01493000	80
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Little Falls at Blue Mount, MD (d).....	01582000	108
Gunpowder Falls at Glencoe, MD (d).....	01582500	110
Western Run at Western Run, MD (d).....	01583500	112
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Whitemarsh Run (head of Bird River) near Fullerton, MD (d).....	01585090	118
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Furnace Creek:		
Sawmill Creek at Glen Burnie, MD (d).....	01589500	136

[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]

<u>NORTH ATLANTIC SLOPE BASINS--Continued</u>	Station number	Page
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Cattail Creek near Glenwood, MD (d).....	01591400	144
Patuxent River below Brighton Dam near Brighton, MD (d).....	01591610	146
Hawlings River near Sandy Spring, MD (d).....	01591700	148
Patuxent River near Laurel, MD (d).....	01592500	150
Little Patuxent River at Guilford, MD (d).....	01593500	152
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Patuxent River near Bowie, MD (d,c,s).....	01594440	160
Western Branch at Upper Marlboro, MD (d,c,s).....	01594526	166
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Savage River below Savage River Dam, near Bloomington, MD (d).....	01597500	206
North Branch Potomac River at Luke, MD (d).....	01598500	208
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Monocacy River at Bridgeport, MD (d,c,s).....	01639000	264
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at Riverdale, MD (d).....	01649500	296
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Watts Branch at Washington, DC (d).....	01651800	300
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viii SURFACE-WATER STATIONS, IN DOWNSTREAM ORDER, FOR WHICH RECORDS ARE PUBLISHED IN THIS VOLUME

[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]

	Station number	Page
<u>OHIO RIVER BASIN</u>		
<u>MONONGAHELA RIVER BASIN</u>		
Monongahela River:		
Youghiogheny River near Oakland, MD (d).....	03075500	310
Deep Creek Reservoir near Oakland, MD (e).....	03076000	312
Youghiogheny River at Friendsville, MD (d).....	03076500	314
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The following continuous-record surface-water discharge (gaging stations) in Maryland, Delaware, and the District of Columbia have been discontinued. Daily streamflow records (discharge) were collected and published for the period of record, expressed in water years, shown for each station.

	Station number	Drainage area (mi ²)	Period of record
<u>NORTH ATLANTIC SLOPE BASINS</u>			
<u>DELAWARE RIVER BASIN</u>			
Delaware River:			
Christina River near Bear, DE	01478040	40.6	1977-81
White Clay Creek above Newark, DE	01478500	66.7	1952-59 1962-80
Mill Creek at Mill Creek Road at Hockessin, DE.....	01479197	3.66	1990-95
Mill Creek at Stanton, DE	01479500	12.4	1931-33
Little Mill Creek near Newport, DE.....	01480095	5.24	1991-95
Little Mill Creek at Elsmere, DE	01480100	6.70	1964-80
Army Creek at State Road, DE	01482200	2.42	1978-81
Red Lion Creek near Red Lion, DE	01482298	3.08	1978-81
Wiggins Millpond Outlet (head of Appoquinimink River):			
Noxontown Lake Outlet near Middletown, DE (d).....	01483153	8.85	1993-94
Drawyer Creek tributary near Odessa, MD	01483170	4.68	1978-80
<u>LEIPSIC RIVER BASIN</u>			
Leipsic River near Cheswold, DE	01483500	9.35	1931-33 1943-57
<u>ST. JONES RIVER BASIN</u>			
Fork Branch (head of St. Jones River)			
Mudstone Branch at Chestnut Grove, DE (d).....	01483670	8.96	1993-94
<u>MURDERKILL RIVER BASIN</u>			
Murderkill River near Felton, DE	01484000	13.6	1931-34 1960-85
<u>BROADKILL RIVER BASIN</u>			
Broadkill River:			
Beaverdam Creek near Milton, DE	01484270	6.10	1971-80
Sowbridge Branch (head of Primehook Creek) near Milton, DE	01484300	7.08	1957-78
<u>INDIAN RIVER BASIN</u>			
Cow Bridge Branch (head of Indian River):			
Vines Creek at Omar, DE	01484548	13.6	1985-88
<u>WICOMICO RIVER BASIN</u>			
Andrews Branch (head of Wicomico River):			
Beaverdam Creek near Salisbury, MD	01486500	19.5	1930-32 1938-75
<u>NANTICOKE RIVER BASIN</u>			
Nanticoke River:			
James Branch (head of Broad Creek):			
Trap Pond Outlet (head of Hitch Pond Branch) near Laurel, DE	01487500	16.7	1951-71
Broad Creek:			
Holly Ditch near Laurel, DE	01488000	2.19	1951-56
Marshyhope Creek at Adamsville, DE	01488600	60.4	1969-71
Faulkner Branch at Federalsburg, MD.....	01489000	7.10	1950-92
Rewastico Creek near Hebron, MD	01489500	12.2	1950-56
<u>TRANSQUAKING RIVER BASIN</u>			
Transquaking River:			
Chicamacomico River near Salem, MD	01490000	15.0	1951-80
<u>CHOPTANK RIVER BASIN</u>			
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
<u>WYE RIVER BASIN</u>			
Wye River:			
Wye East River:			
Sallie Harris Creek near Carmichael, MD	01492500	4.60	1951-56
<u>CHESTER RIVER BASIN</u>			
Chester River:			
Southeast Creek at Church Hill, MD	01494000	12.5	1951-56
<u>SASSAFRAS RIVER BASIN</u>			
Sassafras River:			
Jacobs Creek near Sassafras, MD	01494500	5.39	1951-56
<u>ELK RIVER BASIN</u>			
Big Elk Creek (head of Elk River):			
Little Elk Creek at Childs, MD	01495500	26.8	1949-58
Long Creek near Chesapeake City, MD	01495800	4.36	1978-81

DISCONTINUED SURFACE-WATER DISCHARGE STATIONS, LISTED IN DOWNSTREAM ORDER

	Station number	Drainage area (mi ²)	Period of record
<u>NORTH ATLANTIC SLOPE BASINS--Continued</u>			
<u>NORTHEAST RIVER BASIN</u>			
Northeast Creek (head of Northeast River) at Leslie, MD	01496000	24.3	1949-84
<u>PRINCIPIO CREEK BASIN</u>			
Principio Creek near Principio Furnace, MD	01496200	9.03	1967-92
<u>SUSQUEHANNA RIVER BASIN</u>			
Susquehanna River:			
Broad Creek at Mill 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
<u>BUSH RIVER BASIN</u>			
Bynum Run (head of Bush River) near Bel Air, MD	01581000	7.50	1951-55
Bynum Run at Bel Air, MD	01581500	8.52	1944-51 1955-70
Church Creek:			
Cranberry Run at Aberdeen, MD	01581657	4.16	1988-89
Cranberry Run at Perryman, MD	01581658	5.22	1987-89
<u>GUNPOWDER RIVER BASIN</u>			
Gunpowder Falls (head of Gunpowder River):			
Western Run:			
Delaware Run:			
Slade Run near Glyndon, MD	01583000	2.09	1947-81
Piney Run at Dover, MD	01583100	12.3	1982-88
Beaverdam Run:			
Baisman Run:			
Pond Branch at Oregon Ridge, MD	01583570	0.16	1983-86
Baisman Run at Broadmoor, MD	01583580	1.47	1964-69
Gunpowder Falls near Carney, MD	01584000	314	1949-64
Little Gunpowder Falls at Laurel Brook, MD	01584500	36.1	1927-70
Little Gunpowder Falls near Bel Air, MD	01585000	43	1904-09
Bird River:			
Whitemarsh Run (head of Bird River):			
Honeygo Run at White Marsh, MD	01585105	2.65	1990-93
Windlass Run near White Marsh, MD	01585107	2.03	1992-93
<u>BACK RIVER BASIN</u>			
Herring Run (head of Back River):			
West Branch Herring Run at Idlewyde, 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
<u>PATAPSCO RIVER BASIN</u>			
North Branch Patapsco River near Reistertown, MD	01586500	91.0	1927-54
North Branch Patapsco River near Marriottsville, MD	01587000	165	1930-60
South Branch Patapsco River at Henryton, MD	01587500	64.4	1948-80
Piney Run near Sykesville, MD	01588000	11.4	1931-58
Patapsco River at Woodstock, MD	01588500	251	1896-1909
Patapsco River at Hollofield, MD	01589000	285	1944-92 1994-95
West Branch Herbert Run:			
East Branch Herbert Run at Arbutus, MD			
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 Franklinton, MD	01589330	5.52	1960-87
Jones Falls at Sorrento, MD	01589440	25.2	1966-88
Jones Falls at Maryland Avenue at Baltimore, MD	01589478	58.3	1981-82
Jones Falls near mouth at Baltimore, MD	01589480	60.4	1981-82
Curtis Creek:			
Furnace Creek:			
Sawmill Creek at Crain Highway at Glen Burnie, MD	01589512	8.24	1984-85 1990-94
Marley Creek at Harundale, MD	01589522	4.79	1984-85
<u>SEVERN RIVER BASIN</u>			
Severn Run (head of Severn River)			
South Fork Jabez Branch at Millersville, MD	01589795	(b)1.0	(a)1989-90
<u>SOUTH RIVER BASIN</u>			
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
<u>RHODE RIVER BASIN</u>			
Rhode River:			
Muddy Creek:			
North Fork Muddy Creek at South River, MD	01590700	0.88	1972-76

DISCONTINUED SURFACE-WATER DISCHARGE STATIONS, LISTED IN DOWNSTREAM ORDER

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NORTH ATLANTIC SLOPE BASINS--Continued	Station number	Drainage area (mi ²)	Period of record
PATUXENT RIVER BASIN			
Patuxent River:			
Cattail Creek near Cookesville, MD	01591350	8.37	1977-81
Cattail Creek at Roxbury Mills, MD	01591500	27.7	1944-56
Patuxent River near Burtonsville, MD	01592000	127	1911-45
Little Patuxent River:			
Middle Patuxent River near Simpsonville, MD	01593710	48.4	1987-95
Dorsey Run near Jessup, MD	01594400	11.6	1948-58
Western Branch near Largo, MD	01594500	30.2	1950-75
Cocktown Creek near Huntingtown, MD	01594600	3.85	1957-76
St. Leonard Creek near St. Leonard, MD	01594800	6.73	1957-68
POTOMAC RIVER BASIN			
North Branch Potomac River:			
South Fork Sand Run near Wilson, MD	01594934	1.55	1980-86
North Branch Potomac River at Kitzmiller, MD	01595500*	225	1950-85
North Branch Potomac River at Barnum, WV	01595800*	266	1966-85
North Branch Potomac River at Bloomington, MD	01596000	287	1925-27 1929-50
Savage River:			
Crabtree Creek near Swanton, MD	01597000	16.7	1948-81
Savage River at Bloomington, MD	01598000	115	1906-07 1925-27 1929-50
North Branch Potomac River at Pinto, MD	01600000*	596	1939-85
Wills Creek below Hyndman, PA	01601000	146	1951-67
North Branch Potomac River at Cumberland, MD	01602500	873	1894-97
Evitts Creek near Centerville, PA	01603500	30.2	1932-82
Evitts Creek near Cumberland, MD	01604000	89.0	1929-32
Town Creek near Oldtown, MD	01609000	148	1928-35 1967-81
Sawpit Run near Oldtown, MD	01609500	5.08	1948-58
Sideling Hill Creek at Belle Grove, MD	01610155	102	1967-77
Little Tonoloway Creek near Hancock, MD	01612500	16.9	1947-63
Potomac River at Shepherdstown, WV	01618000	5,936	1928-53 (c) 1954-63 1964-93
Antietam Creek near Waynesboro, MD	01619000	93.5	1948-51 1966-81
Catoctin Creek:			
Little Catoctin Creek at Harmony, MD	01637000	8.83	1947-59 1968
Catoctin Creek near Jefferson, MD	01638000	111	1928-31
Monocacy River:			
Toms Creek at Emmitsburg, MD	01639375	41.3	1986-90
Big Pipe Creek (head of Double Pipe Creek):			
Little Pipe Creek at Avondale, MD	01640000	8.10	1947-56
Owens Creek near Foxville, MD	01640456	1.01	1986-87
Owens Creek at Lantz, MD	01640500	5.93	1932-84
Hunting Creek near Foxville, M	01640965	2.14	1982-94
Hunting Creek tributary near Foxville, MD	01640970	4.01	1982-91
Hunting Creek near Thurmont, MD	01640975	7.08	1982-86
Bear Branch near Thurmont, MD	01640980	0.38	1990-95
Hunting Creek at Jimtown, MD	01641000	18.4	1950-92
Fishing Creek near Lewistown, MD	01641500	7.29	1948-84
Fishing Creek Tributary near Lewistown, MD	01641510	0.40	1988-95
Monocacy River near Frederick, MD	01642000	665	1896-1930
Linganore Creek near Frederick, MD	01642500	82.3	1932 1934-82
Bennett Creek:			
Bennett Creek Tributary at Park Mills, MD	01643495	0.15	1992-93
Broad Run at Elmer, MD	01643615	14	(a) 1978-80
Seneca Creek:			
Great Seneca Creek near Gaithersburg, MD	01644500	41.0	1925-31
Watts Branch at Rockville, MD	01645200	3.70	1957-87
Little Falls Branch near Bethesda, MD	01646550	4.10	1944-59 1962-79
Rock Creek:			
North Branch Rock Creek:			
Williamsburg Run near Olney, MD	01647685	2.25	1967-74
North Branch Rock Creek near Norbeck, MD	01647720	9.73	1967-77
Manor Run near Norbeck, MD	01647725	1.01	1967-74
North Branch Rock Creek near Rockville, MD	01647740	12.5	1967-77
Rock Creek at Q Street, Washington, DC	01649000	75.8	1892-94 1929-33

	Station number	Drainage area (mi ²)	Period of record
<u>NORTH ATLANTIC SLOPE BASINS--Continued</u>			
<u>POTOMAC RIVER BASIN--Continued</u>			
Potomac River--Continued			
Northeast Branch Anacostia River:			
Northwest Branch Anacostia River at Norwood, MD.....	01650050	2.45	1967-74
Browns Creek:			
Nursery Run at Cloverly, MD	01650085	0.35	1967-74
North Creek:			
Batchellors Run at Oakdale, MD	01650190	0.47	(a) 1967-70
Bel Pre Creek at Lay Hill, MD	01650450	1.69	1967-74
Lutes Run at Lutes, MD	01650470	0.47	(a) 1967-70
Northwest Branch Anacostia River near Colesville, MD	01650500	21.1	1924-83
Anacostia River:			
Beaverdam Branch Anacostia River at Kenilworth Avenue, Washington, D.C.....	01652000	14	1911-12
Henson Creek (head of Broad Creek) at Oxon Hill, MD	01653500	16.7	1948-78
Mattawoman Creek near Pomonkey, MD	01658000	54.8	1959-72
Wicomico River:			
Chaptico Creek at Chaptico, MD	01661000	10.4	1947-72

OHIO RIVER BASINMONONGAHELA RIVER BASIN

Monongahela River:			
Youghiogheny River:			
South Branch Casselman River near Bittenger, MD	03077940	3.22	1976-81
Casselman River:			
Big Piney Run near Salisbury, PA	03078500	24.5	1932-70

* Currently operated as a crest-stage partial-record station.

a Daily values data unpublished, available at Towson, MD office.

b Approximately.

c Estimated daily discharges October 1953 to June 1964.

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

	Station number	Drainage area (mi ²)	Period of record
<u>NORTH ATLANTIC SLOPE BASINS</u>			
<u>DELAWARE RIVER BASIN</u>			
Delaware River:			
Christina River near Bear, DE.....	01478040	40.6	1983-91
White Clay Creek:			
Pike Creek near Newark, DE.....	01478950	6.04	1969-75
Mill Creek at Hockessin, DE.....	01479200	a4.19	1966-75
West Branch Red Clay Creek:			
Red Clay Creek tributary near Yorklyn, DE.....	01479950	0.38	1966-75
Brandywine Creek:			
Brandywine Creek tributary near Centerville, DE.....	01481200	0.97	1966-75
Husbands Run:			
Willow Run at Rockland, DE.....	01481450	0.37	1966-75
Red Lion Creek:			
Doll Run at Red Lion, DE.....	01482310	b1.2	1966-75
<u>SMYRNA RIVER BASIN</u>			
Providence Creek (head of Smyrna River):			
Paw Paw Branch:			
Paw Paw Branch tributary near Clayton, DE.....	01483290	b1.3	1966-75
Smyrna River:			
Sawmill Branch:			
Sawmill Branch tributary near Blackbird, DE.....	01483400	b0.6	1966-75
<u>LEIPSIC RIVER BASIN</u>			
Leipsic River near Cheswold, DE.....	01483500	9.35	1958-75
<u>ST. JONES RIVER BASIN</u>			
St. Jones River:			
Puncheon Branch at Dover, DE.....	01483720	b2.3	1966-75
<u>MURDERKILL RIVER BASIN</u>			
Murderkill River:			
Murderkill River tributary near Felton, DE.....	01484002	b1.0	1966-75
Hudson Branch (head of Spring Creek):			
Pratt Branch near Felton, DE.....	01484050	3.29	1966-75
<u>BROADKILL RIVER BASIN</u>			
Broadkill River:			
Beaverdam Creek near Milton, DE.....	01484270	6.10	1966-75
<u>INDIAN RIVER BASIN</u>			
Indian River:			
Whartons Branch near Millsboro, DE.....	01484531	5.8	1986-88
Pepper Creek at Dagsboro, DE.....	01484550	8.78	1960-75
Blackwater Creek near Clarksville, DE.....	01484600	3.5	1986-88
<u>WICOMICO RIVER BASIN</u>			
Andrews Branch (head of Wicomico River) near Delmar, MD.....	01486100	b4.1	1966-76
<u>NANTICOKE RIVER BASIN</u>			
Nanticoke River:			
Bridgeville Branch:			
Bridgeville Branch tributary at Bridgeville, DE.....	01486900	b0.8	1966-68
Gum Branch:			
Toms Dam Branch near Greenwood, DE.....	01486980	b6.4	1966-75
James Branch (head of Broad Creek):			
Trap Pond Outlet (head of Hitch Pond Branch) near Laurel, DE.....	01487500	16.7	1972-73 1975
Broad Creek:			
Little Creek:			
Meadow Branch near Delmar, DE.....	01487900	b3.9	1967-75
Holly Ditch near Laurel, DE.....	01488000	2.19	1959-75
<u>CHOPTANK RIVER BASIN</u>			
Tappahanna Ditch (head of Choptank River) near Hartly, DE.....	01490470	5.93	1961-73
Tidy Island Creek (continuation of Tappahanna Creek):			
Culbreth Marsh Ditch:			
Beachy Neidig Ditch near Willow Grove, DE.....	01490490	b2.3	1966-75
Culbreth Marsh Ditch (Shades Branch) near Chapeltown, DE.....	c01490500	11.6	1957-68
Cow Marsh:			
Mereditth Branch near Sandtown, DE.....	01490600	b8.4	1966-75
Broadway Branch:			
Oldtown Branch at Goldsboro, MD.....	01490800	3.9	1967-76
Gravelly Branch:			
Sangston Prong near Whiteleysburg, DE.....	01491010	b1.9	1966-75
Spring Branch near Greensboro, MD.....	01491050	b3.8	1966-76
Hunting Creek:			
Gravel Run at Beulah, MD.....	01492050	8.4	1966-76

a 0.15 square miles is probably noncontributing.

b Approximately.

c Prior to 1956 published as "Shades Branch".

<u>NORTH ATLANTIC SLOPE BASINS--Continued</u>	Station number	Drainage area (mi ²)	Period of record
<u>WYE RIVER BASIN</u>			
Wye River:			
Wye East River:			
Sallie Harris Creek near Carmichael, MD.....	01492500	8.09	1957-81
Skipton Creek:			
Mill Creek near Skipton, MD.....	01492550	b4.6	1966-76
<u>CHESTER RIVER BASIN</u>			
Andover Branch (head of Chester River):			
Southeast Creek at Church Hill, MD.....	01494000	12.5	1957-65
Browns Branch:			
Browns Branch tributary near Church Hill, MD.....	01494020	b1.7	1971-78
<u>NORTHEAST RIVER BASIN</u>			
Northeast Creek (head of Northeast River):			
Northeast River tributary near Charlestown, MD.....	01496080	b1.7	1967-76
<u>SUSQUEHANNA RIVER BASIN</u>			
Susquehanna River:			
Broad Creek:			
Broad Creek tributary at Whiteford, MD.....	01577940	0.77	1971-86
Octoraro Creek:			
Basin Run at West Nottinham, MD.....	01578800	b1.3	1967-76
Basin Run at Liberty Grove, MD.....	01579000	5.31	1965-76
<u>Bush River Basin</u>			
Bynum Run (head of Bush River) at Bel Air, MD.....	01581500	8.52	1971-72
<u>GUNPOWDER RIVER BASIN</u>			
Gunpowder Falls (head of Gunpowder River):			
Piney Creek near Hereford, MD.....	01582510	b1.5	1966-79
Western Run:			
Western Run tributary at Western Run, MD.....	01583495	0.26	1966-76
Beaverdam Run:			
Baisman Run at Broadmoor, MD.....	01583580	1.47	1970-76
Little Gunpowder Falls at Laurel Brook, MD.....	01584500	36.1	1971-86
<u>PATAPSCO RIVER BASIN</u>			
North Branch Patapsco River:			
South Branch Patapsco River:			
Hay Meadow Branch:			
Hay Meadow Branch tributary at Poplar Springs, MD.....	01587050	0.54	1966-76
Piney Run near Sykesville, MD.....	01588000	11.4	1959-74
Patapsco River:			
Gwynns Falls at Owings Mills, MD.....	01589220	9.12	1958-65
Gwynns Falls at McDonough, MD.....	01589240	19.3	1967-68
Jones Falls at Brooklandville, MD.....	01589400	19.7	1958-68
			1971-84
			1958-65
			1968
<u>PATUXENT RIVER BASIN</u>			
Patuxent River:			
Little Patuxent River:			
Little Patuxent River tributary at Guilford Downs, MD.....	01593350	0.95	1966-76
Dorsey Run near Jessup, MD.....	01594400	11.6	1959-68
Mill Branch near Mitchellville, MD.....	01594445	b1.1	1967-76
<u>POTOMAC RIVER BASIN</u>			
North Branch Potomac River:			
Savage River near Frostburg, MD.....	01596005	b1.5	1971-86
Wills Creek below Hyndman, PA.....	01601000	146	1968-86
Potomac River:			
Town Creek:			
Sawpit Run near Oldtown, MD.....	01609500	5.08	1963-76
Fifteen Mile Creek:			
Pratt Hollow:			
Pratt Hollow tributary at Pratt, MD.....	01610105	0.70	1971-86
Sideling Hill Creek:			
Bear Creek at Forest Park, MD.....	01610150	10.4	1965-69
Little Tonoloway Creek near Hancock, MD.....	01612500	16.9	1971-83
Ditch Run near Hancock, MD.....	01613150	b4.8	1964
Potomac River tributary near Hancock, MD.....	01613160	b1.2	1965-86
Antietam Creek:			
Little Antietam Creek:			
Dog Creek:			
Dog Creek tributary near Locust Grove, MD.....	01619475	0.10	1966-76

b Approximately.

DISCONTINUED CREST-STAGE PARTIAL-RECORD STATIONS, LISTED IN DOWNSTREAM ORDER

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<u>NORTH ATLANTIC SLOPE BASINS--Continued</u>	Station number	Drainage area (mi ²)	Period of record
<u>POTOMAC RIVER BASIN --Continued</u>			
Catoctin Creek:			
Little Catoctin Creek at Harmony, MD.....	01637000	8.8	1961-67
			1969-77
Hollow Road Creek (head of Cone Branch) near Middletown, MD.....	01637600	2.3	1965-74
			1977
Monocacy River:			
Piney Creek:			
Piney Creek tributary at Taneytown, MD.....	01639095	0.62	1967-76
Big Pipe Creek:			
Little Pipe Creek at Avondale, MD.....	01640000	8.10	1959-65
			1967-80
Owens Creek:			
Owens Creek tributary near Rocky Ridge, MD.....	01640700	b1.2	1967-77
Linganore Creek:			
Dollyhyde Creek at Libertytown, MD.....	01642400	b2.7	1969-76
Little Seneca Creek (head of Seneca Creek):			
Bucklodge Branch:			
Bucklodge Branch tributary near Barnesville, MD.....	01644420	0.27	1967-76
Little Falls Branch near Bethesda, MD.....	01646550	b4.1	1979-84
Northeast Branch Anacostia River:			
Northwest Branch Anacostia River at Norwood, MD	01650050	2.45	1975-76
Browns Creek:			
Nursery Run at Cloverly, MD.....	01650085	0.35	1975-76
North Creek:			
Batchellors Run at Oakdale, MD.....	01650190	0.47	1967-76
Mattawoman Creek near Pomonkey, MD.....	01658000	57.7	1973-86
Zekiah Swamp Run (head of Wicomico River):			
Wolf Den Branch near Cedarville, MD.....	01660900	b2.3	1966-80
Clark Run near Bel Alton, MD.....	01660930	10.4	1966-76
Herring Creek:			
Glebe Branch at Valley Lee, MD.....	01661430	b0.3	1968-78

OHIO RIVER BASINMONONGAHELA RIVER BASIN

Monongahela River:

Youghiogheny River:

Little Youghiogheny River:

Little Youghiogheny River tributary near Deer Park, MD.....03075450

0.57

1965-76

Toliver Run:

Toliver Run tributary near Hoyes Run, MD.....03075600

0.53

1965-86

Youghiogheny River tributary near Friendsville, MD.....03076505

0.22

1965-76

North Branch Casselman River:

North Branch Casselman River tributary at Foxtown, MD.....03077700

b1.0

1965-77

Casselman River:

Big Piney Run near Salisbury, PA.....03078500

24.5

1974-86

b Approximately.

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

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

LOW-FLOW, PARTIAL-RECORD STATIONS, LISTED IN DOWNSTREAM ORDER

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

	Station number	Drainage area (mi ²)	Period of record
<u>NORTH ATLANTIC SLOPE BASINS</u>			
<u>DELAWARE RIVER BASIN</u>			
Delaware River:			
Naaman Creek:			
South Branch Naaman Creek near Claymont, DE	01477400	3.83	1955-66
			1968-71
Christina River near Newark, DE	01477850	3.76	1981-83
West Branch Christina River near Newark, DE	01477860	4.20	1981-83
Belltown Run near Glasgow, DE	01478009	3.35	1978-81
Muddy Run at Glasgow, DE	01478024	5.43	1978-81
Muddy Run near Cooches Bridge, DE	01478028	8.21	1978-80
White Clay Creek:			
White Clay Creek tributary near Ogletown, DE	01478878	3.68	1978-80
Brandywine Creek:			
Rocky Run at Talleyville, DE	01481350	1.76	1957-59
			1966
Wilson Run at Guyencourt, DE	01481400	1.62	1957-59
North Fork Wilson Run at Guyencourt, DE	01481430	1.12	1957-59
Wilson Run at Rockland, DE	01481440	3.05	1957-63
Husbands Run at Rockland, DE	01481460	1.28	1957-59
Squirrel Run at Montchanin, DE	01481480	1.67	1957-59
Alapocas Run at Concord, DE	01481530	0.81	1957-59
Red Lion Creek at Red Lion, DE	01482300	3.20	1955-60
			1962-71
Dragon Creek at Kirkwood, DE	01482400	1.93	1978-81
Dragon Creek tributary at Kirkwood, DE	01482405	0.16	1978-81
Joy Run near Summit Bridge, DE	01482670	1.26	1978-80
Scott Run near Boyds Corner, DE	01482690	2.18	1978-81
Appoquinimink River:			
Wiggins Millpond Outlet (head of Appoquinimink River) at Townsend, DE	01483150	3.82	1957-60
			1962-66
			1968-71
			1978-80
Drawyer Creek near Mt. Pleasant, DE	01483160	1.54	1978-80
Drawyer Creek tributary near Armstrong, DE	01483165	4.68	1979-80
Drawyer Creek tributary near Odessa, DE	01483170	4.68	1978-80
<u>SMYRNA RIVER BASIN</u>			
Providence Creek (head of Smyrna River) at Clayton, DE	01483300	11.8	1955-60
			1962-63
			1966,
			1968-69
Smyrna River:			
Mill Creek at Smyrna, DE	01483350	4.77	1955-57
			1959-60
			1962-63
			1966,
			1968-69
<u>ST. JONES RIVER BASIN</u>			
Fork Branch (head of St. Jones River) at Dupont, DE	01483650	7.50	1955-57
			1959-60
			1962-66
			1968-71
Maidstone Branch at Dupont, DE	01483680	17.3	1955-57
			1959-60
			1962-66
			1968-71
<u>MURDERKILL RIVER BASIN</u>			
Murderkill River:			
Browns Branch near Houston, DE	01484020	12.4	1955-71
Spring Creek:			
Hudson Branch (head of Spring Creek) near Canterbury, DE	01484040	8.40	1955-60
Pratt Branch near Felton, DE	01484050*	3.29	1955-57
			1959-60
			1962-71
Double Run near Magnolia, DE	01484060	5.68	1955-57
			1959-60
			1962-64
			1966-71
<u>MISSPILLION RIVER BASIN</u>			
Beaverdam Branch (head of Misspillion River):			
Cedar Creek near Lincoln, DE	01484200	7.21	1955-60
			1962-63
			1966,
			1968-69

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

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

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

a Approximately.

LOW-FLOW, PARTIAL-RECORD STATIONS, LISTED IN DOWNSTREAM ORDER

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

a Approximately.

* Also a crest-stage partial-record station.

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

a Approximately.

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

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WATER RESOURCES DATA - MARYLAND AND DELAWARE, 1996

VOLUME 1. SURFACE WATER SURFACE-WATER-QUALITY DATA

INTRODUCTION

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

This report series includes records of stage, discharge, and water quality of streams and stage, contents, and water quality of lakes and reservoirs. This volume contains records for water discharge at 90 gaging stations; stage and contents at 1 reservoir; and water quality at 22 gaging stations. Also included are data for 4 crest-stages, and 6 tidal crest-gage partial-record stations. Locations of these sites are shown on figure 3. Locations of discontinued gaging stations are shown on figure 4. Additional water data were collected at various sites not involved in the systematic data-collection program. These data represent that part of the National Water Data System collected by the U.S. Geological Survey and cooperating State and Federal agencies in Maryland and Delaware.

This series of annual reports for Maryland and Delaware began with the 1961 water year with a report that contained only data relating to the quantities of surface water. For the 1964 water year, a similar report was introduced that contained only data relating to water quality. Beginning with the 1975 water year, the report format was changed to present, in one volume, data on quantities of surface water, quality of surface and ground water, and ground-water levels. In the 1989 water year, the report format was changed to two volumes. Both volumes contained data on quantities of surface water, quality of surface and ground water, and ground-water levels. Volume 1 contained data on the Atlantic Slope Basins (Delaware River thru Patuxent River) and Volume 2 contained data on the Monongahela and Potomac River basins. Beginning with the 1991 water year, Volume 1 contains all information on quantities of surface water and surface-water-quality data and Volume 2 contains ground-water levels and ground-water-quality data.

Prior to introduction of this series and for several water years concurrent with it, water-resources data for Maryland and Delaware were published in U.S. Geological Survey Water-Supply Papers. Data on stream discharge and stage and on lake or reservoir contents and stage, through September 1960, were published annually under the title "Surface-Water Supply of the United States, Parts 6A and 6B." For the 1961 through 1970 water years, the data were published in two 5-year reports. Data on chemical quality, temperature, and suspended sediment for the 1941 through 1970 water years were published annually under the title "Quality of Surface Waters of the United States," and water levels for the 1935 through 1974 water years were published under the title "Ground-Water Levels in the United States." The above mentioned Water-Supply Papers may be consulted in the libraries of the principal cities of the United States and may be purchased from Branch of Information Services, Federal Center, Bldg. 41, Box 25286, Denver, CO 80225.

Publications similar to this report are published annually by the Geological Survey for all States. These official Survey reports have an identification number consisting of the two-letter State abbreviation, the last two digits of the water year, and the volume number. For example, this volume is identified as "U.S. Geological Survey Water-Data Report MD-DE-96-1." For archiving and general distribution, the reports for 1971-74 water years also are identified as water-data reports. These water-data reports are for sale in paper copy or in microfiche by the National Technical Information Service, U.S. Department of Commerce, Springfield, VA 22161. Data for the 1991-94 water years are also available on Compact Disc - Read Only Memory (CD-ROM).

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

COOPERATION

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

Maryland Geological Survey, Emory T. Cleaves, director.

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

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

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

Maryland State Highway Administration, Parker F. Williams, administrator.

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

The following organizations aided in collecting records:

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

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

Organizations that provided data are acknowledged in station descriptions.

SUMMARY OF HYDROLOGIC CONDITIONS

Streamflow at the start of the 1996 water year was in the normal range throughout the bi-state area except for central Maryland where flows were in the deficient range (lower 25 percent of the record) following below normal rainfall (1.0 inches) during September 1995. During October 1995 flows remained in the normal range in western Maryland and on the Eastern Shore. However, flows in central Maryland moved from the deficient into the excessive range (upper 25 percent of the record) following above normal rainfall (4 to 7.5 inches). November 1995 flows were unchanged except for the Eastern Shore where flows moved into the excessive range following above normal rainfall (0.8 to 1.6 inches). During December 1995, flows were in the normal range throughout the bi-state area. Flows were in the excessive range during January 1996 throughout the bi-state area following above normal rainfall (0.8 to 2.9 inches) and heavy snowfalls (20 to 50 inches). In February 1996, flows returned to the normal range following below normal rainfall (0.5 to 1.2 inches). Flows in March 1996 remained in the normal range, except for central Maryland where flows rose into the excessive range following above normal rainfall (0.5 to 1.0 inches). In April 1996, flows were excessive throughout the bi-state area following above normal rainfall (0.8 to 3 inches). Flows for May thru September 1996 were in the excessive range throughout the bi-state area following above normal rainfall (May, 1.2 to 5 inches; June, 1.2 to 6 inches; July, 2 to 7.6 inches; and September, 1 to 5.7 inches).

During the 1996 water year, flows were in the excessive range at all four index stations: Potomac River at Paw Paw, W.Va. in western Maryland, and Seneca Creek at Dawsonville in central Maryland, Choptank River at Greensboro on the Eastern Shore of Maryland, and Potomac River near Washington, D.C. in central Maryland. Record monthly means were set at all four index stations during the 1996 water year. At the Potomac River at Paw Paw, W.Va. site new maximum monthly means were set in May, August, and September. The new record monthly means were 7, 5, and 141 percent greater than the previous records set in 1988, 1955, and 1945. A new record maximum yearly mean was set which was 22.5 percent greater than the record set in 1994. New maximum daily means were set January and September. The new record daily means were 209 and 153 percent greater than the records set in 1978 and 1945. At the Seneca Creek at Dawsonville, Md. site a new maximum monthly mean was set in January. The new record monthly mean was 9 percent greater than the record set in 1979. A new maximum daily mean was also set in January which was 6 percent greater than the record set in 1978. At the Choptank River at Greensboro, Md. site a new maximum monthly mean was set in June. The new record monthly mean was 12 percent greater than the record set in 1972. At the Potomac River near Washington, D.C. site new maximum monthly means were set in January and September. The new record monthly means were 42 and 76 percent greater than the previous records set in 1937 and 1975. New maximum daily means were also set in January and September. The new record daily means were 177 and 41 percent greater than the records set in 1943 and 1975.

Monthly and annual mean discharges in water year 1996 are compared to long-term averages (reference period 1961-90) for two representative streamflow-gaging stations in figure 1. Data for the station, Potomac River at Point of Rocks in central Maryland, reflect runoff conditions in the Potomac River basin, excluding the Coastal Plain. Data for the station, Choptank River near Greensboro on the Eastern Shore of Maryland, reflect runoff from a 113 mi² (square mile) area, of which 21.6 mi² is in Delaware in the central part of the Delmarva peninsula.

Average freshwater inflow to the Chesapeake Bay was estimated to be 115,600 ft³/s (cubic feet per second), on the basis of flows of the James, Potomac, and Susquehanna Rivers. This is 150 percent of the long-term average during the reference period 1951-96. Flows for October averaged 50 percent below normal. During November and December flows averaged 50 and 36 percent above normal. For January, flows averaged 181 percent above normal following heavy rains. Inflow during January set a new record maximum monthly mean. The new record was 30 percent greater than the record set in 1979. Flows in February averaged 36 percent above normal. Flows in March and April were normal. In May, flows were 60 percent above normal. The monthly mean inflow for May was the third highest recorded. Flows for June averaged 37 percent above normal. July flows were 66 percent above normal. The monthly mean inflow was the fourth highest recorded. The months of August and September were above normal with 50 and 36 percent respectively.

The combined storage in the three major water-supply reservoirs in the Baltimore City Municipal System (combined usable capacity of 85,340 million gallons) increased from 74 percent of capacity from September 1995, to 100 percent of capacity at the end of September 1996.

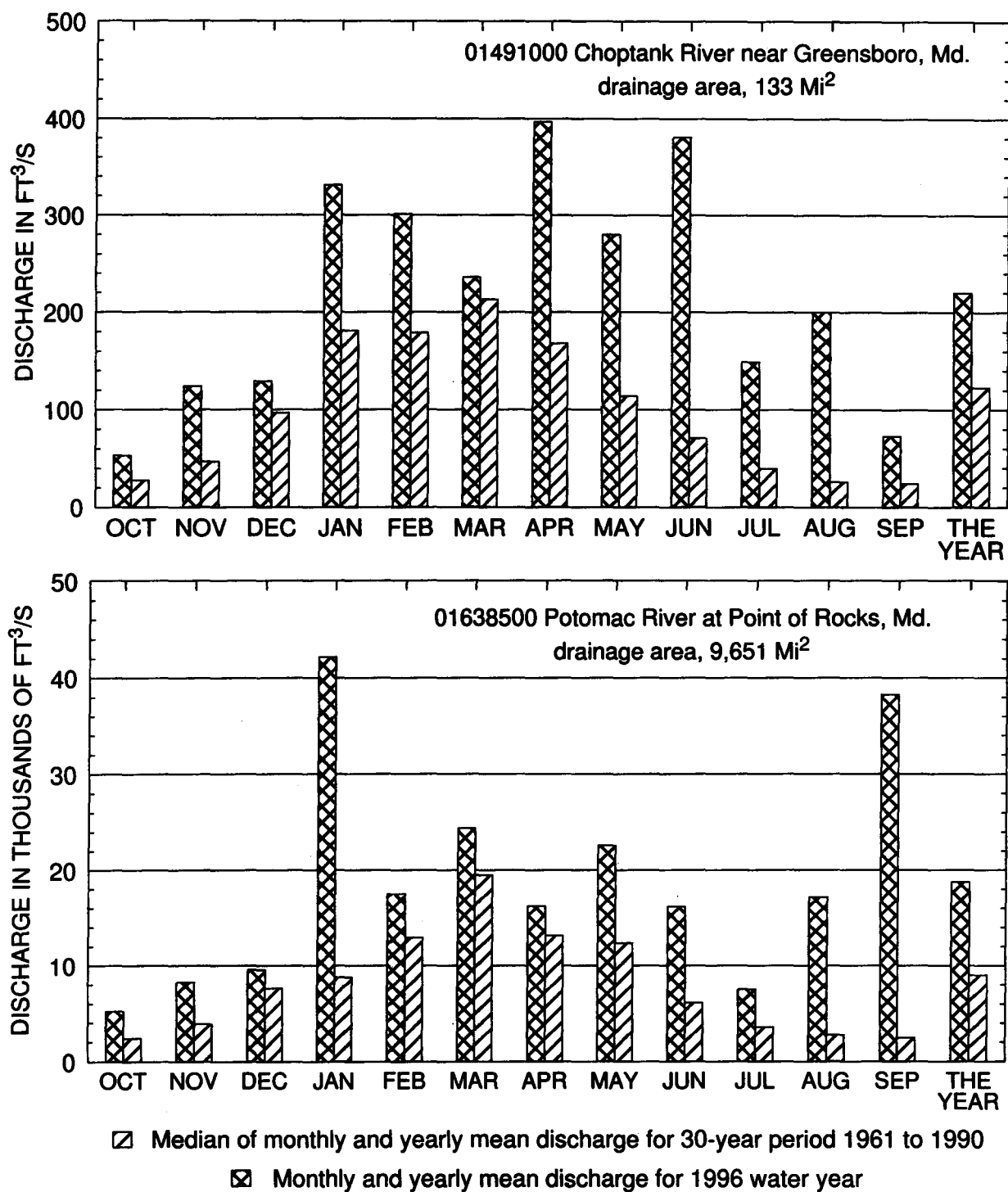


FIGURE 1. COMPARISON OF DISCHARGE AT TWO LONG-TERM REPRESENTATIVE GAGING STATIONS DURING THE 1996 WATER YEAR WITH MEDIAN DISCHARGE FOR INDICATED PERIOD.

SPECIAL NETWORKS AND PROGRAMS

National Stream Quality Accounting Network (NASQAN) monitors the water quality of large rivers within four of the Nation's largest river basins--the Mississippi, Columbia, Colorado and Rio Grande. The network consists of 39 stations. Samples are collected with sufficient frequency that the flux of a wide range of constituents can be estimated. The objective of NASQAN is to characterize the water quality of these large rivers by measuring concentration and mass transport of a wide range of dissolved and suspended constituents, including nutrients, major ions, dissolved and sediment-bound heavy metals, common pesticides, and inorganic and organic forms of carbon. This information will be used (1) to describe the long-term trends and changes in concentration and transport of these constituents; (2) to test findings of the National Water-Quality Assessment Program (NAWQA); (3) to characterize processes unique to large-river systems such as storage and re-mobilization of sediments and associated contaminants; and (4) to refine existing estimates of off-continent transport of water, sediment, and chemicals for assessing human effects on the world's oceans and for determining global cycles of carbon, nutrients, and other chemicals.

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

Assessment activities are being conducted in 53 study units (major watersheds and aquifer systems) that represent a wide range of environmental settings nationwide and that account for a large percentage of the Nation's water use. A wide array of chemical constituents will be measured in ground water, surface water, streambed sediments, and fish tissues. The coordinated application of comparative hydrologic studies at a wide range of spatial and temporal scales will provide information for decision making by water-resources managers and a foundation for aggregation and comparison of findings to address water-quality issues of regional and national interest.

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

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

http://wwwrvares.er.usgs.gov/nawqa/nawqa_home.html

EXPLANATION OF THE RECORDS

The surface-water and ground-water records published in this report are for the 1996 water year that began October 1, 1995, and ended September 30, 1996. 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 indentation in the "List of Stations" in the front of this report. Each indentation represents one rank. This downstream order and system of indentation shows which stations are on tributaries between any two stations and the rank of the tributary on which each station is situated.

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

Latitude-Longitude System

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

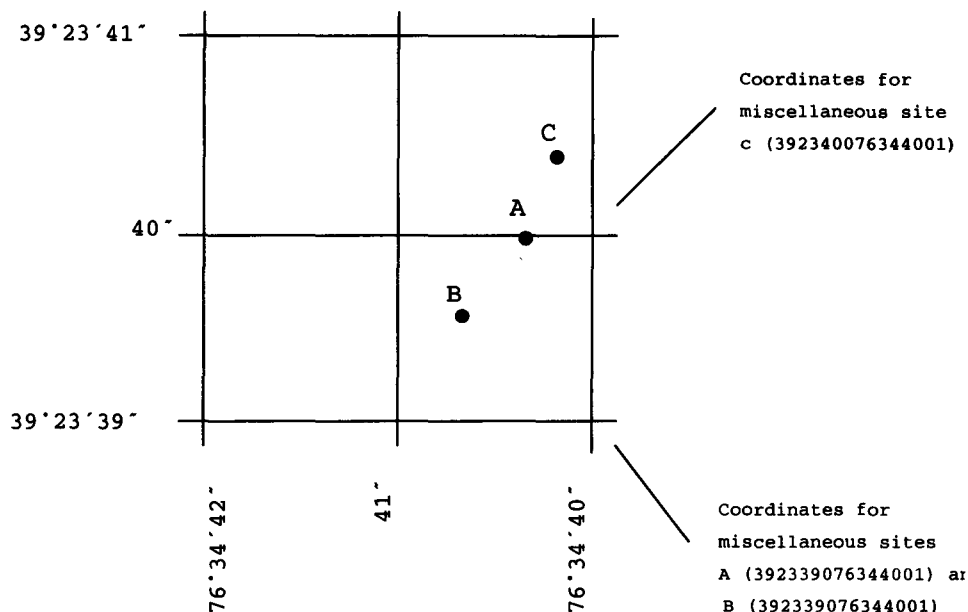


Figure 2. --System for numbering miscellaneous sites (latitude and longitude)

Records of Stage and Water Discharge

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

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

Data Collection and Computation

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

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

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

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

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

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

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

Data Presentation

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

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

Station manuscript

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Data table of daily mean values

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

Statistics of monthly mean data

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

Summary statistics

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Identifying Estimated Daily Discharge

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

Accuracy of the Records

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

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

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

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

Other Records Available

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

Records of Surface-Water Quality

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

Classification of records

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

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

Arrangement of Records

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

On-site Measurements and Sample Collection

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

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

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

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

Water temperature

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

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

Sediment

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

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

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

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

Laboratory Measurements

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

Data Presentation

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

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

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

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

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

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

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

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

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

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

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

Remark Codes

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

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

ACCESS TO WATSTORE DATA

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

- * **Station Header File** - Contains descriptive information on more than 440,000 sites throughout the United States and its territories where the U.S. Geological Survey collects or has collected data.
- * **Daily Values File** - Contains more than 220 million daily values of stream flows, stages, reservoir contents, water temperature, specific conductance, sediment concentrations, sediment discharges, and ground-water levels.
- * **Peak Flow File** - Contains approximately 500,000 maximum (peak) streamflow and gage-height values at surface-water sites.
- * **Water Quality File** - Contains approximately 2 million analyses of water samples that describe the chemical, physical, biological, radio-chemical characteristics of both surface and ground water.
- * **Ground-Water Site Inventory Data Base** - Contains inventory data for more than 900,000 well, springs, and other sources of ground water. The data includes site location, geohydrologic characteristics, well-construction history, and one-time field measurements such as water temperature.

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

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

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

DEFINITION OF TERMS

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

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

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

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

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

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

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

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

Fecal streptococcal bacteria are bacteria found also in the intestine of warm-blooded animals. Their presence in water is considered to verify fecal pollution. They are characterized as Gram-positive, cocci bacteria which are capable of growth in brain-heart infusion broth. In the laboratory they are defined as all the organisms which produce red or pink colonies within 48 hours at 35°C plus or minus 1.0°C on KF-streptococcus medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

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

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

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

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

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

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

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

Bottom material: See Bed material.

Cells/volume refers to the number of cells of any organism which is counted by using a microscope and grid or counting cell. Many planktonic organisms are multicelled and are counted according to the number of contained cells per sample, usually milliliters (mL) or liters (L).

Chemical oxygen demand (COD) is a measure of the chemically oxidizable material in the water and furnishes an approximation of the amount of organic and reducing material present. The determined value may correlate with natural water color or with carbonaceous organic pollution from sewage or industrial wastes.

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

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

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

Control designates a feature downstream from the gage that determines the stage-discharge relation at the gage. This feature may be a natural constriction of the channel, an artificial structure, or a uniform cross section over a long reach of the channel.

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

Cubic feet per second per square mile [(ft³/s)/mi²] 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 (ft³/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 (CaCO₃).

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

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

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

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

Micrograms per gram (ug/g) is a unit expressing the concentration of a chemical constituent as the mass (micrograms) of the element per unit mass (gram) of material analyzed.

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

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

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

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

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

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

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

Organism is any living entity.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Milligrams of carbon per area or volume per unit time [$\text{mg C}/(\text{m}^2 \cdot \text{time})$] for periphyton and macrophytes and [$\text{mg C}/(\text{m}^3 \cdot \text{time})$] 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 [$\text{mg O}_2/(\text{m}^2 \cdot \text{time})$] for periphyton and macrophytes and [$\text{mg O}_2/(\text{m}^3 \cdot \text{time})$] for phytoplankton are the units for expressing primary productivity. They define production and respiration rates as estimated from changes in the measured dissolved-oxygen concentration. The oxygen light and dark bottle method is preferred if the rate of primary production is sufficient for accurate measurements to be made within 24 hours. Unit time may be either the hour or day, depending on the incubation period.

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

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

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

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

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

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

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

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

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

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

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

Suspended-sediment discharge (tons/day) is the rate at which dry mass of sediment passes a section of a stream or is the quantity of sediment, as measured by dry mass or volume, that passes a section in a given time. It is calculated in units of tons per day as follows: concentration (mg/L) x discharge (ft³/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 (Q_{10}) is the discharge at the 10-year recurrence interval taken from a frequency curve of annual values of the lowest mean discharge for 7 consecutive days (the 7-day low flow).

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

Solute is any substance that is dissolved in water.

Specific conductance is a measure of the ability of a water to conduct an electrical current. It is expressed in microsiemens per centimeter at 25°C. Specific conductance is related to the type and concentration of ions in solution and can be used for approximating the dissolved-solids content of the water. Commonly, the concentration of dissolved solids (in milligrams per liter) is about 65 percent of the specific conductance (in microsiemens). This relation is not constant from stream to stream, and it may vary in the same source with changes in the composition of the water.

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

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

Substrate is the physical surface upon which an organism lives.

Natural substrate refers to any naturally occurring emerged 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 hierarchical scheme beginning with Kingdom and ending with Species at the base. The higher the classification level, the fewer features the organisms have in common. For example, the taxonomy of a particular mayfly, *Hexagenia limbata*, is the following:

```

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

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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 abbreviation for "Water-Supply Paper" in reference to previously published reports.

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PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS

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

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

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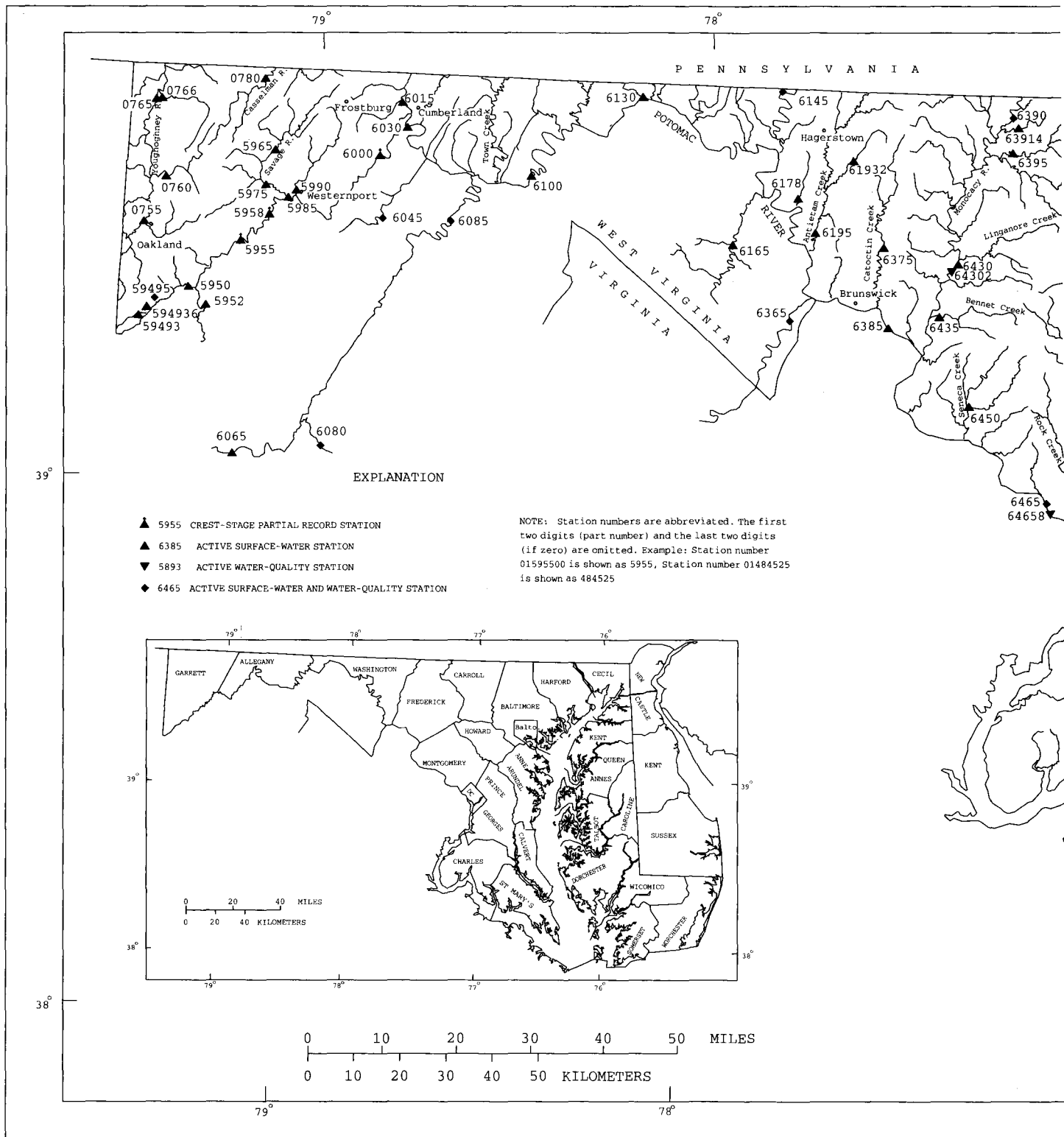
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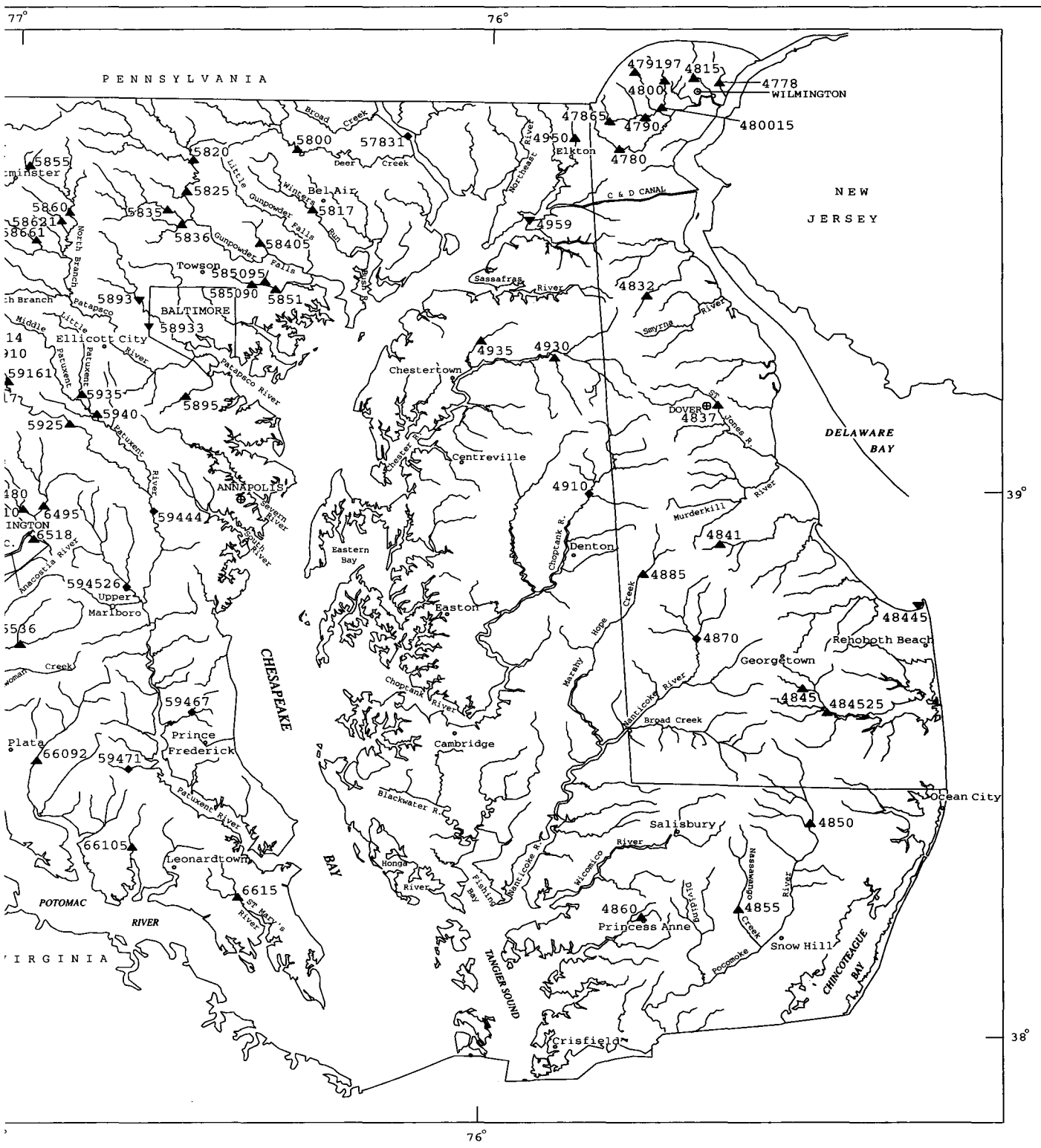
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Base map modified from US Geological Survey 1:100 000 DLG

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



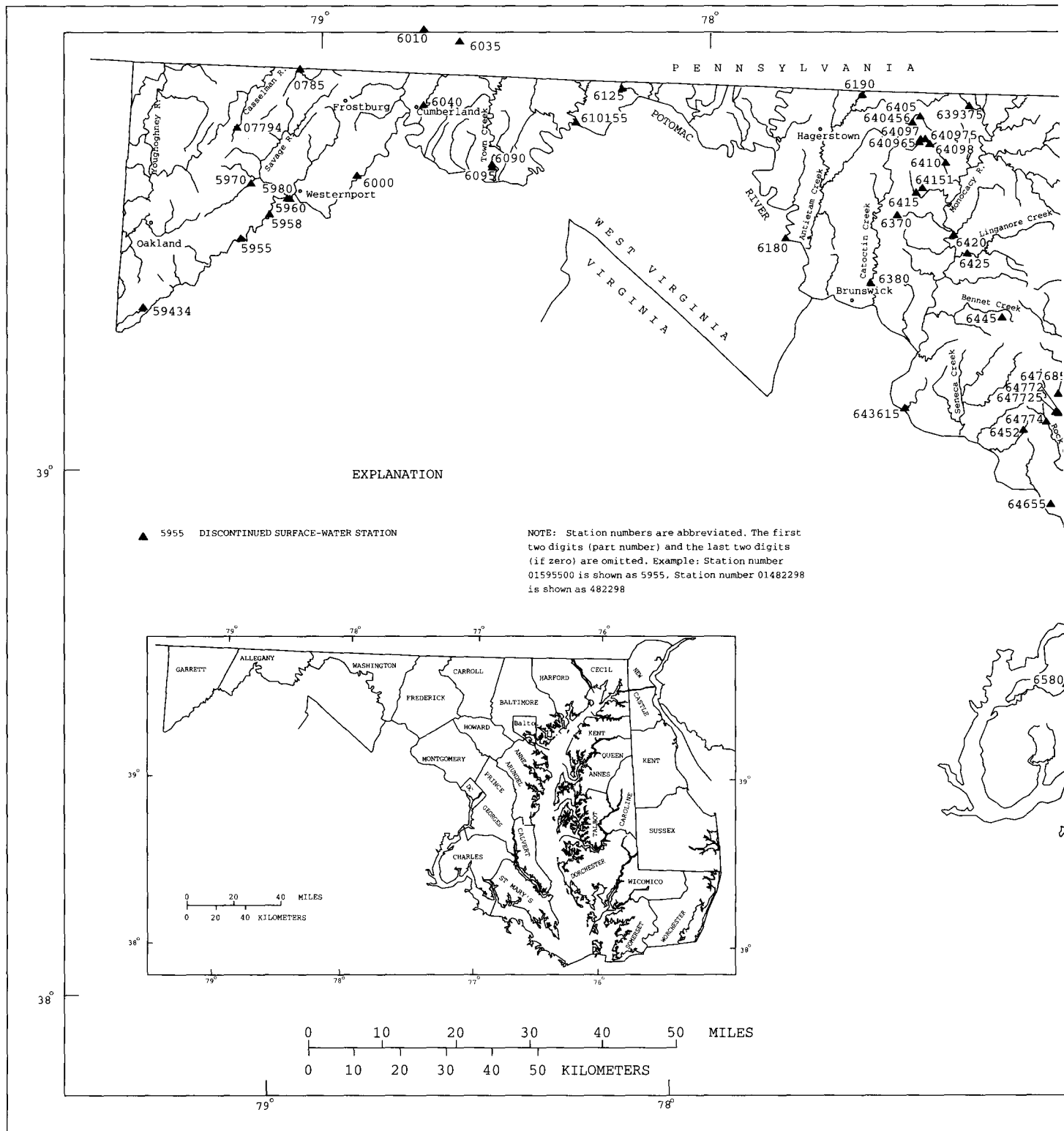
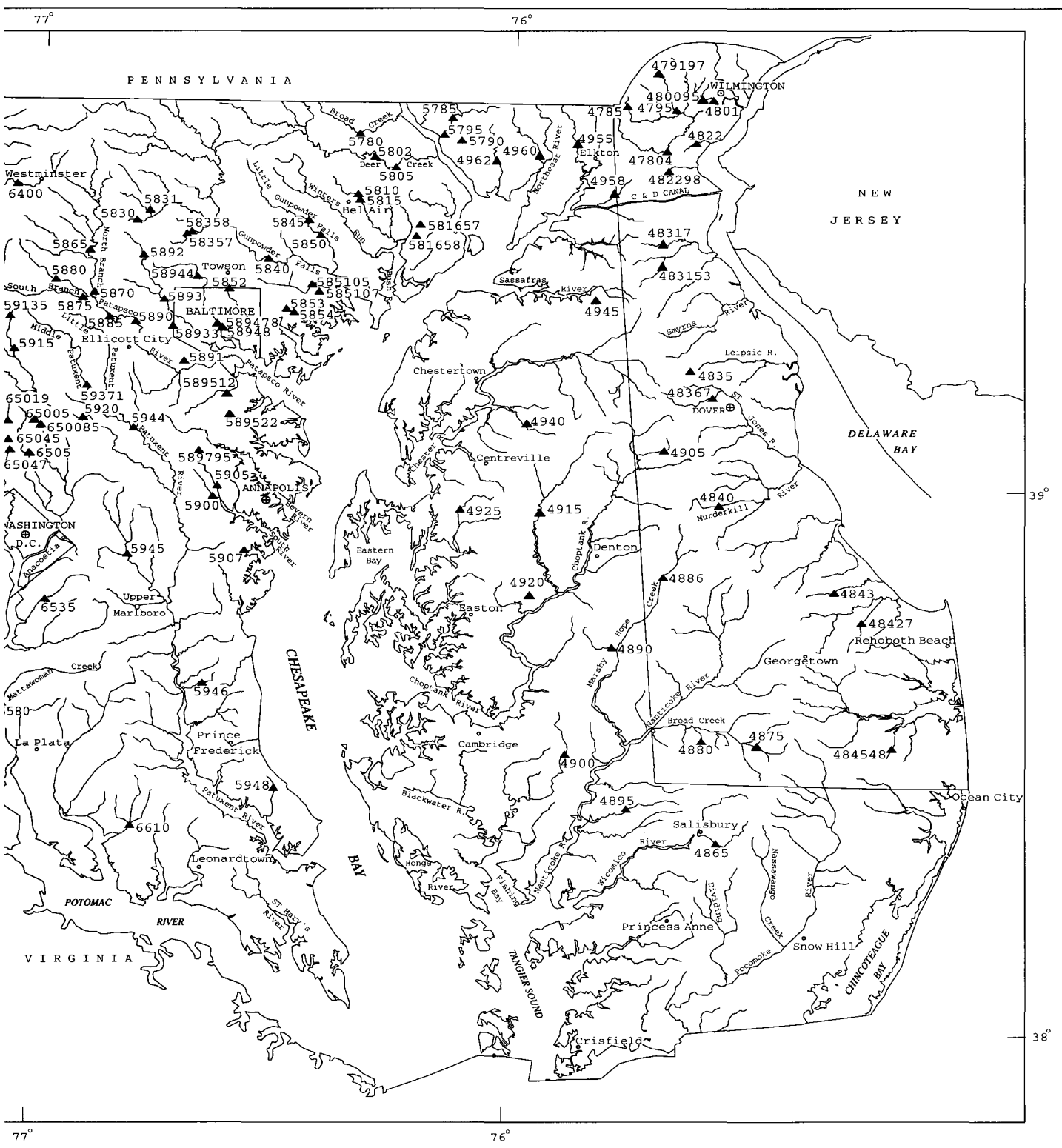


Figure 4. Map of Maryland and Delaware showing location of discontinued surface-water stations.



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

REMARK CODES

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

<u>PRINTED OUTPUT</u>	<u>REMARK</u>
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.

Dissolved Trace-Element Concentrations

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

Change in National Trends Network Procedures

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

HYDROLOGIC-DATA STATION RECORDS

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 mi².

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

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

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

REMARKS.--Records good below 100 ft³/s and above 4,000 ft³/s, except those for estimated daily discharges (ice effect) and those between 100 and 4,000 ft³/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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 14	1940	1,310	4.90	Apr. 16	0545	1,410	5.08
Oct. 28	0235	1,470	5.19	July 13	0650	1,030	4.40
Jan. 19	1450	*1,890	*5.85	July 31	2105	1,020	4.38
Mar. 19	2005	1,010	4.36	Aug. 13	0515	1,460	5.17
Apr. 1	1955	1,160	4.61				

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.75	5.6	6.6	7.5	5.1	3.9	192	12	3.2	4.0	17	1.9
2	.75	13	5.6	57	5.2	6.6	49	5.4	3.1	3.4	4.9	1.9
3	.73	4.0	4.7	37	e5.0	5.3	9.6	17	3.4	5.9	3.8	1.9
4	.92	3.0	4.4	e8.0	4.2	5.0	7.0	6.3	3.5	2.7	3.3	2.0
5	114	2.6	4.2	4.7	e4.0	5.8	5.8	11	5.2	2.2	3.0	2.2
6	10	2.3	5.3	e4.0	3.9	22	5.7	33	2.0	2.0	2.7	2.7
7	2.1	6.9	4.1	e3.8	3.8	71	24	8.0	1.9	2.0	3.0	3.3
8	1.4	5.7	3.9	e5.0	6.6	16	10	21	1.9	35	4.5	51
9	1.1	2.8	12	e6.0	31	7.6	47	22	19	15	8.5	6.1
10	1.0	2.7	6.8	e4.0	8.3	6.5	30	8.7	9.9	3.9	5.0	1.7
11	.95	41	4.5	3.5	7.0	6.7	9.8	67	38	2.1	3.1	15
12	.90	46	4.1	4.8	5.5	6.5	7.6	18	6.4	3.7	16	2.2
13	.80	4.9	3.9	6.4	e4.4	5.7	6.5	7.4	5.9	261	260	2.0
14	138	72	4.3	5.8	4.8	5.0	6.1	6.4	3.3	7.6	6.1	1.8
15	28	16	6.4	6.7	4.3	17	9.1	5.8	2.5	7.3	3.7	1.5
16	3.4	5.2	49	5.6	3.8	6.9	176	22	2.3	6.6	3.7	25
17	2.0	3.6	11	5.8	4.2	4.8	14	8.3	22	3.1	4.6	136
18	1.5	3.8	7.6	13	3.9	4.4	7.6	6.1	6.1	3.4	2.6	5.5
19	1.4	5.9	15	497	e3.9	93	6.2	5.3	56	60	2.2	2.6
20	3.0	3.2	9.1	18	63	32	5.5	4.5	10	4.4	2.2	2.0
21	119	3.0	7.1	7.5	45	7.8	5.0	4.0	6.1	3.0	2.2	1.8
22	5.9	2.7	6.4	5.9	11	5.6	4.3	3.8	3.0	3.1	2.1	49
23	2.9	3.3	5.9	5.6	8.8	4.7	9.4	3.4	2.5	5.9	2.0	3.6
24	2.2	8.2	5.8	40	8.0	4.2	6.2	3.1	2.7	2.9	3.2	2.8
25	1.8	4.1	5.5	13	5.4	4.2	3.9	3.1	3.1	2.7	1.9	2.5
26	1.7	3.9	5.2	6.3	4.8	4.0	9.7	3.2	2.2	29	1.8	2.3
27	25	3.9	5.1	93	4.4	3.9	6.6	5.8	2.0	3.2	1.7	2.1
28	216	4.5	4.9	13	4.3	11	4.0	5.3	1.9	2.4	1.8	6.6
29	5.4	22	4.9	7.1	3.9	123	7.0	12	1.9	2.7	1.7	24
30	3.2	8.2	5.0	6.5	---	11	80	4.0	54	36	1.6	3.0
31	2.6	---	5.2	6.2	---	6.9	---	3.3	---	140	1.8	---
TOTAL	698.40	314.0	233.5	907.7	277.5	518.0	764.6	346.2	285.0	666.2	381.7	366.0
MEAN	22.5	10.5	7.53	29.3	9.57	16.7	25.5	11.2	9.50	21.5	12.3	12.2
MAX	216	72	49	497	63	123	192	67	56	261	260	136
MIN	.73	2.3	3.9	3.5	3.8	3.9	3.9	3.1	1.9	2.0	1.6	1.5
CFSM	3.02	1.40	1.01	3.93	1.28	2.24	3.42	1.50	1.27	2.88	1.65	1.64
IN.	3.48	1.57	1.16	4.53	1.38	2.58	3.81	1.73	1.42	3.32	1.90	1.83
e	Estimated											

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1946 - 1996, BY WATER YEAR (WY)

	4.91	8.65	11.3	12.7	13.1	15.6	13.2	10.8	7.07	8.76	7.08	6.76
MEAN	4.91	8.65	11.3	12.7	13.1	15.6	13.2	10.8	7.07	8.76	7.08	6.76
MAX	22.5	27.7	30.5	37.9	34.1	41.4	32.7	31.5	34.8	69.5	62.8	58.3
(WY)	1996	1973	1968	1979	1979	1993	1983	1947	1975	1989	1967	1971
MIN	.62	1.35	1.03	1.18	2.95	2.93	2.55	1.76	1.09	.65	.32	.90
(WY)	1964	1966	1956	1981	1980	1985	1985	1955	1966	1957	1966	1951

01477800 SHELLPOT CREEK AT WILMINGTON, DE--Continued

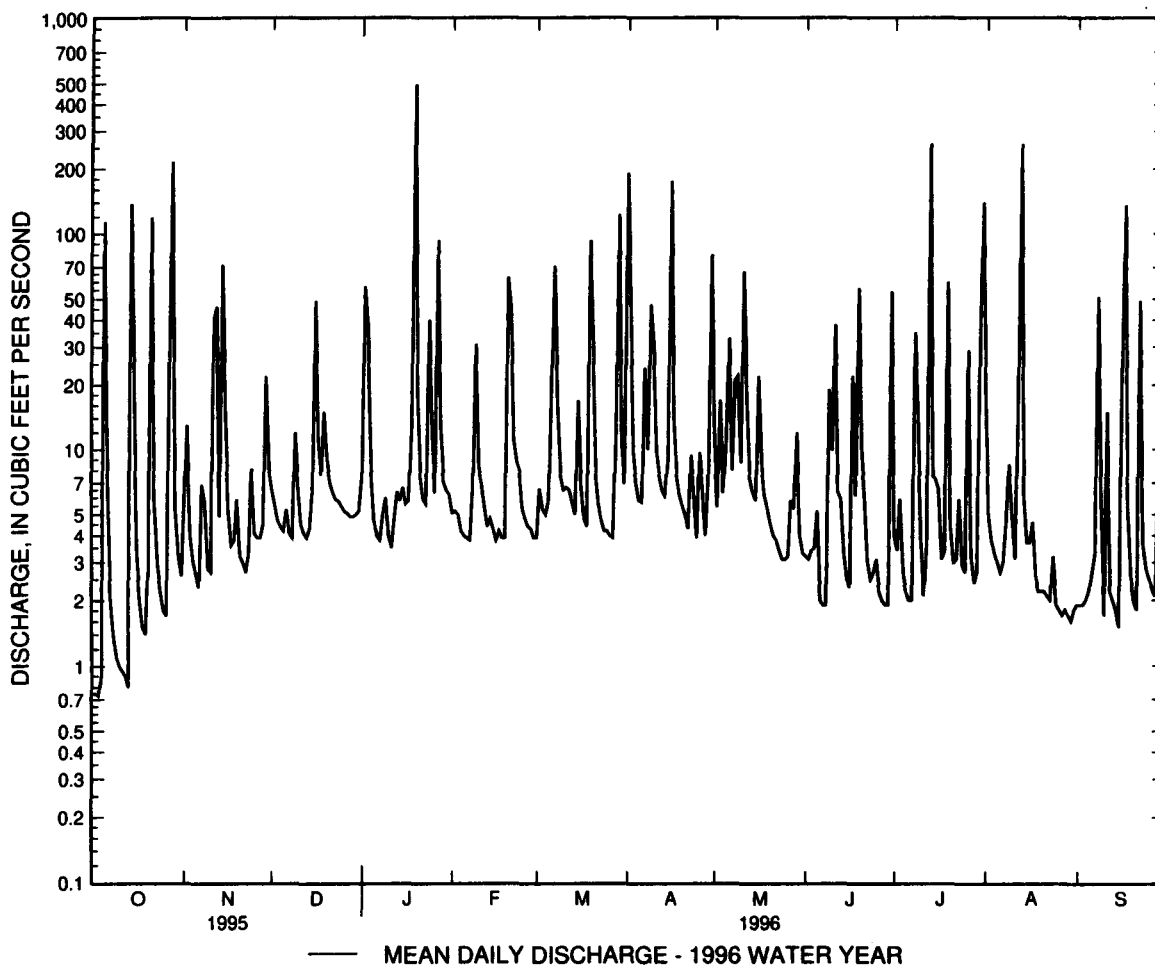
SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1946 - 1996	
ANNUAL TOTAL	3049.36		5758.80			
ANNUAL MEAN	8.35		15.7		9.83	
HIGHEST ANNUAL MEAN					16.1	
LOWEST ANNUAL MEAN					5.52	
HIGHEST DAILY MEAN	216	Oct 28	497	Jan 19	1310	Jul 5 1989
LOWEST DAILY MEAN	.43	(a)	.73	Oct 3	.09	(b)
ANNUAL SEVEN-DAY MINIMUM	.44	Sep 1	1.2	Oct 7	.10	Aug 27 1966
INSTANTANEOUS PEAK FLOW			1890	Jan 19	(c) 8040	Jul 5 1989
INSTANTANEOUS PEAK STAGE			5.85	Jan 19	13.76	Jul 5 1989
INSTANTANEOUS LOW FLOW			.73	(d)	.09	Oct 2 1968
ANNUAL RUNOFF (CFSM)	1.12		2.11		1.32	
ANNUAL RUNOFF (INCHES)	15.21		28.72		17.90	
10 PERCENT EXCEEDS	12		34		18	
50 PERCENT EXCEEDS	3.1		5.1		2.9	
90 PERCENT EXCEEDS	.73		2.0		.79	

a Sept. 3-5, 7.

b Oct. 2, 4, 1968.

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

d Oct. 1-4.



DELAWARE RIVER BASIN

01478000 CHRISTINA RIVER AT COOCHS BRIDGE, DE

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

DRAINAGE AREA.--20.5 mi².

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

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

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

REMARKS.--Records good except those for estimated daily discharges (intake lag, ice effect), which are fair. Low and medium flow regulated by mill upstream from station. National Weather Service gage-height telemeter at station. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

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

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 28	0545	1,020	10.24	Apr. 16	0800	1,260	10.78
Nov. 12	0215	1,100	10.43	June 11	1915	1,060	10.34
Jan. 19	1715	*1,910	*11.78	July 13	0945	1,310	10.88
Mar. 19	2245	1,180	10.60	Aug. 13	0700	1,290	10.83
Apr. 1	2315	1,150	10.55				

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.1	12	17	14	19	13	223	39	14	17	32	9.7
2	2.8	15	15	144	e17	16	252	22	13	14	17	9.3
3	2.7	11	13	181	e16	15	40	24	13	22	13	9.1
4	2.6	9.2	13	37	e15	13	30	21	14	14	12	8.9
5	79	8.0	12	18	16	14	26	37	26	11	11	9.1
6	127	7.8	13	14	15	35	24	87	15	9.7	11	8.9
7	8.0	14	12	e10	15	134	39	28	14	9.4	10	10
8	5.8	17	11	17	e18	61	31	48	13	14	9.8	9.1
9	4.7	9.4	23	18	e120	26	105	94	60	18	13	8.6
10	4.3	8.1	18	16	48	20	88	34	49	12	15	8.4
11	4.0	56	11	14	29	21	34	130	238	8.7	9.8	8.3
12	3.7	342	9.8	15	22	21	28	98	63	8.8	26	8.8
13	3.6	26	9.8	e18	17	19	25	29	27	441	524	16
14	146	207	11	e15	17	17	23	23	18	34	e30	9.8
15	85	e80	14	e13	17	50	21	21	15	25	e20	8.4
16	9.5	26	133	e12	16	35	381	49	13	31	e40	25
17	6.9	18	40	e12	16	19	49	30	13	15	42	178
18	5.9	15	20	e13	15	18	31	24	15	15	18	19
19	5.5	18	53	e1000	14	203	26	23	113	60	14	12
20	5.5	14	29	176	32	213	24	20	33	19	12	11
21	286	13	18	59	86	37	22	18	20	13	18	10
22	22	12	15	41	33	27	21	19	15	12	13	141
23	9.9	12	14	34	26	23	31	17	13	20	12	27
24	7.8	27	14	157	23	20	32	15	13	13	11	17
25	6.5	14	14	82	18	20	21	14	15	12	11	15
26	6.3	12	13	32	16	19	22	14	11	83	10	14
27	18	11	11	283	16	18	20	19	10	18	20	13
28	338	11	11	73	15	38	18	22	9.6	13	16	25
29	18	56	11	31	14	388	21	36	9.8	12	11	e58
30	11	25	10	25	---	53	63	21	59	39	10	e15
31	9.0	---	11	23	---	32	---	16	---	40	11	---
TOTAL	1248.1	1106.5	619.6	2597	741	1638	1771	1092	954.4	1073.6	1022.6	722.4
MEAN	40.3	36.9	20.0	83.8	25.6	52.8	59.0	35.2	31.8	34.6	33.0	24.1
MAX	338	342	133	1000	120	388	381	130	238	441	524	178
MIN	2.6	7.8	9.8	10	14	13	18	14	9.6	8.7	9.8	8.3
CFSM	1.96	1.80	.97	4.09	1.25	2.58	2.88	1.72	1.55	1.69	1.61	1.17
IN.	2.26	2.01	1.12	4.71	1.34	2.97	3.21	1.98	1.73	1.95	1.86	1.31

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1943 - 1996, BY WATER YEAR (WY)

MEAN	14.3	24.5	33.7	40.4	42.5	47.1	37.3	31.7	21.3	22.5	17.7	15.2
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

DELAWARE RIVER BASIN

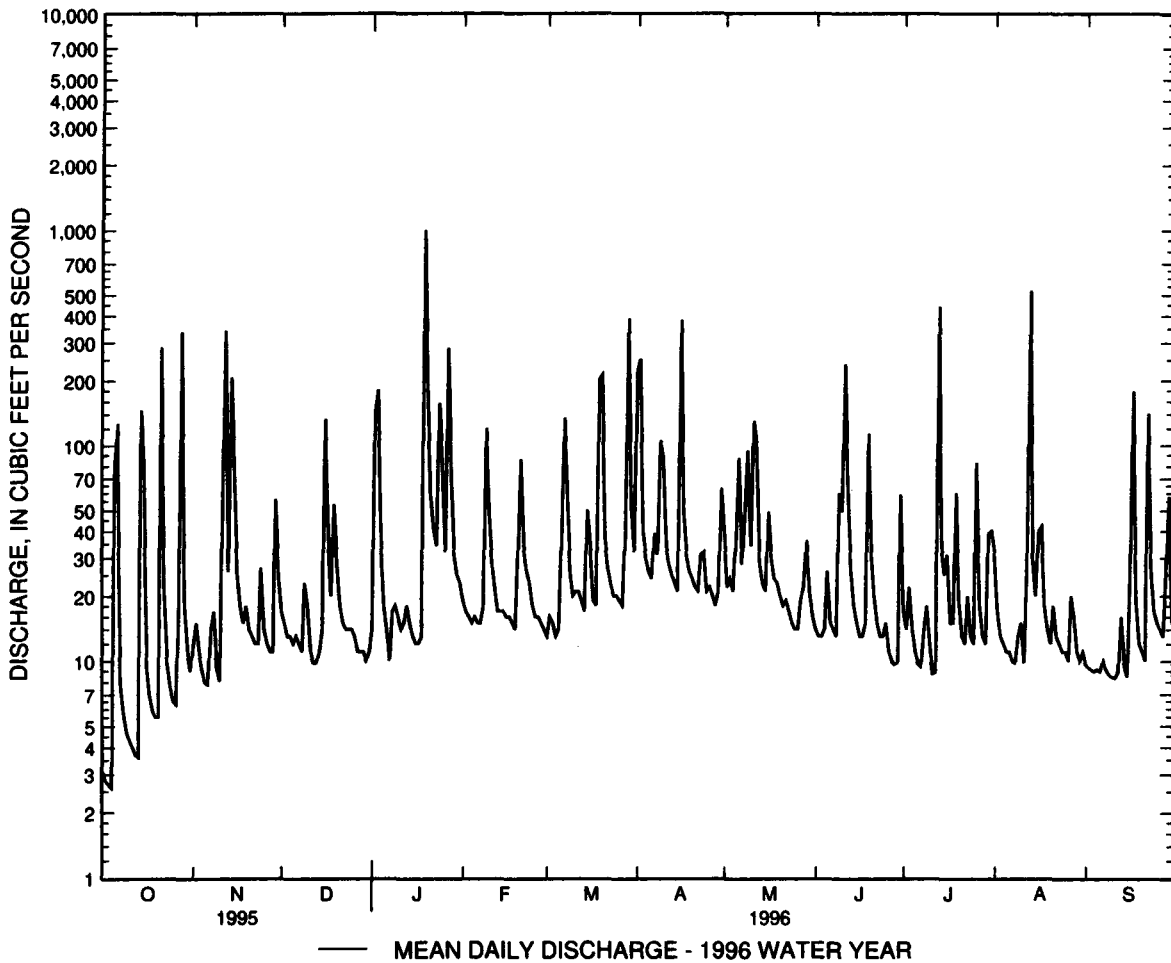
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01478000 CHRISTINA RIVER AT COOCHS BRIDGE, DE

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1943 - 1996	
ANNUAL TOTAL	7821.4		14586.2			
ANNUAL MEAN	21.4		39.9		28.9	
HIGHEST ANNUAL MEAN					53.4	
LOWEST ANNUAL MEAN					14.2	
HIGHEST DAILY MEAN	639	Jan 20	1000	Jan 19	2000	Jul 5 1989
LOWEST DAILY MEAN	1.6	(a)	2.6	Oct 4	.20	(b)
ANNUAL SEVEN-DAY MINIMUM	1.7	Sep 1	4.9	Oct 7	.50	Aug 25 1966
INSTANTANEOUS PEAK FLOW			1910	Jan 19	5530	Jul 5 1989
INSTANTANEOUS PEAK STAGE			11.78	Jan 19	13.12	Jul 5 1989
INSTANTANEOUS LOW FLOW			2.5	Oct 4	UNKNOWN	
ANNUAL RUNOFF (CFSM)	1.05		1.94		1.41	
ANNUAL RUNOFF (INCHES)	14.19		26.47		19.17	
10 PERCENT EXCEEDS	33		82		49	
50 PERCENT EXCEEDS	10		17		13	
90 PERCENT EXCEEDS	2.8		9.4		4.4	

a Aug. 26, Sept. 6, 7.

b Aug. 7, 14, 18, 21, 27, 28, 1966.



01478650 WHITE CLAY CREEK AT NEWARK, DE

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

DRAINAGE AREA. - - 69.0 mi².

PERIOD OF RECORD.- March 1994 to current year.

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

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

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,600 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 19	2015	*7,540	*13.35	June 19	1845	1,730	8.52
Jan. 27	1715	2,650	9.27	July 13	1115	1,700	8.49
Apr. 16	0830	1,820	8.60	Aug. 13	0745	3,100	9.61
June 11	1715	2,280	8.98	Sept. 22	1145	1,600	8.40

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	42	55	45	88	64	226	193	76	96	397	52
2	14	66	58	114	81	73	545	122	72	70	113	50
3	14	58	50	286	79	70	166	140	69	73	84	48
4	13	49	49	104	78	61	136	128	74	69	78	48
5	76	46	47	61	77	66	121	132	136	56	67	49
6	268	46	49	48	e75	101	111	274	74	51	62	49
7	40	48	47	40	e73	281	139	149	66	49	60	59
8	28	74	45	52	78	203	134	189	65	58	58	50
9	24	53	51	89	275	103	162	240	98	63	66	48
10	22	48	48	84	157	87	205	170	111	55	83	47
11	20	64	39	75	116	87	134	254	478	48	58	46
12	20	515	44	83	104	85	119	354	203	47	64	50
13	20	97	43	84	73	81	109	164	114	655	1050	55
14	71	207	46	67	75	76	103	138	87	162	185	64
15	168	199	48	61	73	115	99	124	74	95	112	47
16	43	93	110	56	72	98	693	184	63	86	113	58
17	31	68	100	59	70	77	247	153	60	64	141	380
18	28	59	62	61	66	73	176	134	81	61	82	102
19	27	58	75	e3000	65	135	150	124	434	169	70	62
20	28	52	69	606	92	392	136	112	226	92	64	55
21	380	48	57	e160	337	130	123	100	119	63	68	51
22	103	46	54	105	151	103	108	97	82	61	70	504
23	50	45	51	90	124	91	110	90	72	81	63	138
24	41	57	47	342	110	82	132	83	63	65	63	80
25	37	50	46	267	89	79	114	78	64	59	60	70
26	34	47	43	109	78	76	112	76	57	115	58	61
27	36	46	44	1090	75	70	120	92	53	68	59	61
28	270	46	45	306	73	83	103	110	51	59	68	68
29	68	63	43	146	67	538	116	128	51	55	58	175
30	46	60	42	123	- - -	183	171	99	176	181	54	78
31	41	- - -	43	113	- - -	127	- - -	79	- - -	303	54	- - -
TOTAL	2075	2450	1650	7926	2971	3890	5120	4510	3449	3229	3682	2705
MEAN	66.9	81.7	53.2	256	102	125	171	145	115	104	119	90.2
MAX	380	515	110	3000	337	538	693	354	478	655	1050	504
MIN	13	42	39	40	65	61	99	76	51	47	54	46
CFSM	.97	1.18	.77	3.71	1.48	1.82	2.47	2.11	1.67	1.51	1.72	1.31
IN.	1.12	1.32	.89	4.27	1.60	2.10	2.76	2.43	1.86	1.74	1.99	1.46

e Estimated

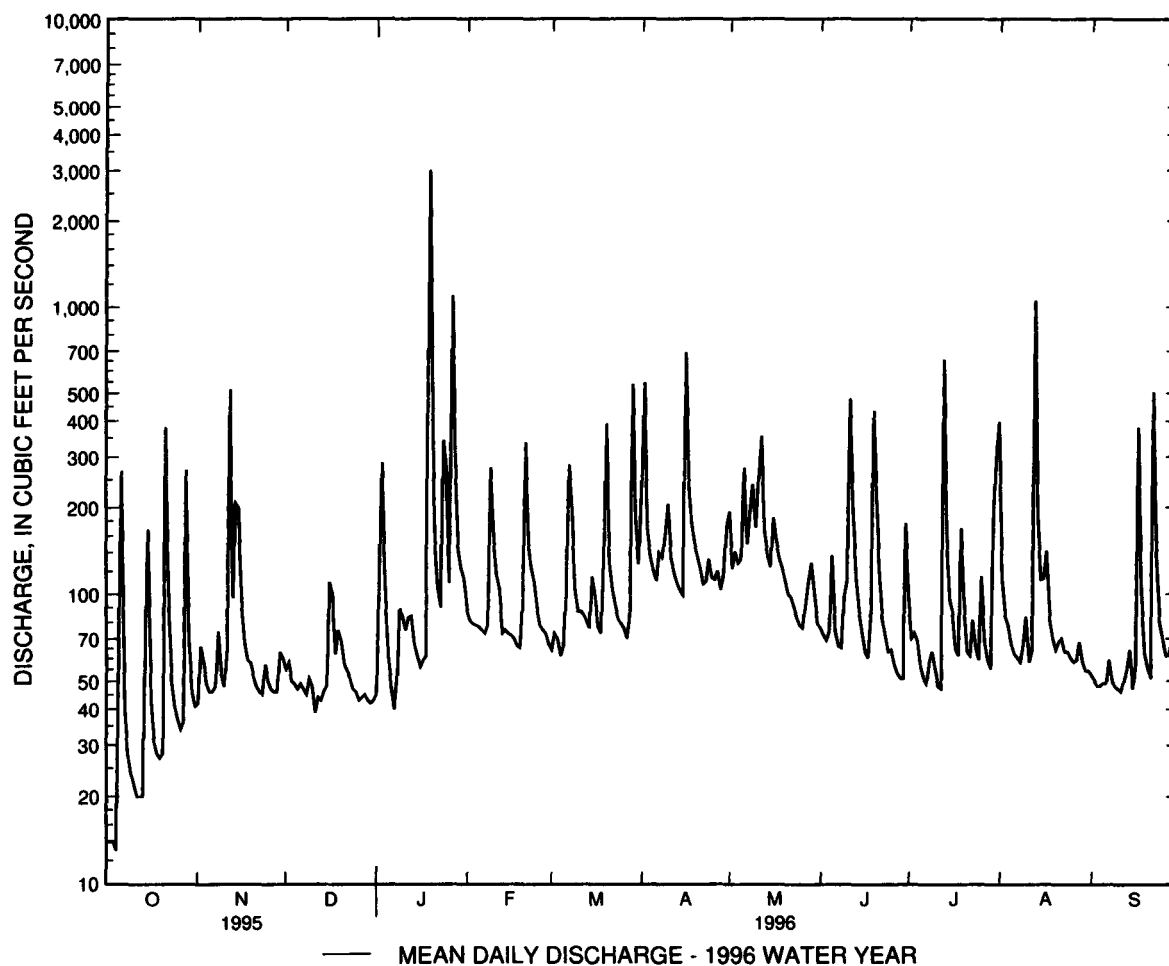
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1994 - 1996, BY WATER YEAR (WY)

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01478650 WHITE CLAY CREEK AT NEWARK, DE--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1994 - 1996	
ANNUAL TOTAL	18367.3		43657			
ANNUAL MEAN	50.3		119		80.7	
HIGHEST ANNUAL MEAN					119	
LOWEST ANNUAL MEAN					42.0	
HIGHEST DAILY MEAN	827	Mar 9	(e) 3000	Jan 19	(e) 3000	Jan 19 1996
LOWEST DAILY MEAN	4.5	Sep 12	13	Oct 4	4.5	Sep 12 1995
ANNUAL SEVEN-DAY MINIMUM	6.1	Sep 1	25	Oct 7	6.1	Sep 1 1995
INSTANTANEOUS PEAK FLOW			(a) 7540	Jan 19	(a) 7540	Jan 19 1996
INSTANTANEOUS PEAK STAGE			13.35	Jan 19	13.35	Jan 19 1996
INSTANTANEOUS LOW FLOW			9.6	Oct 4	2.6	Sep 13 1995
ANNUAL RUNOFF (CFSM)	.73		1.73		1.17	
ANNUAL RUNOFF (INCHES)	9.90		23.54		15.89	
10 PERCENT EXCEEDS	71		203		150	
50 PERCENT EXCEEDS	41		74		49	
90 PERCENT EXCEEDS	13		46		20	

e Estimated.

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

DELAWARE RIVER BASIN

01479000 WHITE CLAY CREEK NEAR NEWARK, DE

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

DRAINAGE AREA.--89.1 mi².

PERIOD OF RECORD.--October 1931 to September 1936, June 1943 to September 1957, October 1959 to current year.

Monthly discharge only for some periods, published in WSP 1302.

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

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

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

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

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 19	2230	*9,150	*15.90	June 11	1830	2,650	12.63
Jan. 27	1815	2,850	12.93	Aug. 13	0930	3,070	13.18

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	59	67	58	134	88	422	237	106	126	492	68
2	19	86	65	238	125	98	749	149	102	100	124	65
3	18	72	57	458	e118	96	239	164	98	105	102	64
4	17	54	55	151	e112	82	198	152	102	97	96	63
5	203	47	50	113	e110	88	180	172	155	82	88	64
6	462	45	55	e70	e108	134	168	354	103	75	82	64
7	58	57	50	e54	e110	365	214	175	96	74	78	74
8	36	78	47	e80	e120	307	199	213	93	86	75	66
9	30	53	72	e140	424	138	286	295	246	98	84	63
10	28	45	62	e120	243	124	320	187	164	83	97	60
11	26	127	e46	e100	149	119	196	310	714	69	75	60
12	25	798	e54	e115	137	113	173	463	288	68	92	64
13	24	139	e52	e125	108	108	163	183	153	979	1360	78
14	279	373	e58	e100	109	102	154	159	123	190	198	78
15	309	327	64	e85	102	163	149	148	110	125	132	62
16	62	129	214	e65	100	140	892	215	99	122	170	92
17	38	93	143	e75	97	104	294	172	96	92	168	562
18	34	82	83	e85	104	99	208	152	111	86	104	116
19	32	84	124	3900	101	243	190	146	503	237	94	82
20	32	71	e80	1540	127	546	185	134	298	120	89	71
21	637	65	e70	370	467	159	178	124	149	88	89	66
22	165	59	e64	228	198	129	169	123	112	82	90	608
23	67	58	e62	191	156	116	184	114	101	106	83	144
24	51	88	60	510	142	107	187	110	94	89	83	94
25	43	65	58	473	121	102	157	105	96	80	79	85
26	37	58	e56	193	108	99	159	103	84	183	76	76
27	66	55	e56	1200	103	93	164	123	78	92	83	75
28	605	53	e54	514	101	120	149	137	76	79	85	96
29	106	117	e54	212	94	811	159	162	75	75	76	197
30	63	79	e52	170	---	276	252	131	264	225	72	92
31	52	---	51	158	---	189	---	111	---	271	69	---
TOTAL	3643	3516	2135	11891	4228	5458	7337	5523	4889	4384	4685	3449
MEAN	118	117	68.9	384	146	176	245	178	163	141	151	115
MAX	637	798	214	3900	467	811	892	463	714	979	1360	608
MIN	17	45	46	54	94	82	149	103	75	68	69	60
CFSM	1.32	1.32	.77	4.31	1.64	1.98	2.74	2.00	1.83	1.59	1.70	1.29
IN.	1.52	1.47	.89	4.96	1.77	2.28	3.06	2.31	2.04	1.83	1.96	1.44

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1932 - 1996, BY WATER YEAR (WY)

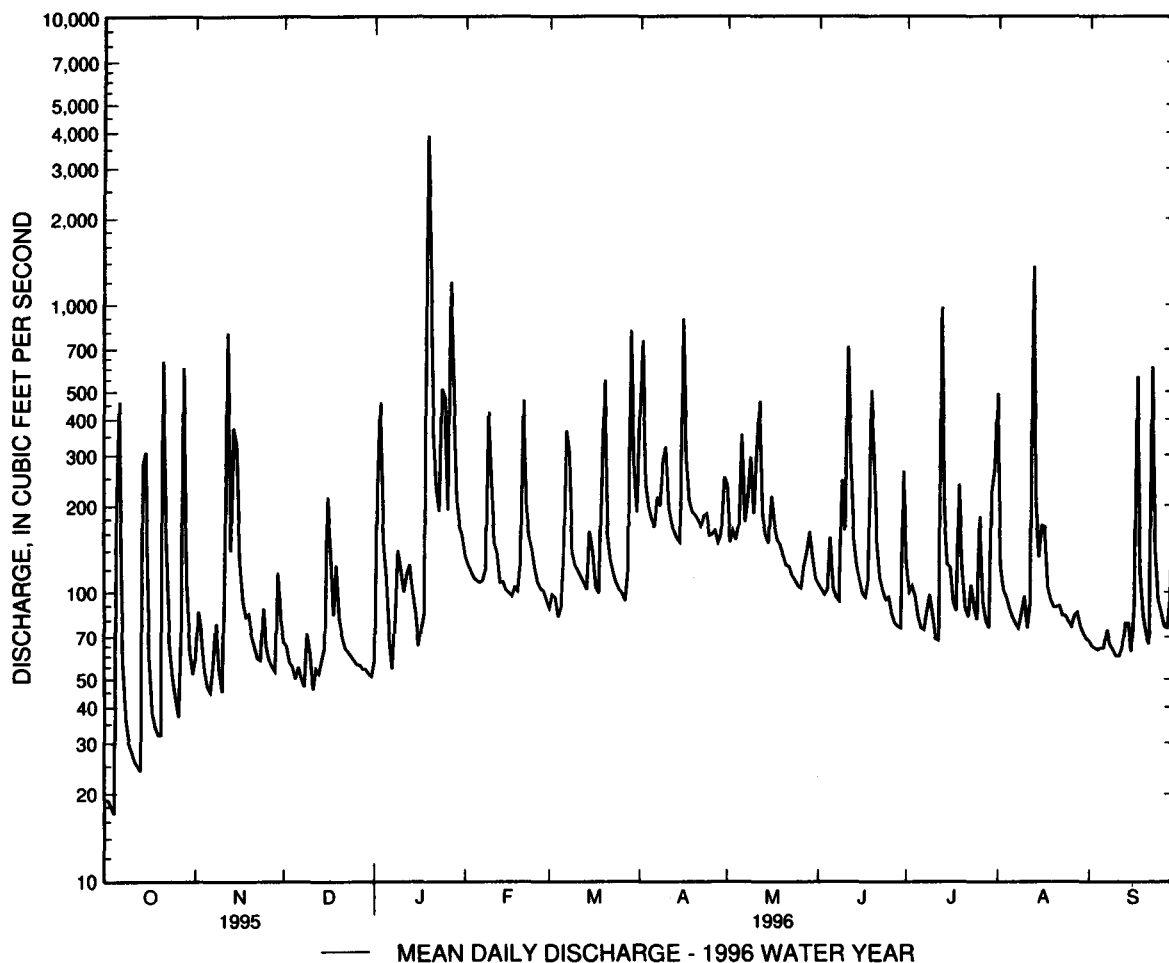
MEAN	63.7	92.0	112	148	162	173	152	130	98.6	97.5	80.3	72.8
MAX	230	221	304	493	542	402	342	265	311	540	301	231
(WY)	1972	1973	1984	1979	1979	1994	1983	1989	1972	1975	1967	1979
MIN	17.6	28.4	28.1	32.8	52.4	57.5	59.7	42.3	33.7	16.6	13.6	15.0
(WY)	1964	1966	1966	1966	1934	1981	1963	1955	1995	1963	1966	1932

01479000 WHITE CLAY CREEK NEAR NEWARK, DE--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1932 - 1996	
ANNUAL TOTAL	27282.6		61138		115	
ANNUAL MEAN	74.7		167		193	
HIGHEST ANNUAL MEAN					55.9	
LOWEST ANNUAL MEAN					1975	
HIGHEST DAILY MEAN	1160	Mar 9	3900	Jan 19	5220	Jan 26 1978
LOWEST DAILY MEAN	8.5	Sep 4	17	Oct 4	5.0	Sep 10 1966
ANNUAL SEVEN-DAY MINIMUM	9.1	Sep 1	32	Oct 7	5.7	Sep 7 1966
INSTANTANEOUS PEAK FLOW			9150	Jan 19	(a) 11600	Jul 5 1989
INSTANTANEOUS PEAK STAGE			15.90	Jan 19	(b) 17.74	Jun 22 1972
INSTANTANEOUS LOW FLOW			16	Oct 4	4.7	Sep 11 1966
ANNUAL RUNOFF (CFSM)	.84		1.87		1.29	
ANNUAL RUNOFF (INCHES)	11.39		25.53		17.54	
10 PERCENT EXCEEDS	117		296		190	
50 PERCENT EXCEEDS	55		103		76	
90 PERCENT EXCEEDS	19		55		33	

a From rating curve extended above 6,700 ft³/s on basis of contracted-opening and flow-over-road measurement of peak flow.

b At previous site and datum.



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 mi².

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

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

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

REMARKS.--No estimated daily discharges. Records good. Low flows augmented at times by inflow from Hoopes Reservoir located 1.7 miles upstream from gage on unnamed tributary to Red Clay Creek, capacity 2,000,000,000 gal. Water from Brandywine Creek is pumped into Hoopes Reservoir and is released into Red Clay Creek during periods of low flow. Water from Red Clay Creek is used for municipal supply. National Weather Service gage-height telemeter at station. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,200 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 19	1845	*4,130	*9.00	July 13	1015	1,510	5.10
Jan. 27	1730	1,510	5.10	July 31	2400	1,320	4.78
Apr. 16	0845	1,350	4.83	Aug. 13	0815	2,040	5.98
June 11	1915	1,590	5.25				

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	30	37	31	65	51	189	121	56	74	348	43
2	12	47	36	78	63	55	373	82	54	59	84	42
3	12	37	34	173	63	54	119	93	53	57	71	41
4	12	30	33	64	58	48	100	83	55	53	66	41
5	75	27	32	41	54	50	91	82	93	48	60	41
6	189	25	32	35	55	74	84	154	56	45	56	42
7	31	27	31	24	57	198	110	90	52	44	53	51
8	21	39	30	41	59	124	103	119	51	64	52	41
9	18	28	35	48	154	72	121	128	64	52	66	42
10	17	26	36	48	94	64	145	97	85	44	73	39
11	15	32	28	49	76	64	101	145	362	41	52	39
12	15	267	28	62	68	64	89	185	159	42	53	40
13	15	56	28	69	55	61	84	94	105	557	721	47
14	82	165	31	62	55	59	79	84	70	107	111	45
15	118	118	32	58	55	85	76	79	61	71	76	38
16	32	58	76	54	55	70	482	113	54	71	68	45
17	23	45	64	54	53	59	135	94	134	57	65	274
18	21	41	45	49	51	57	102	83	144	54	60	69
19	20	44	52	1790	49	97	94	79	332	140	56	49
20	19	38	49	254	82	244	91	72	144	70	53	43
21	186	36	40	94	244	90	86	68	86	55	55	41
22	61	34	37	73	97	75	83	66	67	52	55	229
23	33	33	35	67	81	68	85	63	60	63	52	70
24	27	42	34	185	74	63	91	61	55	54	51	51
25	23	36	33	131	64	62	79	58	56	50	48	48
26	22	33	32	71	59	60	77	58	49	87	47	44
27	23	33	30	562	57	57	81	66	48	54	48	43
28	185	31	29	170	57	63	73	73	46	48	56	50
29	48	44	28	91	52	331	82	83	47	51	47	113
30	33	41	29	81	---	119	140	68	163	142	45	52
31	29	---	29	76	---	88	---	59	---	289	44	---
TOTAL	1430	1543	1125	4685	2106	2726	3645	2800	2861	2695	2792	1853
MEAN	46.1	51.4	36.3	151	72.6	87.9	121	90.3	95.4	86.9	90.1	61.8
MAX	189	267	76	1790	244	331	482	185	362	557	721	274
MIN	12	25	28	24	49	48	73	58	46	41	44	38
CFSM	.98	1.09	.77	3.22	1.55	1.87	2.59	1.92	2.03	1.85	1.92	1.31
IN.	1.13	1.22	.89	3.71	1.67	2.16	2.88	2.22	2.26	2.13	2.21	1.47

No inflow from Hoopes Reservoir noted during the 1996 water year.

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1943 - 1996, BY WATER YEAR (WY)

MEAN	35.8	49.7	62.2	77.9	87.9	92.9	85.6	74.3	57.3	52.2	44.3	40.6
MAX	129	115	147	232	237	209	167	156	147	279	180	180
(WY)	1972	1973	1984	1979	1979	1994	1958	1958	1972	1975	1955	1971
MIN	11.1	18.8	18.9	16.8	33.3	27.3	33.8	24.2	21.7	12.7	9.79	13.7
(WY)	1964	1966	1966	1981	1969	1981	1995	1955	1966	1963	1966	1964

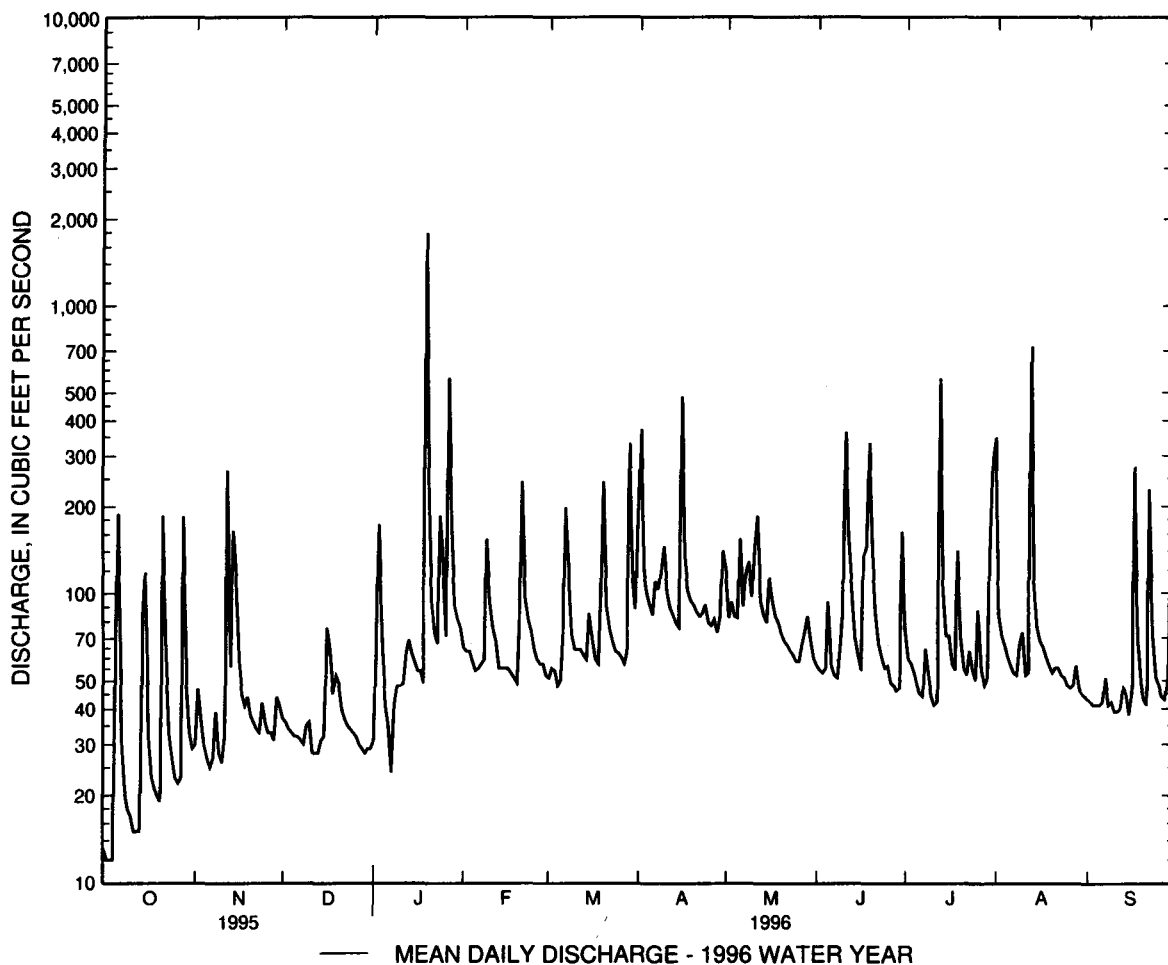
01480000 RED CLAY CREEK AT WOODDALE, DE--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1943 - 1996	
ANNUAL TOTAL	13535.8		30261			
ANNUAL MEAN	37.1		82.7		63.3	
ANNUAL MEAN ^a	36.0		82.7		63.2	
HIGHEST ANNUAL MEAN					104	1975
LOWEST ANNUAL MEAN					32.3	1995
HIGHEST DAILY MEAN	465	Mar 9	1790	Jan 19	2430	Sep 12 1960
LOWEST DAILY MEAN	5.6	Sep 7	12	(a)	4.5	Sep 4 1966
ANNUAL SEVEN-DAY MINIMUM	6.6	Sep 6	19	Oct 7	4.9	Sep 7 1966
INSTANTANEOUS PEAK FLOW			4130	Jan 19	(b) 5010	Jul 21 1975
INSTANTANEOUS PEAK STAGE			9.00	Jan 19	10.32	Jul 21 1975
INSTANTANEOUS LOW FLOW			7.8	Oct 3	2.9	Sep 4 1966
ANNUAL RUNOFF (CFSM)	.79		1.76		1.35	
ANNUAL RUNOFF (CFSM) ^a	.77		1.76		1.35	
ANNUAL RUNOFF (INCHES)	10.71		23.95		18.29	
ANNUAL RUNOFF (INCHES) ^a	10.40		23.95		18.26	
10 PERCENT EXCEEDS	52		141		107	
50 PERCENT EXCEEDS	31		57		44	
90 PERCENT EXCEEDS	17		31		19	

^a Adjusted for inflow since June 1994.

a Oct. 2-4.

b From rating curve extended above 3,900 ft³/s on basis of contracted-opening measurement at gage height 9.93 ft.



DELAWARE RIVER BASIN

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 mi².

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

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

REMARKS.--Records good except those for estimated daily discharges (ice effect, missing record), which are fair. Low flows augmented at times by inflow from Hoopes Reservoir located 5.7 miles upstream from gage on unnamed tributary to Red Clay Creek, capacity 2,000,000,000 gal. Water from Brandywine Creek is pumped into Hoopes Reservoir and is released into Red Clay Creek during periods of low flow. Water from Red Clay Creek is used for municipal supply. Several measurements of water temperature were made during the year.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,300 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 19	2115	*5,330	*19.38	July 13	1130	1,690	14.78
Jan. 27	1800	1,560	14.45	Aug. 1	0115	1,320	13.73
Apr. 16	0945	1,360	13.87	Aug. 13	0915	2,110	15.68
June 11	2000	1,580	14.51				

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	36	43	39	77	65	228	143	60	82	398	48
2	19	54	44	96	75	71	437	92	58	62	88	47
3	17	45	41	213	e70	72	138	105	57	61	72	46
4	16	37	39	81	e68	63	114	93	59	57	67	46
5	100	33	38	59	e66	68	102	95	98	53	61	47
6	209	31	39	e48	e64	99	95	178	60	50	58	47
7	39	34	37	e40	e68	219	126	101	57	49	55	55
8	27	47	35	e48	80	160	119	132	56	71	54	48
9	22	35	43	e55	170	88	146	146	81	64	64	48
10	21	31	44	e65	115	79	173	108	102	51	80	45
11	20	52	41	e70	88	75	118	157	388	47	55	46
12	19	338	40	90	81	74	103	219	206	49	61	46
13	19	62	35	95	65	71	96	104	122	689	821	52
14	116	177	35	86	65	69	91	91	76	124	120	51
15	152	138	37	84	64	101	90	85	66	80	80	45
16	40	62	87	79	64	85	523	128	58	79	75	55
17	29	50	71	75	67	71	163	104	99	62	67	299
18	26	48	51	77	64	69	118	91	178	58	62	72
19	24	50	57	2180	62	107	105	86	334	156	58	52
20	24	45	55	e1000	89	297	100	78	171	78	55	48
21	215	43	52	e500	262	107	95	73	93	59	56	46
22	73	40	e46	e95	115	87	90	71	71	56	56	231
23	40	39	e42	86	94	79	94	67	64	67	54	74
24	32	50	39	214	86	72	99	65	58	59	54	53
25	28	41	39	177	75	71	85	62	59	55	52	51
26	27	40	37	91	70	69	84	61	54	105	50	48
27	33	38	e36	572	72	65	87	70	52	60	51	47
28	244	38	34	201	75	75	78	77	51	54	58	54
29	56	53	e34	108	67	400	87	90	51	54	50	120
30	40	48	e34	95	---	142	146	74	189	164	49	54
31	35	---	33	90	---	101	---	63	---	260	48	---
TOTAL	1780	1835	1338	6809	2478	3271	4130	3109	3128	3015	3029	2021
MEAN	57.4	61.2	43.2	220	85.4	106	138	100	104	97.3	97.7	67.4
MAX	244	338	87	2180	262	400	523	219	388	689	821	299
MIN	16	31	33	39	62	63	78	61	51	47	48	45
CFSM	1.10	1.17	.82	4.19	1.63	2.01	2.63	1.91	1.99	1.86	1.86	1.29
IN.	1.26	1.30	.95	4.83	1.76	2.32	2.93	2.21	2.22	2.14	2.15	1.43

No inflow from Hoopes Reservoir noted during the 1996 water year.

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 1996, BY WATER YEAR (WY)

MEAN	43.6	56.0	60.8	105	74.7	112	95.0	84.3	65.3	70.7	50.3	51.8
MAX	103	75.9	102	220	151	223	191	138	104	246	97.7	115
(WY)	1990	1990	1994	1996	1994	1994	1993	1989	1996	1989	1996	1989
MIN	23.0	32.1	36.5	37.9	40.8	65.0	38.6	39.7	27.2	29.0	27.7	22.9
(WY)	1995	1995	1995	1992	1992	1990	1995	1995	1995	1995	1995	1995

01480015 RED CLAY CREEK NEAR STANTON, DE--Continued

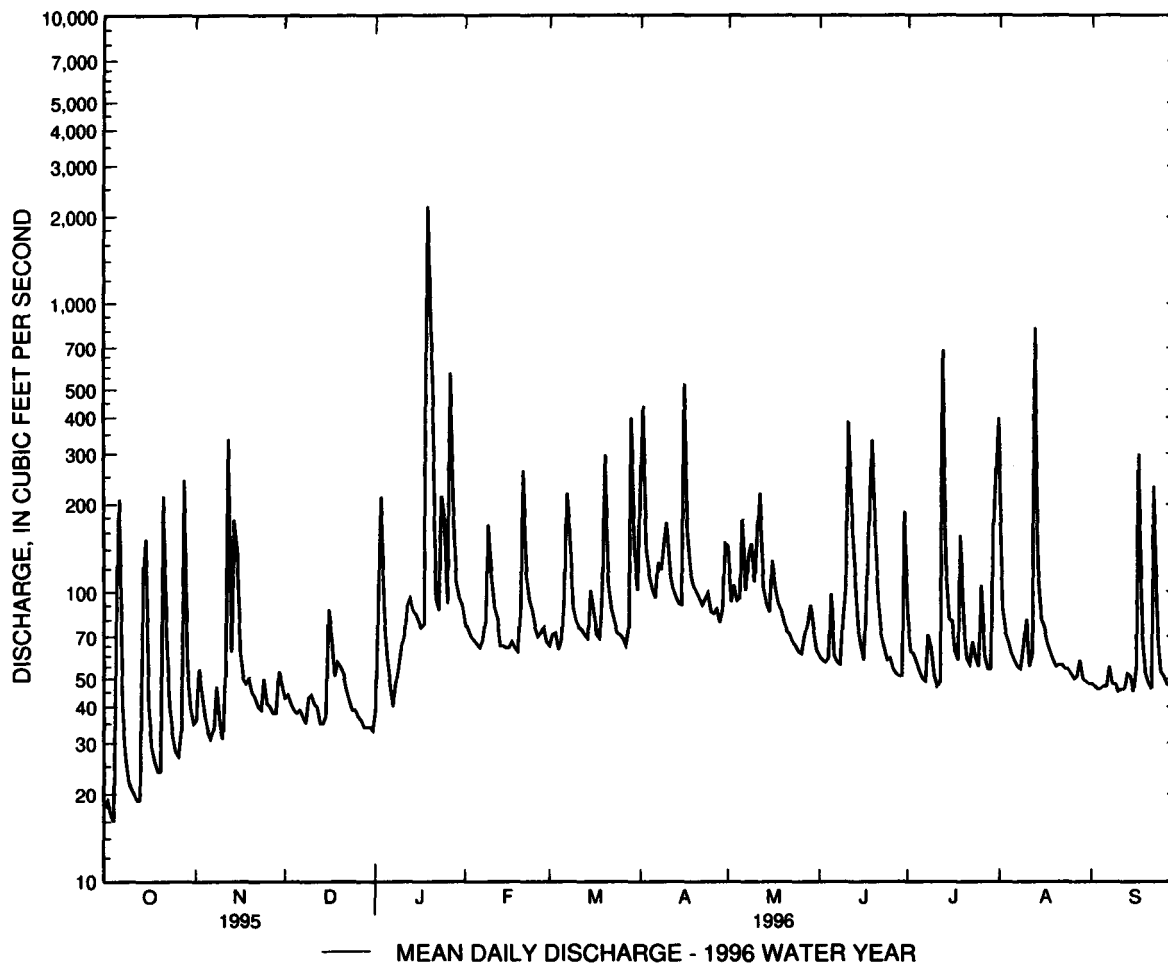
SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1989 - 1996	
ANNUAL TOTAL	15716.8		35943			
ANNUAL MEAN	43.1		98.2		72.5	
ANNUAL MEAN*	42.0		98.2		71.7	
HIGHEST ANNUAL MEAN					98.2	1996
LOWEST ANNUAL MEAN					37.2	1995
HIGHEST DAILY MEAN	580	Mar 9	2180	Jan 19	2480	Jul 5 1989
LOWEST DAILY MEAN	(e) 7.0	Sep 12	16	Oct 4	(e) 7.0	Sep 12 1995
ANNUAL SEVEN-DAY MINIMUM	10	Sep 6	24	Oct 7	10	Sep 6 1995
INSTANTANEOUS PEAK FLOW			5330	Jan 19	5330	Jan 19 1996
INSTANTANEOUS PEAK STAGE			19.38	Jan 19	19.38	Jan 19 1996
INSTANTANEOUS LOW FLOW			13	Oct 4	(a)	(b)
ANNUAL RUNOFF (CFSM)	.82		1.87		1.38	
ANNUAL RUNOFF (CFSM)*	.80		1.87		1.37	
ANNUAL RUNOFF (INCHES)	11.16		25.52		18.80	
ANNUAL RUNOFF (INCHES)*	10.89		25.52		18.58	
10 PERCENT EXCEEDS	56		166		120	
50 PERCENT EXCEEDS	35		66		50	
90 PERCENT EXCEEDS	20		37		24	

* Adjusted for inflow since June 1994.

e Estimated.

a Minimum recordable flow was 10 ft³/s, may have been less during periods of doubtful or no gage-height record.

b Late Aug. and early Sept. 1995.



DELAWARE RIVER BASIN

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 mi².

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

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

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

REMARKS.--Records good except those for estimated daily discharges (ice effect), which are fair. Some diurnal fluctuation at low flow caused by mills upstream from station. Flow regulated since November 1973 by Marsh Creek Reservoir, capacity 7,230,000,000 gal, about 27 mi upstream. No diversion just upstream from station by plant of E. I. du Pont de Nemours & Co. since June 13, 1960. National Weather Service gage-height telemeter at station. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 20	0415	*17,800	*12.69	June 20	0045	4,220	7.10
Jan. 28	0445	6,950	8.70	July 13	1845	4,100	6.99
Apr. 16	1830	7,310	8.87	Aug. 13	1330	4,320	7.19

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	94	249	306	246	817	524	1180	1180	452	689	1050	326
2	94	365	308	402	752	544	2930	756	432	491	591	321
3	92	378	292	778	e690	549	1210	772	428	545	529	309
4	91	273	289	458	e620	464	1010	785	434	539	459	303
5	324	274	276	321	e540	464	924	707	526	424	425	307
6	998	267	288	e250	e480	704	883	1100	449	393	409	307
7	271	264	472	e150	e460	1320	979	807	413	383	394	407
8	195	332	461	121	689	1720	1070	824	409	588	389	382
9	148	292	349	e290	1230	779	1010	862	439	498	666	361
10	131	250	329	e350	1100	675	1180	775	537	396	1060	325
11	133	271	273	332	764	662	976	794	670	367	473	320
12	114	2480	294	320	792	650	876	1520	652	357	437	319
13	115	829	309	326	586	629	829	868	624	2750	3050	330
14	273	890	317	323	568	593	786	747	403	1250	920	378
15	681	1540	330	319	563	654	755	703	370	669	612	318
16	276	736	378	302	552	650	4490	790	355	613	491	320
17	195	493	411	303	528	563	2080	772	431	525	489	2140
18	160	438	355	321	497	543	1460	687	2000	441	423	941
19	146	426	356	e4800	461	624	1230	612	1510	1050	389	580
20	147	397	342	10300	617	2180	988	570	2160	949	376	473
21	1280	378	307	1920	1790	962	924	532	1480	526	374	397
22	1200	334	319	1080	1130	813	862	504	691	469	377	1500
23	305	322	310	947	938	737	845	485	547	516	366	904
24	246	341	302	1130	883	716	889	469	479	466	431	573
25	230	332	291	1790	790	689	748	443	469	423	375	518
26	209	318	282	892	681	682	735	445	427	601	354	471
27	207	311	219	2590	641	660	733	477	396	521	347	443
28	1210	298	268	3950	648	633	675	531	386	423	455	451
29	531	325	239	1380	592	1990	710	577	386	412	351	1240
30	274	320	226	1210	---	1340	953	600	924	732	340	613
31	248	---	241	970	---	915	---	483	---	1100	331	---
TOTAL	10618	14723	9739	38871	21399	25628	34920	22177	19879	20106	17733	16577
MEAN	343	491	314	1254	738	827	1164	715	663	649	572	553
MAX	1280	2480	472	10300	1790	2180	4490	1520	2160	2750	3050	2140
MIN	91	249	219	121	460	464	675	443	355	357	331	303
(†)	+18.5	-7.6	-23.9	+27.2	-29.7	+20.3	+1.8	+3.9	-0.5	+6.7	-4.6	+2.4
MEAN*	362	483	290	1281	708	847	1166	719	662	656	567	555
CFSM*	1.15	1.54	0.92	4.08	2.25	2.70	3.71	2.29	2.11	2.09	1.81	1.77
IN*	1.33	1.72	1.06	4.70	2.43	3.11	4.14	2.64	2.35	2.41	2.09	1.98

e Estimated

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

* Adjusted for change in reservoir contents.

01481500 BRANDYWINE CREEK AT WILMINGTON, DE--Continued

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

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	223	356	434	498	681	734	696	559	435	330	315	284
MAX	860	794	979	1052	1454	1206	1406	1087	1343	749	1436	1403
(WY)	1972	1972	1973	1953	1971	1958	1958	1958	1972	1958	1955	1971
MIN	80.6	117	129	173	225	333	259	190	149	92.5	81.9	99.6
(WY)	1964	1966	1966	1955	1954	1969	1963	1963	1963	1963	1957	1964

SUMMARY STATISTICS

WATER YEARS 1947 - 1973

ANNUAL MEAN	461
HIGHEST ANNUAL MEAN	732
LOWEST ANNUAL MEAN	252
HIGHEST DAILY MEAN	14300
LOWEST DAILY MEAN	56
ANNUAL SEVEN-DAY MINIMUM	59
INSTANTANEOUS PEAK FLOW	(a) 29000
INSTANTANEOUS PEAK STAGE	15.49
INSTANTANEOUS LOW FLOW	(b) 30
ANNUAL RUNOFF (CFSM)	1.47
ANNUAL RUNOFF (INCHES)	19.93
10 PERCENT EXCEEDS	864
50 PERCENT EXCEEDS	316
90 PERCENT EXCEEDS	125

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1974 - 1996, BY WATER YEAR (WY)

MEAN	282	359	501	638	639	751	729	614	457	415	275	301
MAX	918	793	1306	1868	1610	1839	1773	1168	1079	1243	572	1095
(WY)	1980	1980	1984	1979	1979	1994	1983	1989	1975	1975	1996	1979
MIN	125	157	145	119	246	230	223	304	172	161	103	108
(WY)	1987	1982	1981	1981	1992	1981	1985	1977	1985	1986	1995	1980

SUMMARY STATISTICS

FOR 1995 CALENDAR YEAR

FOR 1996 WATER YEAR

WATER YEARS 1974 - 1996

ANNUAL TOTAL	116506	252370	
ANNUAL MEAN	319	690	496
ANNUAL MEAN*	319	691	497
HIGHEST ANNUAL MEAN			835
LOWEST ANNUAL MEAN			228
HIGHEST DAILY MEAN	5130	Mar 9	10300
LOWEST DAILY MEAN	52	Sep 13	91
ANNUAL SEVEN-DAY MINIMUM	55	Sep 1	158
INSTANTANEOUS PEAK FLOW			17800
INSTANTANEOUS PEAK STAGE			12.69
INSTANTANEOUS LOW FLOW			87
ANNUAL RUNOFF (CFSM)	1.02	2.20	(c)
ANNUAL RUNOFF (CFSM)*	1.02	2.20	1.58
ANNUAL RUNOFF (INCHES)	13.80	29.90	21.46
ANNUAL RUNOFF (INCHES)*	13.85	29.95	21.50
10 PERCENT EXCEEDS	460	1200	921
50 PERCENT EXCEEDS	277	492	350
90 PERCENT EXCEEDS	93	273	142

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

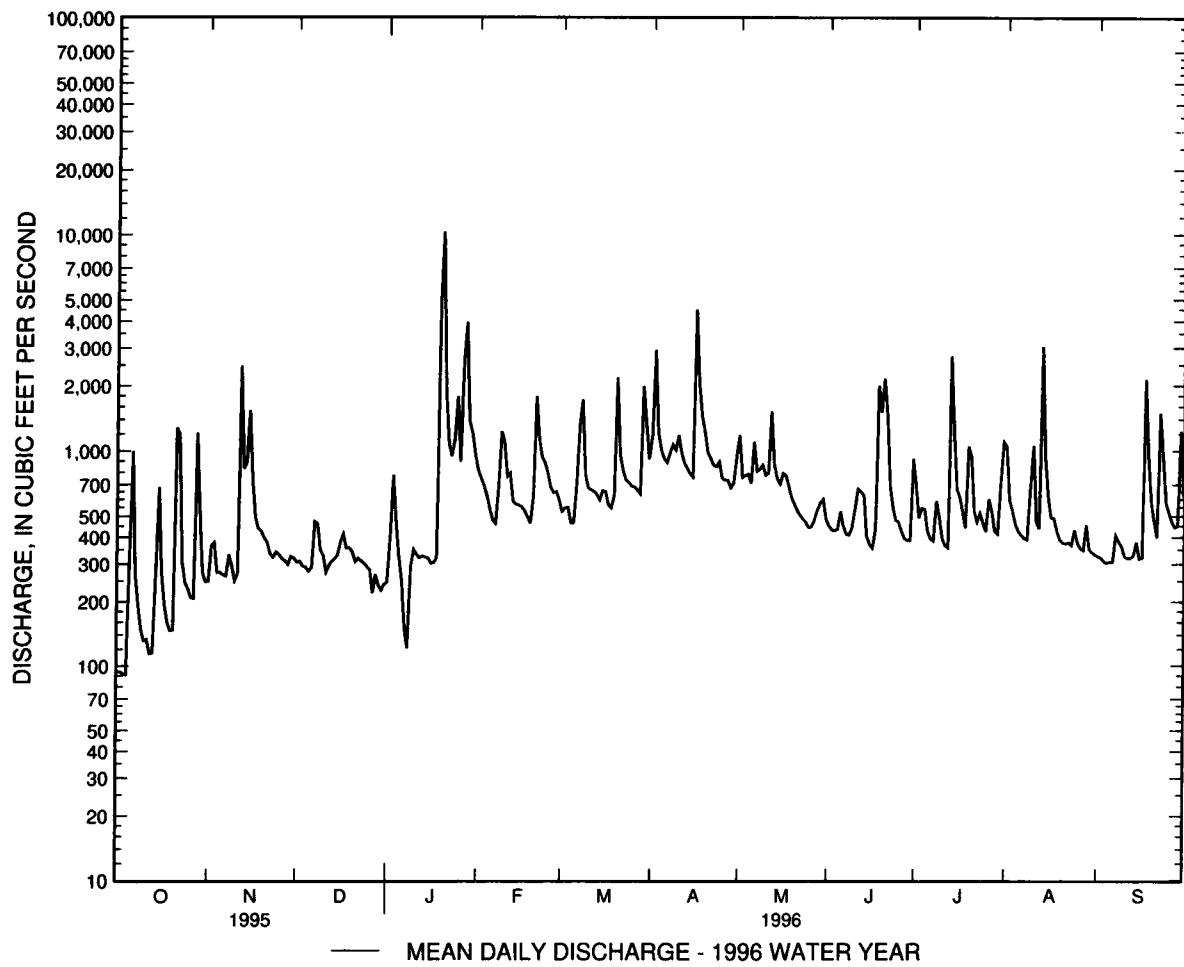
b During period of ice effect.

* Adjusted for change in reservoir contents since November 1973.

c Oct. 3, 4, 19, 20.

DELAWARE RIVER BASIN

01481500 BRANDYWINE CREEK AT WILMINGTON, DE--Continued



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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 mi².

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

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

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

REMARKS.--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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 19	1815	*210	*4.03	June 19	2345	137	3.39
June 9	2100	61	2.32	July 2	2145	81	2.62
June 10	0530	99	2.90	July 3	0530	100	2.91
June 10	1330	113	3.10	July 13	1245	126	3.28
June 10	2145	92	2.79	Aug. 13	1015	153	3.54

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.63	1.7	3.8	3.9	5.7	4.6	14	12	3.8	7.6	16	2.0
2	.61	2.1	3.0	9.0	5.6	5.7	24	6.1	3.5	10	9.2	1.9
3	.54	2.2	2.8	16	5.0	5.9	12	5.3	3.9	46	5.5	1.8
4	.45	1.7	2.7	8.0	6.1	4.5	9.5	5.3	4.8	9.2	4.5	2.0
5	3.3	1.6	2.6	4.2	4.6	4.8	8.5	13	5.3	4.9	3.7	1.9
6	5.4	1.6	2.8	3.3	4.4	7.4	8.0	13	3.8	3.5	3.2	2.0
7	1.5	2.2	2.6	3.0	4.7	16	9.4	8.8	3.4	3.1	3.1	1.9
8	.90	3.7	2.5	2.6	6.5	18	9.6	16	3.1	3.2	3.0	1.8
9	.73	2.5	3.7	3.0	14	9.2	14	32	9.1	3.0	2.7	1.8
10	.67	1.8	4.4	4.4	14	7.3	22	15	70	2.9	2.7	1.6
11	.61	3.8	2.7	4.3	11	7.7	13	12	26	2.5	2.2	2.0
12	.53	19	2.3	4.9	8.8	8.1	10	19	10	2.8	2.8	2.4
13	.57	8.1	2.4	5.4	5.9	7.2	9.0	9.8	17	63	69	2.3
14	2.4	20	2.7	5.2	6.0	6.5	8.0	7.1	7.4	17	14	1.9
15	16	26	3.1	4.6	6.3	7.5	7.3	5.9	4.7	8.9	6.6	1.4
16	4.7	8.0	9.8	4.4	5.6	7.5	27	8.8	3.6	8.5	4.4	2.1
17	1.3	3.9	9.5	4.5	5.6	6.0	14	8.8	4.8	5.2	3.7	23
18	1.0	3.1	4.7	6.3	5.6	5.5	9.7	7.1	26	4.6	3.2	5.4
19	.86	3.0	7.7	92	5.1	10	8.5	6.2	53	10	2.9	2.3
20	.90	2.9	7.6	38	9.4	22	8.0	5.2	49	9.0	2.9	1.9
21	16	2.8	4.6	12	15	11	7.1	5.0	13	3.9	2.8	1.6
22	13	2.5	3.6	9.5	10	7.9	6.4	7.9	8.8	3.4	2.7	6.5
23	2.7	2.7	3.2	8.5	9.4	6.6	6.1	4.8	6.3	4.0	2.7	4.3
24	1.6	4.5	3.5	10	8.7	5.8	6.3	3.7	5.3	3.6	2.5	2.1
25	1.2	3.8	3.3	11	6.3	5.6	5.4	3.4	5.3	3.1	2.4	1.9
26	1.2	2.9	3.1	8.3	5.8	5.4	5.1	3.4	4.0	13	2.3	1.7
27	1.5	2.8	2.9	13	5.8	4.9	4.9	6.3	3.4	6.9	2.3	1.7
28	20	2.9	2.8	14	5.5	6.5	4.6	9.2	3.2	3.5	2.4	2.4
29	9.7	8.4	2.8	9.1	4.9	28	5.0	8.4	3.3	3.4	2.3	14
30	2.4	6.7	2.8	7.8	---	15	8.0	7.5	8.9	11	2.2	3.4
31	1.8	---	3.1	7.0	---	9.8	---	4.5	---	9.9	2.1	---
TOTAL	114.70	158.9	119.1	337.2	211.3	277.9	304.4	280.5	373.7	290.6	192.0	103.0
MEAN	3.70	5.30	3.84	10.9	7.29	8.96	10.1	9.05	12.5	9.37	6.19	3.43
MAX	20	26	9.8	92	15	28	27	32	70	63	69	23
MIN	.45	1.6	2.3	2.6	4.4	4.5	4.6	3.4	3.1	2.5	2.1	1.4
CFSM	.96	1.38	1.00	2.83	1.89	2.33	2.64	2.35	3.24	2.43	1.61	.89
IN.	1.11	1.54	1.15	3.26	2.04	2.69	2.94	2.71	3.61	2.81	1.86	1.00

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

	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968
MEAN	2.38	3.48	4.79	6.32	7.11	8.52	7.55	5.52	3.75	3.03	2.07	2.14
MAX	8.83	10.4	14.8	18.1	19.2	20.3	21.0	13.9	24.4	17.0	6.80	12.2
(WY)	1972	1957	1973	1978	1979	1958	1983	1989	1972	1989	1971	1960
MIN	.30	.73	.71	1.51	2.44	1.98	2.16	1.26	.54	.077	.013	.21
(WY)	1969	1966	1966	1981	1992	1966	1966	1977	1966	1966	1966	1968

01483200 BLACKBIRD CREEK AT BLACKBIRD, DE--Continued

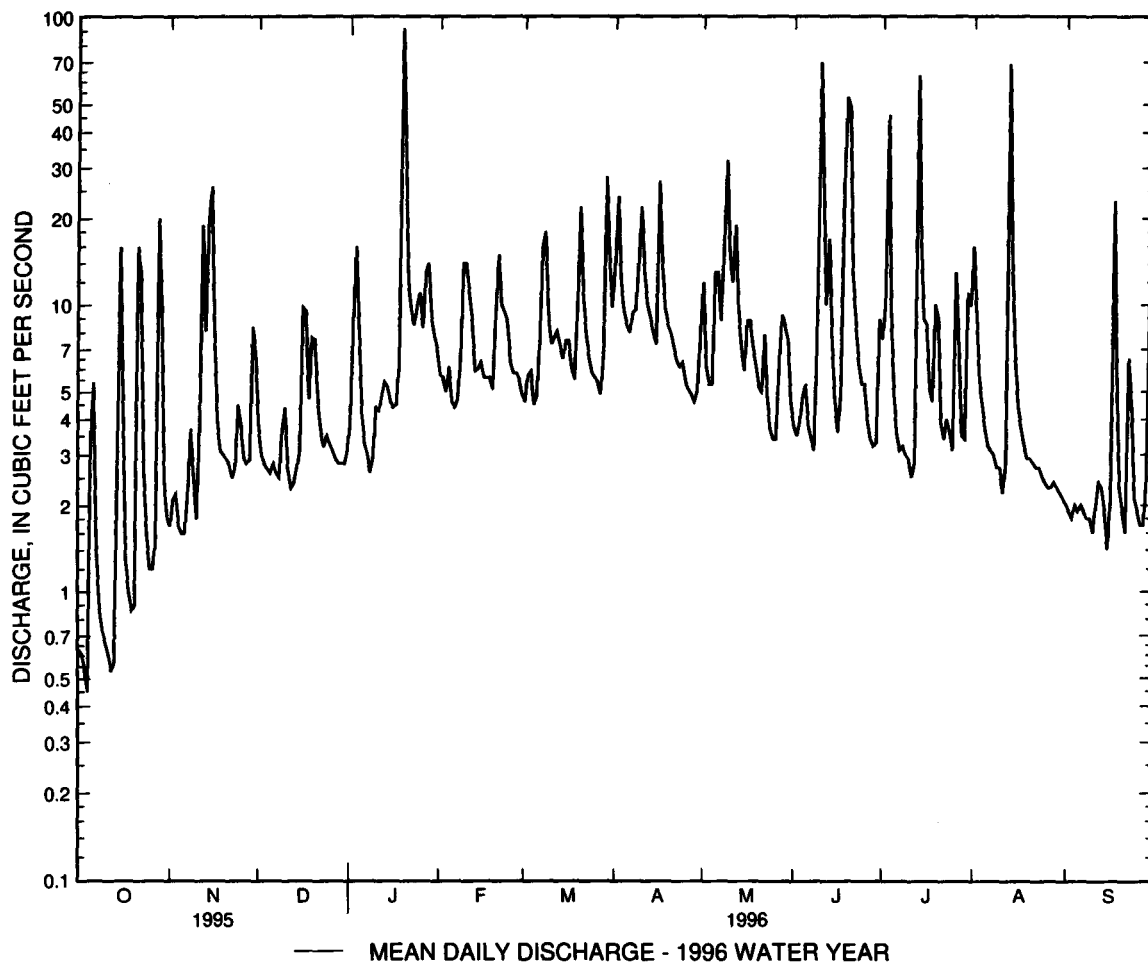
SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1957 - 1996
ANNUAL TOTAL	1233.51	2763.30	
ANNUAL MEAN	3.38	7.55	4.71
HIGHEST ANNUAL MEAN			9.05 1972
LOWEST ANNUAL MEAN			1.40 1966
HIGHEST DAILY MEAN	44 Mar 9	92 Jan 19	338 Jun 22 1972
LOWEST DAILY MEAN	.05 Sep 13	.45 Oct 4	.00 (a)
ANNUAL SEVEN-DAY MINIMUM	.07 Sep 9	.79 Oct 7	.00 Jul 17 1966
INSTANTANEOUS PEAK FLOW		210 Jan 19	(b) 712 Jun 22 1972
INSTANTANEOUS PEAK STAGE		4.03 Jan 19	5.04 Jun 22 1972
INSTANTANEOUS LOW FLOW		.39 (c)	.00 (d)
ANNUAL RUNOFF (CFSM)	.88	1.96	1.22
ANNUAL RUNOFF (INCHES)	11.92	26.70	16.63
10 PERCENT EXCEEDS	7.1	14	9.7
50 PERCENT EXCEEDS	2.7	4.9	2.7
90 PERCENT EXCEEDS	.27	1.9	.56

a Sept. 11, 1965; July 12-15, 17-31, Aug. 1-12, 14, 15, 18-31, Sept. 1-20, 1966.

b From rating curve extended above 200 ft³/s on basis of Type III culvert measurement of peak flow.

c Oct. 4, 12.

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



ST. JONES RIVER BASIN

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 mi².

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

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

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

PEAK DISCHARGE FOR CURRENT YEAR.--Peak discharge, 977 ft³/s, June 20, gage height, 7.64 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e3.3	11	32	25	56	44	e136	71	32	52	e38	9.8
2	e2.8	11	26	33	50	47	e348	62	24	43	50	e9.2
3	e2.2	11	22	e53	43	50	264	45	34	38	39	8.1
4	2.8	11	20	58	45	46	147	40	52	34	23	8.2
5	39	8.3	19	47	44	42	97	146	47	27	17	8.6
6	37	8.6	20	33	38	51	74	165	34	22	15	e8.5
7	19	11	18	34	36	88	81	109	25	19	13	e8.1
8	e7.8	14	17	e26	44	150	83	118	20	17	12	e7.8
9	e4.8	12	25	e18	71	124	109	174	19	19	11	e7.4
10	e3.7	11	27	25	124	85	187	170	72	24	11	7.7
11	3.5	15	24	28	123	67	190	127	158	18	9.5	34
12	3.3	38	19	36	91	61	129	102	183	19	13	40
13	2.8	37	18	37	65	58	89	88	474	e125	376	e30
14	12	e73	18	43	56	55	72	63	294	251	451	e16
15	75	e80	20	45	51	54	60	46	123	130	179	11
16	56	71	44	43	51	53	138	51	59	62	80	13
17	27	54	53	41	42	49	222	56	38	38	43	65
18	13	38	50	47	46	46	140	53	62	28	31	60
19	8.5	28	62	205	42	52	87	47	394	39	25	30
20	e6.8	23	e73	398	52	e96	68	39	878	53	20	15
21	36	21	63	217	165	122	59	36	466	48	18	11
22	46	18	49	128	194	86	53	45	214	31	16	20
23	40	17	36	85	144	61	49	38	115	28	15	22
24	22	22	31	74	118	49	43	26	71	25	14	e18
25	13	21	29	71	90	44	38	20	59	21	13	e13
26	8.9	20	27	68	70	42	36	18	49	27	12	11
27	e8.1	19	24	83	58	38	35	28	39	25	12	e9.7
28	23	18	23	115	56	46	31	50	31	19	12	e11
29	21	32	22	126	47	135	30	63	28	15	e12	42
30	16	34	21	89	---	185	51	65	43	20	11	41
31	13	---	22	68	---	129	---	50	---	e23	10	---
TOTAL	577.3	787.9	954	2399	2112	2255	3146	2211	4137	1340	1601.5	596.1
MEAN	18.6	26.3	30.8	77.4	72.8	72.7	105	71.3	138	43.2	51.7	19.9
MAX	75	80	73	398	194	185	348	174	878	251	451	65
MIN	2.2	8.3	17	18	36	38	30	18	19	15	9.5	7.4
CFSM	.58	.82	.96	2.43	2.28	2.28	3.29	2.24	4.32	1.36	1.62	.62
IN.	.67	.92	1.11	2.80	2.46	2.63	3.67	2.58	4.82	1.56	1.87	.70

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1958 - 1996, BY WATER YEAR (WY)

	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969
MEAN	19.1	24.4	35.4	50.6	58.2	73.9	58.5	37.7	30.0	18.9	24.3	19.9
MAX	93.5	103	131	156	141	187	180	117	138	88.6	144	128
(WY)	1972	1973	1973	1978	1961	1994	1983	1989	1996	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

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.

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

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

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

REMARKS.--Records good except those for estimated daily discharges (missing record), which are fair. Diversion for irrigation of about 150 acres upstream from station during some years. Several measurements of water temperature were made during this year. Water-quality data for some prior years have been collected at this location.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 30 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 19	2100	35	3.63	Apr. 2	0300	*36	*3.66

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
MEAN DAILY VALUES

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1958 - 1996, BY WATER YEAR (WY)

MEAN	1.79	2.06	3.08	4.43	5.26	6.35	5.63	4.45	3.06	2.77	2.35	2.03
MAX	4.69	6.55	11.5	10.7	14.6	18.0	11.0	10.5	6.17	16.8	9.38	10.1
(WY)	1959	1973	1973	1978	1961	1994	1983	1984	1979	1975	1967	1960
MIN	.37	.44	.48	.57	1.06	1.70	1.90	1.88	1.22	.42	.51	.44
(WY)	1987	1988	1966	1966	1966	1966	1985	1977	1986	1977	1987	1986

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

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1958 - 1996	
ANNUAL TOTAL	8733.5		22116.8			
ANNUAL MEAN	23.9		60.4		36.7	
HIGHEST ANNUAL MEAN					69.3	
LOWEST ANNUAL MEAN					6.14	
HIGHEST DAILY MEAN	250	Mar 10	878	Jun 20	1460	Sep 13 1960
LOWEST DAILY MEAN	1.1	(a)	(e) 2.2	Oct 3	.00	(b)
ANNUAL SEVEN-DAY MINIMUM	1.3	Aug 31	5.4	Oct 8	.40	Sep 30 1963
INSTANTANEOUS PEAK FLOW			977	Jun 20	1900	Sep 13 1960
INSTANTANEOUS PEAK STAGE			7.64	Jun 20	(c) 9.45	Sep 13 1960
INSTANTANEOUS LOW FLOW			2.0	Oct 3	.00	(d)
ANNUAL RUNOFF (CFSM)	.75		1.89		1.15	
ANNUAL RUNOFF (INCHES)	10.18		25.79		15.62	
10 PERCENT EXCEEDS	51		129		85	
50 PERCENT EXCEEDS	18		39		20	
90 PERCENT EXCEEDS	1.8		11		3.8	

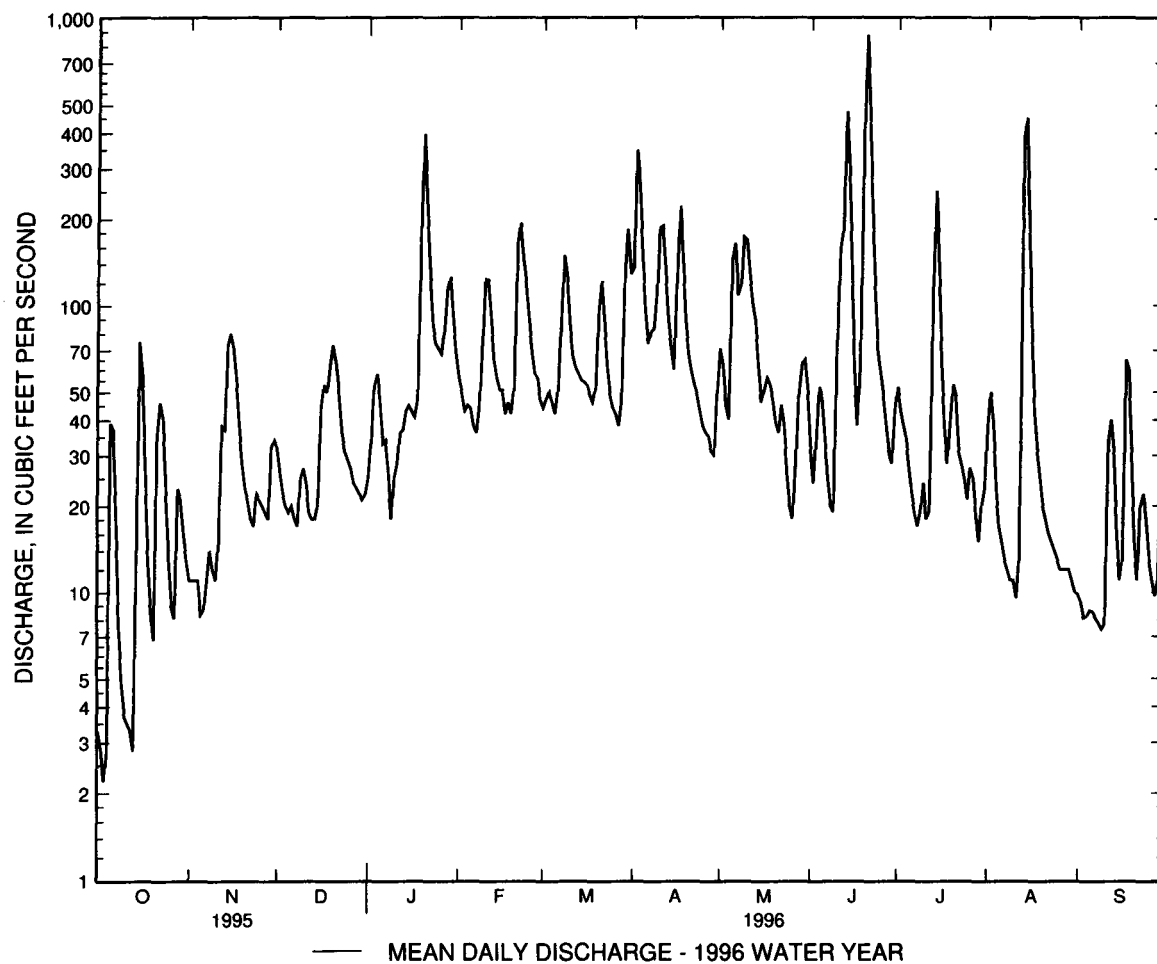
a Sept. 1, 6.

e Estimated

b July 9, 1959, May 9, 10, 1961.

c From floodmarks.

d No flow at times in 1959, 1961, 1962.



DELAWARE BAY

01484450 DELAWARE BAY NEAR LEWES, DE

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

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

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: January 1993 to current year.

WATER TEMPERATURE: January 1993 to current year.

INSTRUMENTATION.--Water-quality monitor.

REMARKS.--Records good. Interruption of the daily specific conductance and temperature record for Oct. 10 and 11 was due to removal of instrument for pier construction. Interruption of the daily temperature record was caused by equipment malfunction for periods in October, November and July.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 53,900 microsiemens, Aug. 2, 3, 1995; minimum, 23,700 microsiemens, Aug. 18, 1994.

WATER TEMPERATURE: Maximum, 27.1°C, July 25, 1995; minimum, 0.0°C, on many days during winter periods.

EXTREMES FOR CURRENT PERIOD.--

SPECIFIC CONDUCTANCE: Maximum, 49,000 microsiemens, Oct. 1; minimum, 23,800 microsiemens, Jan. 4.

WATER TEMPERATURE: Maximum, 25.7°C, Sept. 10; minimum, 0.3°C, on many days during winter periods.

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	49000	40900	43800	46500	45900	46100	41900	38300	40700	41700	40500	41200
2	44400	36400	41600	46100	45600	45800	41100	38500	39900	41700	40700	41200
3	44300	36500	41100	45800	43100	45200	40900	38500	39600	41600	36900	40300
4	44200	36100	41200	45200	43100	44800	40300	39100	39700	37500	23800	35400
5	43500	33800	40800	45200	44500	44700	39600	38500	39100	37500	35200	36500
6	43400	40200	42700	44900	44500	44700	39600	38100	38800	37700	35000	36000
7	43100	39300	42300	44900	43700	44600	39800	38400	38900	38500	35600	37300
8	42500	39300	42200	44700	43700	44400	39400	38200	38600	38600	33100	35800
9	42200	39400	41600	44700	43800	44200	40200	38500	39300	37700	32900	35300
10	---	---	---	44700	43800	44200	39400	37500	38400	38400	36600	37600
11	---	---	---	45300	44200	44600	39400	37400	38300	39200	36700	37600
12	46400	45700	46000	45100	42700	44000	39700	38000	38800	39600	38000	39000
13	46700	45800	46200	44000	43100	43400	39900	38600	39100	39400	37300	38300
14	46800	46100	46500	43600	42100	43000	40500	38700	39500	39400	37000	38100
15	46500	45700	46200	43500	41800	43000	40500	38800	39200	39400	38100	38700
16	46700	45000	45900	43500	42100	42700	39300	38200	38900	39000	37000	38300
17	46500	45400	45900	43200	41800	42500	38300	37000	37500	39400	37000	38300
18	47000	45500	46200	42300	41400	41800	39300	36800	37600	39400	37900	38800
19	47200	46600	46900	42200	40900	41400	40400	37100	38600	40700	38300	39800
20	47800	47000	47400	42300	40200	40900	38500	36500	37600	40200	37000	38700
21	48200	46900	47600	42300	40500	41300	41500	35700	38700	39300	38500	38900
22	47600	47200	47400	41900	40600	41200	40200	37500	38700	38700	37700	38400
23	47700	47000	47300	42900	41200	42000	41900	38900	40700	38700	38000	38500
24	47500	46900	47300	41900	40300	41200	41600	40300	41000	39700	38400	38900
25	47600	44500	46800	41400	40000	40400	41700	40300	41000	39500	35900	37600
26	47100	44700	46700	40800	39700	40300	41500	39800	40800	39100	36700	37800
27	47400	45600	46900	42200	39900	40600	41400	39400	40300	40000	38000	39200
28	47700	46800	47100	42200	40500	41300	41700	39900	40600	39900	35000	37300
29	47200	45500	46600	40800	38200	39700	41300	39400	40400	37600	36400	36900
30	46700	45800	46200	39200	37300	38400	41500	39700	40600	37000	35200	36300
31	46500	45900	46200	---	---	---	41600	40400	41000	35700	31100	34300
MONTH	---	---	---	46500	37300	42700	41900	35700	39400	41700	23800	37900

01484100 BEAVERDAM BRANCH AT HOUSTON, DE--Continued

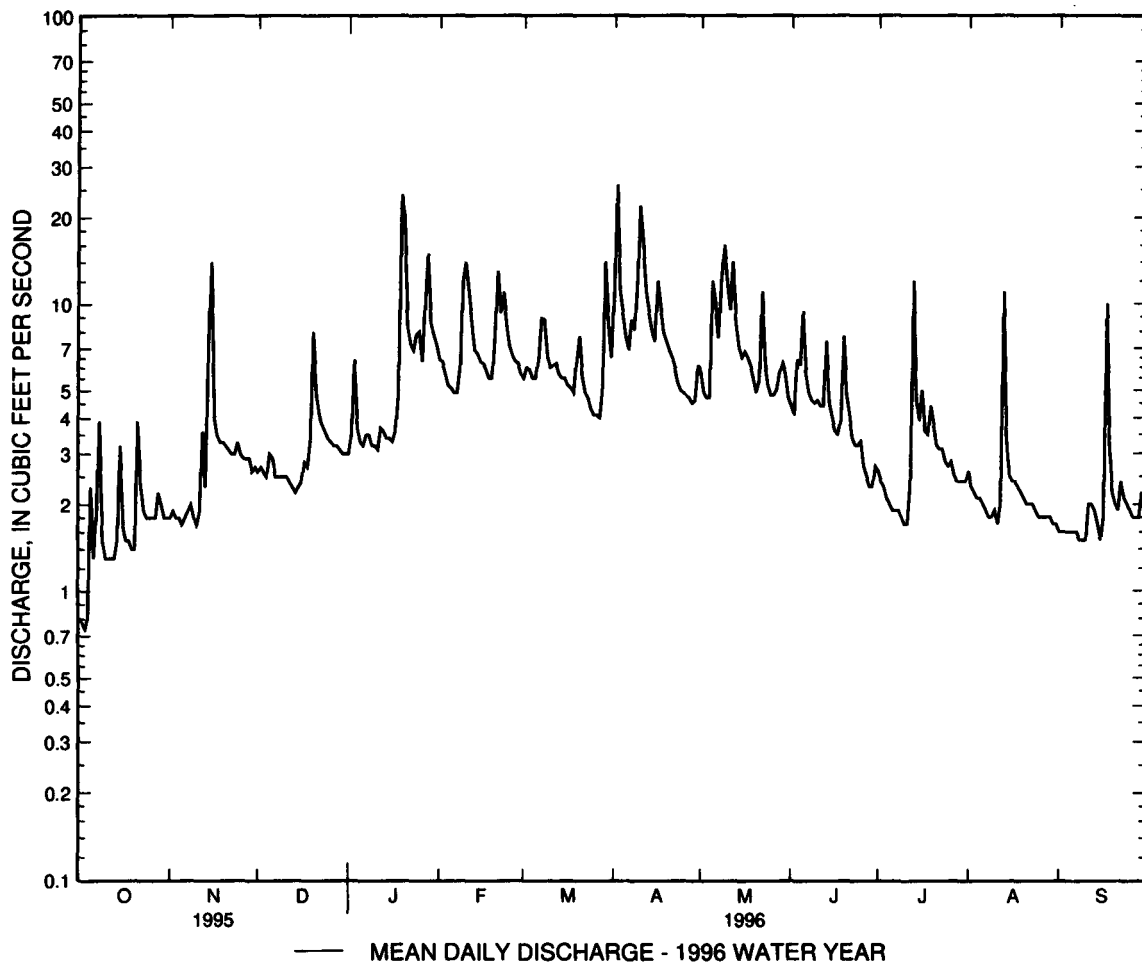
SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1958 - 1996
ANNUAL TOTAL	984.05	1716.83	
ANNUAL MEAN	2.70	4.69	3.56
HIGHEST ANNUAL MEAN			5.86 1961
LOWEST ANNUAL MEAN			1.20 1966
HIGHEST DAILY MEAN	25 Jul 2	26 Apr 2	98 May 30 1984
LOWEST DAILY MEAN	.67 Sep 15	.74 Oct 3	(a) .00 Jul 28 1977
ANNUAL SEVEN-DAY MINIMUM	.76 Sep 10	1.2 Oct 1	.06 Jul 19 1977
INSTANTANEOUS PEAK FLOW		36 Apr 2	(b) 176 Sep 12 1960
INSTANTANEOUS PEAK STAGE		3.66 Apr 2	5.55 Sep 12 1960
INSTANTANEOUS LOW FLOW		.69 (c)	(a) .00 (d)
ANNUAL RUNOFF (CFSM)	.95	1.66	1.26
ANNUAL RUNOFF (INCHES)	12.94	22.57	17.10
10 PERCENT EXCEEDS	3.7	8.8	6.6
50 PERCENT EXCEEDS	2.6	3.5	2.7
90 PERCENT EXCEEDS	1.2	1.8	.81

a Result of pumpage for irrigation.

b From rating curve extended above 75 ft³/s.

c Oct. 3, 4.

d July 18-30, 1977.



DELAWARE BAY

01484450 DELAWARE BAY NEAR LEWES, DE--Continued

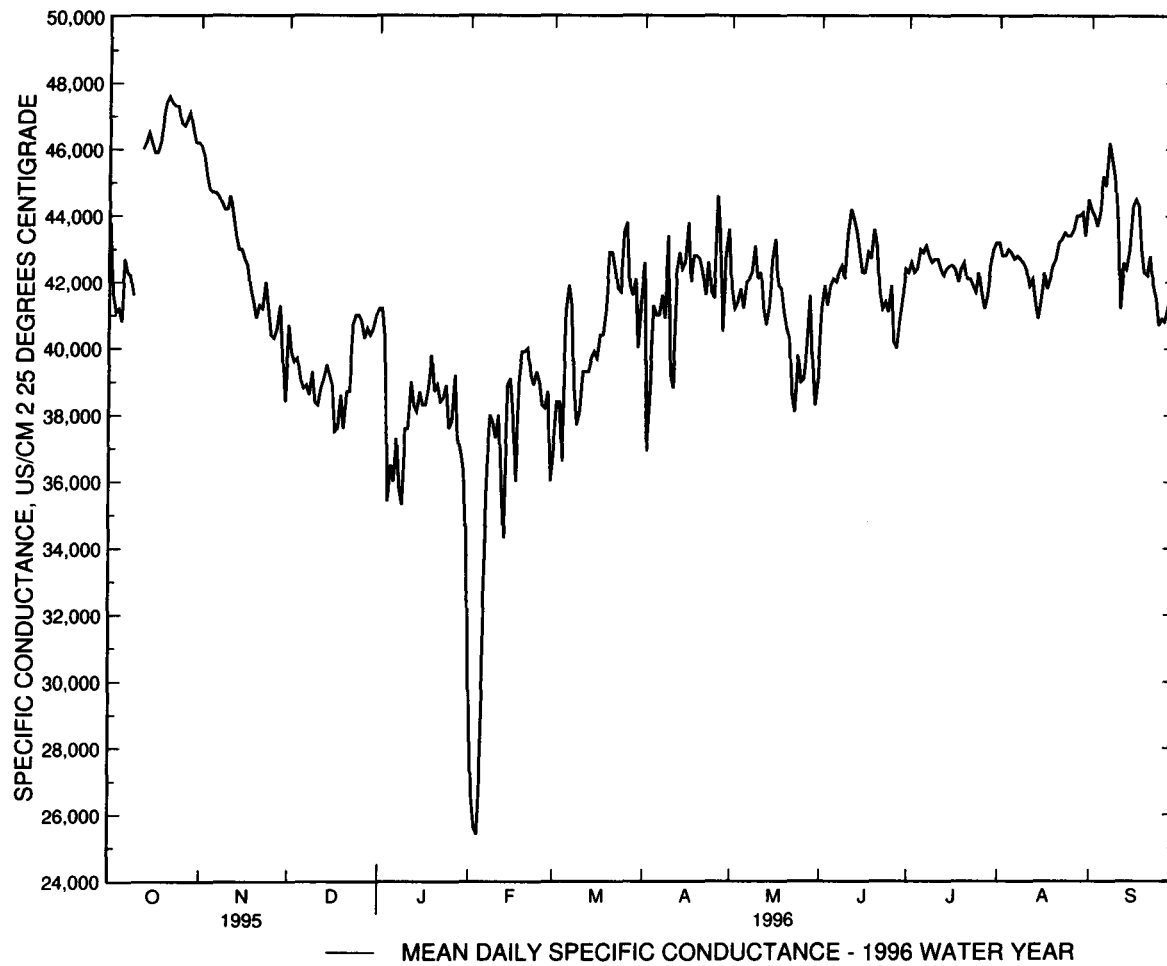
SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	31100	26600	29400	39400	35500	37000	45100	39800	42600	43700	39900	41800
2	29900	25700	26600	39200	37300	38400	41300	33400	36900	43600	39900	41200
3	26500	24800	25600	41100	33900	38400	43700	33600	38600	43100	40000	41400
4	26500	24300	25400	40000	34000	36600	43800	39100	41300	43200	40200	41800
5	32100	25200	27900	42600	40000	41100	43700	38900	41000	43600	39900	41200
6	35900	27100	32800	42500	40500	41900	44200	38600	41000	43700	40900	42000
7	39000	34200	36400	41600	40800	41300	43100	40400	41600	43600	40400	42100
8	38900	37200	38000	40900	36300	38800	44700	39400	40900	44300	41400	42300
9	38300	37300	37800	39500	35200	37700	45100	40900	43400	45500	41800	43100
10	39600	36400	37300	39700	36900	38100	41300	37900	39200	43600	40600	42100
11	38600	37400	38000	40500	38300	39300	42000	36900	38800	44200	41100	42300
12	38300	33400	35900	40500	37700	39300	43600	40900	42300	42900	38500	41200
13	37400	32200	34300	40500	38500	39300	43700	42000	42900	41700	39400	40700
14	40800	36900	38900	40500	39100	39700	43200	41800	42400	42400	40300	41300
15	40000	38000	39100	41000	39300	39900	44000	41500	42600	44600	41200	42700
16	39200	36200	38000	40400	39200	39700	44800	42700	43800	44300	42400	43300
17	39000	34800	36000	41500	38800	40400	43000	40000	42000	43300	41200	41900
18	40300	36700	39100	41700	39300	40400	43500	42200	42800	43700	41000	41800
19	40500	38800	39900	43000	39700	41200	43400	41900	42800	43800	39800	41100
20	40600	39300	39900	43600	41900	42900	43700	41900	42700	41700	39900	40600
21	40800	39100	40000	43400	42400	42900	43400	41400	42300	41500	39200	40300
22	39500	38800	39200	42800	41900	42400	42400	40900	41600	41500	36300	38600
23	39400	38400	38900	43400	40300	41800	43900	41600	42600	44300	36300	38100
24	40200	38700	39300	43600	40500	41700	43100	39300	41700	44300	37300	39800
25	39800	38100	39000	44700	42800	43500	45200	40400	41500	42300	37000	39000
26	39000	37800	38300	44700	42900	43800	45400	43400	44600	40800	37300	39100
27	39400	36600	38200	42900	41300	41900	45000	39500	43400	41900	37600	39900
28	41200	37400	38700	42500	40600	41600	41400	39400	40500	43300	37900	41600
29	37700	34900	36000	44900	40300	42100	44400	40300	42800	41500	38200	39600
30	---	---	---	41300	37700	40000	44500	42800	43600	39800	38000	38300
31	---	---	---	45200	37000	41500	---	---	---	42500	37200	39100
MONTH	41200	24300	36000	45200	33900	40500	45400	33400	41800	45500	36300	40900
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	43300	38400	41200	43500	41400	42300	43700	42400	43200	44800	43700	44200
2	42900	39900	41900	43400	41800	42600	43600	41600	42800	45200	38800	44000
3	42800	39600	41300	43600	41500	42300	43500	42400	42800	45300	38500	43700
4	43800	39500	41900	43700	41600	42400	44300	42500	43000	45400	40500	44100
5	43100	41100	42100	43800	42300	43000	44000	42200	42900	45800	44500	45200
6	43900	40600	42000	43700	42000	42900	43800	42000	42700	46700	41200	44900
7	43900	40200	42300	43900	42200	43100	44000	42000	42800	46800	41300	46200
8	43700	40600	42500	44000	41600	42800	43800	41900	42700	46500	41100	45700
9	43400	40200	42100	44000	41000	42600	43500	40100	42600	46100	41400	45100
10	44900	41900	43500	43400	42100	42700	42600	42100	42400	45500	41100	43700
11	45300	43200	44200	43500	42100	42700	43700	38500	41900	44600	34500	41200
12	45300	43200	43900	44000	34000	42400	43800	40000	42100	44600	38500	42600
13	45200	42500	43500	44800	35000	42200	43600	36500	41400	43200	41600	42400
14	43900	42300	42900	43800	37000	42400	43400	36300	40900	44600	41700	43000
15	43500	41300	42300	44100	37400	42500	43400	37900	41500	45100	43500	44300
16	44300	40600	42300	43900	41500	42500	44400	39500	42300	44800	44000	44500
17	44800	41100	42900	42700	42000	42400	43900	36800	41800	44700	43900	44300
18	43600	41700	42700	42400	41800	42000	43900	37700	42100	44600	41700	43000
19	44900	41900	43600	43000	41600	42400	43300	41800	42500	43000	41800	42300
20	44900	42000	43100	43100	41900	42600	44200	41200	42700	43300	41600	42200
21	43300	40500	41700	42400	41600	42100	44200	41900	43200	43600	42200	42800
22	43700	39800	41200	42900	41500	42100	43900	41500	43300	43600	40900	41900
23	42700	40300	41400	43000	41200	41900	44000	42900	43500	42400	40500	41500
24	42500	39800	41100	42800	40600	41700	44200	42900	43400	41400	40000	40700
25	43400	39800	41900	43300	41100	42300	44400	42600	43400	41900	40100	40900
26	41300	39400	40200	43300	40800	41700	44500	42800	43600	41300	40300	40800
27	41200	38900	40000	41900	40600	41200	45000	43200	44000	41700	40700	41200
28	42800	38900	40900	43100	40600	41600	45100	42800	44000	42100	40100	41600
29	42800	40300	41600	43600	41400	42500	45100	41100	44100	42200	40700	41300
30	43800	40400	42400	44100	41900	43000	45000	39700	43400	41100	40500	40800
31	---	---	---	44100	42400	43200	45000	44000	44500	---	---	---
MONTH	45300	38400	42200	44800	34000	42400	45100	36300	42800	46800	34500	43000

DELAWARE BAY

01484450 DELAWARE BAY NEAR LEWES, DE--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996



DELAWARE BAY

01484450 DELAWARE BAY NEAR LEWES, DE--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	20.1	19.3	19.8	15.1	14.1	14.6	9.1	7.2	8.5	2.9	2.3	2.7
2	20.2	19.3	19.9	---	---	---	8.6	7.5	8.1	3.0	2.6	2.8
3	20.9	19.7	20.2	---	---	---	9.0	7.5	8.3	3.1	2.9	3.0
4	20.5	20.2	20.3	---	---	---	8.8	8.4	8.7	2.9	1.8	2.1
5	21.2	20.3	20.7	---	---	---	8.5	7.8	8.3	2.4	1.1	1.8
6	21.5	20.7	21.1	14.1	13.0	13.6	8.5	7.9	8.2	1.9	.5	1.0
7	21.7	21.0	21.4	14.2	12.9	13.6	8.2	7.1	7.8	2.1	.3	1.2
8	21.4	20.7	21.2	13.6	11.2	12.7	7.6	6.1	6.7	2.1	.3	.6
9	21.0	19.7	20.5	12.1	10.0	10.9	7.9	6.4	7.1	1.0	.3	.4
10	---	---	---	12.8	10.1	11.5	6.4	4.5	5.2	.7	.3	.5
11	---	---	---	13.6	11.2	12.6	5.7	2.2	3.3	.9	.3	.3
12	21.5	20.5	20.9	---	---	---	4.8	2.2	3.4	.8	.3	.7
13	21.2	20.5	20.9	---	---	---	5.2	2.9	3.8	.7	.3	.4
14	21.4	20.7	21.0	---	---	---	5.6	3.8	4.6	1.3	.3	.7
15	21.1	19.1	20.1	11.5	9.4	10.5	5.6	4.0	4.5	1.4	.7	1.2
16	19.3	17.8	18.6	10.8	8.9	9.8	5.6	3.8	4.7	1.3	.8	1.1
17	18.8	17.3	18.0	10.1	9.3	9.6	4.1	3.2	3.7	2.0	1.1	1.5
18	18.9	17.1	18.1	10.5	9.2	9.5	5.3	3.2	3.9	2.6	1.6	2.0
19	19.3	17.9	18.6	10.0	9.1	9.5	5.2	3.8	4.7	3.5	2.2	2.9
20	19.0	17.2	18.3	10.9	8.5	9.3	4.6	1.9	3.4	3.3	2.1	2.8
21	17.9	15.3	17.5	10.6	9.6	10.1	4.1	1.6	2.8	2.4	2.0	2.2
22	---	---	---	10.1	8.9	9.3	3.1	1.5	2.2	2.4	2.0	2.2
23	18.7	17.3	18.0	10.0	8.6	9.3	3.7	2.2	3.0	2.4	2.0	2.2
24	---	---	---	9.5	8.3	9.0	3.5	2.7	3.1	3.3	2.3	2.8
25	---	---	---	9.0	7.5	8.1	3.3	2.7	2.9	3.4	2.3	3.1
26	---	---	---	8.6	7.4	7.9	2.8	1.7	2.3	2.8	2.2	2.6
27	---	---	---	9.3	7.8	8.4	2.4	1.0	1.4	3.9	2.5	3.3
28	---	---	---	10.1	8.2	9.5	2.5	.9	1.5	3.9	2.9	3.4
29	---	---	---	9.6	8.1	8.9	2.3	.9	1.5	3.2	2.6	2.9
30	---	---	---	8.3	6.8	7.6	2.6	1.0	1.8	3.0	2.3	2.7
31	14.7	13.6	14.2	---	---	---	2.6	1.8	2.3	2.9	1.9	2.6
MONTH	---	---	---	---	---	---	9.1	.9	4.6	3.9	.3	1.9
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	2.7	1.3	1.7	5.1	3.8	4.3	6.9	5.9	6.4	13.0	10.3	11.9
2	1.9	.5	1.1	4.1	3.7	3.9	8.9	6.9	7.9	12.4	10.3	11.6
3	.5	.3	.3	4.2	3.6	3.9	9.2	6.5	7.4	13.0	10.6	11.6
4	.3	.3	.3	4.0	2.7	3.4	8.1	6.6	7.2	12.9	11.1	12.0
5	1.2	.3	.4	5.0	3.3	4.0	8.2	6.9	7.6	13.7	11.2	12.2
6	.7	.3	.4	5.3	4.2	4.8	7.9	6.9	7.4	12.8	11.1	12.0
7	1.1	.3	.6	5.3	4.1	4.6	7.4	7.0	7.2	12.7	11.6	12.0
8	1.6	.6	1.2	4.8	2.9	4.2	8.4	6.8	7.1	13.3	11.3	12.5
9	2.2	1.5	1.8	2.9	1.8	2.3	7.2	6.1	6.7	12.6	11.2	12.1
10	2.4	1.7	2.0	2.9	1.2	2.0	6.9	5.7	6.3	13.2	11.6	12.7
11	2.7	2.2	2.4	2.6	.4	1.0	8.1	6.2	7.1	15.1	12.2	13.5
12	2.5	1.5	2.3	3.3	.4	1.2	8.6	6.9	7.7	14.7	13.5	14.1
13	1.7	1.0	1.3	3.7	.4	2.6	8.8	7.7	8.2	14.0	13.2	13.6
14	2.6	1.5	2.1	4.4	3.3	3.7	10.2	8.1	8.9	14.3	12.5	13.4
15	2.3	2.0	2.2	4.9	3.5	4.3	9.5	7.9	8.7	13.8	12.1	12.9
16	2.1	.8	1.7	5.5	4.4	4.9	8.9	7.8	8.5	13.1	12.2	12.7
17	1.3	.4	.6	5.4	4.1	4.6	10.0	8.5	9.1	14.0	12.4	13.3
18	1.2	.4	.6	5.9	4.2	4.9	9.9	8.3	9.0	14.6	12.6	13.5
19	2.0	.4	.9	5.5	4.5	5.0	10.4	8.7	9.4	16.2	12.7	14.3
20	2.7	1.8	2.3	5.0	4.4	4.7	11.0	9.1	10.1	17.3	13.3	15.4
21	3.6	2.3	2.8	4.8	4.3	4.6	12.0	10.1	10.9	18.4	13.7	16.4
22	3.3	2.2	2.8	5.0	4.3	4.7	12.0	9.5	11.2	19.3	13.1	17.5
23	3.5	2.6	2.9	5.3	4.2	4.8	12.8	9.2	11.4	18.9	12.6	17.1
24	5.2	2.7	3.9	6.1	4.6	5.1	14.1	11.2	12.4	18.7	12.6	16.2
25	5.8	3.9	4.9	6.3	4.9	5.5	12.8	8.9	11.8	18.0	13.4	16.7
26	6.0	4.4	5.3	7.7	5.2	6.6	10.9	8.8	10.2	16.7	13.3	15.7
27	5.1	3.8	4.5	8.6	6.8	7.8	12.3	10.1	11.1	16.3	13.5	14.8
28	6.3	3.6	5.1	8.2	5.9	6.8	12.9	10.4	11.8	15.2	13.4	13.9
29	6.3	4.9	5.6	6.1	5.4	5.8	12.0	9.5	11.0	14.8	13.8	14.3
30	---	---	---	7.4	5.8	6.3	12.3	10.0	11.5	15.5	14.2	14.8
31	---	---	---	7.3	5.5	6.2	---	---	---	16.9	14.1	15.1
MONTH	6.3	.3	2.2	8.6	.4	4.5	14.1	5.7	9.0	19.3	10.3	13.9

DELAWARE BAY

01484450 DELAWARE BAY NEAR LEWES, DE--Continued

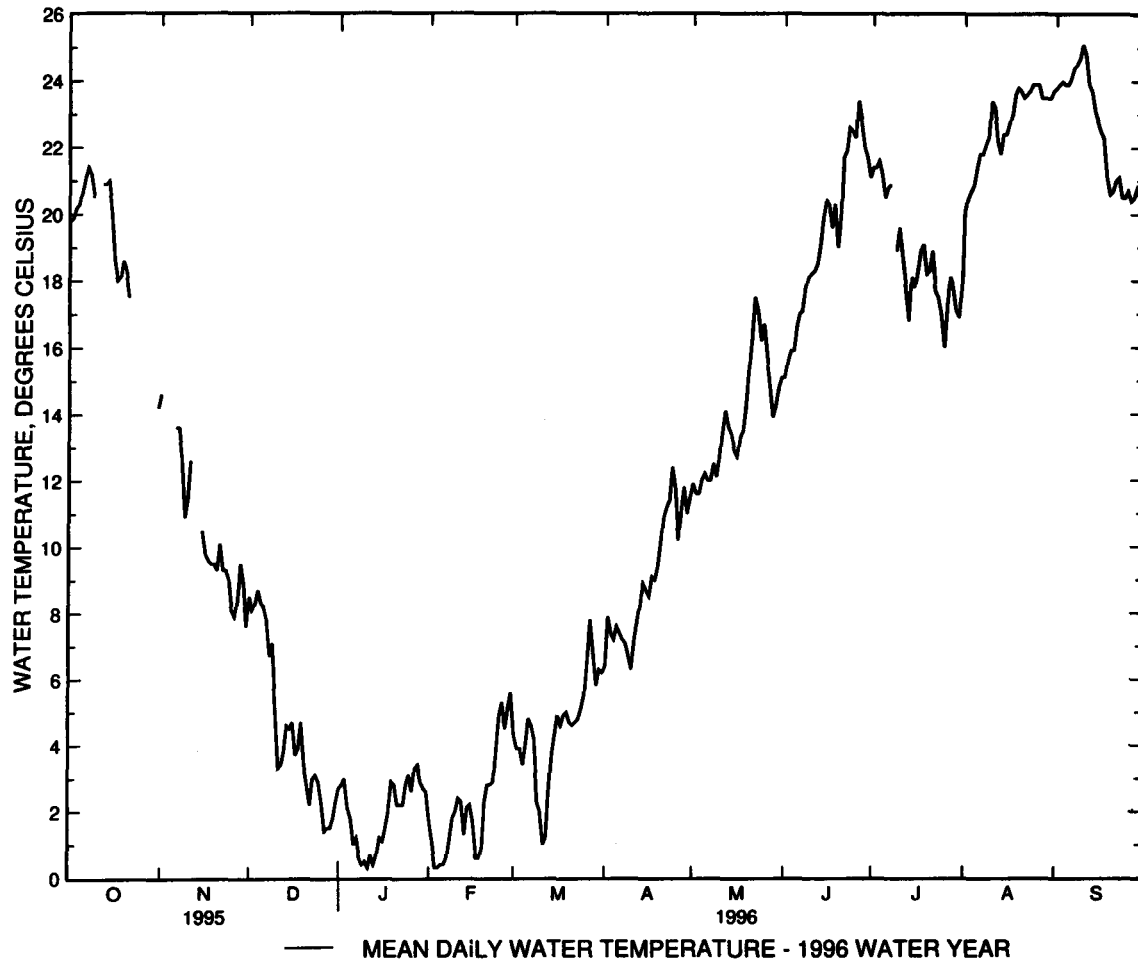
WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	16.5	14.3	15.1	22.5	20.5	21.4	20.8	19.6	20.1	24.5	23.5	23.8
2	16.7	14.9	15.6	22.2	20.7	21.4	21.5	19.7	20.5	25.0	23.3	23.9
3	16.4	15.4	15.9	22.9	20.4	21.6	21.2	20.0	20.7	24.3	23.5	24.0
4	17.0	15.2	15.9	22.0	19.8	21.2	22.0	19.8	20.9	24.1	23.4	23.9
5	17.8	15.9	16.6	21.3	19.5	20.5	22.4	20.1	21.4	24.4	23.5	23.9
6	17.9	16.1	17.0	21.7	20.0	20.8	22.8	20.2	21.8	24.5	23.8	24.1
7	18.2	16.1	17.1	21.8	19.8	20.9	23.3	20.2	21.8	25.1	23.9	24.4
8	19.2	16.4	17.8	---	---	---	23.1	20.5	22.1	24.8	24.1	24.5
9	19.3	17.1	18.1	20.4	16.3	18.9	23.6	20.7	22.3	25.3	24.1	24.7
10	19.4	16.9	18.2	20.6	17.6	19.6	24.1	22.5	23.4	25.7	23.8	25.1
11	20.0	16.9	18.3	20.6	15.3	18.7	25.0	20.6	23.2	25.2	23.7	24.8
12	20.2	16.8	18.5	20.0	15.5	17.8	23.7	20.8	22.2	24.3	23.4	23.9
13	21.4	16.8	19.1	18.1	14.9	16.8	22.7	20.9	21.8	24.3	23.1	23.7
14	22.1	17.2	19.9	19.4	16.5	18.1	23.7	21.6	22.4	23.8	22.4	23.1
15	23.1	17.6	20.4	18.8	15.9	17.8	23.4	21.7	22.4	23.2	22.2	22.8
16	22.5	17.5	20.3	19.8	15.9	18.3	23.2	22.2	22.7	22.9	22.1	22.5
17	22.7	16.9	19.6	20.0	17.3	18.9	24.1	22.5	23.0	22.6	22.0	22.3
18	22.0	18.4	20.3	19.7	17.4	19.1	25.2	23.0	23.6	22.0	20.2	21.1
19	20.7	17.6	19.0	19.4	15.7	18.2	24.3	23.1	23.8	21.1	20.1	20.6
20	21.7	18.1	19.9	19.7	17.1	18.3	24.1	23.2	23.7	21.2	20.0	20.7
21	23.4	19.8	21.7	19.9	18.2	18.9	23.8	23.2	23.5	21.4	20.6	21.0
22	23.4	19.5	21.9	19.5	15.5	17.7	24.1	23.2	23.6	21.4	20.8	21.1
23	23.8	20.2	22.6	18.7	15.0	17.5	24.2	23.3	23.7	20.9	20.0	20.5
24	24.2	20.8	22.5	18.4	14.7	17.0	24.9	22.8	23.9	21.1	19.4	20.5
25	23.6	20.8	22.3	18.1	13.9	16.0	25.0	22.8	23.9	21.1	20.1	20.7
26	24.5	22.5	23.4	18.8	14.5	17.1	25.2	22.7	23.9	20.6	20.0	20.4
27	23.6	21.0	22.8	19.4	16.1	18.1	24.1	22.7	23.5	20.9	20.0	20.5
28	23.3	20.8	22.0	20.6	16.0	17.8	24.4	22.7	23.5	21.2	20.4	20.8
29	23.0	20.8	21.7	18.8	16.0	17.1	24.5	22.7	23.5	20.9	20.1	20.5
30	22.2	20.4	21.1	18.1	15.9	16.9	24.6	22.8	23.5	21.3	20.0	20.5
31	---	---	---	20.4	15.9	17.7	24.4	23.2	23.7	---	---	---
MONTH	24.5	14.3	19.5	---	---	---	25.2	19.6	22.7	25.7	19.4	22.5

DELAWARE BAY

01484450 DELAWARE BAY NEAR LEWES, DE--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996



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.

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

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

REMARKS.--Records good. Natural flow of stream affected by inflow from sand mine dewatering process. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 45 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Apr. 16	1600	*39	*3.07	No peak greater than base discharge.			

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.2	1.9	4.2	3.6	13	12	15	11	7.1	7.3	9.7	3.1
2	2.0	2.4	2.7	3.8	11	11	23	8.1	6.5	6.1	5.9	2.9
3	2.1	2.3	2.2	6.1	11	10	17	7.8	10	5.9	4.9	4.7
4	1.3	1.6	3.9	4.4	9.9	11	15	7.7	10	3.7	4.6	5.1
5	3.7	1.1	6.3	3.9	9.3	12	12	18	10	3.3	4.2	4.4
6	2.8	1.8	3.4	3.7	9.5	13	10	17	9.1	3.1	3.9	4.7
7	1.9	4.2	3.7	4.2	12	15	12	15	8.6	3.1	4.6	2.7
8	3.6	2.8	6.5	6.1	13	14	14	18	5.8	4.5	3.5	2.4
9	1.4	2.1	3.1	5.4	25	11	15	21	5.3	4.5	4.9	5.7
10	2.0	2.1	2.8	5.1	25	10	23	20	7.8	4.3	13	5.0
11	2.2	1.5	3.2	4.7	20	13	21	17	7.0	3.9	5.0	8.4
12	1.7	3.3	6.2	6.0	19	16	18	29	8.2	5.5	6.6	24
13	2.0	5.7	2.7	7.0	14	12	14	19	8.5	20	27	11
14	1.1	16	2.3	6.0	15	11	13	17	5.4	9.2	17	5.7
15	2.1	14	2.3	6.4	15	11	14	15	4.6	8.2	12	4.5
16	2.2	4.9	3.5	6.8	13	8.7	30	15	4.4	11	11	7.3
17	3.3	3.5	3.1	8.5	12	7.9	24	16	6.3	5.6	7.6	19
18	1.9	3.0	2.6	12	11	9.3	19	13	6.4	7.0	6.8	13
19	4.5	2.7	5.5	26	14	10	17	12	9.2	7.9	8.4	8.2
20	1.5	6.9	5.5	22	15	11	14	11	5.0	5.2	7.6	6.6
21	5.0	4.1	3.7	14	21	10	13	10	7.3	5.1	7.4	5.2
22	1.9	4.0	3.4	12	19	9.1	14	13	4.4	5.0	7.5	7.8
23	2.6	2.8	3.4	12	23	7.1	14	11	4.0	7.1	6.8	7.9
24	3.5	3.6	3.4	12	16	6.4	12	12	5.8	6.6	4.4	7.9
25	2.1	2.7	3.2	12	14	8.5	13	8.3	6.3	6.6	4.1	6.0
26	1.8	2.4	3.2	10	15	8.7	14	7.8	5.2	9.7	6.1	7.7
27	1.5	7.9	3.2	14	14	8.2	9.2	8.3	5.3	4.8	3.9	6.6
28	1.3	3.0	3.1	22	14	9.6	8.5	12	3.5	3.8	3.6	4.9
29	1.1	6.8	3.0	16	13	19	11	12	3.2	4.6	3.7	11
30	4.7	3.9	3.0	16	---	13	11	12	5.6	6.1	3.5	9.6
31	2.0	---	3.1	13	---	11	---	10	---	7.3	3.1	---
TOTAL	72.0	125.0	111.4	304.7	435.7	339.5	459.7	424.0	195.8	196.0	222.3	223.0
MEAN	2.32	4.17	3.59	9.83	15.0	11.0	15.3	13.7	6.53	6.32	7.17	7.43
MAX	5.0	16	6.5	26	25	19	30	29	10	20	27	24
MIN	1.1	1.1	2.2	3.6	9.3	6.4	8.5	7.7	3.2	3.1	3.1	2.4
CFSM	.44	.80	.69	1.88	2.87	2.09	2.92	2.61	1.25	1.21	1.37	1.42
IN.	.51	.89	.79	2.16	3.09	2.41	3.26	3.01	1.39	1.39	1.58	1.55

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1943 - 1996, BY WATER YEAR (WY)

MEAN	3.29	4.57	6.60	9.42	10.3	12.6	10.3	7.67	5.59	4.18	4.92	3.36
MAX	10.5	14.3	22.8	24.8	25.8	31.2	24.4	19.7	25.3	17.4	24.8	12.2
(WY)	1972	1957	1946	1978	1979	1994	1983	1948	1948	1945	1989	1992
MIN	.67	.77	.76	.92	1.19	4.05	3.78	2.36	1.80	1.21	.65	.67
(WY)	1989	1989	1989	1989	1989	1966	1985	1985	1977	1977	1944	1988

01484500 STOCKLEY BRANCH AT STOCKLEY, DE--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1943 - 1996	
ANNUAL TOTAL	1712.6		3109.1			
ANNUAL MEAN	4.69		8.49		6.91	
HIGHEST ANNUAL MEAN					12.0	1958
LOWEST ANNUAL MEAN					3.24	1966
HIGHEST DAILY MEAN	25	Jul 23	30	Apr 16	195	Mar 3 1994
LOWEST DAILY MEAN	1.0	Sep 10	1.1	(a)	.13	(b)
ANNUAL SEVEN-DAY MINIMUM	1.8	Oct 9	1.8	Oct 9	.13	Sep 2 1944
INSTANTANEOUS PEAK FLOW			39	Apr 16	(c) 303	Mar 3 1994
INSTANTANEOUS PEAK STAGE			3.07	Apr 16	5.52	Mar 3 1994
INSTANTANEOUS LOW FLOW			.91	(d)	.13	(f)
ANNUAL RUNOFF (CFSM)	.90		1.62		1.32	
ANNUAL RUNOFF (INCHES)	12.16		22.07		17.91	
10 PERCENT EXCEEDS	8.2		16		14	
50 PERCENT EXCEEDS	3.9		7.0		5.0	
90 PERCENT EXCEEDS	2.0		2.5		1.5	

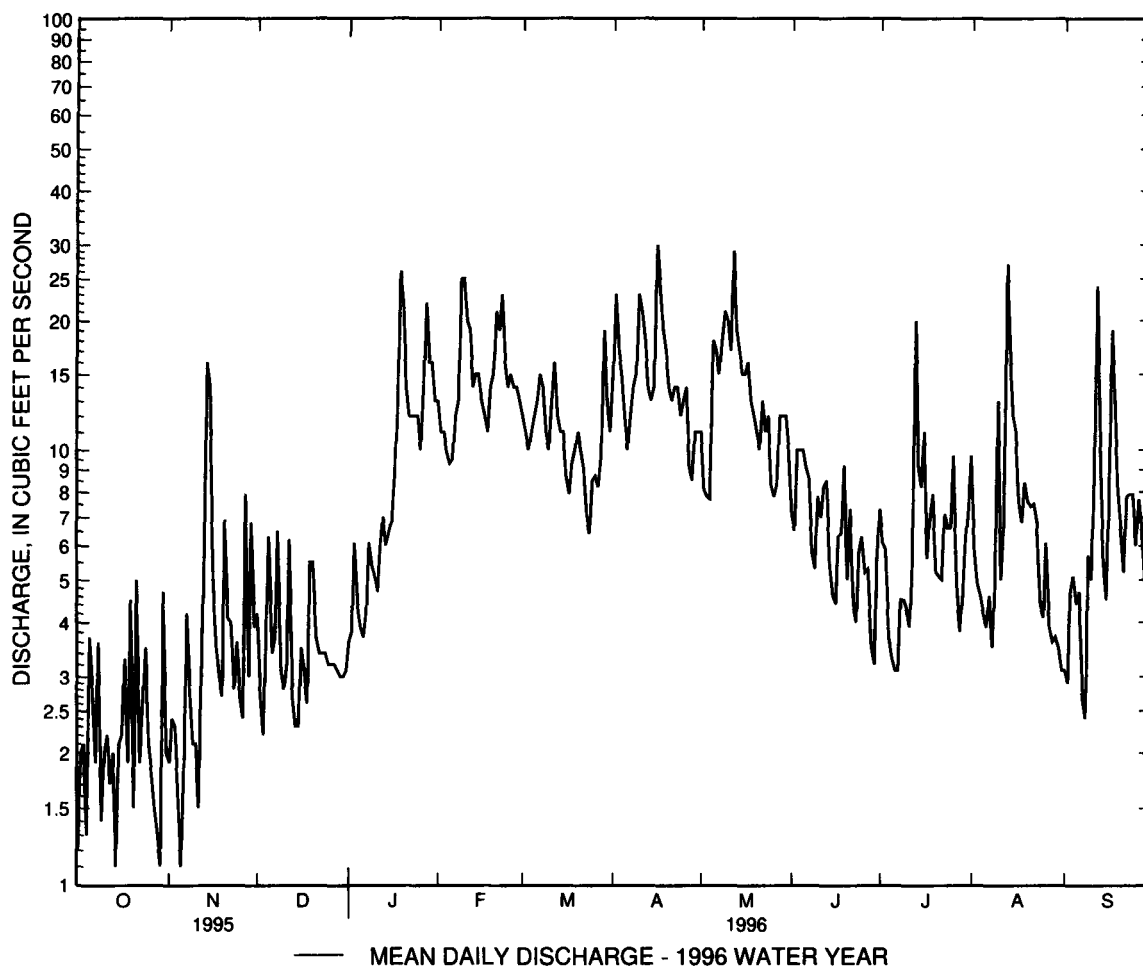
a Oct. 14, 29, Nov. 5.

b Sept. 2-11, 1944.

c From rating curve extended above 150 ft³/s.

d Oct. 13, 14.

f Sept. 1-11, 1944.



INDIAN RIVER BASIN

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 mi².

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

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

REMARKS.--No estimated daily discharges. Records good. Outflow from lake controlled by sluice gates at outlet. No gate openings during water year. Natural flow of stream affected by inflow from sand mine dewatering process. Several measurements of water temperature were made during the period.

PEAK DISCHARGE FOR CURRENT YEAR.--Peak discharge, 319 ft³/s, Apr. 17, gage height, 3.54 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31	31	56	71	145	138	159	126	108	81	80	54
2	29	36	56	72	145	142	200	115	96	85	84	50
3	28	38	54	87	149	143	209	112	107	75	72	48
4	32	37	54	83	146	132	177	114	125	59	69	53
5	61	31	54	74	137	127	159	159	114	53	65	51
6	54	31	56	68	128	134	149	175	107	50	60	52
7	40	37	59	83	129	147	155	166	95	48	57	47
8	36	45	60	117	140	164	155	174	88	46	60	50
9	31	38	64	103	162	155	166	200	82	50	55	46
10	29	35	66	88	224	142	204	221	82	47	59	47
11	30	38	58	94	243	135	233	208	87	45	65	78
12	31	64	56	108	204	136	210	212	87	55	59	154
13	28	55	56	98	188	137	181	222	103	149	180	165
14	30	103	55	84	170	132	165	183	80	162	217	103
15	59	133	57	88	164	128	153	160	66	109	153	71
16	44	98	65	93	157	124	204	163	59	115	106	71
17	36	73	71	97	152	118	278	166	60	102	93	121
18	32	64	64	116	149	116	235	164	65	79	83	138
19	31	62	75	178	143	116	192	153	77	77	77	108
20	33	60	89	220	157	126	174	142	80	77	70	86
21	54	60	80	196	172	121	164	130	76	68	70	78
22	63	58	74	162	187	114	156	144	71	66	70	85
23	44	57	67	149	190	107	150	136	64	66	71	91
24	37	57	66	146	192	99	146	120	60	64	69	86
25	35	57	65	147	174	96	135	113	67	60	62	80
26	34	56	64	140	163	93	133	107	62	99	59	75
27	33	55	63	142	157	92	131	108	59	92	60	72
28	38	57	61	162	157	100	117	119	54	74	62	70
29	33	60	61	176	145	165	113	127	51	65	60	84
30	31	60	60	161	---	179	119	127	60	64	56	91
31	33	---	61	153	---	165	---	115	---	68	56	---
TOTAL	1160	1686	1947	3756	4769	4023	5122	4681	2392	2350	2459	2405
MEAN	37.4	56.2	62.8	121	164	130	171	151	79.7	75.8	79.3	80.2
MAX	63	133	89	220	243	179	278	222	125	162	217	165
MIN	28	31	54	68	128	92	113	107	51	45	55	46
CFSM	.57	.85	.95	1.84	2.49	1.97	2.59	2.29	1.21	1.15	1.20	1.21
IN.	.65	.95	1.10	2.12	2.69	2.27	2.89	2.64	1.35	1.32	1.39	1.36

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1986 - 1988, 1991 - 1996, BY WATER YEAR (WY)

	1986	1987	1988	1991	1992	1993	1994	1995	1996	1997	1998	1999
MEAN	45.0	48.7	70.1	103	129	171	133	98.9	64.4	50.3	50.5	48.6
MAX	77.1	79.3	101	144	238	373	184	151	85.6	75.8	85.6	106
(WY)	1993	1993	1993	1993	1994	1994	1994	1996	1993	1996	1992	1992
MIN	20.8	24.3	33.2	53.7	77.4	94.1	69.1	47.3	34.0	23.2	25.5	20.1
(WY)	1987	1988	1988	1988	1992	1992	1995	1986	1986	1986	1988	1986

01484525 MILLSBORO POND OUTLET AT MILLSBORO, DE--Continued

SUMMARY STATISTICS

FOR 1995 CALENDAR YEAR

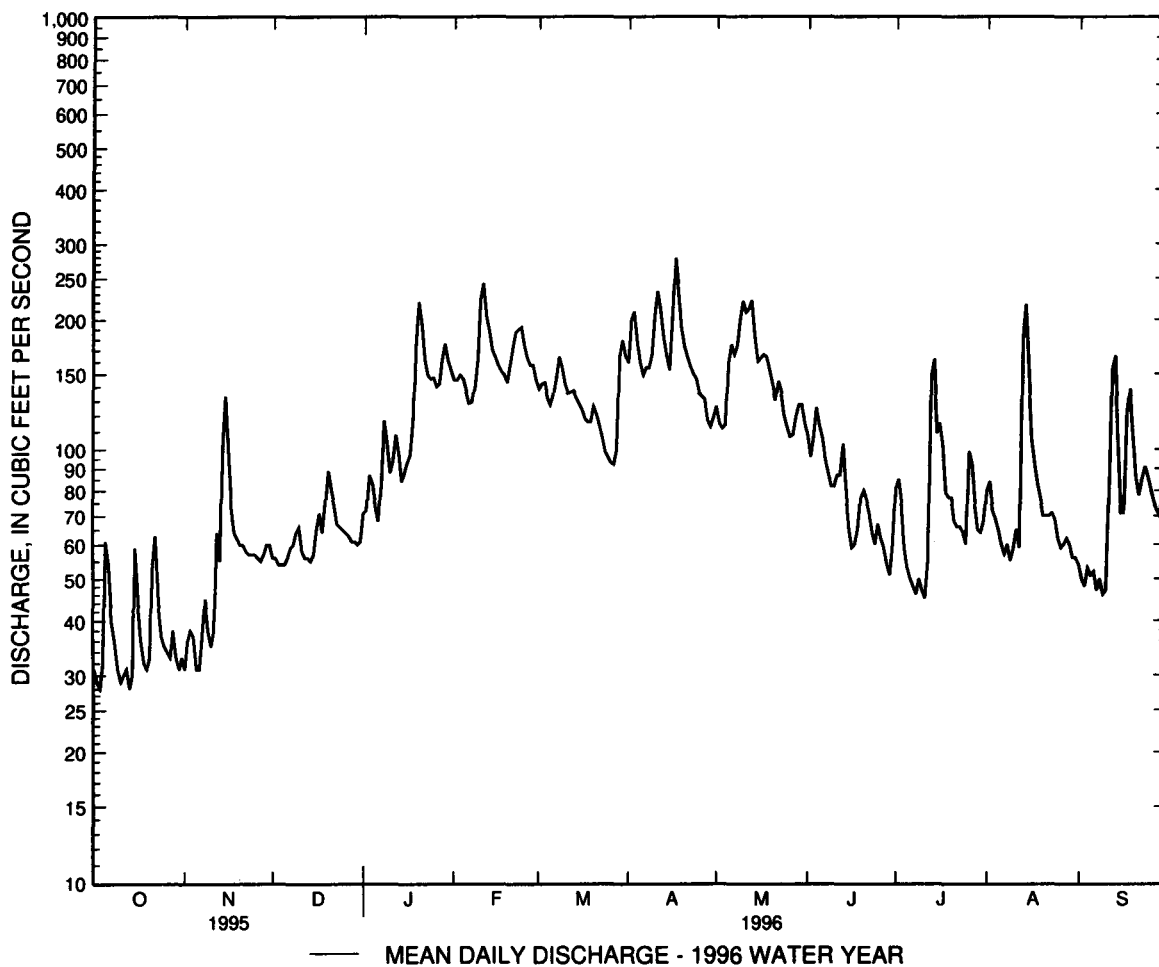
FOR 1996 WATER YEAR

WATER YEARS 1986 - 1988
1991 - 1996

ANNUAL TOTAL	23425	36750		
ANNUAL MEAN	64.2	100	86.3	
HIGHEST ANNUAL MEAN			124	1994
LOWEST ANNUAL MEAN			55.0	1988
HIGHEST DAILY MEAN	302 Jul 23	278 Apr 17	1260 Mar 4	1994
LOWEST DAILY MEAN	20 Sep 11	28 (a)	13 Oct 7	1986
ANNUAL SEVEN-DAY MINIMUM	21 Sep 10	31 Oct 8	15 Oct 5	1986
INSTANTANEOUS PEAK FLOW		319 Apr 17	1770 Mar 3	1994
INSTANTANEOUS PEAK STAGE		3.54 Apr 17	4.94 Mar 3	1994
INSTANTANEOUS LOW FLOW		22 Oct 14	11 (b)	
ANNUAL RUNOFF (CFSM)	.97	1.52	1.31	
ANNUAL RUNOFF (INCHES)	13.20	20.71	17.77	
10 PERCENT EXCEEDS	97	171	153	
50 PERCENT EXCEEDS	61	85	68	
90 PERCENT EXCEEDS	31	45	26	

a Oct. 3, 13.

b Sept. 12, Oct. 6, 1986, Nov. 6, 1987.



POCOMOKE RIVER BASIN

01485000 POCOMOKE RIVER NEAR WILLARDS, MD

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

DRAINAGE AREA.--60.5 mi².

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

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

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 500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 9	2200	519	9.68	Aug. 14	0500	*928	*11.42
July 13	2100	519	9.68				

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.5	9.8	26	44	115	83	117	56	40	37	101	36
2	2.2	10	26	51	107	84	184	51	34	33	118	32
3	2.2	11	24	86	100	87	142	47	36	26	97	29
4	3.4	12	23	90	97	85	116	44	51	22	84	27
5	6.9	11	22	76	90	83	103	78	47	19	71	25
6	6.7	11	22	65	87	89	90	81	39	16	60	25
7	6.1	12	24	65	84	127	104	71	33	15	50	24
8	4.5	17	24	162	95	184	122	81	30	14	42	23
9	3.7	16	27	154	337	149	145	131	27	14	36	22
10	3.5	14	52	135	437	118	268	152	26	13	32	21
11	4.8	14	47	111	330	108	216	125	37	12	29	21
12	5.2	29	39	135	257	106	163	192	46	13	26	58
13	3.7	29	36	210	190	99	131	144	35	322	557	95
14	3.8	58	37	169	156	90	112	110	32	402	884	79
15	9.0	121	37	159	138	84	100	90	27	213	619	64
16	7.8	80	44	157	126	79	257	99	23	210	371	55
17	6.0	61	65	151	109	72	271	125	22	168	232	89
18	5.2	52	59	157	108	69	184	110	21	115	158	121
19	4.9	47	83	232	106	68	144	94	21	96	116	96
20	5.0	42	136	329	149	79	120	80	41	85	91	77
21	10	39	105	207	236	76	107	68	114	68	74	64
22	15	36	85	164	206	69	93	65	52	56	63	64
23	11	32	72	141	205	62	84	59	32	50	54	80
24	11	30	65	130	190	58	79	52	24	43	46	76
25	9.2	28	60	126	151	55	72	45	30	37	41	66
26	8.7	26	57	110	125	53	68	41	23	119	36	58
27	9.1	26	53	122	113	49	65	40	19	151	41	53
28	10	27	49	215	105	50	58	47	17	92	62	48
29	12	26	45	166	93	143	54	58	16	70	56	54
30	10	29	41	146	---	158	55	57	17	90	49	63
31	9.9	---	38	132	---	123	---	48	---	122	42	---
TOTAL	213.0	955.8	1523	4397	4642	2839	3824	2541	1012	2743	4338	1645
MEAN	6.87	31.9	49.1	142	160	91.6	127	82.0	33.7	88.5	140	54.8
MAX	15	121	136	329	437	184	271	192	114	402	884	121
MIN	2.2	9.8	22	44	84	49	54	40	16	12	26	21
CFSM	.11	.53	.81	2.34	2.65	1.51	2.11	1.35	.56	1.46	2.31	.91
IN.	.13	.59	.94	2.70	2.85	1.75	2.35	1.56	.62	1.69	2.67	1.01

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1950 - 1996, BY WATER YEAR (WY)

	MEAN	34.7	48.5	78.5	112	123	144	101	60.1	44.3	35.2	53.2	26.5
MAX	164	221	231	322	339	393	277	236	216	217	507	128	
(WY)	1977	1980	1978	1978	1979	1994	1983	1978	1972	1975	1989	1979	
MIN	4.18	7.27	9.41	15.5	50.0	49.7	29.5	16.1	9.31	6.29	3.51	3.13	
(WY)	1969	1969	1966	1981	1981	1981	1995	1985	1986	1986	1957	1995	

01485000 POCOMOKE RIVER NEAR WILLARDS, MD--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1950 - 1996	
ANNUAL TOTAL	14493.5		30672.8		72.2	
ANNUAL MEAN	39.7		83.8		130	
HIGHEST ANNUAL MEAN					24.8	
LOWEST ANNUAL MEAN					2580	
HIGHEST DAILY MEAN	325	Mar 9	884	Aug 14		Aug 20 1989
LOWEST DAILY MEAN	1.3	(a)	2.2	(b)	1.3	Sep 15 1995
ANNUAL SEVEN-DAY MINIMUM	1.8	Sep 10	4.2	Oct 8	1.8	Sep 10 1995
INSTANTANEOUS PEAK FLOW			928	Aug 14	(c) 2820	Aug 20 1989
INSTANTANEOUS PEAK STAGE			11.42	Aug 14	15.41	Aug 20 1989
INSTANTANEOUS LOW FLOW			2.1	(d)	1.2	(f)
ANNUAL RUNOFF (CFSM)	.66		1.39		1.19	
ANNUAL RUNOFF (INCHES)	8.91		18.86		16.21	
10 PERCENT EXCEEDS	84		162		157	
50 PERCENT EXCEEDS	29		61		40	
90 PERCENT EXCEEDS	3.2		12		9.0	

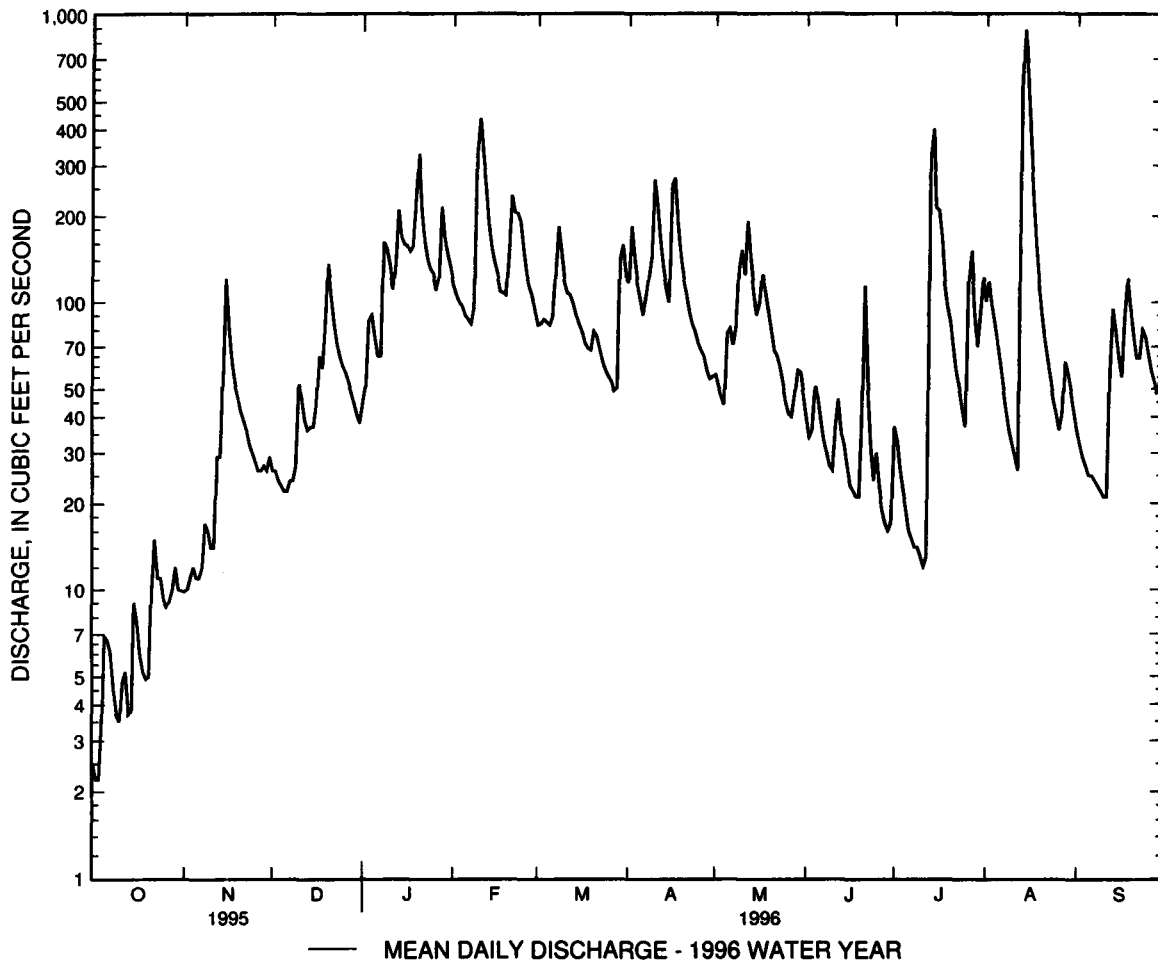
a Sept. 15, 16.

b Oct. 2, 3.

c From rating curve extended above 1,600 ft³/s.

d Oct. 2-4.

f Sept. 12, 15, 16, 1995.



POCOMOKE RIVER BASIN

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 mi².

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

REVISED RECORDS.--WSP 1332: 1953.

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

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

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 280 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 11	0200	406	5.80	Aug. 14	1900	*739	*6.54
July 14	2400	504	6.08				

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.3	5.2	12	21	77	53	107	38	27	14	56	13
2	2.1	6.3	12	24	66	52	109	35	23	13	65	12
3	2.1	6.5	12	34	51	55	118	32	32	12	61	11
4	3.2	6.8	11	39	53	55	103	29	55	11	59	11
5	6.8	6.5	11	42	54	54	76	36	69	11	45	11
6	7.1	6.5	11	36	49	59	63	36	66	9.5	32	10
7	8.5	8.2	12	32	45	82	69	36	48	7.8	26	9.2
8	6.8	13	13	49	49	143	77	46	34	6.8	21	8.7
9	4.7	11	17	55	98	175	97	69	27	6.5	18	8.7
10	3.7	8.0	21	70	265	136	193	98	27	6.3	15	8.5
11	3.5	7.2	19	74	377	97	263	118	29	5.6	13	12
12	2.9	14	18	73	278	76	207	112	32	11	12	60
13	2.5	12	17	81	205	68	136	108	34	134	167	43
14	3.2	21	17	92	144	62	94	103	31	338	641	30
15	12	27	19	106	103	56	73	75	26	437	575	25
16	8.1	23	24	100	85	52	124	67	20	259	287	23
17	5.3	25	28	98	74	49	229	69	16	144	141	75
18	4.4	24	28	98	71	46	233	70	14	98	87	77
19	3.8	20	37	114	64	45	154	67	14	75	66	65
20	3.7	17	46	155	76	51	101	56	17	57	49	47
21	14	15	50	167	115	51	77	42	24	38	35	32
22	15	15	47	121	168	49	66	37	19	30	28	40
23	11	14	39	84	189	45	57	32	19	27	24	49
24	7.6	13	33	71	195	39	56	27	18	23	20	38
25	6.3	13	29	67	167	36	49	24	18	19	18	33
26	5.4	13	26	61	118	34	43	22	18	60	16	28
27	5.0	12	22	63	86	31	41	21	16	65	23	25
28	5.5	12	21	89	71	34	37	26	14	69	24	22
29	5.9	13	20	118	62	67	35	30	12	59	19	37
30	5.4	13	18	112	---	104	34	32	12	41	17	34
31	5.2	---	18	91	---	130	---	30	---	36	15	---
TOTAL	183.0	401.2	708	2437	3455	2086	3121	1623	811	2123.5	2675	898.1
MEAN	5.90	13.4	22.8	78.6	119	67.3	104	52.4	27.0	68.5	86.3	29.9
MAX	15	27	50	167	377	175	263	118	69	437	641	77
MIN	2.1	5.2	11	21	45	31	34	21	12	5.6	12	8.5
CFSM	.13	.30	.51	1.75	2.65	1.50	2.32	1.17	.60	1.53	1.92	.67
IN.	.15	.33	.59	2.02	2.86	1.73	2.59	1.34	.67	1.76	2.22	.74

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1950 - 1996, BY WATER YEAR (WY)

MEAN	24.3	35.0	55.2	84.8	94.9	115	77.3	44.8	28.4	21.5	40.6	18.6
MAX	150	175	155	261	269	302	202	183	160	120	346	177
(WY)	1977	1980	1978	1978	1979	1994	1983	1978	1972	1975	1989	1979
MIN	2.81	3.80	6.33	10.8	32.1	29.5	17.6	7.10	2.52	2.02	1.59	1.64
(WY)	1991	1967	1966	1966	1991	1986	1985	1986	1986	1986	1966	1980

01485500 NASSAWANGO CREEK NEAR SNOW HILL, MD--Continued

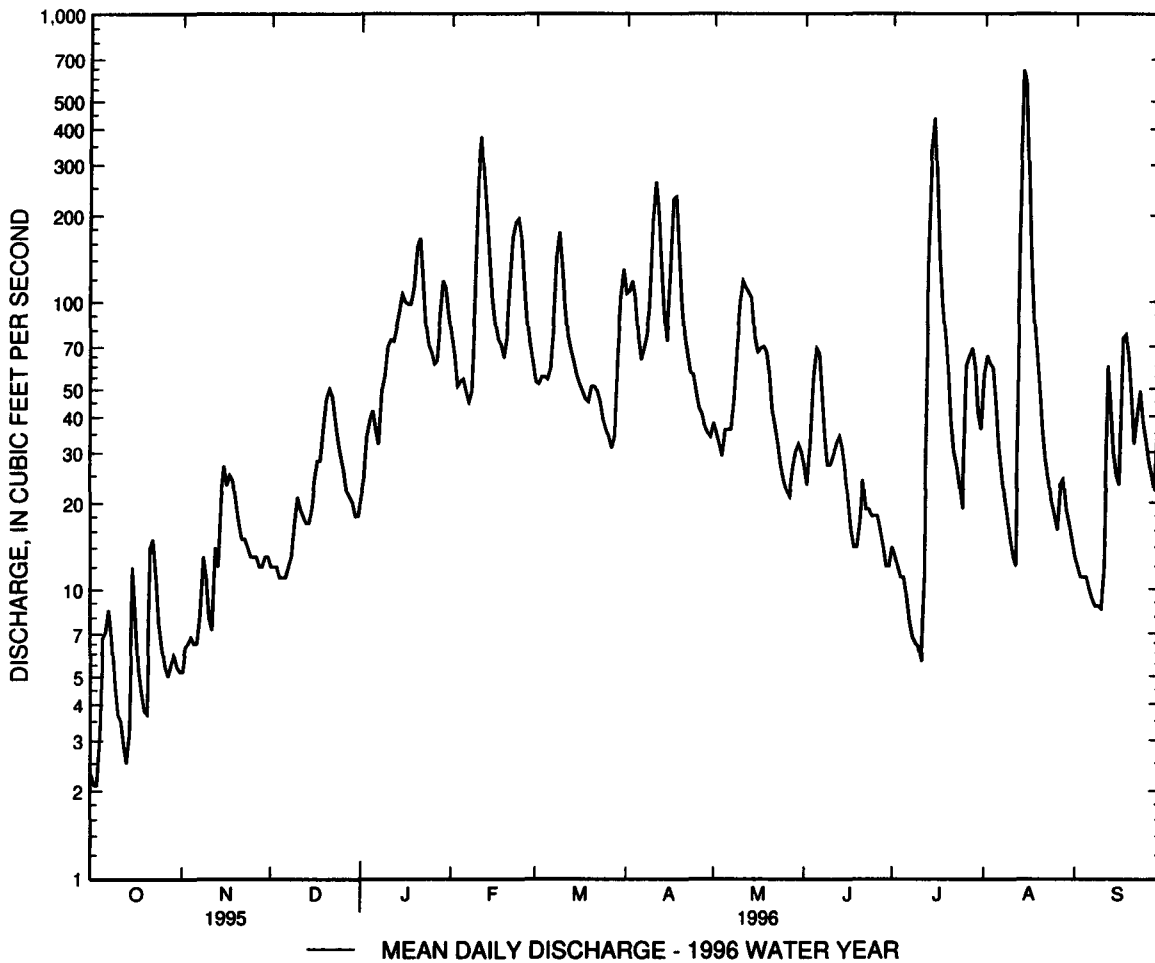
SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1950 - 1996	
ANNUAL TOTAL	8904.8		20521.8			
ANNUAL MEAN	24.4		56.1		53.8	
HIGHEST ANNUAL MEAN					116	1979
LOWEST ANNUAL MEAN					20.8	1981
HIGHEST DAILY MEAN	160	Jan 22	641	Aug 14	2590	Aug 19 1989
LOWEST DAILY MEAN	1.1	Aug 29	2.1	Oct 2	.80	Sep 8 1966
ANNUAL SEVEN-DAY MINIMUM	1.4	Aug 24	3.9	Oct 8	.86	Sep 7 1966
INSTANTANEOUS PEAK FLOW			739	Aug 14	3930	Aug 19 1989
INSTANTANEOUS PEAK STAGE			6.54	Aug 14	9.07	Aug 19 1989
INSTANTANEOUS LOW FLOW			2.1	Oct 1	.80	Sep 8 1966
ANNUAL RUNOFF (CFSM)	.54		1.25		1.20	
ANNUAL RUNOFF (INCHES)	7.38		17.00		16.27	
10 PERCENT EXCEEDS	58		118		124	
50 PERCENT EXCEEDS	15		34		26	
90 PERCENT EXCEEDS	2.2		7.7		3.4	

a Oct. 2, 3.

b Sept. 8-10, 1966.

c From rating curve extended above 1,300 ft³/s on basis of contracted-opening measurement at gage height 9.07 ft.

d Oct. 1-4.



MANOKIN RIVER BASIN

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 mi².

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

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

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

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

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 50 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 9	1630	94	3.33	Apr. 16	0930	54	3.06
Feb. 21	0300	53	3.05	July 13	0830	*137	*3.72

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.20	.53	1.5	3.1	8.4	7.1	17	4.5	2.8	2.9	14	1.9
2	.20	.58	1.4	3.5	7.7	7.6	23	4.0	2.5	1.7	15	1.7
3	.20	.56	1.3	7.5	7.3	9.0	13	3.5	3.1	1.5	8.4	1.6
4	.27	.58	1.4	5.8	6.8	8.7	10	3.4	3.6	1.3	6.4	1.6
5	.46	.49	1.3	4.6	6.3	8.1	8.6	5.9	3.1	1.2	5.2	1.5
6	.36	.49	1.3	4.0	6.0	10	7.8	5.0	2.6	1.1	4.3	1.5
7	.37	.68	1.5	5.6	5.8	20	11	4.4	2.4	1.1	3.6	1.4
8	.30	.87	1.3	19	9.3	22	10	5.8	2.2	1.1	3.1	1.3
9	.25	.66	2.2	12	56	13	25	19	2.0	1.3	2.8	1.3
10	.23	.62	3.2	9.6	35	9.7	37	13	2.0	1.0	2.7	1.2
11	.23	.73	2.4	7.7	29	9.0	20	11	2.1	.96	2.4	1.4
12	.24	1.1	2.1	11	22	8.5	13	16	1.9	3.6	2.3	6.1
13	.22	.96	2.0	14	14	7.6	11	9.1	1.8	89	26	6.9
14	.27	3.2	2.2	10	12	7.0	9.2	6.7	1.8	27	19	4.7
15	.57	4.8	2.3	12	10	6.7	8.1	5.5	1.7	15	10	3.3
16	.40	3.1	3.4	13	9.4	6.2	35	8.3	1.6	25	6.4	2.8
17	.29	2.5	4.1	16	8.2	6.1	21	9.4	1.6	11	5.0	8.4
18	.27	2.2	3.5	16	7.9	5.9	13	7.6	1.6	7.3	4.2	8.7
19	.27	2.1	6.6	23	7.7	6.1	10	6.1	1.6	7.4	3.6	5.3
20	.28	2.0	7.9	18	17	7.5	8.3	4.9	1.5	7.0	3.2	3.9
21	3.6	1.9	5.5	12	42	6.5	7.4	4.2	1.5	5.1	3.0	3.1
22	1.4	1.7	4.5	10	24	5.8	6.4	3.9	1.4	4.3	2.7	4.9
23	.90	1.6	4.0	9.1	34	5.3	6.0	3.5	1.3	4.2	2.5	7.9
24	.72	1.6	3.8	9.0	22	4.6	6.4	3.2	1.3	3.7	2.3	5.2
25	.63	1.5	3.6	8.7	14	4.5	5.8	2.9	1.5	3.2	2.2	4.1
26	.60	1.5	3.3	7.3	11	4.4	5.4	2.9	1.2	19	2.0	3.3
27	.57	1.5	3.1	11	11	4.0	5.1	3.0	1.1	12	2.0	2.9
28	.67	1.4	2.9	16	9.7	6.1	4.6	3.8	1.1	6.5	3.5	2.7
29	.56	1.6	2.7	11	8.0	17	4.4	4.3	1.1	4.7	2.9	3.7
30	.50	1.5	2.7	11	---	12	4.4	3.9	1.1	4.3	2.3	4.6
31	.49	---	2.7	10	---	9.3	---	3.3	---	4.7	2.0	---
TOTAL	16.52	44.55	91.7	330.5	461.5	265.3	366.9	192.0	56.1	279.16	175.0	108.9
MEAN	.53	1.48	2.96	10.7	15.9	8.56	12.2	6.19	1.87	9.01	5.65	3.63
MAX	3.6	4.8	7.9	23	56	22	37	19	3.6	89	26	8.7
MIN	.20	.49	1.3	3.1	5.8	4.0	4.4	2.9	1.1	.96	2.0	1.2
CFSM	.11	.31	.62	2.22	3.32	1.78	2.55	1.29	.39	1.88	1.18	.76
IN.	.13	.35	.71	2.56	3.58	2.06	2.84	1.49	.43	2.16	1.36	.84

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 1996, BY WATER YEAR (WY)

MEAN	1.68	2.41	4.73	8.21	9.01	10.8	7.28	3.99	2.42	1.74	3.81	1.82
MAX	10.5	17.5	13.5	23.8	22.8	30.3	17.3	12.2	12.7	9.20	27.8	18.7
(WY)	1980	1980	1978	1978	1979	1994	1983	1978	1979	1975	1969	1979
MIN	.030	.050	.13	.51	2.40	2.64	1.64	.62	.39	.16	.003	.017
(WY)	1967	1967	1967	1966	1981	1981	1967	1957	1964	1953	1966	1966

01486000 MANOKIN BRANCH NEAR PRINCESS ANNE, MD--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1951 - 1996	
ANNUAL TOTAL	938.18		2388.13			
ANNUAL MEAN	2.57		6.52		4.82	
HIGHEST ANNUAL MEAN					10.3	
LOWEST ANNUAL MEAN					1.41	
HIGHEST DAILY MEAN	25	Jun 13	89	Jul 13	251	Aug 20 1969
LOWEST DAILY MEAN	.20	(a)	.20	(b)	.00	(c)
ANNUAL SEVEN-DAY MINIMUM	.21	Sep 27	.25	Oct 8	.00	Aug 23 1963
INSTANTANEOUS PEAK FLOW			137	Jul 13	(d) 547	Aug 20 1969
INSTANTANEOUS PEAK STAGE			3.72	Jul 13	(f) 7.08	Aug 19 1985
INSTANTANEOUS LOW FLOW			.20	(g)	.00	(c)
ANNUAL RUNOFF (CFSM)	.54		1.36		1.00	
ANNUAL RUNOFF (INCHES)	7.27		18.51		13.64	
10 PERCENT EXCEEDS	5.2		14		11	
50 PERCENT EXCEEDS	1.7		4.0		2.0	
90 PERCENT EXCEEDS	.28		.71		.32	

a Sept. 15, 16, 30.

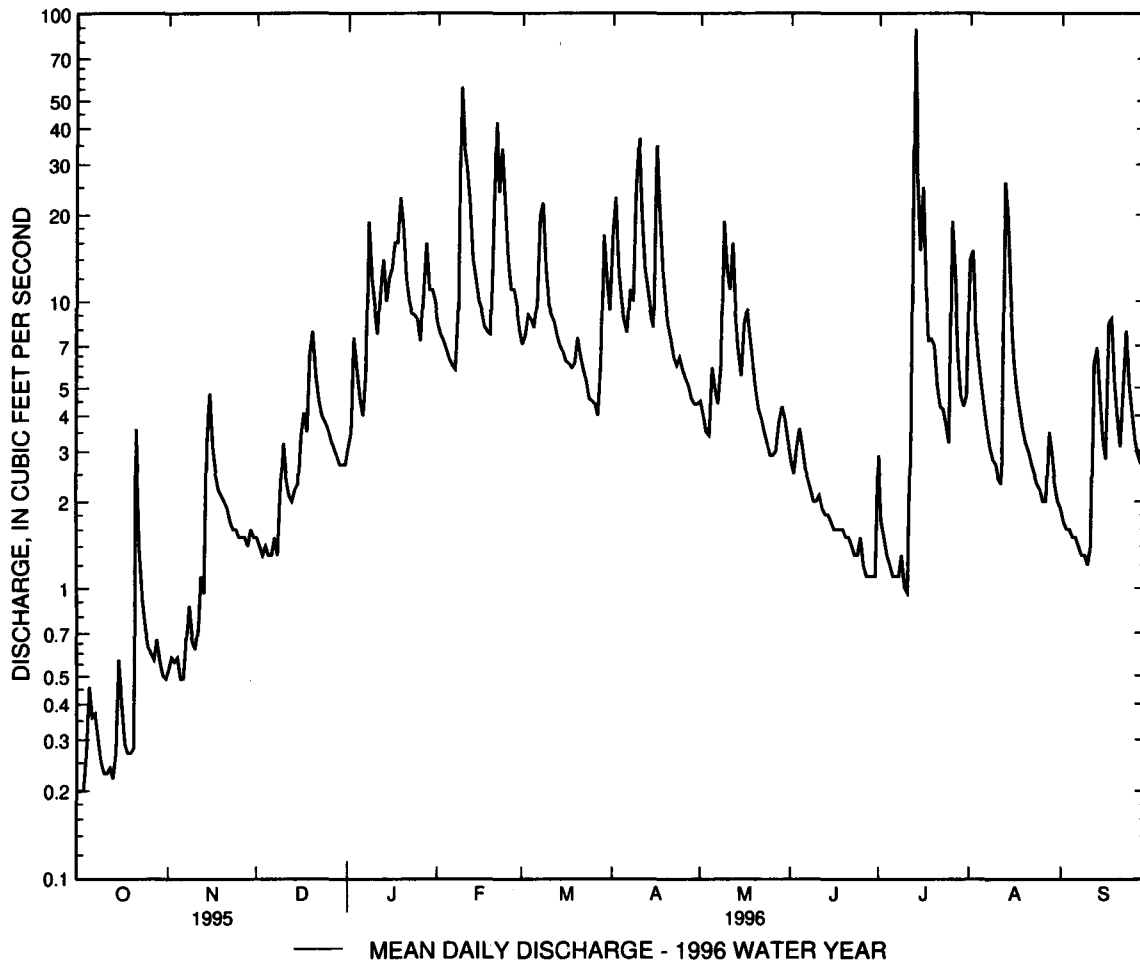
b Oct. 1-3.

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

d From rating curve extended above 27 ft³/s on basis of channel-conveyance study.

f Gage height of 5.44 ft occurred on Aug. 20, 1969 following ditching of stream channel.

g Oct. 1-4.



NANTICOKE RIVER BASIN

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 mi².

PERIOD OF RECORD.--April 1943 to current year. Prior to October 1955, published as Gravelly Fork near Bridgeville. REVISED RECORDS.--WSP 1111: 1947. WSP 1232: 1945-49.

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

REMARKS.--No estimated daily discharges. Records good. Several measurements of water temperature were made during the period. 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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 19	2200	*574	*7.09	Apr. 2	0400	452	6.75
Jan. 27	2400	361	6.45	Apr. 10	2200	361	6.45

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	28	60	71	169	148	191	127	126	85	74	41
2	17	30	59	73	167	149	372	116	119	82	70	40
3	17	29	57	93	165	148	244	113	127	79	67	39
4	18	30	57	88	156	140	208	110	141	74	65	40
5	29	28	56	79	147	137	189	175	153	68	61	41
6	26	29	57	75	144	144	176	182	146	63	56	41
7	23	31	56	78	142	157	178	164	133	63	53	40
8	30	33	55	90	148	187	180	196	126	62	51	37
9	24	30	61	80	210	167	193	292	119	57	50	38
10	22	30	62	78	290	154	306	286	116	55	54	39
11	22	31	58	74	247	149	302	218	113	54	51	52
12	21	52	56	78	229	151	220	297	109	65	50	58
13	20	42	56	85	198	150	186	244	114	152	88	51
14	21	66	57	81	184	146	168	203	108	165	85	46
15	30	132	57	81	176	143	154	183	99	124	70	44
16	25	92	66	80	170	140	193	181	94	124	63	44
17	23	71	70	84	166	136	207	181	91	118	60	76
18	23	65	65	96	159	131	172	174	90	108	57	80
19	22	63	84	324	153	133	159	166	127	106	54	60
20	22	61	109	377	159	159	153	157	128	103	51	53
21	37	61	93	219	255	147	147	150	144	95	48	49
22	38	60	85	184	231	137	139	174	123	90	46	54
23	29	59	81	172	217	130	135	163	110	87	48	52
24	27	63	79	172	208	124	132	149	103	82	46	49
25	26	60	77	176	186	121	125	141	106	77	45	47
26	25	59	76	160	174	121	123	135	97	88	44	46
27	26	59	74	203	167	118	120	133	89	79	45	45
28	31	59	72	290	162	122	113	136	81	71	44	45
29	29	63	70	212	155	199	111	141	80	68	41	58
30	27	61	68	193	---	212	116	143	83	70	43	50
31	27	---	69	181	---	176	---	134	---	71	43	---
TOTAL	775	1577	2102	4327	5334	4576	5412	5364	3395	2685	1723	1455
MEAN	25.0	52.6	67.8	140	184	148	180	173	113	86.6	55.6	48.5
MAX	38	132	109	377	290	212	372	297	153	165	88	80
MIN	17	28	55	71	142	118	111	110	80	54	41	37
CFSM	.33	.70	.90	1.85	2.44	1.96	2.39	2.29	1.50	1.15	.74	.64
IN.	.38	.78	1.04	2.13	2.63	2.26	2.67	2.65	1.67	1.32	.85	.72

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1943 - 1996, BY WATER YEAR (WY)

MEAN	44.7	58.5	86.1	118	133	160	138	102	74.9	58.4	62.7	46.2
MAX	137	192	294	311	376	421	300	219	298	210	412	234
(WY)	1980	1957	1949	1978	1961	1994	1958	1990	1948	1959	1967	1960
MIN	17.9	21.2	23.9	23.8	50.9	61.5	47.8	45.8	29.3	17.5	13.6	10.1
(WY)	1944	1988	1944	1966	1950	1977	1985	1951	1986	1944	1943	1943

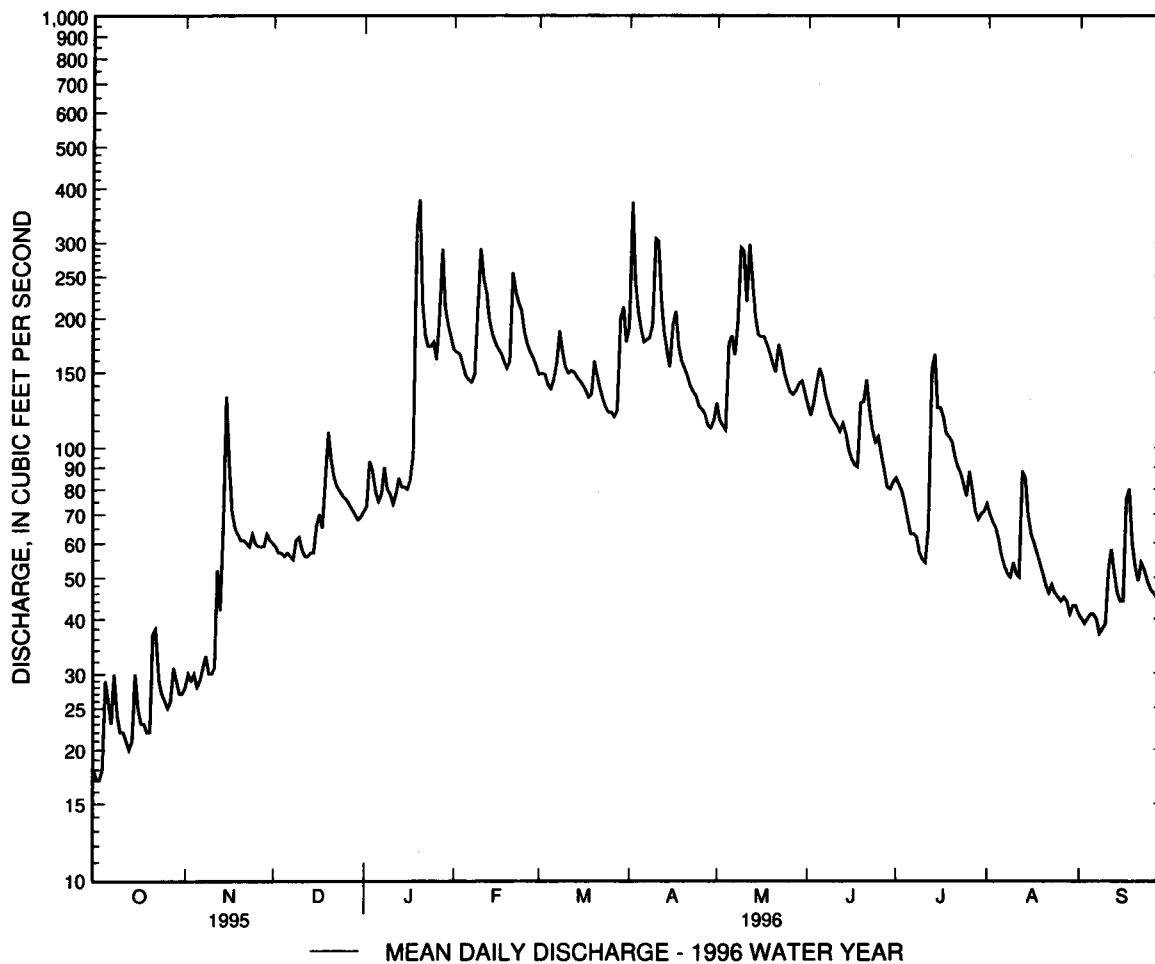
01487000 NANTICOKE RIVER NEAR BRIDGEVILLE, DE--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1943 - 1996	
ANNUAL TOTAL	21627		38725			
ANNUAL MEAN	59.3		106		90.3	
HIGHEST ANNUAL MEAN					170	
LOWEST ANNUAL MEAN					43.8	
HIGHEST DAILY MEAN	240	Mar 9	377	Jan 20	2880	Feb 26 1979
LOWEST DAILY MEAN	14	(a)	17	(b)	6.6	Sep 29 1943
ANNUAL SEVEN-DAY MINIMUM	15	Sep 10	21	Oct 1	7.8	Sep 23 1943
INSTANTANEOUS PEAK FLOW			574	Jan 19	3020	Feb 26 1979
INSTANTANEOUS PEAK STAGE			7.09	Jan 19	10.31	Feb 26 1979
INSTANTANEOUS LOW FLOW			17	Oct 3	(c) 6.3	Sep 29 1943
ANNUAL RUNOFF (CFSM)	.79		1.40		1.20	
ANNUAL RUNOFF (INCHES)	10.67		19.11		16.27	
10 PERCENT EXCEEDS	98		188		173	
50 PERCENT EXCEEDS	59		85		65	
90 PERCENT EXCEEDS	19		31		26	

a Sept. 10, 15.

b Oct. 2, 3.

c Minimum discharge observed.



NANTICOKE RIVER BASIN

01488500 MARSHYHOPE CREEK NEAR ADAMSVILLE, DE

LOCATION.--Lat 38°50'59", long 75°40'24", Kent County, Hydrologic Unit 02060008, on left bank 45 ft upstream from highway bridge, 1.4 mi upstream from Cattail Branch, 1.6 mi northeast of Adamsville, 4.9 mi northwest of Greenwood, and 33 mi upstream from mouth.

DRAINAGE AREA.--43.9 mi².

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

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

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

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

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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 19	1815	*1,700	*8.87	Apr. 1	2300	1,510	8.35
Jan. 27	2145	602	5.47	May 9	1215	455	4.88
Feb. 9	2015	579	5.38				

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.9	20	43	44	100	75	367	67	60	36	28	17
2	9.0	20	41	47	94	75	592	60	55	35	26	17
3	8.9	20	40	103	89	75	212	56	67	34	25	19
4	9.3	20	39	78	82	68	160	54	91	32	24	20
5	13	19	37	63	75	67	130	175	132	30	23	18
6	16	19	37	57	72	75	110	160	89	29	22	18
7	15	20	36	60	70	126	118	117	71	28	22	17
8	25	23	35	82	79	163	121	190	63	27	22	16
9	16	22	37	66	270	111	172	315	58	27	22	15
10	13	21	38	56	246	92	326	196	57	25	21	16
11	13	22	36	48	190	89	202	148	54	24	21	22
12	12	74	35	52	152	91	151	225	52	27	20	23
13	11	50	34	56	117	87	125	131	86	149	135	19
14	12	107	34	54	106	80	107	102	60	96	79	17
15	19	190	35	55	97	77	94	88	51	54	40	16
16	21	87	41	54	92	71	173	87	47	50	32	16
17	16	66	54	58	82	66	144	86	43	47	29	44
18	14	58	46	80	80	63	111	80	44	43	27	48
19	14	55	78	1080	73	78	98	74	110	43	25	24
20	14	52	130	429	110	148	89	67	80	44	24	19
21	29	50	77	186	337	99	82	64	62	40	23	18
22	50	47	66	150	194	84	74	231	53	38	22	19
23	29	45	60	135	199	73	70	109	47	37	22	18
24	23	45	57	141	158	66	65	83	44	36	22	17
25	21	43	54	146	124	62	60	70	45	35	21	17
26	19	43	52	110	108	60	60	64	41	34	20	16
27	19	42	51	227	97	56	57	62	38	32	20	16
28	22	41	48	265	92	59	52	65	37	31	20	16
29	23	41	46	151	83	248	51	72	35	30	19	19
30	21	43	44	131	---	163	57	86	35	29	19	17
31	20	---	44	118	---	122	---	69	---	28	17	---
TOTAL	556.1	1405	1505	4382	3668	2869	4230	3453	1807	1250	892	594
MEAN	17.9	46.8	48.5	141	126	92.5	141	111	60.2	40.3	28.8	19.8
MAX	50	190	130	1080	337	248	592	315	132	149	135	48
MIN	8.9	19	34	44	70	56	51	54	35	24	17	15
CFSM	.41	1.07	1.11	3.22	2.88	2.11	3.21	2.54	1.37	.92	.66	.45
IN.	.47	1.19	1.28	3.71	3.11	2.43	3.58	2.93	1.53	1.06	.76	.50

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1943 - 1996, BY WATER YEAR (WY)

MEAN	19.0	34.2	58.0	83.5	87.3	109	77.0	53.3	35.8	35.3	35.3	19.4
MAX	101	190	196	258	267	284	226	178	156	297	340	126
(WY)	1972	1957	1949	1978	1979	1994	1983	1989	1948	1975	1967	1960
MIN	3.46	4.95	3.22	4.30	27.8	27.8	21.7	15.5	7.32	4.58	2.83	2.78
(WY)	1966	1966	1966	1966	1966	1966	1985	1957	1965	1944	1964	1964

01488500 MARSHYHOPE CREEK NEAR ADAMSVILLE, DE--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1943 - 1996	
ANNUAL TOTAL	14557.1		26611.1			
ANNUAL MEAN	39.9		72.7		54.5	
HIGHEST ANNUAL MEAN					111	
LOWEST ANNUAL MEAN					16.2	
HIGHEST DAILY MEAN	446	Mar 9	1080	Jan 19	2710	Aug 5 1967
LOWEST DAILY MEAN	8.9	(a)	8.9	(a)	1.2	(b)
ANNUAL SEVEN-DAY MINIMUM	9.4	Sep 10	11	Oct 1	1.3	Sep 5 1964
INSTANTANEOUS PEAK FLOW			1700	Jan 19	(c) 3700	Jul 13 1975
INSTANTANEOUS PEAK STAGE			8.87	Jan 19	13.98	Aug 5 1967
INSTANTANEOUS LOW FLOW			8.7	(d)	1.0	(f)
ANNUAL RUNOFF (CFSM)	.91		1.66		1.24	
ANNUAL RUNOFF (INCHES)	12.34		22.55		16.85	
10 PERCENT EXCEEDS	67		148		114	
50 PERCENT EXCEEDS	36		52		28	
90 PERCENT EXCEEDS	11		18		7.3	

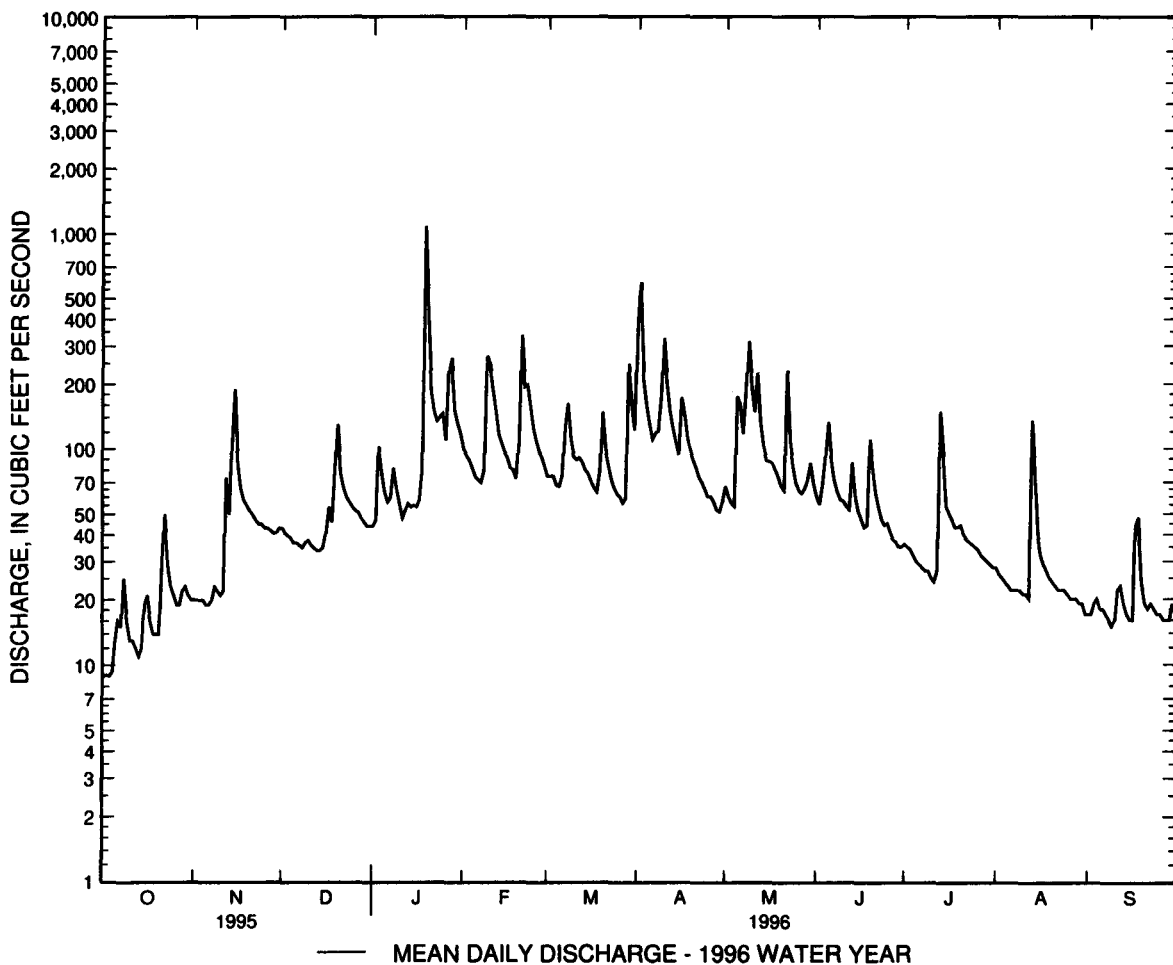
a Oct. 1, 3.

b Sept. 9, 10, 1964.

c From rating curve extended above 3,300 ft³/s.

d Oct. 1-4.

f Sept. 9, 10, 1964; Aug. 20, 1965.



CHOPTANK RIVER BASIN

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 mi².

WATER-DISCHARGE RECORDS

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

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

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

REMARKS.--Water-discharge records good except those for estimated daily discharges (ice effect), which are fair. Diversions for irrigation of about 500 acres upstream from station.

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

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

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 20	0845	2,450	*9.32	June 20	1515	*2,810	9.26
Apr. 2	1445	2,230	8.97	Aug. 14	0430	1,910	8.44

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	56	127	104	260	185	397	160	166	147	126	53
2	14	55	120	110	230	177	1800	173	141	141	226	51
3	14	55	111	151	200	181	1130	156	132	132	217	51
4	13	56	102	205	e216	174	582	144	142	123	138	51
5	42	52	96	180	e206	163	425	255	150	112	105	50
6	56	49	92	144	e194	167	317	487	147	98	88	48
7	41	49	89	96	182	213	273	435	133	88	77	47
8	31	60	86	97	179	451	281	411	122	84	68	45
9	25	60	87	137	265	455	311	592	122	79	61	42
10	21	54	97	142	562	289	572	701	211	86	58	41
11	19	52	97	133	514	224	710	526	284	80	50	91
12	19	133	116	126	431	212	507	513	217	73	50	162
13	18	184	88	132	336	211	372	485	430	254	650	117
14	20	210	83	132	255	199	286	327	656	542	1550	78
15	106	433	86	133	228	186	254	240	361	379	670	62
16	109	448	102	158	214	182	382	216	218	231	383	57
17	83	e233	143	143	201	171	721	218	167	182	253	94
18	52	e139	162	156	192	158	482	214	485	155	197	118
19	42	e129	159	707	181	152	295	198	767	163	161	102
20	38	e122	272	2090	187	239	251	177	2460	218	140	80
21	84	e118	338	869	421	383	219	165	1470	204	125	66
22	136	e115	204	471	716	254	194	326	669	153	113	70
23	125	e112	164	380	531	196	177	252	418	133	105	79
24	85	e110	147	339	485	170	164	187	280	122	97	78
25	62	e107	138	388	388	153	151	151	249	108	88	67
26	53	e104	132	357	284	145	141	135	213	110	80	60
27	49	e102	124	321	243	137	139	131	180	105	73	55
28	64	e96	120	611	221	134	131	144	156	92	70	53
29	80	104	112	541	204	292	123	163	142	81	65	97
30	74	120	105	393	---	603	127	197	140	74	62	115
31	63	---	102	308	---	457	---	199	---	74	58	---
TOTAL	1653	3717	4001	10254	8726	7313	11914	8678	11428	4623	6204	2180
MEAN	53.3	124	129	331	301	236	397	280	381	149	200	72.7
MAX	136	448	338	2090	716	603	1800	701	2460	542	1550	162
MIN	13	49	83	96	179	134	123	131	122	73	50	41
CFSM	.47	1.10	1.14	2.93	2.66	2.09	3.51	2.48	3.37	1.32	1.77	.64
IN.	.54	1.22	1.32	3.38	2.87	2.41	3.92	2.86	3.76	1.52	2.04	.72

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1948 - 1996, BY WATER YEAR (WY)

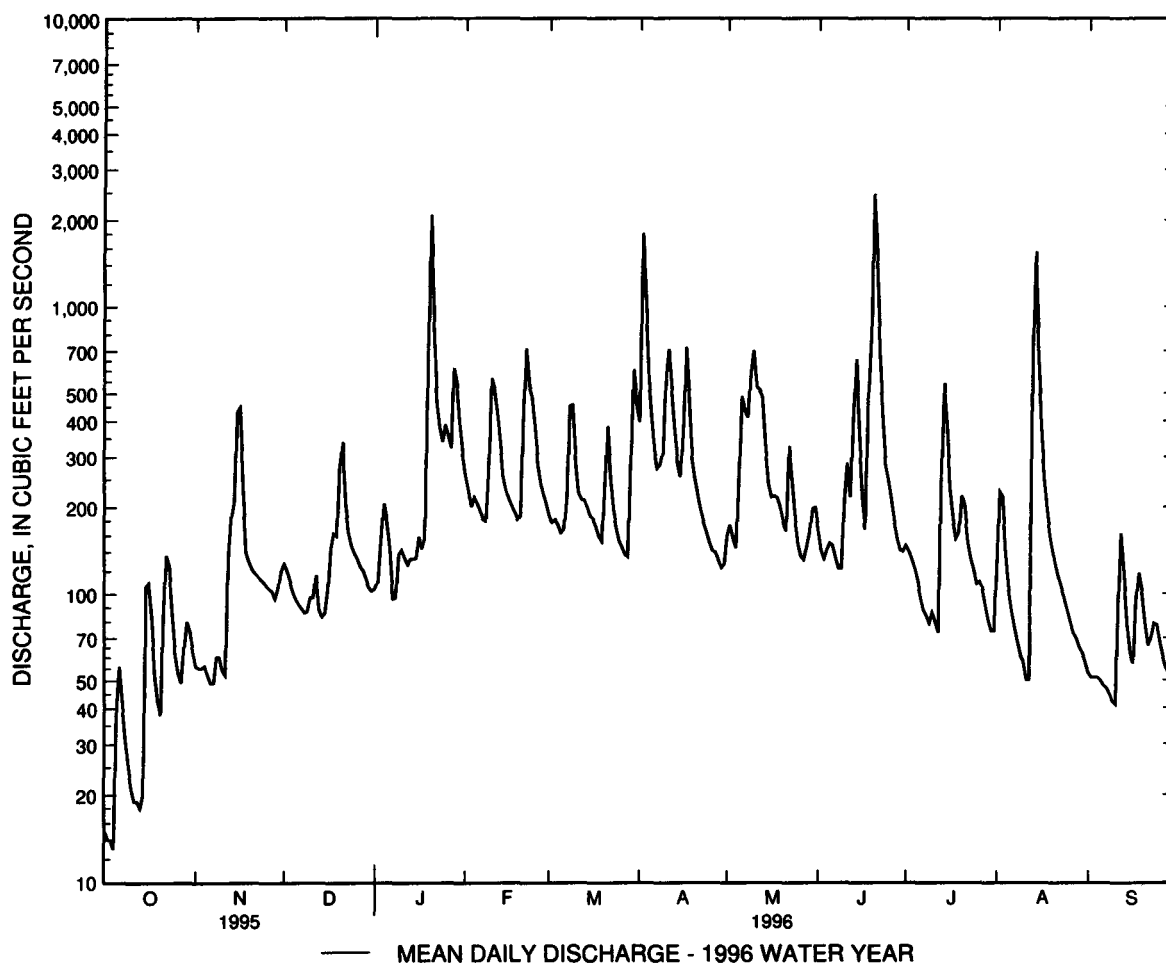
MEAN	52.0	88.3	143	199	218	264	201	134	95.8	59.7	85.2	46.6
MAX	402	476	475	559	646	826	649	457	381	421	829	323
(WY)	1972	1957	1973	1978	1979	1994	1983	1989	1996	1975	1967	1960
MIN	9.85	10.9	13.3	17.9	42.7	43.7	47.2	30.3	19.5	9.49	5.31	9.38
(WY)	1966	1966	1966	1966	1966	1966	1966	1977	1986	1977	1966	1987

01491000 CHOPTANK RIVER NEAR GREENSBORO, MD--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1948 - 1996	
ANNUAL TOTAL	34375.7		80691		131	
ANNUAL MEAN	94.2		220		237	
HIGHEST ANNUAL MEAN					26.6	
LOWEST ANNUAL MEAN					1.5	
HIGHEST DAILY MEAN	1050	Mar 10	2460	Jun 20	6160	Aug 4 1967
LOWEST DAILY MEAN	4.4	Sep 8	13	Oct 4	1.5	Aug 29 1966
ANNUAL SEVEN-DAY MINIMUM	5.2	Sep 3	22	Oct 8	2.2	Aug 26 1966
INSTANTANEOUS PEAK FLOW			2810	Jun 20	(a) 6970	Aug 4 1967
INSTANTANEOUS PEAK STAGE			9.32	Jan 20	14.47	Aug 4 1967
INSTANTANEOUS LOW FLOW			13	Oct 4	1.2	(b)
ANNUAL RUNOFF (CFSM)	.83		1.95		1.16	
ANNUAL RUNOFF (INCHES)	11.32		26.56		15.75	
10 PERCENT EXCEEDS	163		461		284	
50 PERCENT EXCEEDS	79		144		72	
90 PERCENT EXCEEDS	12		55		15	

a From rating curve extended above 3,600 ft³/s.

b Aug. 29, 1966, Sept. 3, 1987.



CHOPTANK RIVER BASIN

01491000 CHOPTANK RIVER NEAR GREENSBORO, MD--Continued

WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1974 to September 1981, October 1984 to September 1991.

WATER TEMPERATURE: October 1974 to September 1991.

SUSPENDED-SEDIMENT DISCHARGE: October 1980 to September 1991.

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

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE (water years 1975-81, 1988, 1990-91): Maximum daily, 313 microsiemens, Dec. 20, 1987; minimum daily, 40 microsiemens, Jan. 31, 1980.

WATER TEMPERATURE (water years 1975-81, 1985, 1988-91): Maximum daily, 28.5°C, Aug. 14, 1988; minimum daily, 0.0°C, on many days during winter periods.

SEDIMENT CONCENTRATION: Maximum daily mean, 107 mg/L, Dec. 26, 1986; minimum daily mean, 1 mg/L, on many days during water years 1982-91.

SEDIMENT LOAD: Maximum daily, 448 tons, Dec. 26, 1986; minimum daily, 0.02 ton, Aug. 30, Sept. 7, 1982, July 25, 1986, Oct. 16, 23, 26, 27, 1987, Sept. 23, 1988.

WATER QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	TEMPER- ATURE AIR (DEG C) (00020)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)
OCT 1995									
30...	1200	74	174	6.9	16.0	12.0	--	8.1	--
NOV									
28...	1100	107	160	6.7	9.0	18.5	760	9.4	81
JAN 1996									
16...	1100	154	160	6.7	0.5	0.5	775	10.8	74
19...	1200	563	114	6.7	5.0	17.5	748	10.3	82
20...	1230	2360	90	7.4	4.0	9.0	773	9.6	72
21...	1245	774	81	6.6	--	--	--	--	--
FEB									
13...	1245	325	122	6.8	1.5	-2.0	763	12.5	89
MAR									
27...	1200	150	131	7.2	11.0	7.0	777	9.6	85
APR									
17...	1515	731	96	7.0	12.5	13.0	761	--	--
MAY									
06...	1130	519	104	6.7	17.0	15.0	--	5.8	--
10...	0945	735	98	6.7	13.5	17.5	769	7.0	66
30...	1200	197	133	6.9	14.0	17.5	763	7.6	73
JUN									
18...	1545	783	96	6.5	22.5	27.5	760	4.7	55
19...	1400	727	90	6.6	23.0	26.0	759	4.9	57
20...	1830	2370	53	6.5	23.0	23.0	758	--	--
JUL									
14...	1415	602	106	6.8	23.0	31.0	760	5.9	69
AUG									
14...	1000	1820	54	6.5	19.5	24.5	764	5.9	64
SEP									
05...	1100	51	149	7.2	23.0	28.0	765	6.3	73

CHOPTANK RIVER BASIN

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01491000 CHOPTANK RIVER NEAR GREENSBORO, MD--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	ALKA- LINITY WAT DIS TOT IT FIELD MG/L AS CAC03 (39086)	BICAR- BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	NITRO- GEN, DIS- TOTAL (MG/L AS N) (00600)	NITRO- GEN, DIS- SOLVED (MG/L AS NO3) (71851)	NITRO- GEN, DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, DIS- SOLVED (MG/L AS N) (00608)
OCT 1995								
30...	14	17	18	1.2	4.1	0.006	0.940	<0.015
NOV								
28...	13	16	20	1.9	7.5	0.001	1.70	0.020
JAN 1996								
16...	10	13	19	1.9	7.1	0.002	1.60	0.050
19...	8	10	11	1.7	5.3	0.003	1.20	0.110
20...	8	10	6.2	1.5	3.0	0.012	0.680	0.140
21...	--	--	8.9	1.4	3.8	0.003	0.870	0.070
FEB								
13...	7	9	15	1.8	6.2	0.007	1.40	<0.015
MAR								
27...	17	20	15	1.7	6.2	0.009	1.40	0.020
APR								
17...	12	15	9.1	1.5	2.6	0.016	0.600	0.140
MAY								
06...	--	16	11	1.6	3.0	0.021	0.710	0.200
10...	15	18	11	2.0	4.3	0.021	1.00	0.210
30...	18	22	16	1.8	5.2	0.027	1.20	0.110
JUN								
18...	10	13	5.8	1.8	4.7	0.034	1.10	0.090
19...	11	14	10	2.0	4.1	0.025	0.950	0.140
20...	--	--	5.4	1.4	1.7	0.004	0.390	0.140
JUL								
14...	--	--	9.7	1.8	5.2	0.014	1.20	0.110
AUG								
14...	9	10	5.6	1.1	1.7	0.005	0.380	0.070
SEP								
05...	--	--	17	1.7	6.6	0.006	1.50	0.030

CHOPTANK RIVER BASIN

01491000 - CHOPTANK R NR GREENSBORO, MD--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT 1995									
30...	0.30	0.30	0.020	0.019	0.011	4.7	2	0.42	--
NOV									
28...	0.20	--	0.030	0.017	0.006	3.5	2	0.46	--
JAN 1996									
16...	0.30	0.40	0.030	0.012	0.009	6.4	1	0.46	--
19...	0.50	0.40	0.060	0.036	0.021	7.6	60	92	--
20...	0.80	0.60	0.190	0.031	0.020	12	90	572	--
21...	0.50	0.50	0.090	0.043	0.025	14	--	--	--
FEB									
13...	0.40	0.30	0.060	0.021	0.014	7.6	3	2.9	--
MAR									
27...	0.30	0.20	0.020	0.023	0.012	5.4	5	1.9	--
APR									
17...	0.90	0.70	0.110	0.049	0.028	27	24	47	--
MAY									
06...	0.90	0.60	0.110	0.046	0.032	12	12	17	--
10...	1.0	0.90	0.120	0.073	0.047	18	10	20	--
30...	0.60	0.50	0.100	0.071	0.055	8.6	6	3.4	--
JUN									
18...	0.70	0.40	0.170	0.046	0.036	20	41	86	--
19...	1.0	0.70	0.190	0.110	0.091	16	24	47	--
20...	1.0	0.70	0.200	0.110	<0.001	18	50	322	--
JUL									
14...	0.60	0.70	0.110	0.073	0.052	12	20	32	76
AUG									
14...	0.70	0.50	0.120	0.075	0.036	12	16	79	96
SEP									
05...	0.20	0.20	0.030	0.014	<0.001	4.1	2	0.28	--

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CHESTER RIVER BASIN

01493000 UNICORN BRANCH NEAR MILLINGTON, MD

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

DRAINAGE AREA.--19.7 mi².

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

REVISED RECORDS.--WSP 1382: 1952(P). WRD MD-DE-95-1: Drainage area.

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

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

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 180 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 20	0030	465	4.68	June 19	1815	*1,090	*5.98
Apr. 2	0845	212	3.72	June 21	1045	324	4.24
June 12	2045	184	3.54	Aug. 13	1630	525	4.84
June 13	1015	235	3.86				

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.3	16	36	28	43	32	52	45	27	44	84	22
2	7.5	16	32	28	41	34	163	37	25	41	94	19
3	8.1	16	28	31	40	34	96	33	27	40	50	21
4	7.7	15	35	42	40	30	59	32	28	38	39	21
5	22	14	36	37	39	31	48	90	28	34	34	22
6	19	14	34	32	38	39	42	78	24	33	31	22
7	11	15	33	31	37	61	43	56	22	32	29	20
8	9.4	18	24	31	37	106	44	73	20	30	27	17
9	8.7	16	19	30	38	64	48	109	28	29	27	19
10	8.6	15	20	30	63	47	84	98	80	27	26	18
11	8.3	19	21	29	64	44	83	62	65	25	22	23
12	8.1	98	25	29	57	44	56	74	59	29	29	23
13	8.0	57	30	29	46	42	47	55	176	127	302	21
14	17	47	29	29	42	40	41	42	82	104	204	20
15	44	94	25	29	41	40	38	37	41	53	90	19
16	18	61	21	29	40	41	74	39	32	39	56	22
17	12	41	41	29	40	38	87	40	29	31	46	50
18	11	34	42	30	39	35	53	37	60	29	40	47
19	10	31	44	186	39	36	44	35	489	51	36	27
20	11	29	69	302	42	53	41	31	449	53	32	22
21	34	28	49	110	46	47	38	30	269	40	31	21
22	34	26	38	65	51	40	36	32	129	33	29	31
23	17	26	34	54	47	37	35	29	79	31	27	20
24	14	28	32	53	50	33	32	27	60	29	27	7.7
25	12	27	32	63	44	31	31	25	60	27	26	8.1
26	12	26	31	51	39	30	30	25	50	53	23	25
27	14	25	34	51	37	28	29	29	43	44	23	43
28	54	24	34	94	36	32	28	35	40	33	25	33
29	34	39	29	62	34	81	28	38	39	28	24	27
30	19	45	26	52	---	87	34	41	46	28	24	21
31	17	---	24	47	---	53	---	32	---	31	23	---
TOTAL	517.7	960	1007	1743	1250	1390	1564	1446	2606	1266	1580	711.8
MEAN	16.7	32.0	32.5	56.2	43.1	44.8	52.1	46.6	86.9	40.8	51.0	23.7
MAX	54	98	69	302	64	106	163	109	489	127	302	50
MIN	7.3	14	19	28	34	28	28	25	20	25	22	7.7
CFSM	.85	1.63	1.65	2.86	2.19	2.28	2.65	2.37	4.41	2.08	2.59	1.21
IN.	.98	1.81	1.90	3.29	2.36	2.63	2.96	2.73	4.93	2.39	2.99	1.35

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1948 - 1996, BY WATER YEAR (WY)

	14.3	17.1	24.1	32.6	36.3	42.6	36.4	26.7	21.4	16.7	17.8	14.5
MEAN	14.3	17.1	24.1	32.6	36.3	42.6	36.4	26.7	21.4	16.7	17.8	14.5
MAX	91.5	65.4	67.2	83.7	83.7	105	109	66.8	86.9	52.5	62.5	92.1
(WY)	1972	1972	1973	1978	1961	1994	1983	1989	1996	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

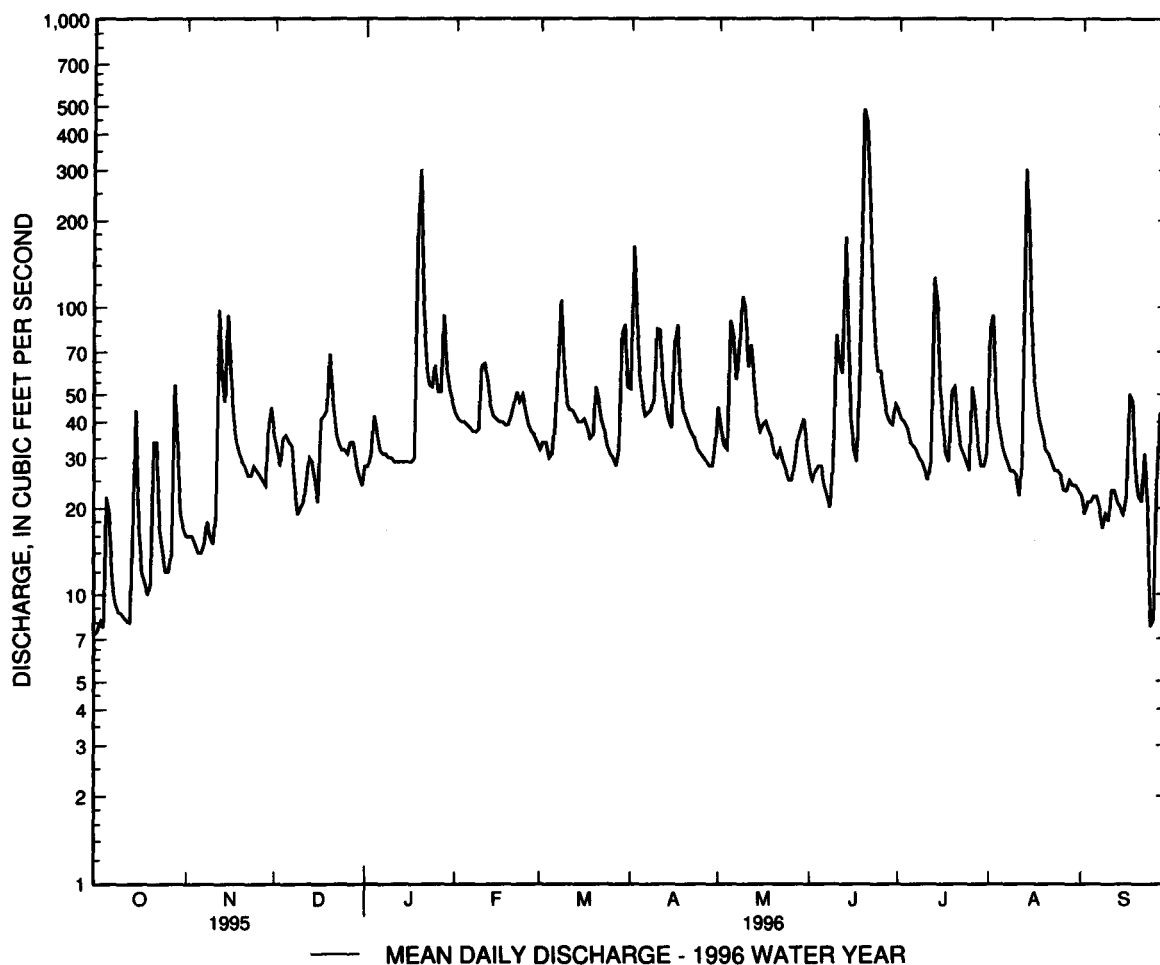
01493000 UNICORN BRANCH NEAR MILLINGTON, MD--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1948 - 1996	
ANNUAL TOTAL	7520.5		16041.5			
ANNUAL MEAN	20.6		43.8		24.9	
HIGHEST ANNUAL MEAN					51.8	1972
LOWEST ANNUAL MEAN					7.08	1966
HIGHEST DAILY MEAN	150	Mar 9	489	Jun 19	685	Sep 13 1960
LOWEST DAILY MEAN	4.0	Aug 27	7.3	Oct 1	.10	Jun 9 1965
ANNUAL SEVEN-DAY MINIMUM	5.1	Aug 24	8.9	Oct 7	.14	Jun 8 1965
INSTANTANEOUS PEAK FLOW			(a)1090	Jun 19	(a)1090	Jun 19 1996
INSTANTANEOUS PEAK STAGE			5.98	Jun 19	7.17	Sep 12 1960
INSTANTANEOUS LOW FLOW			6.5	(b)	.00	(c)
ANNUAL RUNOFF (CFSM)	1.05		2.23		1.26	
ANNUAL RUNOFF (INCHES)	14.22		30.32		17.18	
10 PERCENT EXCEEDS	34		70		47	
50 PERCENT EXCEEDS	18		34		16	
90 PERCENT EXCEEDS	6.1		18		7.3	

a From rating curve extended above 600 ft³/s.

b Oct. 13, 14.

c No flow for part of each day June 13, 14, 1965, caused by regulation at Unicorn Lake Dam.



CHESTER RIVER BASIN

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 mi².

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

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

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

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

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 200 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 28	0815	376	5.44	June 19	1345	834	7.38
Jan. 19	1630	*936	*7.69	June 21	1000	320	5.10
June 18	0415	240	4.47	Aug. 13	0830	212	4.21

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.8	6.1	e10	8.8	7.6	7.5	36	11	7.4	e12	19	6.1
2	2.6	7.0	8.1	16	8.3	9.1	93	7.8	7.0	11	10	6.0
3	2.5	6.5	8.0	e32	8.7	9.0	20	7.7	8.2	13	8.8	e6.0
4	2.7	6.1	7.3	14	9.3	7.4	12	e8.0	8.6	9.6	8.1	6.2
5	e15	5.5	6.9	9.5	7.6	8.3	10	20	10	7.9	7.7	e6.0
6	e13	5.5	7.0	7.4	7.5	11	9.8	19	7.5	7.5	7.6	e6.0
7	4.3	e7.0	6.6	5.5	8.2	21	11	11	6.8	7.5	7.4	e5.8
8	3.2	8.5	6.5	6.6	11	21	10	19	6.7	7.5	7.3	5.8
9	2.9	6.2	8.4	10	19	11	e15	e45	12	8.2	7.5	e5.6
10	3.1	5.4	8.4	11	19	9.7	25	23	22	8.9	8.0	6.0
11	3.1	e11	6.2	9.7	15	9.8	13	15	20	7.7	6.8	6.6
12	3.1	e105	6.0	9.7	11	10	11	18	19	8.9	9.0	7.4
13	2.9	e23	6.5	11	8.5	9.8	9.9	10	39	e105	e135	e8.0
14	e13	39	7.4	9.9	9.3	9.1	9.0	8.4	11	33	33	8.1
15	73	e73	8.2	9.5	9.7	10	8.7	8.0	7.6	29	12	6.0
16	16	29	e20	8.7	9.0	9.7	e20	11	6.6	27	9.2	7.7
17	4.8	13	19	9.5	9.3	8.4	14	10	28	11	8.6	e40
18	3.1	8.6	11	11	9.1	8.6	10	9.2	143	8.6	7.7	15
19	3.0	7.4	e13	421	8.6	15	9.6	8.8	377	22	7.2	8.2
20	3.2	7.0	13	e125	15	e20	9.4	8.8	103	16	7.2	6.4
21	57	6.8	9.3	e24	31	11	8.9	8.7	194	9.2	6.9	6.2
22	37	6.5	8.0	14	15	9.1	8.5	12	36	8.3	6.9	46
23	9.7	6.5	7.8	11	12	8.2	8.6	8.6	14	9.3	7.2	20
24	5.2	9.3	8.0	e14	10	7.6	8.6	7.5	11	8.6	7.0	e9.5
25	4.3	7.8	8.0	16	9.0	7.7	8.2	6.8	13	8.1	7.1	e7.5
26	3.9	6.7	7.7	10	8.0	7.6	8.3	6.6	9.3	e40	6.9	6.9
27	e12	6.6	6.7	23	8.2	7.4	7.9	9.8	8.1	15	6.8	e9.0
28	e255	6.9	7.2	20	8.5	11	6.9	13	8.9	8.8	6.9	e18
29	38	e35	7.1	11	8.0	53	7.5	13	7.3	8.3	9.1	32
30	12	19	7.1	9.4	---	22	10	11	e14	10	11	12
31	7.2	---	7.8	8.7	---	12	---	8.0	---	e16	6.8	---
TOTAL	619.6	490.9	272.2	906.9	320.4	382.0	439.8	383.7	1166.0	502.9	409.7	340.0
MEAN	20.0	16.4	8.78	29.3	11.0	12.3	14.7	12.4	38.9	16.2	13.2	11.3
MAX	255	105	20	421	31	53	93	45	377	105	135	46
MIN	2.5	5.4	6.0	5.5	7.5	7.4	6.9	6.6	6.6	7.5	6.8	5.6
CFSM	1.57	1.29	.69	2.30	.87	.97	1.15	.97	3.06	1.28	1.04	.89
IN.	1.81	1.44	.80	2.66	.94	1.12	1.29	1.12	3.42	1.47	1.20	1.00

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 1996, BY WATER YEAR (WY)

MEAN	7.41	9.06	11.4	13.8	14.0	13.9	10.9	9.39	13.4	8.73	8.69	7.74
MAX	32.3	30.7	37.8	45.6	47.1	36.7	29.5	20.6	113	26.9	27.8	32.4
(WY)	1972	1973	1984	1978	1979	1994	1983	1990	1972	1989	1971	1960
MIN	2.98	3.14	3.21	3.74	5.09	4.47	4.49	3.77	1.96	1.11	1.41	2.07
(WY)	1964	1966	1966	1966	1968	1966	1966	1955	1966	1966	1966	1967

01493500 MORGAN CREEK NEAR KENNEDYVILLE, MD--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1951 - 1996	
ANNUAL TOTAL	3225.2		6234.1			
ANNUAL MEAN	8.84		17.0		10.7	
HIGHEST ANNUAL MEAN					24.2	1972
LOWEST ANNUAL MEAN					3.67	1966
HIGHEST DAILY MEAN	255	Oct 28	421	Jan 19	2810	Jun 22 1972
LOWEST DAILY MEAN	1.3	(a)	2.5	Oct 3	.70	(b)
ANNUAL SEVEN-DAY MINIMUM	1.5	Aug 30	3.2	Oct 7	.71	Sep 7 1966
INSTANTANEOUS PEAK FLOW			936	Jan 19	(c) 7500	Jun 22 1972
INSTANTANEOUS PEAK STAGE			7.69	Jan 19	13.07	Jun 22 1972
INSTANTANEOUS LOW FLOW			2.4	(d)	.60	(f)
ANNUAL RUNOFF (CFSM)	.70		1.34		.84	
ANNUAL RUNOFF (INCHES)	9.45		18.26		11.46	
10 PERCENT EXCEEDS	12		24		16	
50 PERCENT EXCEEDS	5.5		8.9		6.3	
90 PERCENT EXCEEDS	2.5		6.2		3.2	

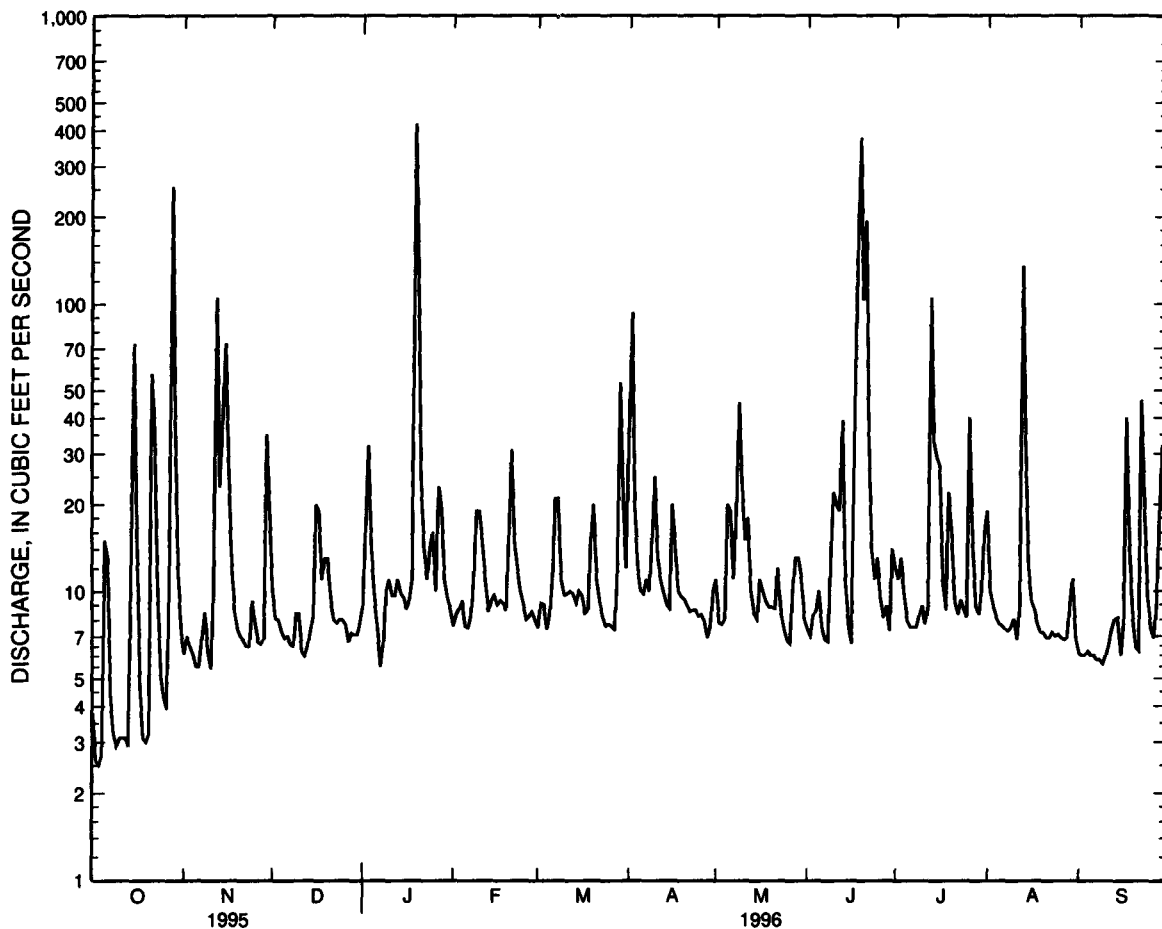
a Sept. 2, 3.

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

c From rating curve extended above 640 ft³/s on basis of culvert and flow-over-road measurement of peak flow.

d Oct. 2-4.

f Aug. 28, 29, 1966.



— MEAN DAILY DISCHARGE - 1996 WATER YEAR

ELK RIVER BASIN

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 mi².

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

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

GAGE.--Water-stage recorder. Datum of gage is 68.69 ft above sea level. Prior to May 17, 1946, nonrecording gage at bridge 100 ft upstream at same datum.

REMARKS.--Records good except those for estimated daily discharges (ice effect), which are fair. Slight diurnal fluctuation caused by mills upstream from station. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 1884 reached a stage of about 19 ft, from information by local residents; discharge, about 18,000 ft³/s.

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

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 12	0345	1,760	5.78	June 11	1545	3,160	7.06
Jan. 19	1930	*7,030	*11.29	Aug. 13	0730	2,690	6.65
Jan. 27	1630	2,870	6.81	Sept. 22	1245	2,140	6.14

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	33	41	37	76	56	186	126	51	62	191	54
2	17	48	41	124	71	59	364	79	49	49	67	52
3	17	46	37	291	69	59	122	84	49	51	57	51
4	17	37	37	102	e65	51	101	81	56	49	54	50
5	62	34	35	58	e63	54	91	84	89	41	51	51
6	144	32	36	48	e64	73	85	178	53	38	47	50
7	30	35	35	e32	e66	189	98	93	49	37	45	67
8	20	57	34	e50	e68	150	100	107	48	38	44	53
9	17	40	37	e62	273	80	114	156	81	45	64	50
10	15	34	38	e65	129	73	141	104	61	40	81	48
11	14	55	e36	67	89	71	97	178	346	35	49	48
12	14	489	e35	63	82	69	87	251	89	35	52	57
13	13	89	34	79	63	67	81	96	62	511	924	54
14	47	193	35	67	64	63	77	82	53	101	125	77
15	143	184	36	69	60	89	74	76	47	63	82	50
16	35	80	96	67	60	85	536	100	44	59	76	56
17	24	58	92	e62	60	65	157	88	43	48	136	451
18	21	51	53	e60	61	62	110	78	48	45	70	100
19	19	50	63	3260	60	113	98	74	261	94	62	67
20	18	45	57	355	79	257	93	67	130	64	59	57
21	378	42	59	134	261	95	87	62	70	45	65	53
22	90	40	46	95	116	78	83	62	54	43	65	492
23	38	38	42	80	99	70	84	58	48	54	59	100
24	30	48	39	297	90	65	89	55	45	47	58	67
25	27	41	e36	213	76	63	78	52	46	43	55	61
26	25	38	e35	95	68	61	76	52	41	96	53	54
27	24	38	e34	944	65	57	80	60	39	52	163	52
28	243	37	38	218	64	65	71	70	38	43	143	54
29	59	49	34	114	59	384	75	78	38	44	67	153
30	38	47	36	97	---	139	99	67	91	97	59	65
31	33	---	35	90	---	95	---	55	---	141	56	---
TOTAL	1689	2108	1342	7395	2520	2957	3634	2853	2219	2210	3179	2694
MEAN	54.5	70.3	43.3	239	86.9	95.4	121	92.0	74.0	71.3	103	89.8
MAX	378	489	96	3260	273	384	536	251	346	511	924	492
MIN	13	32	34	32	59	51	71	52	38	35	44	48
CFSM	1.04	1.34	.82	4.54	1.65	1.81	2.30	1.75	1.41	1.36	1.95	1.71
IN.	1.19	1.49	.95	5.23	1.78	2.09	2.57	2.02	1.57	1.56	2.25	1.91

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1932 - 1996, BY WATER YEAR (WY)

MEAN	40.8	54.5	67.0	87.0	98.4	101	90.3	77.2	59.4	57.6	52.9	44.2
MAX	133	115	152	283	236	247	191	160	216	248	241	134
(WY)	1972	1973	1984	1979	1936	1994	1993	1958	1972	1975	1933	1960
MIN	11.1	17.1	18.7	19.2	41.4	35.6	34.5	26.8	21.4	10.5	8.32	9.95
(WY)	1964	1966	1966	1966	1947	1981	1963	1955	1963	1963	1966	1932

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

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1932 - 1996	
ANNUAL TOTAL	16170.9		34800			
ANNUAL MEAN	44.3		95.1		69.2	
HIGHEST ANNUAL MEAN					109	
LOWEST ANNUAL MEAN					35.4	
HIGHEST DAILY MEAN	828	Jan 20	3260	Jan 19	3260	Jan 19 1996
LOWEST DAILY MEAN	6.4	Sep 4	13	Oct 13	4.8	(a)
ANNUAL SEVEN-DAY MINIMUM	6.8	Sep 2	18	Oct 7	4.9	Sep 7 1966
INSTANTANEOUS PEAK FLOW			7030	Jan 19	(b) 10600	Jul 5 1937
INSTANTANEOUS PEAK STAGE			11.29	Jan 19	(c) 14.50	Jul 5 1937
INSTANTANEOUS LOW FLOW			12	(d)	(f) 4.5	Jan 21 1955
ANNUAL RUNOFF (CFSM)	.84		1.81		1.32	
ANNUAL RUNOFF (INCHES)	11.44		24.61		17.88	
10 PERCENT EXCEEDS	61		143		114	
50 PERCENT EXCEEDS	35		62		46	
90 PERCENT EXCEEDS	13		35		20	

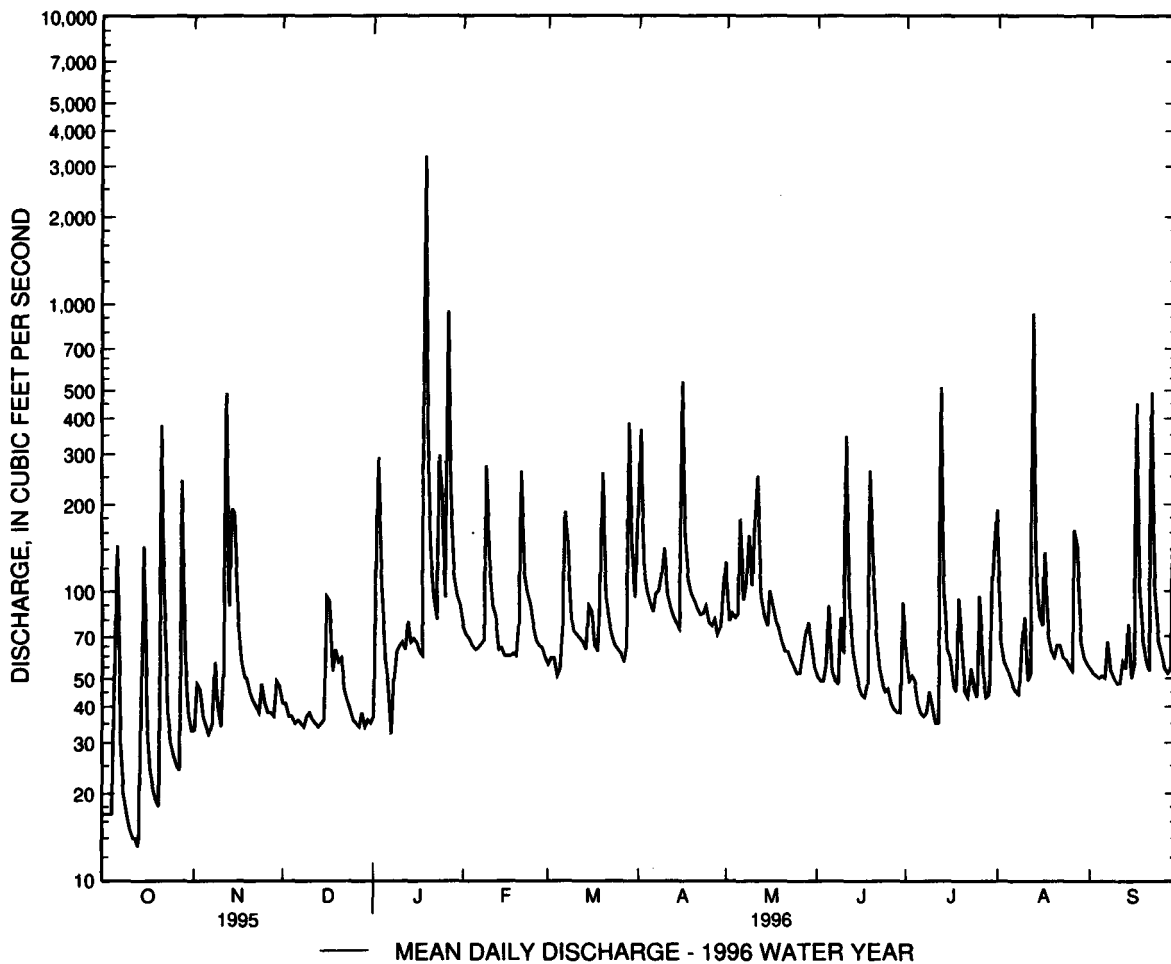
a Sept. 8-10, 1966.

b From rating curve extended above 1,700 ft³/s on basis of velocity-area and conveyance studies.

c From floodmarks.

d Oct. 13, 14.

f Result of freezeup.



ELK RIVER BASIN

01495900 ELK RIVER NEAR TOWN POINT, MD

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

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

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1981 to November 1985, October 1986 to current year.

WATER TEMPERATURE: October 1981 to November 1985, October 1986 to current year.

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

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

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE (water years 1982-85, 1987-89, 1991-95): Maximum, 19,900 microsiemens, Oct. 26, 1982; minimum, 117 microsiemens, July 21-23, 28, 1984.

WATER TEMPERATURE (water years 1982-85, 1987-95): Maximum, 33.0°C, Aug. 6, 1988; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 14,900 microsiemens, Jan. 12; minimum, 167 microsiemens, March 5.

WATER TEMPERATURE: Maximum, 29.5°C, Aug. 25; minimum, 0.2°C on many days during winter periods.

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	14100	12100	13000	1190	1030	1100	1820	1220	1510	2640	1690	2410
2	13100	11500	12500	1360	1120	1200	1310	949	1140	4510	2640	3420
3	12500	11300	11900	1320	1120	1230	1080	654	883	10900	4200	7190
4	12500	11400	12200	1390	1170	1240	811	653	749	8330	6270	7510
5	12200	10700	11700	1750	1080	1350	784	717	749	8290	6230	7080
6	12100	10800	11400	1080	842	973	849	469	815	6550	5210	5730
7	11800	10500	11200	977	623	903	825	666	752	---	---	---
8	11800	10100	10900	913	623	726	711	621	659	11600	4820	6180
9	11700	9310	10900	1160	489	815	665	596	615	12300	10900	11300
10	12000	10300	11300	915	559	651	771	551	630	12300	11400	12000
11	11400	11100	11300	627	492	548	594	351	431	11700	10600	11200
12	11200	10200	10800	897	403	633	570	480	516	14900	11300	12300
13	10400	9420	9900	988	740	809	523	413	462	13200	9310	10800
14	9620	8940	9340	1100	517	702	413	346	378	10500	7950	9550
15	9040	8640	8810	3000	1100	2000	518	324	410	8670	8110	8370
16	8870	6270	7180	1760	791	1140	3180	453	884	9550	8180	8760
17	7060	5840	6170	1080	542	788	4370	1230	2180	10300	8670	9380
18	6910	6040	6340	883	408	648	4890	2960	3690	9050	8170	8560
19	6730	6310	6480	705	385	544	4450	2410	3470	9710	8130	8600
20	6720	6520	6580	955	432	731	6660	4450	5770	8210	4560	7500
21	6750	5240	6540	775	455	646	6420	3950	4850	6150	3460	4660
22	6850	6490	6760	982	572	827	3950	2740	3280	4780	3340	4050
23	6600	5220	5900	823	434	668	3760	2980	3240	3340	2280	2850
24	5700	2920	4970	642	435	554	4200	3180	3380	2280	1080	1820
25	3580	2730	3190	781	642	683	3440	2910	3130	1980	821	1220
26	3380	2760	3130	1010	735	839	2930	2570	2800	1280	721	930
27	3200	2760	3020	1080	759	979	2570	1360	2270	1160	541	793
28	3100	2270	2680	988	550	767	2080	1360	1620	1400	360	682
29	3270	1730	2230	825	663	760	2080	1560	1780	961	480	599
30	2430	1160	1680	1820	547	985	1850	1570	1690	501	380	413
31	1750	877	1180	---	---	---	2020	1630	1800	521	360	419
MONTH	14100	877	7780	3000	385	881	6660	324	1820	---	---	---

ELK RIVER BASIN

01495900 ELK RIVER NEAR TOWN POINT, MD--Continued

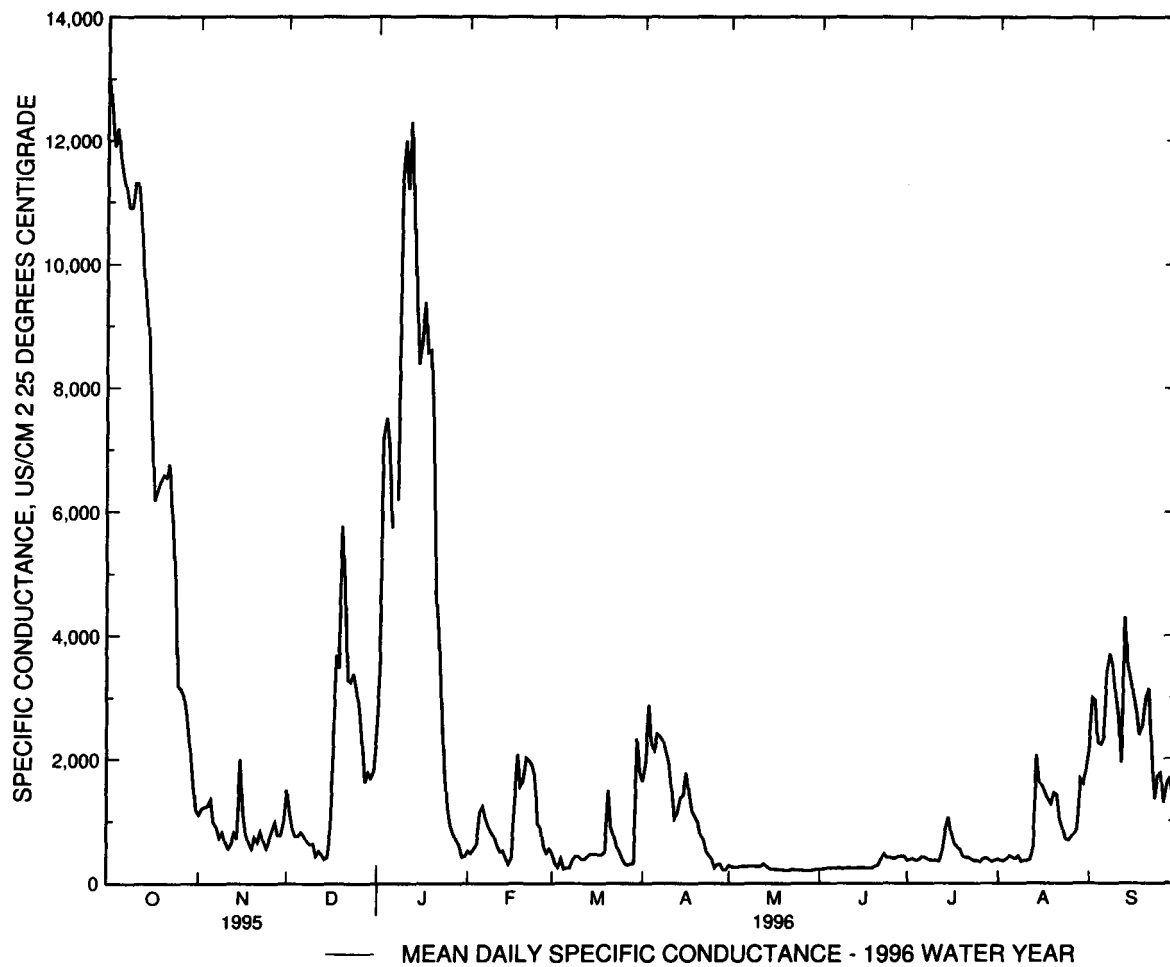
SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY				MARCH			APRIL			MAY		
1	541	420	503	705	310	467	1760	1470	1630	358	201	279
2	541	440	468	374	270	312	2000	1760	1920	295	201	252
3	621	501	539	313	187	237	4060	1960	2870	290	223	253
4	881	501	618	606	209	388	2590	1750	2240	312	223	252
5	1440	861	1130	313	167	212	2220	1970	2130	290	223	257
6	1400	1040	1230	314	168	238	2540	2190	2400	290	245	270
7	1100	961	1040	273	189	228	2410	2230	2360	267	222	248
8	961	841	908	528	252	363	2410	2140	2290	267	244	264
9	861	761	816	513	380	426	2170	2060	2110	288	244	261
10	781	641	741	444	381	425	2080	1840	1930	288	244	261
11	661	480	595	403	340	373	1930	977	1510	266	221	254
12	561	440	499	404	340	364	1160	933	1030	354	199	260
13	581	440	516	473	362	421	1370	980	1130	332	265	299
14	539	280	398	491	427	458	1420	1300	1370	319	221	259
15	360	260	294	492	449	461	1570	1260	1410	243	198	221
16	743	300	396	493	429	457	1970	1490	1770	220	198	210
17	2600	422	1320	473	430	450	1590	1310	1450	220	198	213
18	2700	1620	2070	474	431	454	1380	992	1160	220	198	207
19	1680	1400	1550	1210	432	501	1110	1020	1070	220	197	204
20	2410	1360	1640	1880	932	1490	1060	788	983	219	197	201
21	2360	1710	2010	1040	697	895	927	533	755	219	175	197
22	2120	1810	1970	827	696	757	1230	534	680	219	197	206
23	2000	1810	1900	719	414	580	611	316	497	219	197	204
24	2070	1330	1730	568	397	500	677	248	433	218	196	200
25	1520	471	943	459	267	384	655	270	380	196	196	196
26	1250	707	885	307	263	295	270	203	234	196	196	196
27	707	516	582	329	263	281	337	202	289	196	174	194
28	537	330	473	330	264	295	359	202	296	196	174	192
29	787	310	545	1380	265	305	224	179	206	195	174	193
30	---	---	---	3300	1380	2320	224	179	204	217	195	202
31	---	---	---	2190	1460	1800	---	---	---	238	195	215
MONTH	2700	260	976	3300	167	553	4060	179	1290	358	174	230
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE				JULY			AUGUST			SEPTEMBER		
1	238	195	215	574	307	359	506	330	377	2800	1960	2160
2	238	194	219	470	327	369	488	331	353	4600	2280	2990
3	238	216	224	532	327	382	468	332	349	3810	2490	2940
4	259	216	237	408	326	352	491	332	382	2490	2190	2260
5	237	215	230	407	346	367	531	372	431	2430	2150	2230
6	237	217	237	551	366	417	473	374	404	2650	2170	2330
7	237	215	234	530	366	408	494	355	382	3820	2630	3390
8	236	215	233	509	325	384	574	375	429	3880	3290	3700
9	236	193	222	487	325	365	376	317	342	3810	2970	3500
10	236	214	231	487	324	364	497	298	357	3320	2700	3020
11	251	214	235	528	304	348	498	298	355	2890	1440	2680
12	251	230	233	465	283	343	478	319	369	3080	1370	1930
13	250	229	234	1230	283	519	902	300	578	5780	1510	4300
14	250	229	235	1170	546	843	3570	902	2060	4560	1800	3540
15	250	229	239	1190	767	1050	1930	1290	1620	3800	1650	3310
16	250	229	237	1030	625	794	1760	1210	1560	3410	2090	3020
17	270	228	236	726	565	630	1620	1110	1450	2950	2600	2770
18	249	228	235	685	523	576	1460	951	1350	3690	1570	2380
19	249	228	234	644	381	532	1520	996	1270	3830	1840	2530
20	435	228	263	583	381	430	1670	1160	1450	3770	1840	2980
21	331	248	280	522	361	403	1670	979	1420	3780	2710	3140
22	538	269	384	542	340	408	1310	778	1040	2850	1540	2200
23	517	413	459	501	342	374	983	759	880	2030	1000	1350
24	537	351	406	381	343	350	944	617	701	1860	1540	1720
25	474	371	407	382	343	357	761	638	685	1840	1700	1770
26	536	350	390	345	325	333	847	662	752	1840	1100	1290
27	556	329	390	481	326	385	910	662	795	1780	1100	1590
28	617	369	416	482	327	394	1020	725	875	1760	1510	1670
29	472	369	422	502	328	365	2430	872	1680	1510	1240	1420
30	554	369	424	484	309	337	2020	1270	1600	1340	1110	1220
31	---	---	---	466	310	360	2510	1550	1820	---	---	---
MONTH	617	193	288	1230	283	448	3570	298	907	5780	1000	2510

ELK RIVER BASIN

01495900 ELK RIVER NEAR TOWN POINT, MD--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996



ELK RIVER BASIN

01495900 ELK RIVER NEAR TOWN POINT, MD--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER				NOVEMBER			DECEMBER			JANUARY		
1	21.0	19.0	19.9	14.2	13.4	13.8	6.6	5.7	6.2	.9	.3	.6
2	21.5	19.4	20.3	15.4	14.0	14.6	6.6	5.2	5.9	.6	.2	.4
3	21.6	20.0	20.8	15.8	14.7	15.2	6.5	4.8	5.7	1.2	.2	.5
4	21.1	20.6	20.8	14.7	10.8	12.1	7.2	6.1	6.5	.4	.2	.2
5	21.2	20.5	20.8	11.5	9.3	10.6	6.2	4.8	5.6	.2	.2	.2
6	22.5	20.9	21.6	11.4	9.9	10.8	6.1	4.9	5.4	.3	.2	.2
7	22.7	21.7	22.0	10.9	10.1	10.5	5.3	4.2	4.8	.3	.2	.2
8	21.7	20.6	21.1	10.9	8.1	9.8	4.2	3.1	3.8	.2	.2	.2
9	21.4	19.3	20.4	8.4	6.9	7.6	4.1	3.0	3.4	.2	.2	.2
10	21.5	19.5	20.5	8.4	7.1	7.8	3.0	.7	1.3	.3	.2	.2
11	21.6	19.7	20.6	9.9	8.3	9.0	1.1	.7	.7	.2	.2	.2
12	21.7	20.0	20.9	9.6	6.6	7.9	1.4	.7	.9	.2	.2	.2
13	21.7	20.1	20.9	7.4	6.4	7.0	1.3	.7	.9	.4	.2	.2
14	21.3	20.6	21.0	8.3	6.8	7.2	1.1	.6	.7	.4	.2	.3
15	20.6	17.7	19.2	9.2	6.9	8.4	1.9	.6	1.1	.7	.2	.2
16	17.7	15.9	17.1	7.1	6.2	6.7	2.3	1.2	1.8	.9	.2	.4
17	18.5	15.5	16.8	7.6	6.0	6.8	2.5	1.1	1.8	.8	.2	.4
18	17.7	15.8	16.7	7.2	6.4	6.8	2.5	1.5	2.0	1.0	.2	.5
19	18.4	16.0	17.1	7.6	6.6	7.1	2.2	.5	1.3	.5	.2	.2
20	18.0	16.6	17.3	7.8	6.2	7.0	1.1	.5	.7	.7	.2	.3
21	18.0	15.9	17.1	8.0	6.8	7.2	.8	.5	.5	.4	.2	.2
22	16.6	14.9	15.8	6.9	5.3	5.9	.5	.5	.5	.3	.2	.2
23	17.2	15.3	16.2	6.0	5.1	5.6	1.1	.5	.6	.2	.2	.2
24	17.3	15.7	16.6	6.5	5.5	5.9	.9	.4	.5	1.1	.2	.5
25	16.9	15.6	16.3	5.7	4.5	5.1	.8	.4	.4	.9	.2	.4
26	16.7	14.9	15.9	6.4	5.1	5.7	.5	.4	.4	1.2	.2	.6
27	16.3	15.1	15.9	7.1	6.1	6.6	.8	.4	.5	2.1	.9	1.6
28	16.6	15.4	16.2	8.0	6.9	7.4	1.0	.4	.6	1.9	.4	1.1
29	15.5	12.7	14.3	7.2	5.4	6.2	.7	.3	.4	1.6	.6	1.3
30	13.9	12.5	13.3	6.4	3.9	5.0	.6	.3	.4	2.4	1.1	1.7
31	14.3	13.1	13.6	---	---	---	.8	.3	.5	2.0	.2	1.2
MONTH	22.7	12.5	18.3	15.8	3.9	8.2	7.2	.3	2.1	2.4	.2	.5
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY				MARCH			APRIL			MAY		
1	1.0	.2	.4	4.8	2.0	3.4	8.8	8.1	8.5	17.2	14.0	15.7
2	1.0	.2	.4	5.1	3.3	4.2	9.9	7.1	8.3	17.7	15.1	16.5
3	.8	.2	.4	4.4	1.5	3.4	9.9	7.5	8.7	17.1	16.0	16.6
4	.9	.2	.7	3.7	.3	1.9	11.2	8.4	9.6	17.6	16.1	16.7
5	.7	.2	.4	5.0	2.3	3.7	9.9	8.2	9.0	19.5	16.5	17.9
6	1.1	.2	.6	5.6	4.6	5.0	9.1	7.7	8.5	18.0	14.4	16.7
7	.8	.2	.4	4.9	2.8	3.9	8.9	7.4	8.3	16.7	13.9	15.6
8	.9	.2	.4	2.8	.3	1.3	9.4	6.7	8.2	16.6	15.2	15.9
9	.7	.2	.3	.5	.3	.3	8.9	7.1	8.1	15.9	15.3	15.6
10	.7	.2	.3	1.9	.3	1.1	9.0	6.5	7.7	16.7	15.1	15.9
11	.5	.2	.2	2.9	.3	1.7	10.5	7.2	8.9	18.8	16.0	17.0
12	.2	.2	.2	4.9	1.5	3.2	11.7	9.2	10.4	16.5	12.9	15.4
13	.8	.2	.3	4.9	3.0	3.9	12.5	10.3	11.1	16.8	11.6	14.2
14	.8	.2	.4	6.0	3.6	4.7	13.3	10.3	11.6	17.5	13.4	15.3
15	.9	.2	.4	5.6	4.5	5.1	11.8	10.1	10.9	16.2	14.7	15.5
16	.3	.2	.2	7.7	4.2	5.8	11.4	10.4	10.9	15.3	14.6	14.8
17	.3	.2	.2	6.0	5.0	5.5	11.5	9.5	10.5	16.3	14.5	15.5
18	.3	.2	.2	7.6	5.1	6.4	13.1	9.5	11.2	17.6	15.6	16.3
19	.5	.2	.2	7.0	5.9	6.6	13.1	11.6	12.4	18.5	16.4	17.4
20	.5	.2	.3	5.9	5.5	5.6	14.1	12.6	13.2	19.7	17.4	18.4
21	1.4	.5	.9	6.1	5.3	5.7	15.0	13.5	14.2	20.2	18.7	19.3
22	1.7	1.0	1.3	6.0	4.3	5.2	15.4	13.9	14.6	21.4	19.5	20.5
23	2.4	1.5	1.9	5.8	4.1	4.9	15.9	14.7	15.1	21.7	19.9	20.9
24	3.8	2.3	3.0	7.3	4.0	5.7	16.7	12.1	14.4	23.1	20.6	21.9
25	5.6	3.0	4.1	8.0	5.7	6.9	14.6	13.3	14.0	22.2	18.6	20.5
26	5.4	4.0	4.8	9.7	7.2	8.4	14.5	13.6	14.0	20.3	18.9	19.6
27	5.8	4.5	5.1	10.1	5.1	7.8	16.5	12.8	14.4	19.1	18.3	18.6
28	5.9	3.7	5.1	7.5	5.5	6.8	16.0	13.4	14.5	18.3	17.5	18.0
29	4.6	2.2	3.2	6.6	5.2	5.8	16.3	14.3	15.1	17.6	16.6	17.3
30	---	---	---	8.6	5.9	7.0	16.7	15.0	16.0	19.3	16.0	17.5
31	---	---	---	10.2	6.7	8.2	---	---	---	20.4	16.6	18.4
MONTH	5.9	.2	1.3	10.2	.3	4.8	16.7	6.5	11.4	23.1	11.6	17.3

ELK RIVER BASIN

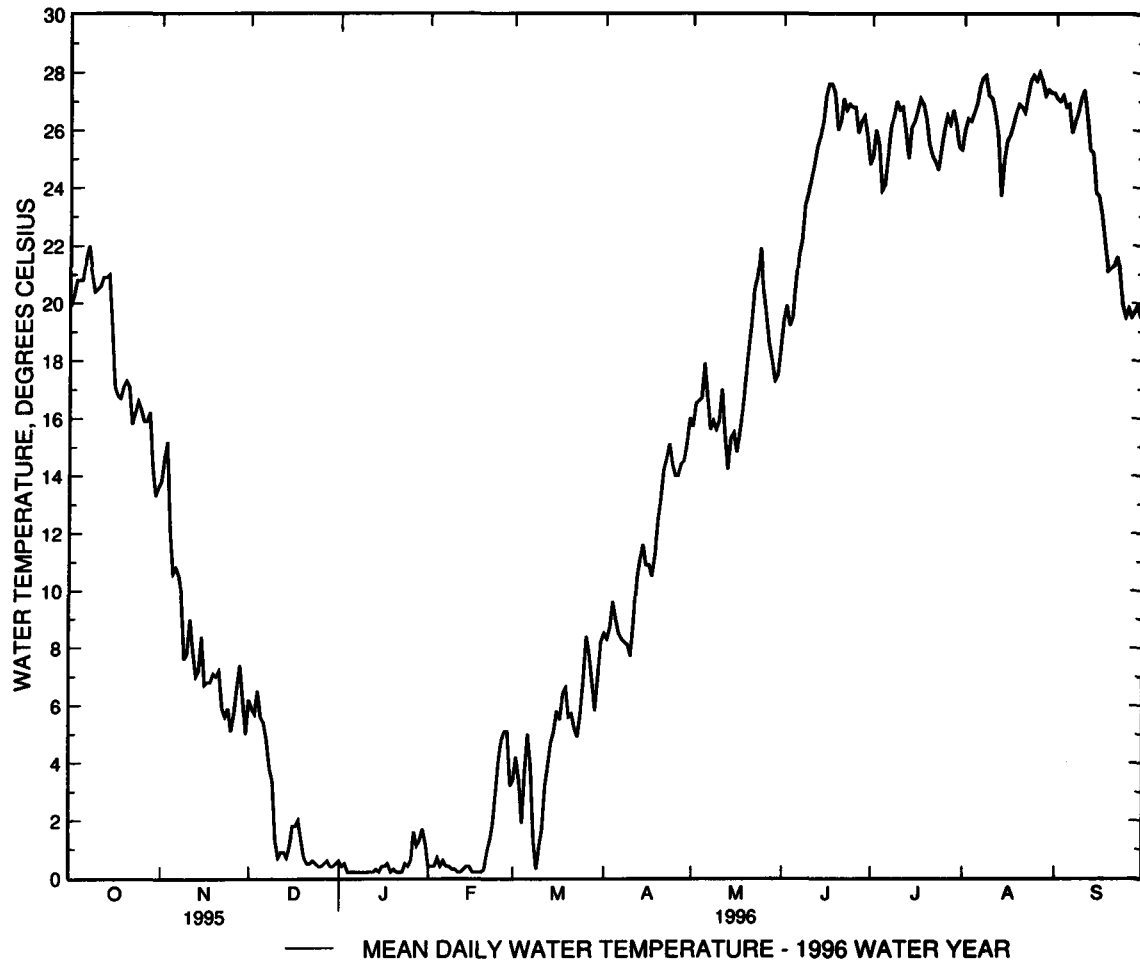
01495900 ELK RIVER NEAR TOWN POINT, MD--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	20.9	17.8	19.4	26.3	24.1	25.1	27.4	25.1	26.0	27.9	26.1	27.1
2	21.7	18.5	19.9	27.0	25.2	26.0	27.5	25.3	26.4	27.9	25.9	27.0
3	19.9	18.7	19.2	26.7	24.4	25.5	27.1	25.7	26.3	28.1	26.5	27.2
4	20.5	18.2	19.5	24.6	22.9	23.9	27.9	25.3	26.6	27.3	26.3	26.8
5	21.9	19.8	20.7	25.3	22.6	24.1	28.0	25.8	26.9	27.8	26.3	26.9
6	22.5	20.4	21.7	26.3	23.6	25.1	28.9	26.2	27.5	26.3	25.5	25.9
7	23.0	21.3	22.2	27.6	25.1	26.1	29.0	26.8	27.8	27.4	25.8	26.3
8	25.3	22.4	23.4	27.5	25.7	26.5	29.4	26.8	27.9	28.0	25.7	26.6
9	25.8	23.1	23.8	28.6	26.1	27.0	28.1	26.5	27.2	28.1	26.2	27.1
10	25.5	23.5	24.3	28.3	25.6	26.7	28.6	25.9	27.1	28.1	26.7	27.4
11	25.7	24.0	24.8	28.5	25.3	26.8	28.0	25.0	26.6	27.5	25.6	26.5
12	27.0	24.3	25.4	26.6	24.8	25.9	27.0	24.1	25.8	25.7	24.8	25.3
13	27.0	24.7	25.8	25.7	24.0	25.0	24.4	22.5	23.7	25.9	24.5	25.2
14	27.9	25.0	26.3	27.4	24.8	26.1	26.3	23.5	24.9	24.8	23.3	23.8
15	29.1	25.4	27.2	26.8	26.0	26.3	27.5	24.4	25.6	24.3	22.9	23.7
16	29.4	25.9	27.6	27.9	25.5	26.7	26.9	24.6	25.8	23.6	22.3	23.0
17	28.8	26.8	27.6	28.1	26.0	27.1	27.5	25.1	26.2	22.4	21.3	22.0
18	28.1	26.6	27.3	27.8	26.4	26.9	27.6	25.6	26.6	21.7	20.1	21.1
19	26.7	25.6	26.0	27.0	25.9	26.4	28.2	25.6	26.9	22.0	20.1	21.2
20	27.7	25.2	26.3	26.5	24.2	25.5	27.8	26.0	26.8	22.2	20.2	21.3
21	28.1	26.1	27.1	26.4	23.1	25.1	27.5	26.0	26.6	22.5	21.0	21.6
22	27.5	25.8	26.7	25.4	24.3	24.9	28.3	26.1	27.2	21.7	20.5	21.1
23	28.1	25.8	26.9	25.2	24.0	24.6	29.0	26.8	27.7	20.5	19.3	19.9
24	28.3	26.0	26.8	26.5	24.1	25.3	29.1	27.1	27.9	20.0	18.8	19.5
25	28.5	25.3	26.8	27.4	25.1	26.0	29.5	26.5	27.7	20.7	19.1	19.8
26	28.0	23.8	25.9	28.4	25.4	26.5	29.2	26.9	28.0	20.1	18.5	19.5
27	28.1	25.1	26.3	27.5	24.7	26.2	28.9	27.0	27.7	20.3	19.2	19.7
28	28.1	25.2	26.5	28.2	25.2	26.7	28.2	26.0	27.2	20.4	19.5	19.9
29	26.2	25.3	25.8	27.0	25.7	26.2	28.5	26.7	27.4	20.1	19.0	19.5
30	25.4	24.4	24.8	25.9	24.8	25.4	28.7	26.0	27.3	20.6	18.6	19.6
31	---	---	---	26.1	24.8	25.3	28.5	26.1	27.3	---	---	---
MONTH	29.4	17.8	24.7	28.6	22.6	25.8	29.5	22.5	26.8	28.1	18.5	23.4

01495900 ELK RIVER NEAR TOWN POINT, MD--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996



SUSQUEHANNA RIVER BASIN

01578310 SUSQUEHANNA RIVER AT CONOWINGO, MD

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

DRAINAGE AREA.--27,100 mi².

WATER-DISCHARGE RECORDS

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

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

REMARKS.--Water-discharge records good. Flow regulated by Conowingo Reservoir beginning October 1928, usable capacity, 55,070,000,000 gal; dead storage, 45,290,000,000 gal. Records do not include a small infrequent diversion upstream from station to augment municipal supply of city of Baltimore. Records of diversion available from Baltimore Department of Public Works.

PEAK DISCHARGE FOR CURRENT YEAR.--Peak discharge, 909,000 ft³/s, Jan. 20, gage height, 34.18 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3450	22200	51000	6710	126000	117000	66700	71100	25200	27700	24300	5270
2	3440	24600	54500	25700	98300	107000	63900	116000	22500	24700	30900	5270
3	3420	22800	46300	21600	72900	78300	73000	155000	29600	26900	15000	14000
4	9910	13200	50700	23900	55300	71700	72800	115000	26600	21900	15900	9660
5	6120	6560	51500	23900	50500	57100	68700	91300	28600	27000	20600	12800
6	9220	22000	54500	15000	36300	61700	58200	88100	26500	20100	20800	14600
7	3440	19700	49600	6570	36300	62300	54400	74100	20800	12600	20100	35600
8	3430	23100	46900	12700	39600	61600	58500	70300	17400	23200	17600	51300
9	6650	22400	39200	10100	33000	65200	56900	70100	18500	20700	19500	49100
10	14800	21600	30100	11300	44500	43500	55700	68700	20300	22400	14400	43800
11	10100	16400	31300	9180	37700	52900	56800	69800	19200	19400	11600	34400
12	12200	22300	24300	11600	53200	43700	54400	78000	28500	21400	18400	25100
13	11400	57400	21700	11500	44700	37600	40900	159000	33900	24100	26700	41900
14	7690	65600	21600	7710	38300	41200	46400	196000	32800	23000	21900	58000
15	3450	97000	23200	20400	45100	43700	64600	162000	24900	19300	22000	56400
16	8640	104000	24300	23700	42700	44600	136000	128000	18800	25500	18400	64600
17	11000	92000	13500	15200	28200	44700	160000	106000	32000	28700	14300	54700
18	10400	63000	32400	19400	14000	69800	148000	85700	18500	25600	9920	64900
19	11600	50400	32200	56600	26600	65200	125000	64700	33100	33300	18200	89700
20	13800	62500	31300	439000	34400	73400	101000	69400	43500	34700	16000	82200
21	27100	55800	23700	622000	43900	95700	79100	63700	39900	35400	10800	64300
22	54800	55500	21800	428000	57300	141000	82400	45300	45100	45600	15600	50800
23	102000	56600	15800	272000	96200	137000	60100	40900	33700	41700	14000	47700
24	117000	51800	19800	198000	130000	102000	62000	41900	28300	30400	10200	39100
25	87500	53600	10900	204000	147000	97000	50900	39100	43100	33000	5450	31500
26	60800	32800	26700	173000	167000	72600	53400	27400	38800	30700	15500	31500
27	53100	43100	20000	182000	159000	65600	54900	27100	32200	15200	13100	25100
28	26900	40600	21200	297000	135000	67000	50500	40100	29700	19000	12700	18700
29	16600	38800	19900	284000	119000	63500	54100	31800	17700	25100	13400	19500
30	24600	40200	18600	206000	---	68800	54400	32300	17600	26200	12600	31000
31	25700	---	13600	159000	---	56700	---	31900	---	32100	7120	---
TOTAL	760260	1297560	942100	3796770	2012000	2209100	2163700	2459800	847300	816600	506990	1172500
MEAN	24520	43250	30390	122500	69380	71260	72120	79350	28240	26340	16350	39080
MAX	117000	104000	54500	622000	167000	141000	160000	196000	45100	45600	30900	89700
MIN	3420	6560	10900	6570	14000	37600	40900	27100	17400	12600	5450	5270
CFSM	.90	1.60	1.12	4.52	2.56	2.63	2.66	2.93	1.04	.97	.60	1.44
IN.	1.04	1.78	1.29	5.21	2.76	3.03	2.97	3.38	1.16	1.12	.70	1.61

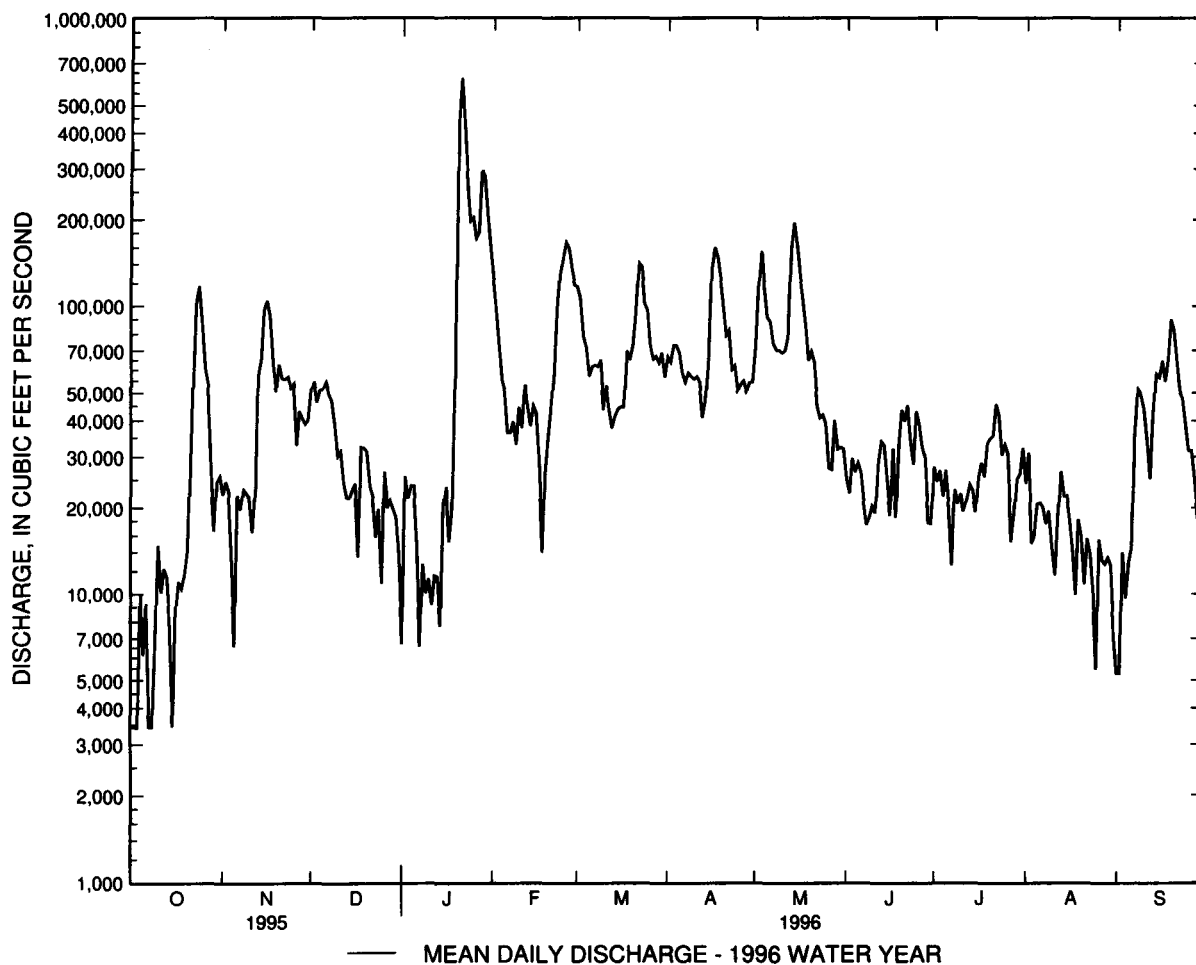
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1968 - 1996, BY WATER YEAR (WY)

MEAN	23370	35820	49020	42280	52820	73970	81570	49090	36130	20510	14340	16820
MAX	81800	73170	104700	122500	115800	147800	250100	108200	208000	59050	48580	88450
(WY)	1977	1978	1973	1996	1984	1994	1993	1989	1972	1972	1994	1975
MIN	5557	9803	14630	7164	13050	28320	33850	23220	8656	6107	5927	3476
(WY)	1970	1981	1990	1981	1980	1969	1995	1995	1991	1991	1991	1995

SUSQUEHANNA RIVER BASIN

01578310 SUSQUEHANNA RIVER AT CONOWINGO, MD--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1968 - 1996	
ANNUAL TOTAL	10209960		18984680			
ANNUAL MEAN	27970		51870		41210	
HIGHEST ANNUAL MEAN					61090	1978
LOWEST ANNUAL MEAN					26570	1981
HIGHEST DAILY MEAN	174000	Jan 22	622000	Jan 21	1120000	Jun 24 1972
LOWEST DAILY MEAN	2770	Sep 14	3420	Oct 3	269	Jul 13 1969
ANNUAL SEVEN-DAY MINIMUM	2950	Sep 3	5570	Oct 2	1810	Sep 24 1980
INSTANTANEOUS PEAK FLOW			909000	Jan 20	1130000	Jun 24 1972
INSTANTANEOUS PEAK STAGE			34.18	Jan 20	36.83	Jun 24 1972
INSTANTANEOUS LOW FLOW			737	Dec 13	144	Mar 2 1969
ANNUAL RUNOFF (CFSM)	1.03		1.91		1.52	
ANNUAL RUNOFF (INCHES)	14.02		26.06		20.66	
10 PERCENT EXCEEDS	55900		105000		85800	
50 PERCENT EXCEEDS	22300		34100		27600	
90 PERCENT EXCEEDS	3520		12000		6030	



SUSQUEHANNA RIVER BASIN

01578310 SUSQUEHANNA RIVER AT CONOWINGO, MD--Continued

WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: June 1979 to April 1981, July 1984 to September 1992.

WATER TEMPERATURE: June 1979 to April 1981, July 1984 to September 1992.

SUSPENDED-SEDIMENT DISCHARGE: October 1979 to April 1981, July 1984 to September 1992.

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

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE (water years 1980, 1985-89, 1991-92): Maximum daily, 475 microsiemens, Nov. 13-15, 1980 and Aug. 31, 1991; minimum daily, 100 microsiemens, May 1, 1991.

WATER TEMPERATURE (water years 1980, 1985-89, 1991-92): Maximum daily, 30.5°C, Aug. 18, 1988; minimum daily, 1.0°C, Feb. 5, 6, 9, 1980, Feb. 12, 1988.

SEDIMENT CONCENTRATION: Maximum daily mean, 207 mg/L, Mar. 17, 1986; minimum daily mean, 1 mg/L, June 27, 1987, May 27, 28, 30, Nov. 1-3, 10, 11, Dec. 22-24, 27, 30, 31, 1991.

SEDIMENT LOAD: Maximum daily, 197,000 tons, Mar. 16, 17, 1986; minimum daily, 4.4 tons, Feb. 10, 1985.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	TEMPER-ATURE AIR (DEG C) (00020)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	TUR-BID-ITY (NTU) (00076)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)
NOV 1995												
06...	1300	4500	221	7.7	12.5	6.5	--	--	9.9	--	--	--
DEC												
01...	1145	67000	217	7.6	6.0	10.0	754	--	12.5	101	--	--
JAN 1996												
17...	1545	4080	332	7.8	2.5	4.0	768	1.1	13.2	96	110	31
20...	1415	404000	260	6.8	0.0	--	774	--	15.1	102	--	--
21...	1315	624000	155	6.7	0.0	1.5	772	410	15.7	106	42	12
21...	1615	610000	--	--	--	--	--	--	--	--	--	--
21...	1900	587000	242	6.8	0.0	--	770	--	16.0	108	--	--
22...	1045	465000	118	7.0	0.0	--	772	--	17.8	120	--	--
22...	1500	395000	120	7.1	0.0	0.0	--	--	17.6	--	--	--
22...	1930	410000	121	7.3	0.5	--	771	--	17.6	120	--	--
23...	1415	274000	128	7.3	0.5	3.0	765	200	15.8	109	40	11
23...	2030	254000	132	7.4	0.5	2.0	762	--	15.8	110	--	--
24...	1600	209000	--	--	--	--	--	--	--	--	--	--
24...	1745	222000	169	7.2	4.0	6.5	749	--	15.4	119	--	--
25...	1230	198000	--	--	--	--	--	--	--	--	--	--
25...	1345	180000	167	7.5	2.0	1.0	772	46	14.5	103	55	15
26...	1115	180000	168	7.5	2.0	3.0	777	--	15.7	112	--	--
29...	1400	268000	157	7.5	2.5	2.0	766	--	15.4	112	--	--
31...	1400	142000	159	7.2	2.0	-1.5	761	37	14.9	108	55	15
FEB												
09...	1230	27400	233	7.6	2.0	9.0	753	--	14.2	104	--	--
23...	1600	91800	291	7.6	3.0	10.0	759	4.8	14.1	105	100	28
23...	1930	142000	298	7.8	2.5	8.5	758	8.2	14.2	105	100	28
27...	1215	175000	152	7.4	6.0	12.0	760	--	13.0	104	--	--
MAR												
12...	1215	63400	205	7.6	2.5	10.5	768	--	14.1	103	--	--
29...	1500	74500	175	7.5	7.5	4.5	762	8.5	12.3	102	62	17
APR												
09...	1000	70100	201	7.6	9.5	3.5	758	--	11.4	100	--	--
17...	1000	193000	188	7.8	9.5	12.5	760	--	11.2	99	--	--
18...	1415	129000	157	7.3	8.5	20.0	765	57	12.7	109	52	15
MAY												
02...	1200	135000	203	7.8	15.5	21.0	762	--	9.7	97	--	--
03...	1130	185000	--	7.6	13.5	17.0	763	8.7	10.0	--	60	17
15...	1130	186000	139	7.5	13.0	16.5	771	--	10.4	97	--	--
JUN												
11...	1200	23700	267	7.9	23.5	26.0	761	1.1	6.1	72	93	26
JUL												
25...	1230	60800	247	7.5	24.5	31.0	761	5.8	6.5	78	85	24
AUG												
19...	1100	17900	292	8.1	27.5	27.0	769	1.9	7.1	90	99	27
SEP												
16...	1330	66100	217	7.7	20.0	19.5	761	17	8.1	90	83	23

SUSQUEHANNA RIVER BASIN

01578310 SUSQUEHANNA RIVER AT CONOWINGO, MD--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- LINITY WAT DIS TOT IT FIELD (MG/L AS CACO3) (39086)	BICAR- BONATE WATER DIS IT FIELD (MG/L AS HCO3) (00453)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS NO3) (71851)
NOV 1995												
06...	--	--	--	46	60	--	--	--	5.1	--	1.8	6.6
DEC												
01...	--	--	--	37	45	--	--	--	5.0	--	--	7.5
JAN 1996												
17...	9.0	14	1.8	54	66	40	24	0.10	3.0	170	2.4	9.7
20...	--	--	--	--	--	--	--	--	3.3	--	2.3	7.5
21...	2.9	6.0	2.1	--	--	13	11	0.10	3.6	70	2.8	6.6
21...	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	2.8	6.6
22...	--	--	--	--	--	--	--	--	4.0	--	2.0	6.2
22...	--	--	--	--	--	--	--	--	4.1	--	2.1	6.2
22...	--	--	--	--	--	--	--	--	4.1	--	2.0	6.2
23...	3.0	5.3	1.8	--	--	16	10	<0.10	4.6	79	1.8	6.2
23...	--	--	--	--	--	--	--	--	4.7	--	1.9	6.2
24...	--	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	4.7	--	2.0	6.2
25...	--	--	--	--	--	--	--	--	--	--	--	--
25...	4.2	6.2	1.7	--	--	19	11	<0.10	4.8	90	1.9	7.1
26...	--	--	--	26	32	--	--	--	5.2	--	2.1	7.1
29...	--	--	--	24	29	--	--	--	4.6	--	2.3	7.5
31...	4.2	5.4	1.5	25	30	--	9.7	--	--	81	2.0	7.1
FEB												
09...	--	--	--	38	46	--	--	--	6.1	--	--	--
23...	7.4	10	1.6	--	--	41	18	0.10	5.6	168	2.6	9.2
23...	7.3	10	1.8	--	--	40	18	<0.10	5.8	163	2.1	7.0
27...	--	--	--	25	30	--	--	--	4.9	--	1.8	6.2
MAR												
12...	--	--	--	--	--	--	--	--	5.5	--	--	7.9
29...	4.6	6.6	1.2	31	37	25	12	<0.10	4.6	102	1.6	--
APR												
09...	--	--	--	37	45	--	--	--	6.5	--	--	7.0
17...	--	--	--	36	44	--	--	--	2.3	--	1.2	3.9
18...	3.5	6.1	1.4	--	--	20	11	<0.10	3.8	84	1.4	4.8
MAY												
02...	--	--	--	40	49	--	--	--	2.7	--	--	4.9
03...	4.2	6.7	1.4	32	40	24	10	<0.10	3.6	106	1.2	4.1
15...	--	--	--	26	32	--	--	--	4.6	--	1.1	2.8
JUN												
11...	6.8	9.7	1.7	--	--	36	15	<0.10	1.0	144	1.5	4.8
JUL												
25...	6.1	11	2.0	57	70	29	16	0.10	4.0	146	1.7	5.0
AUG												
19...	7.5	11	2.3	61	74	38	18	<0.10	2.4	162	1.7	5.4
SEP												
16...	6.2	5.9	2.5	43	52	33	9.7	<0.10	4.7	127	1.9	5.7

SUSQUEHANNA RIVER BASIN

01578310 SUSQUEHANNA RIVER AT CONOWINGO, MD--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	ANTI- MONY, DIS- SOLVED (UG/L AS SB) (01095)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)
NOV 1995											
06...	0.013	1.50	0.080	0.30	0.30	0.030	0.027	0.016	--	--	--
DEC											
01...	0.003	1.70	0.020	<0.20	<0.20	0.030	0.012	0.005	--	--	--
JAN 1996											
17...	0.005	2.20	0.050	0.20	0.30	0.020	0.011	0.008	20	<1	<1
20...	0.013	1.70	0.220	0.60	0.40	0.090	0.021	0.003	--	--	--
21...	0.002	1.50	0.400	1.3	0.70	0.290	0.007	0.004	30	<1	<1
21...	--	--	--	--	--	--	--	--	--	--	--
21...	0.002	1.50	0.400	1.3	0.70	0.290	0.007	0.004	--	--	--
22...	0.003	1.40	0.170	0.60	0.40	0.130	0.013	0.006	--	--	--
22...	0.003	1.40	0.140	0.70	0.30	0.200	0.008	0.004	--	--	--
22...	0.004	1.40	0.120	0.60	0.30	0.130	0.009	0.005	--	--	--
23...	0.004	1.40	0.080	0.40	0.30	0.100	0.024	0.013	170	<1	<1
23...	0.002	1.40	0.070	0.50	0.30	0.110	0.010	0.005	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--
24...	0.002	1.40	0.070	0.60	0.20	0.200	0.010	0.007	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--
25...	0.003	1.60	0.070	0.30	0.30	0.060	0.010	0.008	20	<1	<1
26...	0.003	1.60	0.080	0.50	0.30	0.150	0.016	0.014	--	--	--
29...	0.007	1.70	0.070	0.60	0.40	0.170	0.023	0.016	--	--	--
31...	0.005	1.60	0.040	0.40	<0.20	0.080	0.010	0.008	20	<1	--
FEB											
09...	0.008	--	--	0.20	0.20	0.020	0.010	0.008	--	--	--
23...	0.014	2.10	0.120	0.50	0.30	0.040	0.017	0.012	10	<1	<1
23...	0.015	1.60	0.160	0.50	0.30	0.040	0.025	0.020	30	<1	<1
27...	0.007	1.40	0.060	0.40	0.30	0.070	0.011	0.007	--	--	--
MAR											
12...	0.008	1.80	0.100	<0.20	<0.20	0.010	0.011	0.008	--	--	--
29...	<0.001	1.40	0.040	0.20	<0.20	<0.010	0.006	0.006	20	<1	<1
APR											
09...	0.022	1.60	0.050	<0.20	<0.20	0.040	0.009	0.005	--	--	--
17...	0.007	0.890	0.050	0.30	0.20	0.040	0.014	0.004	--	--	--
18...	0.006	1.10	0.050	0.30	0.20	0.050	0.014	0.004	30	<1	<1
MAY											
02...	0.004	1.10	0.030	<0.20	<0.20	0.020	0.007	0.002	--	--	--
03...	0.016	0.950	0.060	0.30	<0.20	0.050	0.011	0.005	30	<1	<1
15...	0.009	0.640	0.060	0.50	<0.20	0.100	0.013	0.008	--	--	--
JUN											
11...	0.020	1.10	0.160	0.40	0.30	0.030	0.013	0.006	40	<1	<1
JUL											
25...	0.063	1.20	0.100	0.50	0.30	0.040	0.015	0.010	20	<1	<1
AUG											
19...	0.069	1.30	0.080	0.40	0.30	0.020	0.007	<0.001	30	<1	<1
SEP											
16...	0.011	1.30	0.040	0.60	0.30	0.090	0.029	0.006	20	<1	<1

SUSQUEHANNA RIVER BASIN

01578310 SUSQUEHANNA RIVER AT CONOWINGO, MD--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE) (01010)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)
NOV 1995												
06...	--	--	--	--	--	--	--	--	--	--	--	--
DEC												
01...	--	--	--	--	--	--	--	--	--	--	--	--
JAN 1996												
17...	30	<1	--	<1.0	<1	<1	1	140	<1	6	69	<1
20...	--	--	--	--	--	--	--	--	--	--	--	--
21...	24	<1	--	<1.0	<1	3	2	120	<1	<4	370	<1
21...	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--	--
23...	23	<1	--	<1.0	<1	<1	2	260	<1	<4	96	<1
23...	--	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	--
25...	24	<1	--	<1.0	<1	<1	2	49	<1	<4	90	<1
26...	--	--	--	--	--	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--	--	--	--	--	--
31...	26	<1	--	<1.0	1	1	2	37	<1	<4	90	<1
FEB												
09...	--	--	--	--	--	--	--	--	--	--	--	--
23...	31	<1	40	<1.0	<1	2	1	41	<1	6	180	<1
23...	30	<1	20	<1.0	<1	2	2	84	<1	5	180	<1
27...	--	--	--	--	--	--	--	--	--	--	--	--
MAR												
12...	--	--	--	--	--	--	--	--	--	--	--	--
29...	25	<1	20	<1.0	<1	<1	1	29	<1	<4	100	<1
APR												
09...	--	--	--	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--	--	--	--
18...	22	<1	<10	<1.0	<1	<1	1	62	<1	<4	43	<1
MAY												
02...	--	--	--	--	--	--	--	--	--	--	--	--
03...	25	<1	10	<1.0	<1	<1	<1	70	<1	<4	33	<1
15...	--	--	--	--	--	--	--	--	--	--	--	--
JUN												
11...	36	<1	20	<1.0	<1	<1	1	30	<1	4	95	<1
JUL												
25...	34	<1	20	<1.0	<1	<1	2	20	<1	<4	26	1
AUG												
19...	34	<1	20	<1.0	<1	<1	1	8	<1	<4	23	2
SEP												
16...	32	<1	20	<1.0	<1	<1	1	30	<1	<4	6	<1

SUSQUEHANNA RIVER BASIN

01578310 SUSQUEHANNA RIVER AT CONOWINGO, MD--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	ORGANIC SUS- PENDEED TOTAL (MG/L AS C) (00689)	ETHAL- FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	TER- BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)
NOV 1995												
06...	--	--	--	--	--	--	4.4	--	--	--	--	--
DEC												
01...	--	--	--	--	--	--	3.2	--	--	--	--	--
JAN 1996												
17...	4	<1	<1.0	160	<6	4	3.6	--	--	--	--	--
20...	--	--	--	--	--	--	5.5	--	--	--	--	--
21...	4	<1	<1.0	58	<6	3	9.7	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	7.0	--	--	--	--	--
22...	--	--	--	--	--	--	11	--	--	--	--	--
22...	--	--	--	--	--	--	12	--	--	--	--	--
23...	3	<1	<1.0	50	<6	5	4.3	--	--	<0.004	<0.002	<0.007
23...	--	--	--	--	--	--	4.3	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	3.8	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	--
25...	3	<1	<1.0	75	<6	2	4.9	2.6	2.2	<0.004	<0.002	<0.007
26...	--	--	--	--	--	--	3.7	--	--	--	--	--
29...	--	--	--	--	--	--	4.1	--	--	--	--	--
31...	4	<1	<1.0	71	<6	4	7.6	2.0	1.0	<0.004	<0.002	<0.007
FEB												
09...	--	--	--	--	--	--	2.5	--	--	--	--	--
23...	7	<1	<1.0	130	<6	7	3.4	--	--	<0.004	<0.002	<0.007
23...	6	<1	<1.0	130	<6	6	--	--	--	<0.004	<0.002	<0.007
27...	--	--	--	--	--	--	4.8	--	--	--	--	--
MAR												
12...	--	--	--	--	--	--	2.6	--	--	--	--	--
29...	4	<1	<1.0	74	<6	4	2.9	1.6	0.60	<0.004	<0.002	<0.007
APR												
09...	--	--	--	--	--	--	2.1	--	--	--	--	--
17...	--	--	--	--	--	--	3.3	--	--	--	--	--
18...	2	<1	<1.0	62	<6	1	2.6	2.8	1.9	--	--	--
MAY												
02...	--	--	--	--	--	--	2.7	--	--	--	--	--
03...	3	<1	<1.0	81	<6	3	3.3	2.3	0.70	<0.004	<0.002	<0.007
15...	--	--	--	--	--	--	4.8	--	--	--	--	--
JUN												
11...	2	<1	<1.0	130	<6	<1	2.8	2.0	0.50	<0.004	<0.002	<0.007
JUL												
25...	2	<1	<1.0	130	<6	2	3.6	2.8	0.70	<0.004	<0.002	<0.007
AUG												
19...	2	<1	<1.0	150	<6	1	3.3	2.4	0.60	<0.004	<0.002	<0.007
SEP												
16...	1	<1	<1.0	130	<6	<1	5.1	3.7	0.60	<0.004	<0.002	<0.007

SUSQUEHANNA RIVER BASIN

01578310 SUSQUEHANNA RIVER AT CONOWINGO, MD--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TRI- FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)	2,6-DI- ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)	ACETO- CHLOR, WATER FLTRD REC (UG/L) (49260)	ALA- CHLOR, WATER, DISS, REC (UG/L) (46342)	ATRA- ZINE, WATER, DISS, REC (UG/L) (39632)	BEN- FLUR- ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	BUTYL- ATE, WATER, DISS, REC (UG/L) (04028)	CAR- BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBO- FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	CHLOR- PYRIFOS DIS- SOLVED (UG/L) (38933)	CYANA- ZINE, WATER, DISS, REC (UG/L) (04041)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)
NOV 1995												
06...	--	--	--	--	--	--	--	--	--	--	--	--
DEC												
01...	--	--	--	--	--	--	--	--	--	--	--	--
JAN 1996												
17...	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--	--
23...	<0.002	<0.003	<0.002	<0.002	0.026	<0.002	<0.002	<0.003	<0.003	<0.004	<0.004	<0.002
23...	--	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	--
25...	<0.002	<0.003	<0.002	<0.002	0.030	<0.002	<0.002	<0.003	<0.003	<0.004	<0.004	<0.002
26...	--	--	--	--	--	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--	--	--	--	--	--
31...	<0.002	<0.003	<0.002	<0.002	0.024	<0.002	<0.002	<0.003	<0.003	<0.004	<0.004	<0.002
FEB												
09...	--	--	--	--	--	--	--	--	--	--	--	--
23...	<0.002	<0.003	<0.002	<0.002	0.022	<0.002	<0.002	<0.003	<0.003	<0.004	<0.004	<0.002
23...	<0.002	<0.003	<0.002	0.004	0.023	<0.002	<0.002	<0.003	<0.003	<0.004	<0.004	<0.002
27...	--	--	--	--	--	--	--	--	--	--	--	--
MAR												
12...	--	--	--	--	--	--	--	--	--	--	--	--
29...	<0.002	<0.003	<0.002	<0.002	0.023	<0.002	<0.002	<0.003	<0.003	<0.004	<0.004	<0.002
APR												
09...	--	--	--	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--	--	--
MAY												
02...	--	--	--	--	--	--	--	--	--	--	--	--
03...	<0.002	<0.003	<0.002	0.004	0.039	<0.002	<0.002	E0.006	<0.003	<0.004	0.010	<0.002
15...	--	--	--	--	--	--	--	--	--	--	--	--
JUN												
11...	<0.002	<0.003	0.055	0.052	0.450	<0.002	<0.002	<0.003	E0.006	E0.004	0.078	E0.001
JUL												
25...	<0.002	<0.003	0.005	0.008	0.217	<0.002	<0.002	E0.006	<0.003	<0.004	0.036	<0.002
AUG												
19...	<0.002	<0.003	<0.002	0.005	0.097	<0.002	<0.002	<0.003	<0.003	<0.004	0.015	E0.002
SEP												
16...	<0.002	<0.003	<0.002	0.005	0.087	<0.002	<0.002	E0.009	<0.003	<0.004	0.017	<0.002

E Estimated value.

SUSQUEHANNA RIVER BASIN

01578310 SUSQUEHANNA RIVER AT CONOWINGO, MD--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	P, P' DDE DISSOLV (UG/L) (34653)	DEETHYL ATRA- ZINE, WATER, DISS, REC (UG/L) (04040)	DI- AZINON, DIS- SOLVED (UG/L) (39572)	DI- ELDRIN DIS- SOLVED (UG/L) (39381)	DISUL- FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	ETHO- PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	FONOFOS WATER DISS REC (UG/L) (04095)	LINDANE DIS- SOLVED (UG/L) (39341)	LIN- URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	MALA- THION, DIS- SOLVED (UG/L) (39532)	METHYL AZIN- PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)
NOV 1995												
06...	--	--	--	--	--	--	--	--	--	--	--	--
DEC												
01...	--	--	--	--	--	--	--	--	--	--	--	--
JAN 1996												
17...	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--	--
23...	<0.006	E0.012	<0.002	<0.001	<0.017	<0.002	<0.003	<0.003	<0.004	<0.002	<0.005	<0.001
23...	--	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	--
25...	<0.006	E0.013	<0.002	<0.001	<0.017	<0.002	<0.003	<0.003	<0.004	<0.002	<0.005	<0.001
26...	--	--	--	--	--	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--	--	--	--	--	--
31...	<0.006	E0.016	<0.002	<0.001	<0.017	<0.002	<0.003	<0.003	<0.004	<0.002	<0.005	<0.001
FEB												
09...	--	--	--	--	--	--	--	--	--	--	--	--
23...	<0.006	E0.012	<0.002	<0.001	<0.017	<0.002	<0.003	<0.003	<0.004	<0.002	<0.005	<0.001
23...	<0.006	E0.016	<0.002	<0.001	<0.017	<0.002	<0.003	<0.003	<0.004	<0.002	<0.005	<0.001
27...	--	--	--	--	--	--	--	--	--	--	--	--
MAR												
12...	--	--	--	--	--	--	--	--	--	--	--	--
29...	<0.006	E0.026	<0.002	<0.001	<0.017	<0.002	<0.003	<0.003	<0.004	<0.002	<0.005	<0.001
APR												
09...	--	--	--	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--	--	--
MAY												
02...	--	--	--	--	--	--	--	--	--	--	--	--
03...	<0.006	E0.013	<0.002	<0.001	<0.017	<0.002	<0.003	<0.003	<0.004	<0.002	<0.005	<0.001
15...	--	--	--	--	--	--	--	--	--	--	--	--
JUN												
11...	<0.006	E0.029	<0.002	<0.001	<0.017	<0.002	<0.003	<0.003	<0.004	0.006	<0.005	<0.001
JUL												
25...	<0.006	E0.049	0.004	<0.001	<0.017	<0.002	<0.003	<0.003	<0.004	0.009	<0.005	<0.001
AUG												
19...	<0.006	E0.024	0.006	<0.001	<0.017	<0.002	<0.003	<0.003	<0.004	<0.002	<0.005	<0.001
SEP												
16...	<0.006	E0.029	E0.004	<0.001	<0.017	<0.002	<0.003	<0.003	<0.004	<0.002	<0.005	<0.001

E Estimated value.

SUSQUEHANNA RIVER BASIN

01578310 SUSQUEHANNA RIVER AT CONOWINGO, MD--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	METHYL PARA- THION WAT FLT 0.7 U GF, REC (UG/L) (82667)	METO- LACHLOR WATER DISSOLV (UG/L) (39415)	METRI- BUZIN SENCOR WATER DISSOLV (UG/L) (82630)	MOL- INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	NAPROP- AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)	PEB- ULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)	PARA- THION, DIS- SOLVED (UG/L) (39542)	PENDI- METH- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)	PER- METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	PRO- METON, WATER, DISS, REC (UG/L) (04037)	PRON- AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	PROP- CHLOR, WATER, DISS, REC (UG/L) (04024)
NOV 1995												
06...	--	--	--	--	--	--	--	--	--	--	--	--
DEC												
01...	--	--	--	--	--	--	--	--	--	--	--	--
JAN 1996												
17...	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--	--
23...	<0.006	0.023	<0.004	<0.004	<0.003	<0.004	<0.004	<0.004	<0.005	<0.018	<0.003	<0.007
23...	--	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	--
25...	<0.006	0.025	<0.004	<0.004	<0.003	<0.004	<0.004	<0.004	<0.005	E0.004	<0.003	<0.007
26...	--	--	--	--	--	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--	--	--	--	--	--
31...	<0.006	0.019	<0.004	<0.004	<0.003	<0.004	<0.004	<0.004	<0.005	E0.004	<0.003	<0.007
FEB												
09...	--	--	--	--	--	--	--	--	--	--	--	--
23...	<0.006	0.017	<0.004	<0.004	<0.003	<0.004	<0.004	<0.004	<0.005	E0.007	<0.003	<0.007
23...	<0.006	0.020	<0.004	<0.004	<0.003	<0.004	<0.004	<0.004	<0.005	E0.007	<0.003	<0.007
27...	--	--	--	--	--	--	--	--	--	--	--	--
MAR												
12...	--	--	--	--	--	--	--	--	--	--	--	--
29...	<0.006	0.019	<0.004	<0.004	<0.003	<0.004	<0.004	<0.004	<0.005	<0.018	<0.003	<0.007
APR												
09...	--	--	--	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--	--	--
MAY												
02...	--	--	--	--	--	--	--	--	--	--	--	--
03...	<0.006	0.039	<0.004	<0.004	<0.003	<0.004	<0.004	<0.004	<0.005	E0.008	<0.003	<0.007
15...	--	--	--	--	--	--	--	--	--	--	--	--
JUN												
11...	<0.006	0.290	<0.004	<0.004	<0.003	<0.004	<0.004	0.032	<0.005	E0.012	<0.003	<0.007
JUL												
25...	<0.006	0.146	0.006	<0.004	<0.003	<0.004	<0.004	<0.004	<0.005	0.021	<0.003	<0.007
AUG												
19...	<0.006	0.046	<0.004	<0.004	<0.003	<0.004	<0.004	<0.004	<0.005	0.031	<0.003	<0.007
SEP												
16...	<0.006	0.046	<0.004	<0.004	<0.003	<0.004	<0.004	<0.004	<0.005	0.035	<0.003	<0.007

E Estimated value.

SUSQUEHANNA RIVER BASIN

01578310 SUSQUEHANNA RIVER AT CONOWINGO, MD--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	PRO- PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	PRO- PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	SI- MAZINE, WATER, DISS, REC (UG/L) (04035)	TEBU- THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TER- BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	THIO- BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)	TRIAL- LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	ALPHA BHC DIS- SOLVED (UG/L) (34253)	URANIUM NATURAL DIS- SOLVED (UG/L) AS U (22703)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN (70331)
NOV 1995											
06...	--	--	--	--	--	--	--	--	--	9	109
DEC											
01...	--	--	--	--	--	--	--	--	--	7	1270
JAN 1996											
17...	--	--	--	--	--	--	--	--	<1.0	3	33
20...	--	--	--	--	--	--	--	--	--	194	212000
21...	--	--	--	--	--	--	--	--	<1.0	1200	2020000
21...	--	--	--	--	--	--	--	--	--	1000	1650000
21...	--	--	--	--	--	--	--	--	--	863	1370000
22...	--	--	--	--	--	--	--	--	--	533	669000
22...	--	--	--	--	--	--	--	--	--	462	493000
22...	--	--	--	--	--	--	--	--	--	451	499000
23...	<0.013	<0.004	<0.005	<0.010	<0.013	<0.002	<0.001	<0.002	<1.0	315	233000
23...	--	--	--	--	--	--	--	--	--	254	174000
24...	--	--	--	--	--	--	--	--	--	105	59000
24...	--	--	--	--	--	--	--	--	--	118	70700
25...	--	--	--	--	--	--	--	--	--	111	59400
25...	<0.013	<0.004	<0.005	<0.010	<0.013	<0.002	<0.001	<0.002	<1.0	87	42300
26...	--	--	--	--	--	--	--	--	--	96	46900
29...	--	--	--	--	--	--	--	--	--	130	94100
31...	<0.013	<0.004	0.008	<0.010	<0.013	<0.002	<0.001	<0.002	<1.0	63	24200
FEB											
09...	--	--	--	--	--	--	--	--	--	6	459
23...	<0.013	<0.004	0.006	<0.010	<0.013	<0.002	<0.001	<0.002	<1.0	11	2730
23...	<0.013	<0.004	0.006	<0.010	<0.013	<0.002	<0.001	<0.002	<1.0	17	6520
27...	--	--	--	--	--	--	--	--	--	41	19500
MAR											
12...	--	--	--	--	--	--	--	--	--	5	924
29...	<0.013	<0.004	<0.005	<0.010	<0.013	<0.002	<0.001	<0.002	<1.0	13	2610
APR											
09...	--	--	--	--	--	--	--	--	--	8	1570
17...	--	--	--	--	--	--	--	--	--	30	15400
18...	--	--	--	--	--	--	--	--	<1.0	74	25800
MAY											
02...	--	--	--	--	--	--	--	--	--	13	4810
03...	<0.013	<0.004	0.021	<0.010	<0.013	<0.002	<0.001	<0.002	<1.0	26	13000
15...	--	--	--	--	--	--	--	--	--	91	45500
JUN											
11...	<0.013	<0.004	0.040	E0.007	<0.013	<0.002	<0.001	<0.002	<1.0	11	704
JUL											
25...	<0.013	<0.004	0.038	E0.005	<0.013	<0.002	<0.001	<0.002	<1.0	12	1970
AUG											
19...	<0.013	<0.004	0.039	<0.010	<0.013	<0.002	<0.001	<0.002	<1.0	6	290
SEP											
16...	<0.013	<0.004	0.017	E0.007	<0.013	<0.002	<0.001	<0.002	<1.0	27	4820

E Estimated value.

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SUSQUEHANNA RIVER BASIN

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 mi².

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

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

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

REMARKS.--Records good except those for estimated daily discharges (dead battery, ice effect), which are fair. Prior to 1965, some regulation at low flow 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.--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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 21	1000	4,570	9.68	July 14	2400	2,610	6.98
Nov. 15	0100	2,080	6.18	July 30	1130	2,790	7.24
Jan. 19	1530	*8,730	*14.33	Aug. 13	0500	2,930	7.45
Jan. 27	1130	2,290	6.50				

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	40	96	110	234	241	171	221	219	137	122	220	113
2	40	110	112	345	224	174	261	176	132	125	162	110
3	40	97	104	516	218	168	208	174	130	119	145	113
4	40	85	102	e300	e210	153	200	173	131	110	136	130
5	120	81	99	e140	e205	157	194	183	135	103	125	112
6	132	79	100	e110	e200	182	185	281	125	99	118	118
7	63	84	95	e100	e195	294	200	192	122	97	113	246
8	52	99	93	e200	182	258	190	208	120	96	109	127
9	48	83	98	e410	297	194	228	269	120	100	303	115
10	46	79	e100	e290	250	195	248	215	143	92	190	110
11	45	149	e94	e120	224	174	203	237	127	89	127	125
12	44	525	e92	e110	209	171	191	293	150	93	136	114
13	43	175	e94	e105	173	167	183	208	157	794	1170	145
14	142	651	95	e100	171	165	176	192	122	303	283	130
15	134	918	133	e100	169	190	180	183	115	532	194	114
16	69	295	166	e100	167	180	690	200	110	172	176	125
17	57	215	117	e110	168	163	294	189	112	136	186	423
18	53	181	135	e150	168	159	250	181	112	127	153	183
19	50	164	151	4020	152	202	229	171	568	172	142	139
20	49	150	e134	941	308	304	218	161	224	143	135	124
21	1940	141	e122	418	559	209	209	157	160	116	134	118
22	307	130	e110	296	289	187	199	161	136	112	132	210
23	147	124	100	257	276	175	199	150	125	118	128	147
24	108	141	98	395	280	166	210	145	121	110	124	128
25	92	122	96	354	238	163	187	140	132	106	121	122
26	83	116	e94	236	217	158	186	139	114	128	118	115
27	86	114	e92	1200	203	150	187	157	110	105	167	117
28	333	109	e90	510	198	170	173	175	109	98	166	128
29	133	119	e91	338	180	458	172	196	108	141	128	219
30	105	113	89	298	---	266	216	168	150	919	120	134
31	94	---	96	277	---	223	---	144	---	368	116	---
TOTAL	4735	5545	3302	13080	6571	6146	6687	5837	4357	5945	5777	4354
MEAN	153	185	107	422	227	198	223	188	145	192	186	145
MAX	1940	918	166	4020	559	458	690	293	568	919	1170	423
MIN	40	79	89	100	152	150	172	139	108	89	109	110
CFSM	1.62	1.96	1.13	4.47	2.40	2.10	2.36	1.99	1.54	2.03	1.97	1.54
IN.	1.87	2.19	1.30	5.15	2.59	2.42	2.64	2.30	1.72	2.34	2.28	1.72

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1927 - 1996, BY WATER YEAR (WY)

MEAN	83.2	102	115	143	163	170	169	150	125	106	96.4	88.0
MAX	317	266	286	422	415	486	379	421	576	279	362	345
(WY)	1980	1927	1984	1996	1979	1994	1984	1989	1972	1972	1933	1975
MIN	26.0	32.5	37.8	41.7	60.2	62.2	63.2	50.9	42.8	21.0	17.4	29.0
(WY)	1964	1932	1966	1966	1932	1981	1963	1963	1966	1966	1966	1986

01580000 DEER CREEK AT ROCKS, MD--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1927 - 1996	
ANNUAL TOTAL	41168		72336			
ANNUAL MEAN	113		198		126	
HIGHEST ANNUAL MEAN					224	
LOWEST ANNUAL MEAN					58.2	
HIGHEST DAILY MEAN	1940	Oct 21	4020	Jan 19	6610	Jun 22 1972
LOWEST DAILY MEAN	28	Sep 8	40	(a)	8.6	(b)
ANNUAL SEVEN-DAY MINIMUM	29	Sep 2	49	Oct 7	9.0	Sep 7 1966
INSTANTANEOUS PEAK FLOW			8730	Jan 19	(c) 13600	Aug 23 1933
INSTANTANEOUS PEAK STAGE			14.33	Jan 19	(d) 17.70	Aug 23 1933
INSTANTANEOUS LOW FLOW			39	(f)	8.0	(g)
ANNUAL RUNOFF (CFSM)	1.19		2.09		1.33	
ANNUAL RUNOFF (INCHES)	16.22		28.51		18.07	
10 PERCENT EXCEEDS	151		294		210	
50 PERCENT EXCEEDS	95		148		94	
90 PERCENT EXCEEDS	43		94		46	

a Oct. 1-4.

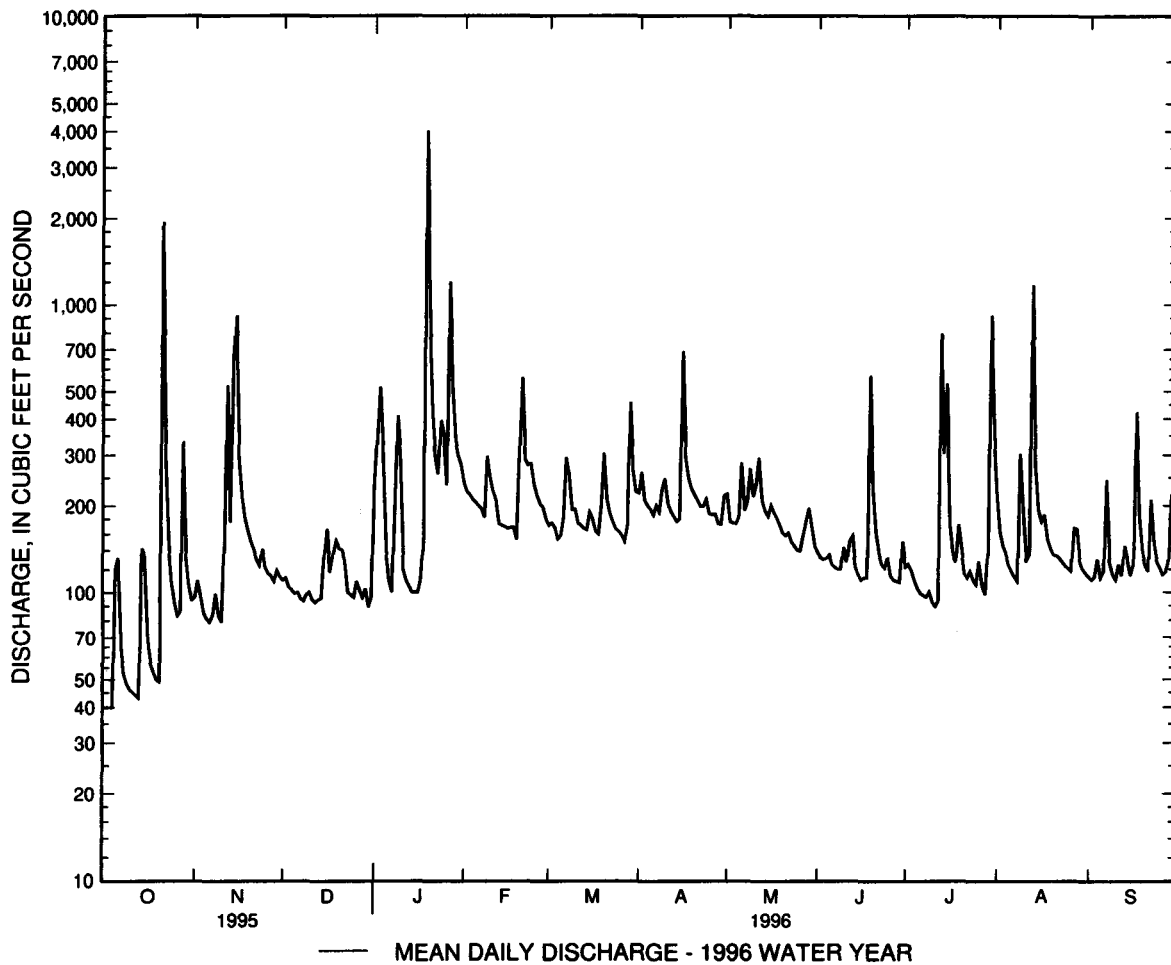
b Sept. 11, 12 1966.

c From rating curve extended above 3,000 ft³/s, on basis of slope-area measurements at gage heights 13.3 ft and 17.7 ft.

d From floodmarks.

f Oct. 3, 4.

g 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 mi².

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

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

REMARKS.--Records good below 200 ft ³/s and fair above except those for estimated daily discharges (ice effect, missing record), which are fair. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

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

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 21	0800	2,330	6.45	Feb. 20	2145	1,040	4.46
Nov. 11	2300	1,150	4.67	June 12	1815	2,930	7.21
Jan. 19	1345	*5,930	*10.22	July 13	1000	1,250	4.85
Jan. 27	1000	1,230	4.80				

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	76	50	40	70	55	82	81	54	45	81	35
2	16	e81	48	145	67	55	95	66	52	41	67	33
3	13	e73	44	211	e65	54	68	64	45	40	52	33
4	16	e65	44	79	e49	48	62	63	50	35	42	33
5	139	e63	42	56	41	51	60	76	51	32	38	34
6	143	e57	42	51	e44	60	57	95	43	31	35	48
7	43	e62	40	33	e52	129	65	69	43	29	34	85
8	27	e52	39	110	e80	94	60	83	39	29	31	46
9	24	39	40	143	180	66	83	187	39	33	36	39
10	21	37	41	e79	92	63	90	97	51	27	37	35
11	23	159	e39	e53	81	57	68	193	43	25	30	74
12	20	309	e38	e44	71	56	63	139	265	37	49	51
13	21	94	e37	e42	59	54	59	91	105	441	e329	59
14	151	308	e39	e41	56	50	56	88	63	86	e65	55
15	136	293	43	e41	56	66	83	78	52	81	e50	43
16	54	116	119	e42	55	62	360	81	46	65	e47	54
17	44	94	77	e46	57	54	99	74	50	54	e45	245
18	39	86	56	64	63	51	83	70	46	49	e47	63
19	38	74	89	2060	59	97	78	66	238	64	e45	47
20	37	62	69	254	236	116	76	64	114	48	e45	38
21	773	52	55	e120	265	70	73	60	65	39	e42	33
22	121	47	51	84	105	59	70	61	55	38	e40	188
23	81	47	46	76	92	55	73	53	46	41	e38	56
24	69	60	43	141	86	51	72	53	50	36	e37	43
25	64	49	e40	111	73	49	68	49	55	35	e36	40
26	59	45	e38	71	68	49	67	50	42	45	e35	37
27	88	44	e36	517	65	46	66	62	37	32	52	37
28	252	42	e35	153	63	77	62	69	36	30	51	58
29	115	60	e35	94	57	242	63	91	36	39	41	96
30	89	53	e36	84	---	98	93	71	61	213	38	51
31	78	---	38	79	---	71	---	56	---	141	37	---
TOTAL	2809	2699	1489	5164	2407	2205	2454	2500	1972	1981	1652	1789
MEAN	90.6	90.0	48.0	167	83.0	71.1	81.8	80.6	65.7	63.9	53.3	59.6
MAX	773	309	119	2060	265	242	360	193	265	441	329	245
MIN	13	37	35	33	41	46	56	49	36	25	30	33
CFSM	2.60	2.59	1.38	4.79	2.39	2.04	2.35	2.32	1.89	1.84	1.53	1.71
IN.	3.00	2.89	1.59	5.52	2.57	2.36	2.62	2.67	2.11	2.12	1.77	1.91

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1967 - 1996, BY WATER YEAR (WY)

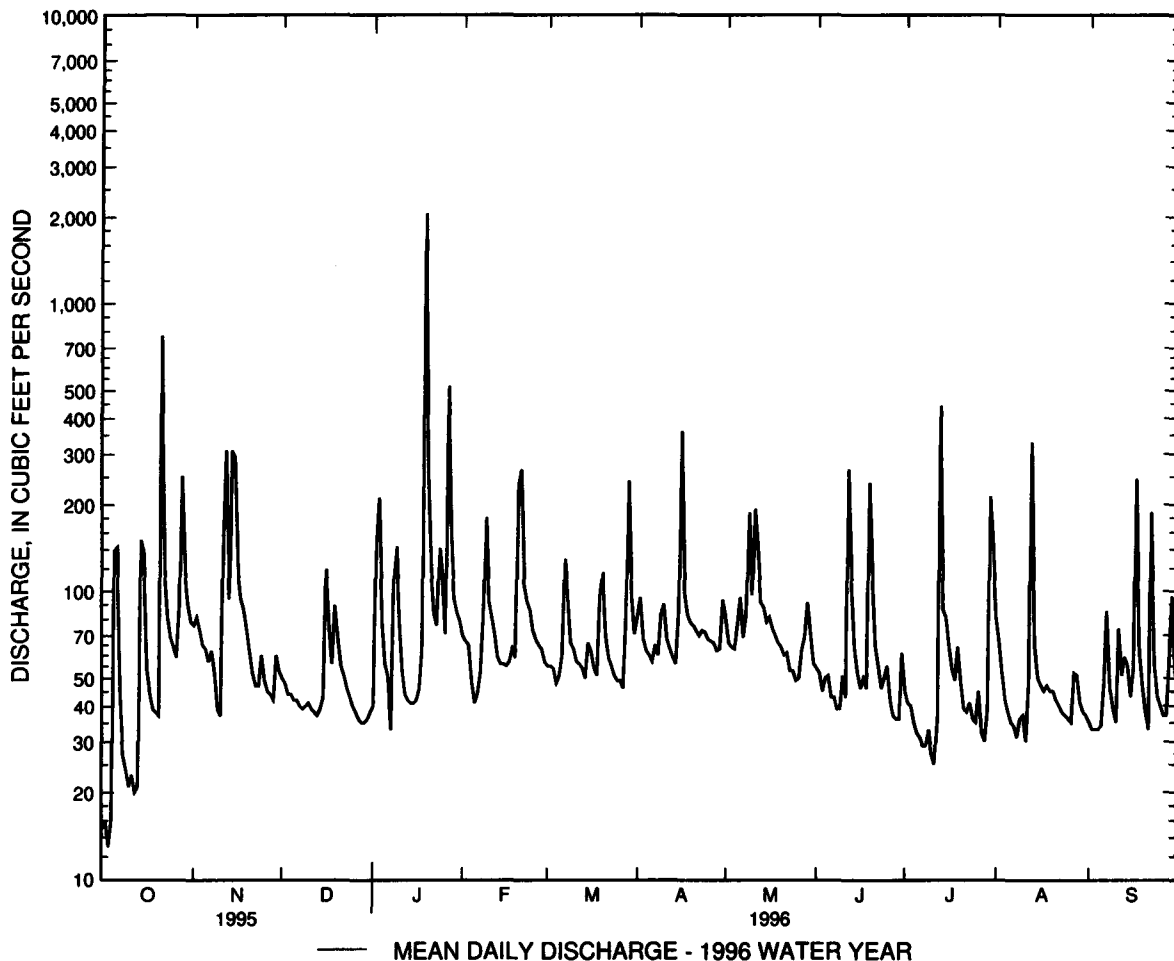
MEAN	36.3	45.8	53.8	65.4	69.4	68.5	64.1	60.9	52.8	45.9	39.2	41.4
MAX	94.0	90.0	118	167	151	163	134	162	204	133	137	140
(WY)	1980	1996	1984	1996	1979	1994	1983	1989	1972	1975	1971	1975
MIN	13.4	12.5	18.2	16.9	28.1	22.5	28.8	17.9	12.9	11.3	11.6	10.4
(WY)	1970	1982	1981	1981	1992	1981	1969	1969	1969	1986	1981	1986

01581700 WINTERS RUN NEAR BENSON, MD--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1967 - 1996	
ANNUAL TOTAL	18062.1		29121			
ANNUAL MEAN	49.5		79.6		53.3	
HIGHEST ANNUAL MEAN					86.0	1972
LOWEST ANNUAL MEAN					22.9	1981
HIGHEST DAILY MEAN	773	Oct 21	2060	Jan 19	3000	Jun 22 1972
LOWEST DAILY MEAN	6.3	Sep 7	13	Oct 3	6.3	(a)
ANNUAL SEVEN-DAY MINIMUM	7.5	Sep 2	26	Oct 7	7.5	Sep 2 1995
INSTANTANEOUS PEAK FLOW			5930	Jan 19	7600	Jun 22 1972
INSTANTANEOUS PEAK STAGE			10.22	Jan 19	11.60	Jun 22 1972
INSTANTANEOUS LOW FLOW			13	Oct 3	(b) 3.0	Jan 10 1982
ANNUAL RUNOFF (CFSM)	1.42		2.29		1.53	
ANNUAL RUNOFF (INCHES)	19.31		31.13		20.81	
10 PERCENT EXCEEDS	80		120		88	
50 PERCENT EXCEEDS	38		56		38	
90 PERCENT EXCEEDS	14		36		17	

a Aug. 28, 29, 1981, Sept. 7, 1995.

b Result of freezeup.



GUNPOWDER RIVER BASIN

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 mi².

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

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

GAGE.--Water-stage recorders. Elevation of gage is 305 ft above sea level, from topographic map.

REMARKS.--Records good except those for estimated daily discharges (ice effect), which are fair. Slight diurnal fluctuation at low flow caused by mill upstream from station. 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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 21	0630	1,820	5.75	July 13	0900	1,080	4.22
Jan. 19	1500	*4,130	*9.89	July 30	1045	2,500	7.08
Jan. 27	1045	1,100	4.27	Aug. 13	0400	1,250	4.60
June 19	0700	1,410	4.94				

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27	58	58	53	116	95	120	114	81	69	143	62
2	26	64	58	125	e110	96	127	101	78	81	110	60
3	25	57	55	191	e104	92	107	101	78	74	99	59
4	26	51	54	89	e100	85	104	99	79	64	90	61
5	61	48	52	75	e98	88	102	109	77	59	83	62
6	52	47	53	e62	e96	102	97	152	73	56	78	100
7	34	53	51	57	e98	173	103	109	72	54	75	132
8	31	59	49	122	106	127	96	124	70	66	72	72
9	29	49	53	176	160	105	128	163	70	69	122	66
10	28	47	48	e100	122	105	121	126	83	54	88	64
11	28	83	e46	e80	120	94	104	153	74	52	74	84
12	27	192	e46	e72	105	93	100	150	87	54	91	66
13	27	88	e47	e68	94	90	96	120	77	341	436	87
14	57	344	e50	e67	91	89	93	113	68	144	128	70
15	64	332	52	e67	90	102	106	108	65	110	104	64
16	37	132	98	e69	88	92	313	118	62	78	96	81
17	33	101	74	e76	87	86	152	110	63	68	90	188
18	32	87	63	112	83	83	133	106	62	67	83	97
19	31	79	88	1730	80	132	124	100	341	88	78	78
20	30	74	73	327	150	153	119	95	117	71	75	70
21	629	68	e70	175	263	110	115	94	91	61	75	65
22	102	64	e64	140	148	99	111	94	78	63	73	112
23	66	63	e58	125	143	93	115	88	71	65	71	78
24	55	71	55	220	144	88	113	85	75	59	69	71
25	49	62	54	158	127	85	106	82	77	60	67	68
26	46	60	e51	117	117	82	107	82	65	67	66	64
27	72	59	e50	558	111	79	107	97	62	55	91	65
28	154	56	e50	226	108	101	99	99	60	53	78	72
29	72	63	e49	162	100	221	101	116	60	229	70	101
30	60	59	e49	145	---	129	132	95	83	619	66	70
31	55	---	49	134	---	112	---	85	---	249	64	---
TOTAL	2065	2670	1767	5878	3359	3281	3551	3388	2499	3299	3005	2389
MEAN	66.6	89.0	57.0	190	116	106	118	109	83.3	106	96.9	79.6
MAX	629	344	98	1730	263	221	313	163	341	619	436	188
MIN	25	47	46	53	80	79	93	82	60	52	64	59
CFSM	1.26	1.68	1.08	3.58	2.19	2.00	2.24	2.07	1.57	2.01	1.83	1.51
IN.	1.45	1.88	1.24	4.13	2.36	2.31	2.50	2.38	1.76	2.32	2.11	1.68

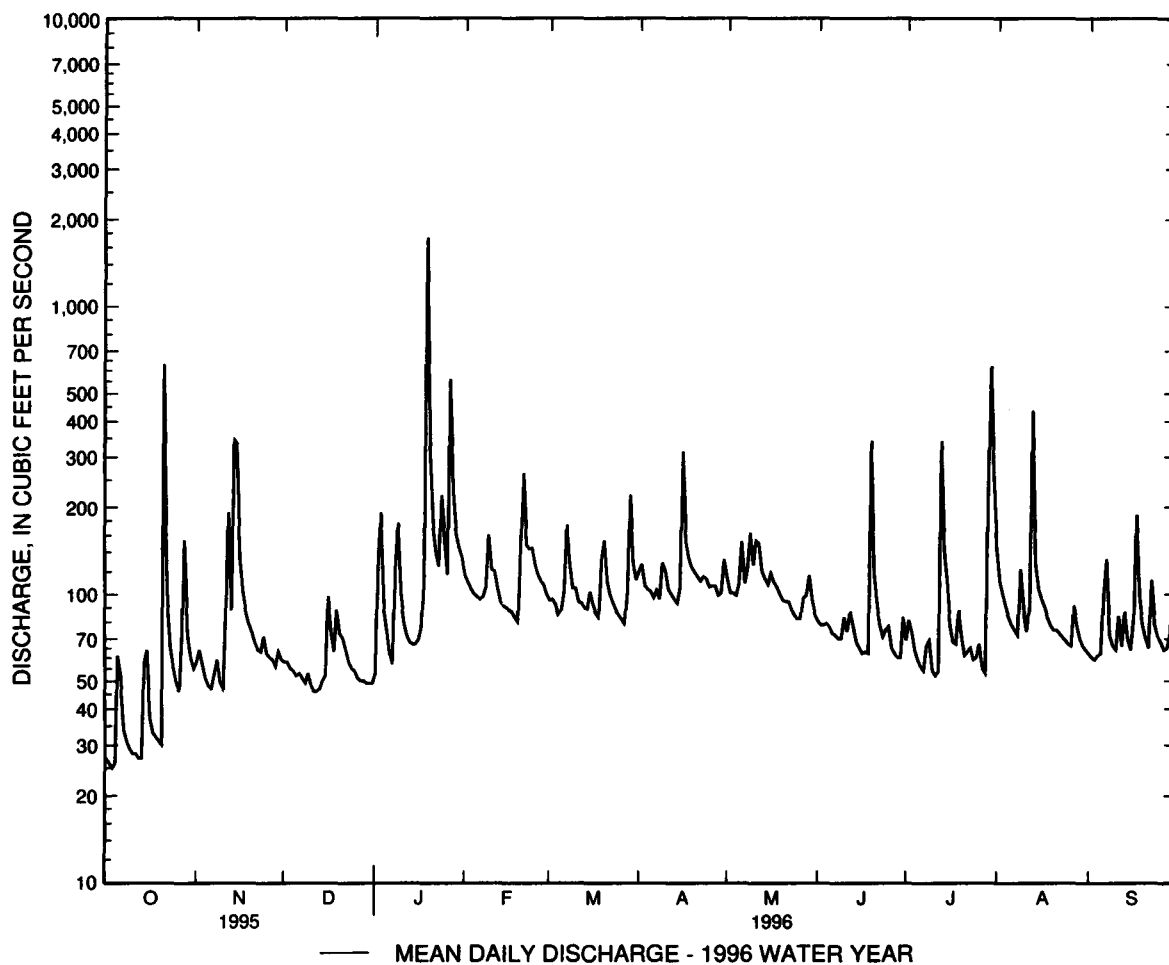
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1944 - 1996, BY WATER YEAR (WY)

	45.4	55.6	64.2	76.7	88.5	93.2	92.1	84.5	70.6	58.4	48.1	48.3
MEAN	45.4	55.6	64.2	76.7	88.5	93.2	92.1	84.5	70.6	58.4	48.1	48.3
MAX	203	129	145	190	187	261	194	202	353	158	159	227
(WY)	1980	1972	1973	1996	1979	1994	1952	1952	1972	1972	1971	1975
MIN	16.7	22.8	20.9	22.1	37.9	40.3	38.4	29.4	24.3	12.2	9.44	17.2
(WY)	1964	1982	1966	1981	1967	1981	1963	1969	1966	1966	1966	1986

01582000 LITTLE FALLS AT BLUE MOUNT, MD--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1944 - 1996	
ANNUAL TOTAL	22672		37151			
ANNUAL MEAN	62.1		102		68.8	
HIGHEST ANNUAL MEAN					132	
LOWEST ANNUAL MEAN					31.8	
HIGHEST DAILY MEAN	629	Oct 21	1730	Jan 19	4730	Jun 22 1972
LOWEST DAILY MEAN	17	(a)	25	Oct 3	4.5	Sep 11 1966
ANNUAL SEVEN-DAY MINIMUM	18	Sep 2	29	Oct 7	4.8	Sep 6 1966
INSTANTANEOUS PEAK FLOW			4130	Jan 19	(b) 8280	Jun 22 1972
INSTANTANEOUS PEAK STAGE			9.89	Jan 19	18.54	Jun 22 1972
INSTANTANEOUS LOW FLOW			24	Oct 4	1.9	Aug 26 1966
ANNUAL RUNOFF (CFSM)	1.17		1.92		1.30	
ANNUAL RUNOFF (INCHES)	15.94		26.13		17.66	
10 PERCENT EXCEEDS	88		144		117	
50 PERCENT EXCEEDS	56		83		52	
90 PERCENT EXCEEDS	27		52		25	

a Sept. 7, 8.

b From rating curve extended above 1,300 ft³/s on basis of contracted-opening measurement of peak flow.

GUNPOWDER RIVER BASIN

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 mi².

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

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

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

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

PEAK DISCHARGE FOR CURRENT YEAR.--Peak discharge, 4,670 ft³/s, Jan. 19, gage height, 12.84 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	102	121	137	132	397	283	378	337	229	149	543	151
2	102	132	140	217	e360	284	438	296	216	161	389	148
3	100	123	135	328	e335	291	377	281	209	195	319	145
4	100	114	134	186	e300	253	347	278	207	214	288	145
5	148	111	132	161	e280	252	334	288	218	203	273	149
6	145	110	132	166	e265	288	314	396	210	198	259	185
7	115	116	130	269	e265	412	316	326	200	195	232	339
8	109	127	127	535	e300	465	308	345	193	216	210	251
9	104	113	133	683	376	357	351	455	188	198	212	241
10	101	110	128	e295	380	315	398	398	212	134	186	257
11	138	138	e121	e215	367	295	346	407	195	129	158	267
12	213	354	e120	e195	348	288	318	497	236	131	168	247
13	213	177	e120	e185	293	280	302	388	236	689	878	276
14	265	492	e125	e180	277	272	293	339	243	364	466	254
15	268	536	130	e175	272	293	291	311	222	366	353	244
16	113	246	192	e175	271	291	730	325	214	297	303	257
17	102	199	167	e185	263	269	513	317	220	256	286	398
18	100	180	145	329	247	260	420	304	215	249	274	234
19	98	168	179	2480	235	308	377	292	627	282	266	203
20	97	160	166	e530	300	471	354	275	448	258	236	191
21	938	153	153	e390	679	389	335	264	353	240	196	185
22	189	147	143	e315	512	347	317	265	284	205	194	269
23	136	143	137	e300	465	315	314	246	254	151	194	208
24	120	157	136	364	456	285	337	234	262	142	192	192
25	112	143	134	329	411	270	293	223	268	142	189	188
26	108	139	132	258	369	268	285	215	244	155	184	182
27	118	138	147	831	345	251	297	240	202	137	183	185
28	272	136	130	716	337	272	273	267	138	133	186	189
29	144	145	127	561	318	557	268	302	137	402	163	244
30	125	140	128	490	---	469	319	285	174	1100	157	193
31	118	---	127	453	---	399	---	249	---	803	153	---
TOTAL	5113	5268	4287	12628	10023	10049	10543	9645	7254	8494	8290	6617
MEAN	165	176	138	407	346	324	351	311	242	274	267	221
MAX	938	536	192	2480	679	557	730	497	627	1100	878	398
MIN	97	110	120	132	235	251	268	215	137	129	153	145
(†)	14567	15667	16104	19995	19938	20020	19979	19969	19795	20097	19673	19785

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1978 - 1996, BY WATER YEAR (WY)

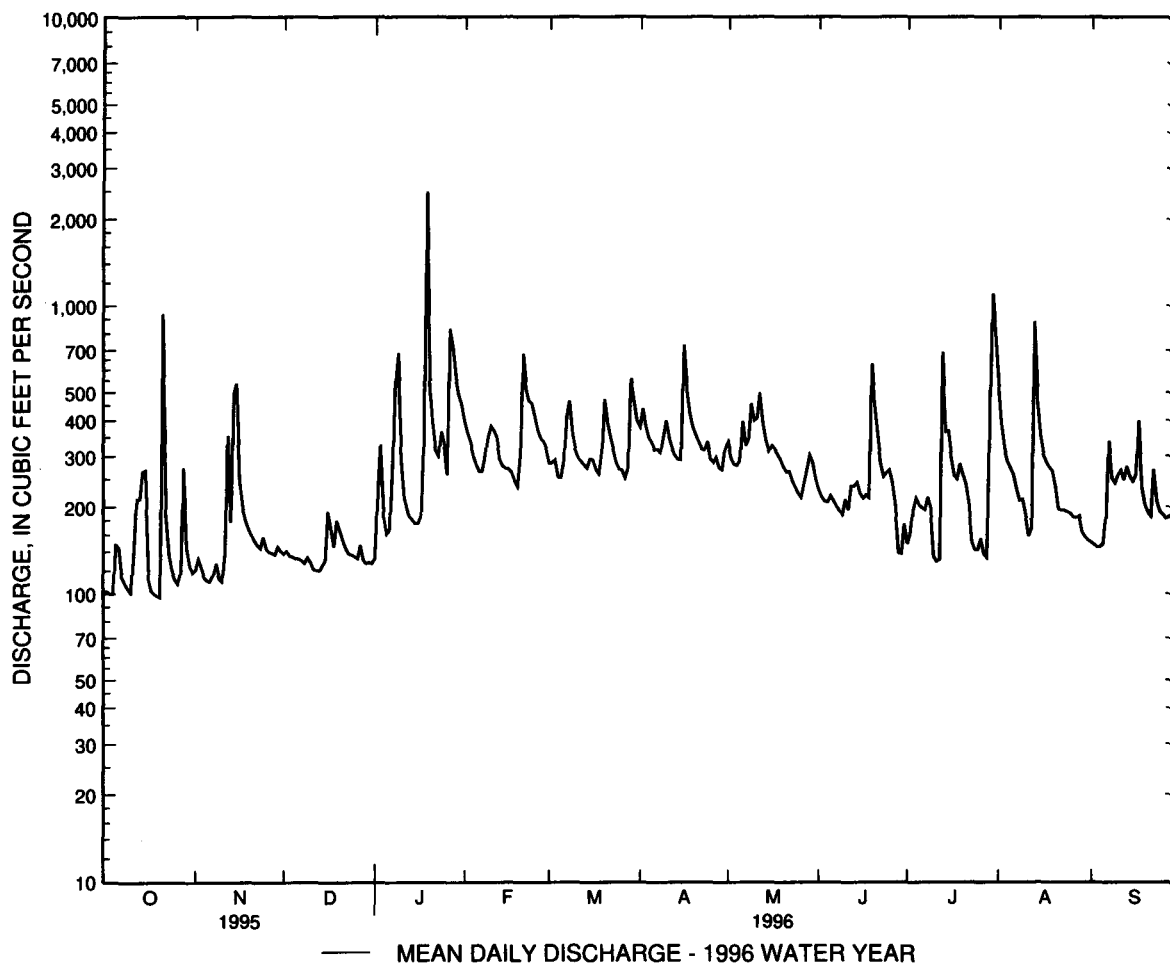
	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
MEAN	160	166	182	241	246	280	275	268	186	178	151	169	152	145	137	129	120	110	100
MAX	603	319	389	625	598	755	586	476	284	280	267	512	497	476	467	457	440	427	410
(WY)	1980	1980	1994	1979	1979	1994	1993	1989	1989	1986	1996	1979	1989	1989	1992	1992	1992	1992	1992
MIN	52.4	81.6	101	63.3	85.8	127	114	85.5	82.4	94.8	70.8	69.6	69.6	69.6	69.6	69.6	69.6	69.6	69.6
(WY)	1987	1993	1993	1983	1983	1992	1992	1992	1992	1985	1985	198	1985	1985	1985	1985	1985	1985	1985

(†) Month-end contents, in millions of gallons, in Prettyboy Reservoir (contents on Sept. 30, 1995, 14,634,000,000 gal). Records furnished by Baltimore Department of Public Works.

01582500 GUNPOWDER FALLS AT GLENCOE, MD--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1978 - 1996	
ANNUAL TOTAL	65694		98211			
ANNUAL MEAN	180		268		210	
HIGHEST ANNUAL MEAN					314	
LOWEST ANNUAL MEAN					118	
HIGHEST DAILY MEAN	1110	Jan 20	2480	Jan 19	4500	Sep 6 1979
LOWEST DAILY MEAN	97	Aug 26	97	Oct 20	38	Oct 25 1977
ANNUAL SEVEN-DAY MINIMUM	99	Aug 20	114	Nov 4	42	Oct 20 1977
INSTANTANEOUS PEAK FLOW			4670	Jan 19	6110	Sep 6 1979
INSTANTANEOUS PEAK STAGE			12.84	Jan 19	15.30	Sep 6 1979
INSTANTANEOUS LOW FLOW			97	Oct 20	(a) 35	Jan 4 1983
ANNUAL RUNOFF (CFSM)	1.12		1.68		1.31	
ANNUAL RUNOFF (INCHES)	15.27		22.83		17.80	
10 PERCENT EXCEEDS	257		408		366	
50 PERCENT EXCEEDS	153		246		164	
90 PERCENT EXCEEDS	110		128		82	

a Result of freezeup.



GUNPOWDER RIVER BASIN

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 down-stream from bridge on Western Run Road, 0.3 mi southeast of Western Run, 2.5 mi northwest of Cockeysville, 3.2 mi upstream from Beaverdam Run, and 5.0 mi upstream from mouth.

DRAINAGE AREA.--59.8 mi².

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

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

GAGE.--Water-stage recorder. Datum of gage is 262.78 ft above sea level (Baltimore County bench mark).

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 1,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 19	1645	*5,520	*9.89	July 13	1130	1,950	5.92
June 24	2030	1,200	4.67	July 30	1145	1,290	4.83
July 9	0045	1,080	4.43	Aug. 13	0530	1,440	5.10

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	45	59	57	94	88	119	102	77	79	163	73
2	22	51	61	133	91	88	154	90	74	80	121	71
3	21	46	57	229	e90	85	114	88	73	129	109	70
4	22	41	56	102	e87	78	107	87	74	78	102	72
5	46	38	53	e76	e84	81	102	94	72	71	96	75
6	43	38	54	e70	e82	89	98	113	69	66	91	97
7	29	41	52	80	e82	156	99	90	67	63	87	217
8	26	50	51	191	88	128	95	108	65	170	85	87
9	25	41	54	281	153	101	114	273	65	254	106	78
10	24	39	51	e150	125	94	118	134	72	86	97	76
11	24	47	e50	e80	115	92	101	143	82	75	84	76
12	24	169	e50	e72	108	91	96	161	90	74	94	75
13	24	82	50	e68	90	87	92	114	74	747	567	93
14	54	319	50	e66	89	84	88	105	64	166	151	79
15	56	298	51	e64	87	96	95	99	61	127	121	74
16	34	125	118	e64	85	90	288	108	58	109	110	84
17	29	95	92	e66	81	83	136	101	66	94	105	185
18	28	83	71	69	79	81	117	98	82	92	100	103
19	27	75	104	2130	75	119	110	91	308	224	98	87
20	26	69	91	281	127	170	105	85	126	138	98	82
21	265	66	74	161	252	108	101	82	89	97	98	82
22	73	62	69	130	152	96	97	83	75	94	100	153
23	49	60	65	114	146	90	99	78	68	94	96	97
24	41	72	62	167	133	86	101	76	300	86	97	84
25	37	62	60	159	116	85	93	73	166	83	90	81
26	35	59	58	112	107	82	92	74	96	89	77	78
27	43	57	56	430	102	79	89	90	83	79	119	82
28	118	56	54	181	99	101	86	102	77	74	94	88
29	58	64	53	131	91	229	87	127	73	180	82	118
30	47	60	52	114	---	133	111	100	98	384	77	86
31	43	---	53	108	---	113	---	83	---	325	74	---
TOTAL	1415	2410	1931	6136	3110	3183	3304	3252	2844	4507	3589	2803
MEAN	45.6	80.3	62.3	198	107	103	110	105	94.8	145	116	93.4
MAX	265	319	118	2130	252	229	288	273	308	747	567	217
MIN	21	38	50	57	75	78	86	73	58	63	74	70
CFSM	.76	1.34	1.04	3.31	1.79	1.72	1.84	1.75	1.59	2.43	1.94	1.56
IN.	.88	1.50	1.20	3.82	1.93	1.98	2.06	2.02	1.77	2.80	2.23	1.74

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1944 - 1996, BY WATER YEAR (WY)

	MEAN	45.3	56.0	66.7	81.3	92.3	95.5	90.2	82.7	71.3	57.0	49.6	48.1
MAX	209	131	185	222	240	237	209	227	395	164	183	261	
(WY)	1980	1953	1973	1979	1979	1994	1952	1952	1972	1971	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

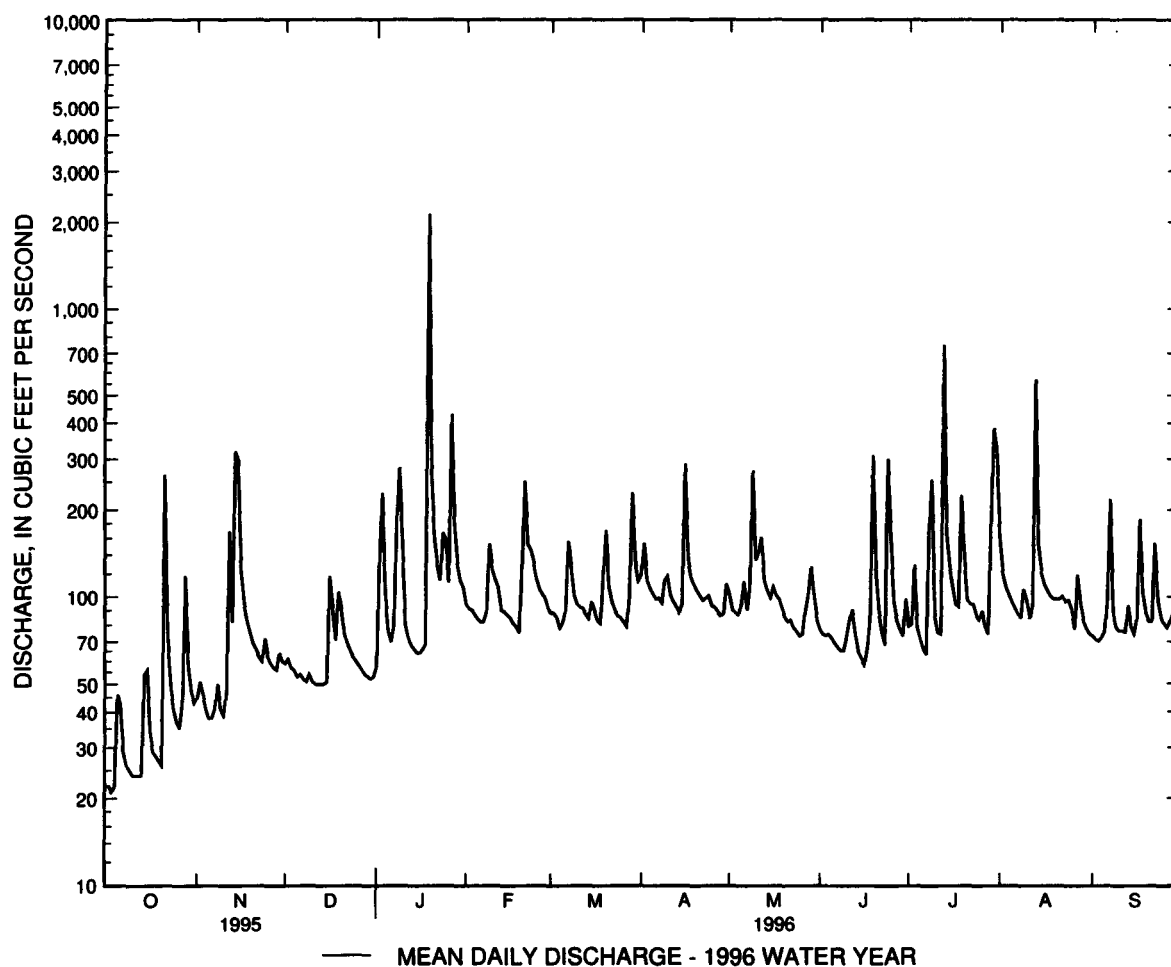
SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1944 - 1996	
ANNUAL TOTAL	19950		38484			
ANNUAL MEAN	54.7		105		69.6	
HIGHEST ANNUAL MEAN					138	1972
LOWEST ANNUAL MEAN					28.9	1966
HIGHEST DAILY MEAN	397	Jan 20	2130	Jan 19	7000	Jun 22 1972
LOWEST DAILY MEAN	16	(a)	21	Oct 3	2.5	Sep 12 1966
ANNUAL SEVEN-DAY MINIMUM	16	Sep 6	25	Oct 7	3.8	Sep 6 1966
INSTANTANEOUS PEAK FLOW			5520	Jan 19	(b) 38000	Jun 22 1972
INSTANTANEOUS PEAK STAGE			9.89	Jan 19	(c) 26.00	Jun 22 1972
INSTANTANEOUS LOW FLOW			21	(d)	2.4	Sep 12 1966
ANNUAL RUNOFF (CFSM)	.91		1.76		1.16	
ANNUAL RUNOFF (INCHES)	12.41		23.94		15.81	
10 PERCENT EXCEEDS	79		155		117	
50 PERCENT EXCEEDS	51		87		52	
90 PERCENT EXCEEDS	22		50		23	

a Sept. 7, 8, 11, 12.

b From rating curve extended above 3,200 ft³/s, on basis of slope-area measurement and contracted-opening measurement of peak flow.

c From floodmarks.

d Oct. 1-4.



GUNPOWDER RIVER BASIN

01583600 BEAVERDAM RUN AT COCKEYSVILLE, MD

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

DRAINAGE AREA.--20.9 mi².

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

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

GAGE.--Water-stage recorder. Datum of gage is 240.42 ft above sea level. Previously operated as a low-flow site during water years 1955-59 and 1962-64 at same site. Dec. 15, 1982 to June 15, 1993, water-stage recorder 600 ft downstream and 50 ft upstream from bridge on Beaverdam Run Lane at datum 1.38 ft lower.

REMARKS.--Records good except those for estimated daily discharges (ice effect, ADR malfunction and backwater from reservoir), 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 650 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 19	1415	*1,470	*8.80	July 8	2300	972	6.62
June 18	0015	699	5.33	July 13	0915	1,390	8.45
June 24	1700	996	6.73	Aug. 13	0330	924	6.40

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	30	24	e24	38	32	61	35	30	33	50	27
2	12	28	23	e50	35	34	53	31	29	45	40	25
3	11	22	22	e64	e33	31	39	31	26	41	36	25
4	11	22	21	e35	e35	29	36	34	33	31	35	23
5	85	22	21	e24	e31	30	34	55	27	30	33	23
6	25	20	22	e20	e31	38	34	44	24	28	32	68
7	15	36	23	e23	35	77	37	39	24	25	31	43
8	15	25	22	e90	43	45	32	52	24	157	30	26
9	13	20	27	e66	58	35	52	161	24	127	39	24
10	13	20	e21	e35	39	32	41	48	38	40	34	25
11	13	96	e19	e23	38	32	34	77	25	34	30	49
12	13	97	19	e21	32	32	33	51	38	62	80	28
13	13	35	20	e20	29	30	33	39	30	580	336	69
14	117	207	22	e20	30	29	32	38	24	76	53	33
15	41	112	25	e20	31	41	81	37	23	51	44	28
16	17	43	89	e22	30	32	145	47	22	44	40	58
17	15	34	35	e25	30	30	48	39	113	40	38	121
18	14	35	30	42	28	29	41	38	100	41	36	37
19	14	29	71	903	29	90	39	36	235	143	33	30
20	14	25	36	e80	73	54	38	31	51	52	32	27
21	241	24	30	e45	86	37	37	34	37	38	31	28
22	32	22	27	e40	49	33	34	32	33	41	31	117
23	23	28	25	e39	54	31	39	30	31	41	30	41
24	21	35	22	63	46	30	35	28	214	38	31	30
25	19	24	21	50	40	30	33	27	61	42	29	29
26	17	23	e20	40	37	29	34	27	41	42	25	27
27	35	22	e20	92	35	26	31	55	35	36	50	29
28	69	21	e19	56	35	77	30	44	32	35	32	56
29	26	45	e19	43	32	108	30	71	37	59	30	51
30	22	24	e18	41	---	46	66	38	61	e100	28	31
31	20	---	e19	40	---	40	---	32	---	103	28	---
TOTAL	1009	1226	832	2156	1142	1269	1312	1381	1522	2255	1427	1228
MEAN	32.5	40.9	26.8	69.5	39.4	40.9	43.7	44.5	50.7	72.7	46.0	40.9
MAX	241	207	89	903	86	108	145	161	235	580	336	121
MIN	11	20	18	20	28	26	30	27	22	25	25	23
CFSM	1.56	1.96	1.28	3.33	1.88	1.96	2.09	2.13	2.43	3.48	2.20	1.96
IN.	1.80	2.18	1.48	3.84	2.03	2.26	2.34	2.46	2.71	4.01	2.54	2.19

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 1996, BY WATER YEAR (WY)

MEAN	19.7	28.8	29.1	32.0	33.0	41.8	38.7	39.2	26.6	28.9	21.4	21.1
MAX	33.0	53.7	59.0	69.5	57.5	90.2	81.6	80.5	50.7	72.7	46.0	40.9
(WY)	1990	1994	1984	1996	1994	1994	1983	1989	1996	1996	1996	1996
MIN	10.4	14.8	15.0	16.9	18.5	21.4	18.5	14.5	9.23	8.94	10.0	7.29
(WY)	1983	1983	1983	1992	1992	1985	1985	1986	1986	1986	1985	1986

01583600 BEAVERDAM RUN AT COCKEYSVILLE, MD--Continued

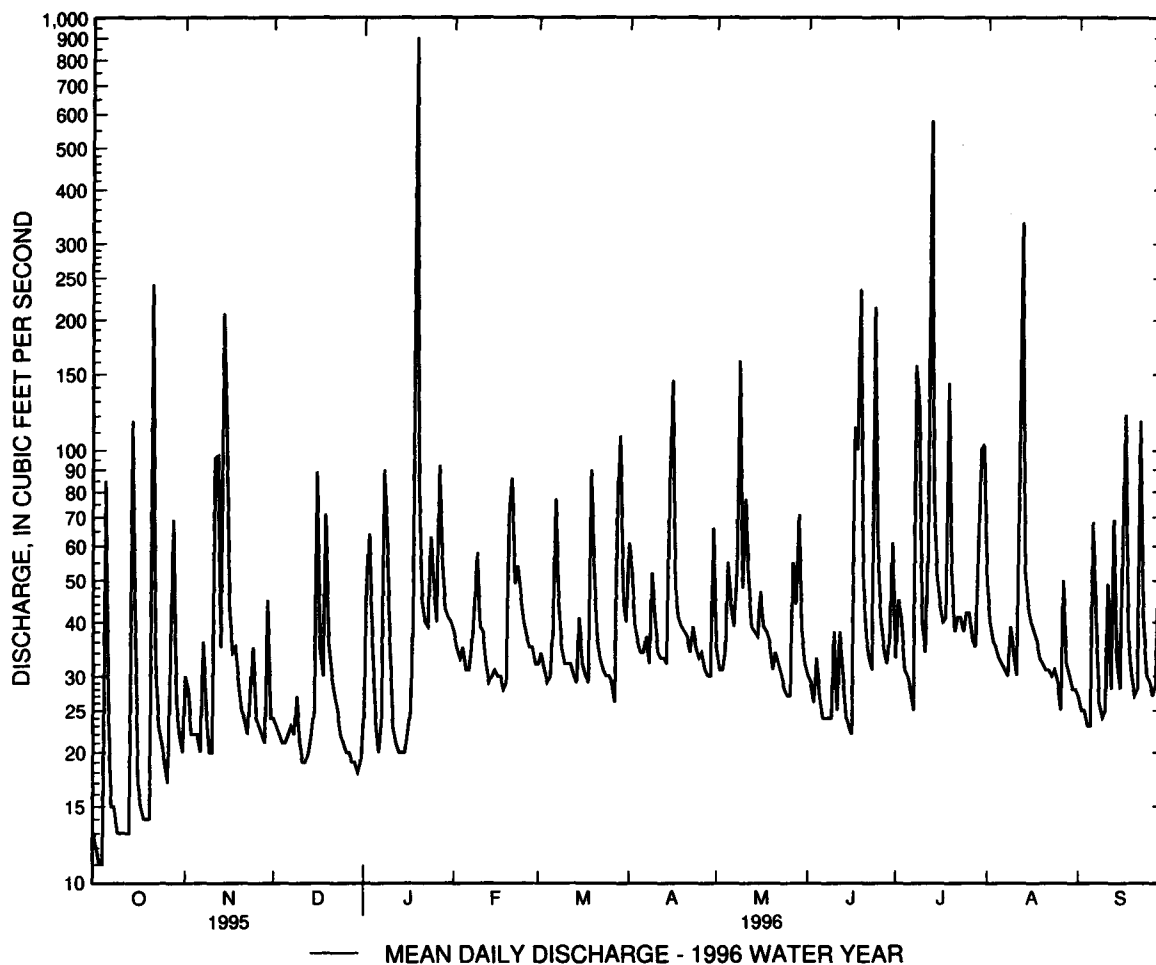
SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1983 - 1996	
ANNUAL TOTAL	10120.0		16759			
ANNUAL MEAN	27.7		45.8		30.0	
HIGHEST ANNUAL MEAN					45.8	
LOWEST ANNUAL MEAN					17.2	
HIGHEST DAILY MEAN	296	Jan 20	903	Jan 19	903	Jan 19 1996
LOWEST DAILY MEAN	7.2	Sep 6	11	(a)	5.5	(b)
ANNUAL SEVEN-DAY MINIMUM	8.3	Sep 5	14	Oct 7	5.8	Aug 10 1986
INSTANTANEOUS PEAK FLOW			1470	Jan 19	(c) 3360	Jul 1 1984
INSTANTANEOUS PEAK STAGE			8.80	Jan 19	(d) 12.10	Jul 1 1984
INSTANTANEOUS LOW FLOW			9.8	Oct 3	4.1	Oct 1 1986
ANNUAL RUNOFF (CFSM)	1.33		2.19		1.44	
ANNUAL RUNOFF (INCHES)	18.01		29.83		19.52	
10 PERCENT EXCEEDS	42		74		51	
50 PERCENT EXCEEDS	21		33		21	
90 PERCENT EXCEEDS	12		21		11	

a Oct. 3, 4.

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

c From rating curve extended above 1,000 ft³/s.

d From floodmarks.



GUNPOWDER RIVER BASIN

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 mi².

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

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

REMARKS.--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 300 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 21	0645	524	4.10	June 19	1300	506	4.06
Jan. 19	1300	*1,960	*5.83	July 13	0600	325	3.58
May 9	0415	431	3.88	Aug. 13	0315	348	3.65
June 12	1730	365	3.70				

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.2	9.3	9.6	8.8	15	13	20	15	11	13	15	8.7
2	2.3	11	9.1	48	15	13	22	14	11	11	12	8.3
3	2.3	9.1	8.7	35	14	13	16	14	11	11	11	8.3
4	2.4	7.9	8.6	13	13	12	15	14	13	10	11	8.6
5	32	7.3	8.3	11	e13	12	15	17	12	10	10	8.7
6	18	7.1	8.3	8.6	e12	14	14	18	11	9.7	9.9	17
7	5.1	8.6	8.2	e8.7	12	25	15	15	10	9.5	9.6	14
8	4.1	8.4	7.7	e35	14	17	14	19	10	11	9.4	9.4
9	3.5	7.2	8.3	40	35	14	19	81	10	11	10	9.0
10	3.5	6.8	7.6	18	19	13	18	21	14	9.2	10	8.9
11	3.3	34	7.2	9.8	19	14	15	43	11	8.8	8.9	28
12	3.1	41	7.0	9.5	16	14	14	23	58	12	14	11
13	3.1	13	6.9	8.7	13	13	13	17	17	106	95	11
14	16	61	7.7	8.6	13	13	13	16	13	18	18	10
15	12	36	8.2	8.7	12	14	24	15	11	16	14	9.3
16	5.4	15	27	9.1	12	13	59	17	10	13	13	13
17	4.5	13	12	9.8	12	12	19	15	12	12	12	37
18	4.2	12	11	11	12	12	17	15	11	12	11	14
19	4.0	11	20	393	11	27	16	14	105	17	11	11
20	3.8	11	13	31	39	20	15	12	27	12	11	10
21	163	10	11	19	42	15	15	12	19	11	11	9.8
22	13	9.7	9.9	16	20	14	14	12	14	11	11	33
23	9.4	9.6	9.6	15	22	13	15	11	13	11	11	13
24	8.0	11	9.5	37	18	12	14	10	41	11	10	12
25	7.0	9.7	9.3	19	16	12	14	10	18	11	9.9	11
26	6.5	9.3	8.6	15	15	12	14	9.9	13	12	9.8	11
27	18	9.3	8.0	96	14	11	13	13	12	10	9.8	11
28	49	9.1	8.0	24	14	21	12	13	11	9.6	10	21
29	11	13	8.0	18	13	48	13	19	11	17	9.6	21
30	9.2	10	7.9	18	---	19	20	14	16	35	9.2	12
31	8.4	---	8.2	17	---	16	---	12	---	30	9.0	---
TOTAL	437.3	430.4	302.4	1019.3	495	491	517	550.9	556	500.8	426.1	410.0
MEAN	14.1	14.3	9.75	32.9	17.1	15.8	17.2	17.8	18.5	16.2	13.7	13.7
MAX	163	61	27	393	42	48	59	81	105	106	95	37
MIN	2.2	6.8	6.9	8.6	11	11	12	9.9	10	8.8	8.9	8.3
CFSM	1.50	1.53	1.04	3.50	1.82	1.68	1.83	1.89	1.97	1.72	1.46	1.45
IN.	1.73	1.70	1.20	4.03	1.96	1.94	2.05	2.18	2.20	1.98	1.69	1.62

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1976 - 1996, BY WATER YEAR (WY)

MEAN	7.85	9.05	11.4	15.1	14.5	16.8	14.4	13.3	10.4	9.65	8.13	8.01
MAX	25.1	18.0	26.9	38.4	39.3	39.2	35.3	28.1	18.5	28.0	26.9	32.2
(WY)	1980	1980	1984	1979	1979	1994	1983	1989	1996	1989	1978	1979
MIN	2.97	3.05	4.04	3.67	6.16	6.02	7.37	5.94	3.85	2.49	2.87	2.41
(WY)	1987	1982	1981	1981	1992	1981	1981	1986	1986	1986	1995	1986

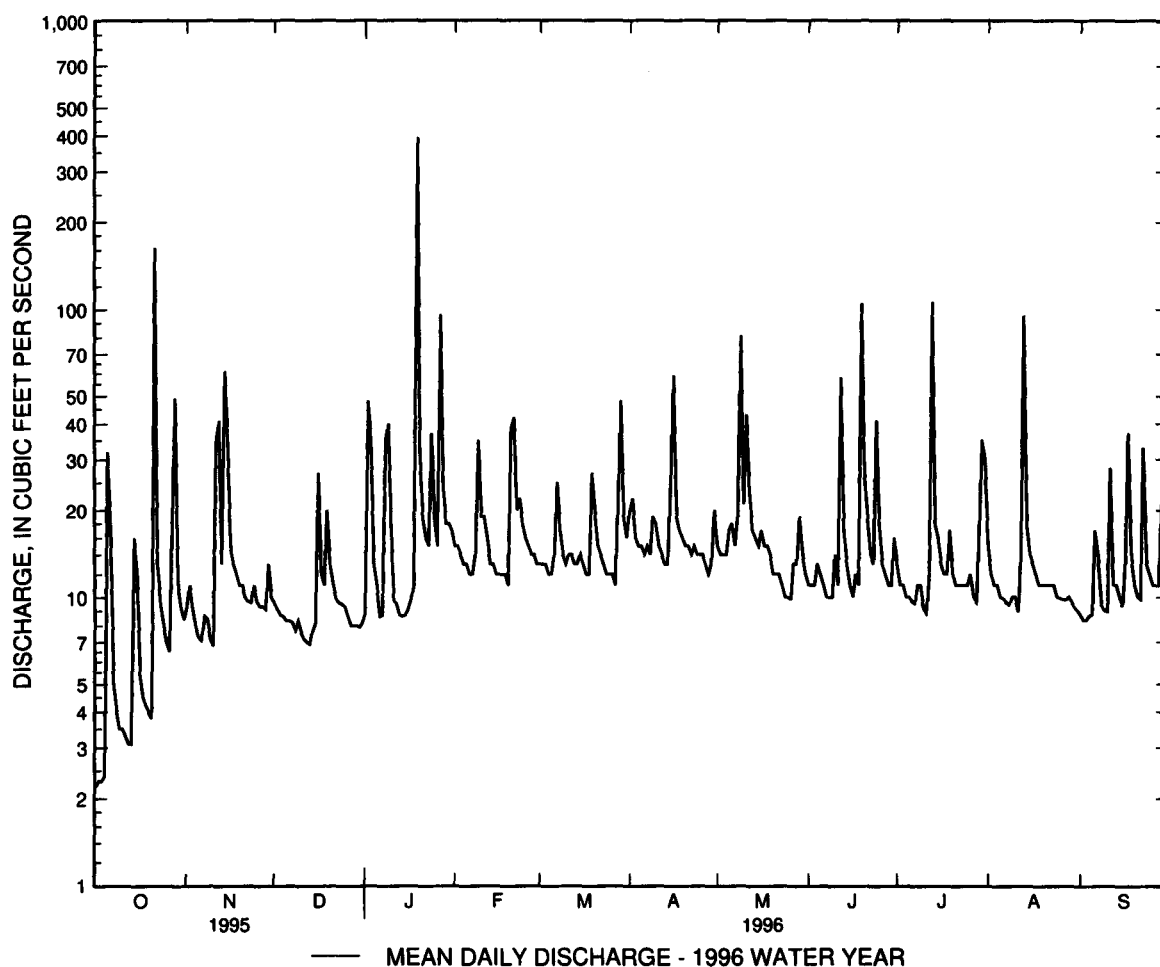
01584050 LONG GREEN CREEK AT GLEN ARM, MD--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1976 - 1996	
ANNUAL TOTAL	3173.4		6136.2			
ANNUAL MEAN	8.69		16.8		11.5	
HIGHEST ANNUAL MEAN					18.1	
LOWEST ANNUAL MEAN					5.33	
HIGHEST DAILY MEAN	163	Oct 21	393	Jan 19	408	Jan 26 1978
LOWEST DAILY MEAN	1.6	(a)	2.2	Oct 1	1.5	Aug 15 1986
ANNUAL SEVEN-DAY MINIMUM	1.7	Sep 2	3.7	Oct 7	1.6	Aug 10 1986
INSTANTANEOUS PEAK FLOW			1960	Jan 19	(b) 3250	Jul 1 1984
INSTANTANEOUS PEAK STAGE			5.83	Jan 19	6.70	Jul 1 1984
INSTANTANEOUS LOW FLOW			2.1	Oct 1	(c) 1.0	Jan 29 1977
ANNUAL RUNOFF (CFSM)	.92		1.78		1.23	
ANNUAL RUNOFF (INCHES)	12.56		24.28		16.69	
10 PERCENT EXCEEDS	12		24		18	
50 PERCENT EXCEEDS	7.3		12		8.4	
90 PERCENT EXCEEDS	2.5		8.2		3.6	

a Sept. 4, 6, 8, 11, 12, 15.

b From rating curve extended above 1,300 ft³/s.

c Result of freezeup.



GUNPOWDER RIVER BASIN

01585090 WHITEMARSH RUN NR FULLERTON. MD

LOCATION.--Lat 39°22'46", long 76°29'46", Baltimore County, Hydrologic Unit 02060003, on right bank 200 ft downstream of Route 43 bridge, 1.0 mi west of White Marsh. and 5.0 mi upstream from mouth.

DRAINAGE AREA. - - 2.73 mi².

PERIOD OF RECORD.--January 1995 to current year.

GAGE.--Water-stage recorder. Datum of gage is 125 ft above sea level.

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

PEAK DISCHARGES FOR CURRENT PERIOD.--Peak discharges greater than base discharge of 750 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 20, 1995	0530	851	4.25	Jan. 19, 1996	1200	2,130	5.22
July 24, 1995	1700	844	4.24	Apr. 15, 1996	2230	822	4.06
Oct. 5, 1995	1030	879	4.29	June 17, 1996	2145	*2,960	*5.75
Oct. 5, 1995	2145	954	4.39	June 19, 1996	1315	1,570	4.81
Oct. 21, 1995	0315	1,110	4.59	Aug. 13, 1996	0200	806	4.04

DISCHARGE, IN CUBIC FEET PER SECOND, JANUARY 1994 TO SEPTEMBER 1995

MEAN DAILY VALUES

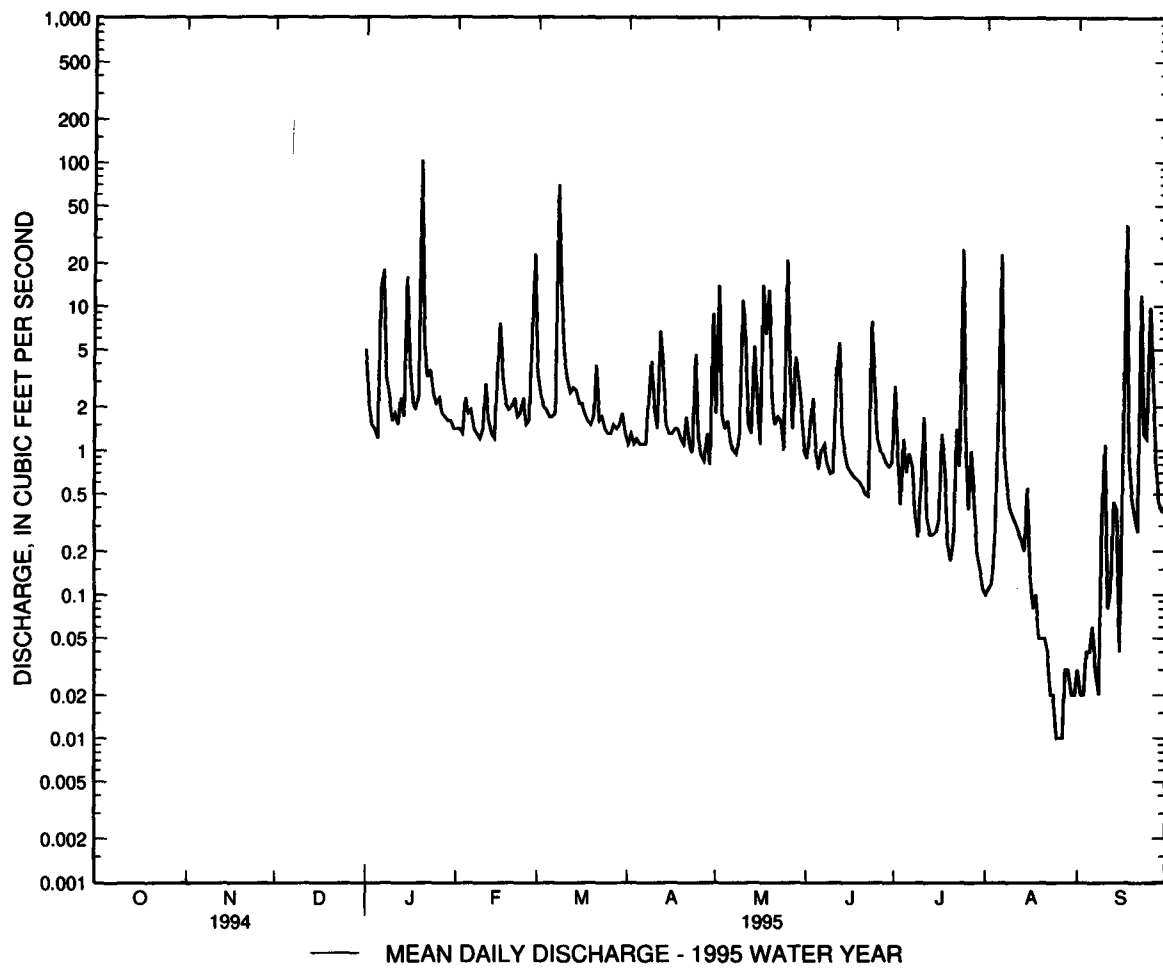
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	e5.0	1.4	3.4	1.1	1.8	.88	2.8	.10	.03
2	---	---	---	e2.2	1.4	2.4	1.3	14	1.5	.94	.11	.02
3	---	---	---	e1.5	1.3	2.0	1.1	1.8	2.3	.42	.12	.02
4	---	---	---	e1.4	2.3	1.9	1.2	1.4	1.0	1.2	.24	.04
5	---	---	---	e1.2	1.8	1.7	1.1	1.6	.74	.70	1.4	.04
6	---	---	---	e13	1.9	1.7	1.1	1.1	1.0	.95	23	.06
7	---	---	---	18	1.4	1.8	1.1	1.0	1.1	.78	1.1	.03
8	---	---	---	3.2	1.3	70	2.2	.94	.81	.35	.59	.02
9	---	---	---	2.4	1.2	13	4.1	1.3	.69	.25	.40	.35
10	---	---	---	1.6	1.4	4.5	2.0	11	.71	.62	.35	1.1
11	---	---	---	1.8	2.9	3.1	1.4	6.1	3.4	1.7	.31	.08
12	---	---	---	1.5	1.6	2.5	6.7	1.5	5.6	.34	.27	.11
13	---	---	---	2.3	1.3	2.7	3.7	1.3	1.3	.26	.24	.44
14	---	---	---	1.7	1.2	2.6	1.5	5.3	.96	.26	.20	.39
15	---	---	---	16	3.3	2.1	1.3	2.3	.76	.27	.55	.04
16	---	---	---	4.2	7.6	2.1	1.3	1.1	.71	.33	.14	.69
17	---	---	---	2.2	3.1	1.8	1.4	14	.66	1.3	.08	37
18	---	---	---	1.9	2.1	1.6	1.4	6.4	.63	.80	.10	1.0
19	---	---	---	2.4	1.9	1.5	1.2	13	.60	.23	.05	.48
20	---	---	---	103	2.0	1.7	1.1	2.2	.55	.17	.05	.35
21	---	---	---	5.3	2.3	3.9	1.7	1.5	.50	.23	.05	.27
22	---	---	---	3.2	1.7	1.6	1.1	1.7	.48	1.4	.04	12
23	---	---	---	3.6	1.8	1.7	.96	1.6	7.9	.77	.02	1.3
24	---	---	---	2.4	2.3	1.4	4.6	1.0	3.0	25	.02	1.2
25	---	---	---	2.1	1.5	1.3	1.2	21	1.2	1.2	.01	9.8
26	---	---	---	2.3	1.6	1.3	.93	3.8	1.0	.39	.01	3.3
27	---	---	---	1.8	6.0	1.5	.84	1.4	.94	.99	.01	.83
28	---	---	---	1.7	23	1.4	1.3	4.4	.82	.42	.03	.44
29	---	---	---	1.6	---	1.5	.79	3.2	.77	.19	.03	.38
30	---	---	---	1.6	---	1.8	8.9	2.0	.81	.15	.02	.37
31	---	---	---	1.4	---	1.3	---	1.0	---	.11	.02	---
TOTAL	---	---	---	213.5	82.6	142.8	59.62	131.74	43.32	45.52	29.66	72.18
MEAN	---	---	---	6.89	2.95	4.61	1.99	4.25	1.44	1.47	.96	2.41
MAX	---	---	---	103	23	70	8.9	21	7.9	25	23	37
MIN	---	---	---	1.2	1.2	1.3	.79	.94	.48	.11	.01	.02
CFSM	---	---	---	2.52	1.08	1.69	.73	1.56	.53	.54	.35	.88
IN.	---	---	---	2.91	1.13	1.95	.81	1.80	.59	.62	.40	.99

e Estimated

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

[illegible]

01585090 WHITEMARSH RUN NR FULLERTON, MD--Continued



GUNPOWDER RIVER BASIN

01585090 WHITEMARSH RUN NR FULLERTON, MD--Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.42	10	1.9	2.5	2.3	2.0	12	3.2	1.7	1.8	3.7	1.2
2	.45	4.9	1.5	29	2.2	3.6	6.8	2.5	1.5	1.8	2.1	1.1
3	.55	2.3	1.4	14	2.2	2.2	3.2	2.8	1.5	1.9	6.0	1.1
4	.68	1.8	1.3	2.7	e2.2	1.9	2.8	5.1	3.8	1.3	1.9	1.2
5	66	1.5	1.3	e2.0	e2.2	2.1	2.7	18	2.0	1.2	1.5	1.6
6	5.8	1.3	1.7	e1.5	e2.3	4.9	2.5	5.9	1.4	1.2	1.5	16
7	1.2	6.4	1.2	e1.4	2.3	17	4.2	6.5	1.3	1.1	1.5	3.7
8	.63	2.4	1.1	e3.0	8.9	5.5	2.4	13	1.3	3.8	1.5	1.4
9	.44	1.5	3.2	e5.6	15	2.9	14	47	1.8	3.0	2.9	1.3
10	.36	1.4	1.5	e2.5	4.7	2.5	5.2	5.3	4.7	1.3	1.6	1.4
11	.35	35	1.1	e2.0	3.8	2.4	2.9	31	1.3	1.0	1.4	30
12	.50	23	.96	e1.6	2.7	2.3	2.6	6.7	21	21	22	2.3
13	.52	3.7	1.0	e1.4	2.5	2.1	2.3	3.6	2.7	85	79	2.7
14	37	44	2.2	e1.3	2.3	2.1	2.2	2.9	2.7	3.3	3.3	1.4
15	7.2	13	2.2	e1.3	2.6	5.0	39	2.4	3.0	2.0	2.1	1.2
16	1.5	3.5	31	e1.4	2.5	2.3	38	6.1	1.0	1.6	2.3	10
17	1.0	2.4	3.4	e2.4	2.9	1.9	4.8	2.6	151	1.4	1.7	37
18	.83	2.0	2.4	16	2.4	1.8	3.3	2.3	16	1.9	1.5	2.2
19	.73	1.8	17	201	2.4	20	2.8	2.1	124	23	1.3	1.5
20	.71	1.6	4.1	14	17	5.8	2.6	1.8	26	2.8	1.5	1.3
21	143	1.5	2.4	7.4	16	3.0	2.5	2.3	6.8	1.7	1.5	1.2
22	4.4	1.3	2.5	6.2	6.0	2.4	2.4	2.0	3.1	2.4	3.1	24
23	1.8	2.3	1.9	5.7	7.1	2.2	7.3	1.5	2.3	1.8	1.4	2.1
24	1.3	3.6	1.9	22	3.8	2.1	2.8	1.5	4.4	1.7	1.2	1.4
25	1.1	1.4	2.4	7.0	2.8	2.1	2.4	1.5	2.4	5.9	1.1	1.2
26	.96	1.3	1.4	3.3	2.6	2.0	3.0	1.5	1.8	4.4	1.1	1.2
27	14	1.2	1.8	36	2.5	1.9	2.2	10	1.7	1.6	1.6	1.6
28	34	1.3	1.2	5.3	2.4	21	2.1	3.8	1.6	1.3	1.2	10
29	2.9	11	1.3	3.7	2.1	25	2.4	14	2.1	9.5	1.2	4.4
30	2.1	2.4	1.3	3.3	---	4.8	14	2.6	9.9	17	1.2	1.5
31	1.5	---	2.1	2.9	---	3.3	---	1.9	---	15	1.2	---
TOTAL	333.93	190.8	101.66	409.4	130.7	160.1	197.4	213.4	405.8	223.7	156.1	168.2
MEAN	10.8	6.36	3.28	13.2	4.51	5.16	6.58	6.88	13.5	7.22	5.04	5.61
MAX	143	44	31	201	17	25	39	47	151	85	79	37
MIN	.35	1.2	.96	1.3	2.1	1.8	2.1	1.5	1.0	1.0	1.1	1.1
CFSM	3.95	2.33	1.20	4.84	1.65	1.89	2.41	2.52	4.95	2.64	1.84	2.05
IN.	4.55	2.60	1.39	5.58	1.78	2.18	2.69	2.91	5.53	3.05	2.13	2.29

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1995 - 1996, BY WATER YEAR (WY)

MEAN	10.8	6.36	3.28	10.0	3.74	4.89	4.28	5.57	7.49	4.34	3.00	4.01
MAX	10.8	6.36	3.28	13.2	4.51	5.16	6.58	6.88	13.5	7.22	5.04	5.61
(WY)	1996	1996	1996	1996	1996	1996	1996	1996	1996	1996	1996	1996
MIN	10.8	6.36	3.28	6.89	2.95	4.61	1.99	4.25	1.44	1.47	.96	2.41
(WY)	1996	1996	1996	1995	1995	1995	1995	1995	1995	1995	1995	1995

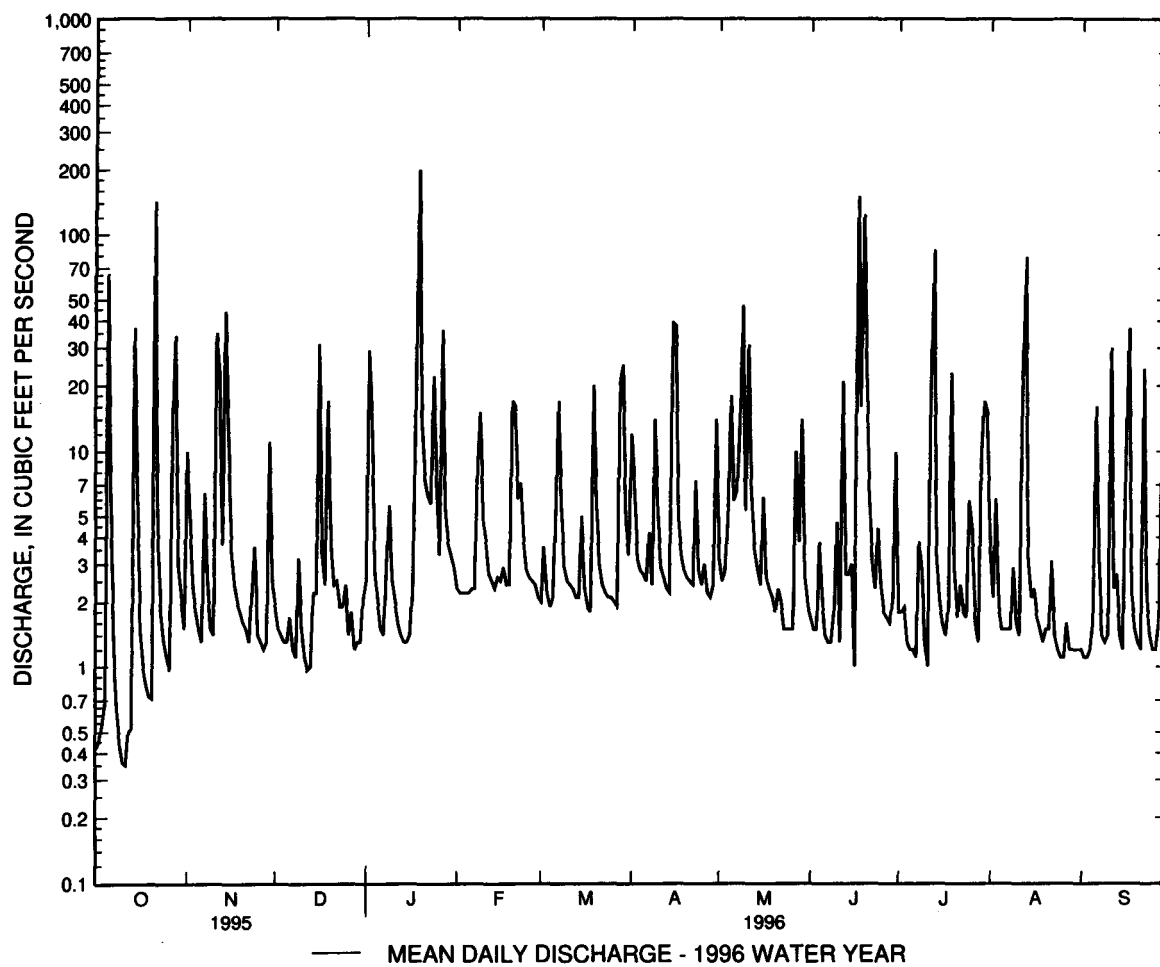
SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1995 - 1996	
ANNUAL TOTAL	1447.33		2691.19			
ANNUAL MEAN	3.97		7.35		7.35	
HIGHEST ANNUAL MEAN					7.35	1996
LOWEST ANNUAL MEAN					7.35	1996
HIGHEST DAILY MEAN	143	Oct 21	201	Jan 19	201	Jan 19 1996
LOWEST DAILY MEAN	.01	(a)	.35	Oct 11	.01	(a)
ANNUAL SEVEN-DAY MINIMUM	.02	Aug 23	.57	Oct 7	.02	Aug 23 1995
INSTANTANEOUS PEAK FLOW			(b) 2960	Jun 17	(b) 2960	Jun 17 1996
INSTANTANEOUS PEAK STAGE			5.75	Jun 17	5.75	Jun 17 1996
INSTANTANEOUS LOW FLOW			.27	Oct 10	.00	(c)
ANNUAL RUNOFF (CFSM)	1.45		2.69		2.69	
ANNUAL RUNOFF (INCHES)	19.72		36.67		36.60	
10 PERCENT EXCEEDS	6.4		16		13	
50 PERCENT EXCEEDS	1.4		2.3		1.8	
90 PERCENT EXCEEDS	.23		1.2		.44	

a Aug. 25-27, 1995.

b From rating curve extended above 120 ft³/s.

c Aug. 26, 27, 1995.

01585090 WHITEMARSH RUN NR FULLERTON, MD--Continued



GUNPOWDER RIVER BASIN

01585095 NORTH FORK WHITEMARSH RUN NR WHITE MARSH, MD

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

DRAINAGE AREA.--1.34 mi².

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

GAGE.--Water-stage recorder. Datum of gage is 75 ft above sea level.

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

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

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 5	2145	361	4.02	June 12	1700	253	3.25
Oct. 21	0600	256	3.27	June 19	1330	*502	*5.05
Nov. 11	2045	309	3.63	June 20	2300	278	3.42
Jan. 19	1200	444	4.63	July 13	0445	272	3.38
Apr. 15	2230	331	3.79	Sept. 17	0200	348	3.92
Apr. 15	2400	344	3.89				

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.27	6.2	.89	1.1	.79	.71	6.0	1.4	.38	.48	1.6	.71
2	.31	3.1	.70	15	e.80	1.8	3.2	.94	.36	.73	1.2	.74
3	.50	1.5	.59	e6.0	e.81	.85	.79	1.1	.35	.50	1.8	.75
4	.59	1.6	.51	e2.5	.86	.72	.66	2.3	3.9	.39	.91	.71
5	22	1.5	.47	e1.2	.89	.82	.62	8.7	1.1	.36	.83	.71
6	2.7	1.3	.54	e.68	e.90	2.2	.53	3.0	.65	.36	.76	9.3
7	.39	3.8	.40	e.62	.94	9.6	1.4	3.0	.65	.36	.73	1.4
8	.34	1.6	.42	e1.2	4.1	2.7	.58	7.0	.65	.80	.71	.78
9	.32	1.2	1.6	e2.5	8.9	1.1	8.7	23	.68	1.2	2.0	.71
10	.32	1.0	.60	e1.4	2.7	.81	2.4	1.7	1.6	.34	.85	.71
11	.34	20	.48	e.90	2.0	.78	.90	18	.65	.30	.71	15
12	.38	12	.44	e.64	1.2	.78	.82	3.1	12	12	11	.83
13	.37	2.1	.44	e.54	.78	.74	.75	1.0	1.7	53	36	2.2
14	23	20	.87	e.54	.86	.71	.71	.79	1.1	1.6	1.4	.74
15	4.6	5.9	1.1	e.60	1.1	2.4	26	.63	1.0	1.1	.91	.66
16	.97	1.7	15	e.90	.84	.82	28	2.3	.94	.89	1.1	6.2
17	.75	1.1	1.6	2.3	1.1	.67	2.3	.90	18	.76	2.3	30
18	.66	.84	.92	5.2	.78	.65	1.5	.79	4.2	.94	.88	2.6
19	.65	.73	9.5	80	.70	9.5	1.1	.71	53	7.7	.69	1.5
20	.78	.67	2.2	3.7	6.9	2.6	1.0	.64	23	1.0	.65	1.2
21	55	.61	1.2	1.6	7.5	1.2	.91	.78	4.9	.78	.65	1.2
22	2.3	.65	.91	1.0	2.7	.90	.86	.58	.69	1.2	.65	17
23	1.3	1.3	.75	1.0	3.6	.81	4.3	.44	.54	.98	.65	1.2
24	1.1	1.6	.81	7.7	1.5	.74	1.3	.48	2.0	.86	.65	.73
25	1.3	.50	.72	2.0	.96	.71	1.0	.40	.55	2.6	.65	.64
26	1.3	.42	.61	1.0	.86	.71	1.5	.33	.43	1.8	.65	.59
27	5.3	.42	.53	19	.79	.65	1.2	4.7	.40	.78	.71	.88
28	15	.77	.55	2.6	.78	11	1.1	1.2	.42	.65	.74	4.7
29	1.8	7.2	.56	1.5	.71	14	1.4	5.5	1.2	4.8	.74	1.7
30	1.3	1.3	.56	1.2	---	1.3	6.8	.68	4.5	11	.71	.64
31	1.2	---	.65	1.1	---	.95	---	.44	---	8.3	.71	---

e Estimated

TOTAL	147.14	102.61	47.12	167.22	57.35	73.93	108.33	96.53	141.54	118.56	74.54	106.73
MEAN	4.75	3.42	1.52	5.39	1.98	2.38	3.61	3.11	4.72	3.82	2.40	3.56
MAX	55	20	15	80	8.9	14	28	23	53	53	36	30
MIN	.27	.42	.40	.54	.70	.65	.53	.33	.35	.30	.65	.59
CFSM	3.54	2.55	1.13	4.03	1.48	1.78	2.69	2.32	3.52	2.85	1.79	2.65
IN.	4.08	2.85	1.31	4.64	1.59	2.05	3.01	2.68	3.93	3.29	2.07	2.96

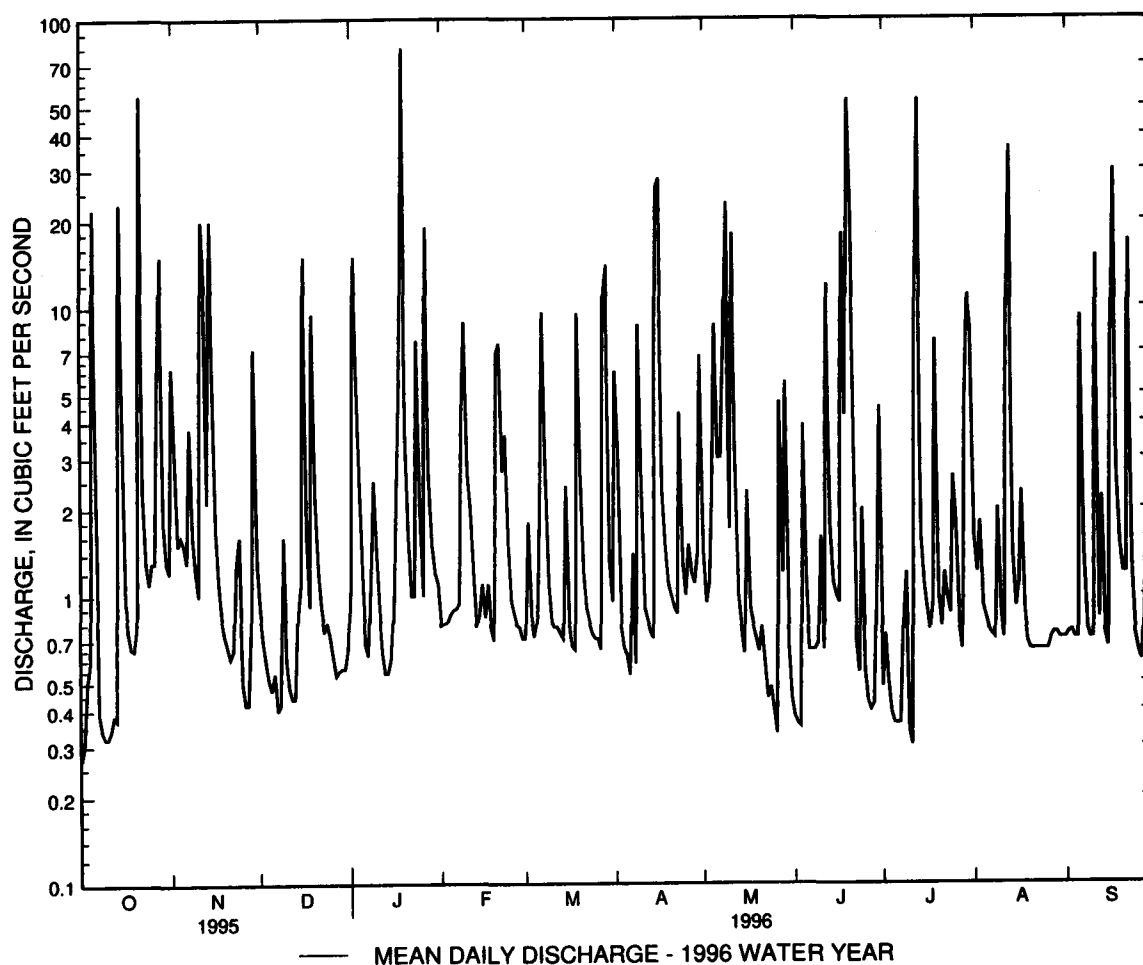
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 1996, BY WATER YEAR (WY)

MEAN	1.88	2.68	2.66	3.90	2.56	4.60	2.36	2.01	1.60	2.14	1.63	1.88
MAX	4.75	3.42	3.85	5.39	4.54	6.79	3.61	3.11	4.72	3.82	3.67	3.56
(WY)	1996	1996	1994	1996	1994	1993	1996	1996	1996	1996	1994	1996
MIN	.77	1.94	1.52	2.25	1.53	2.38	.92	1.32	.59	1.07	.43	1.17
(WY)	1995	1995	1996	1993	1995	1996	1995	1992	1994	1995	1992	1995

GUNPOWDER RIVER BASIN

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

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1992 - 1996	
ANNUAL TOTAL	757.43		1241.60		2.56	
ANNUAL MEAN	2.08		3.39		3.39	
HIGHEST ANNUAL MEAN					1.63	
LOWEST ANNUAL MEAN					80	
HIGHEST DAILY MEAN	55	Jan 20	80	Jan 19	80	Jan 19 1996
LOWEST DAILY MEAN	.07	Aug 19	.27	Oct 1	.05	Sep 1 1992
ANNUAL SEVEN-DAY MINIMUM	.10	Aug 17	.35	Oct 7	.08	Aug 4 1992
INSTANTANEOUS PEAK FLOW			502	Jun 19	502	Jun 19 1996
INSTANTANEOUS PEAK STAGE			5.05	Jun 19	5.05	Jun 19 1996
INSTANTANEOUS LOW FLOW			.20	Oct 1	.04	Jul 29 1992
ANNUAL RUNOFF (CFSM)	1.55		2.53		1.91	
ANNUAL RUNOFF (INCHES)	21.03		34.47		25.94	
10 PERCENT EXCEEDS	3.8		8.4		5.4	
50 PERCENT EXCEEDS	.58		.94		.72	
90 PERCENT EXCEEDS	.16		.50		.21	



GUNPOWDER RIVER BASIN

01585100 WHITEMARSH RUN AT WHITE MARSH. MD

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

DRAINAGE AREA.--7.61 mi².

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

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

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

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

PEAK DISCHARGES FOR CURRENT PERIOD.--Peak discharges greater than base discharge of 750 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 5	2245	898	4.90	June 17	2330	1,110	5.90
Oct. 21	0845	853	4.73	June 19	1445	1,250	6.55
Jan. 19	1345	*1,720	*8.87	July 13	0615	767	4.40
Apr. 16	0100	1,290	6.78	Aug. 13	0315	978	5.25

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.3	28	4.4	6.8	5.4	4.8	32	9.1	3.9	6.4	11	2.4
2	1.5	14	3.6	75	e5.4	9.2	27	5.2	4.4	7.6	5.8	2.4
3	1.6	5.8	3.4	48	e5.5	5.2	9.5	5.9	3.5	6.5	11	2.5
4	2.7	5.8	3.1	8.7	e5.7	4.3	7.8	7.6	13	3.4	4.3	2.6
5	105	5.0	3.1	5.4	e6.2	5.4	7.5	50	7.8	2.9	3.7	3.2
6	28	4.8	3.9	4.5	e7.4	13	4.9	22	4.2	2.7	3.3	33
7	4.4	16	3.0	3.5	8.9	50	11	13	5.0	2.8	2.9	14
8	2.8	6.0	2.6	15	21	17	5.4	33	4.7	6.1	3.0	5.1
9	2.3	3.5	8.0	17	48	7.2	45	135	5.4	7.2	15	4.1
10	2.1	3.4	3.6	e8.0	14	6.0	19	14	10	3.2	4.0	3.0
11	2.1	65	2.5	e5.6	10	6.0	8.9	108	3.2	2.3	2.9	45
12	2.2	97	2.4	e4.7	7.8	6.2	7.7	25	101	51	50	5.9
13	2.2	11	2.4	e4.0	7.6	6.2	7.1	9.5	17	251	197	12
14	136	77	4.8	e3.6	7.0	6.0	6.6	7.5	5.5	15	11	3.5
15	36	52	5.6	e3.6	7.2	15	56	6.7	7.2	8.9	6.3	2.8
16	5.4	9.8	91	e3.8	6.1	7.6	202	17	2.5	6.8	7.7	24
17	3.3	6.1	10	e4.7	7.5	6.7	14	6.7	111	3.9	7.2	111
18	3.4	4.8	6.6	e11	7.8	6.4	9.9	5.7	133	4.3	4.5	9.5
19	3.4	4.3	50	472	7.3	52	8.6	5.1	375	57	3.6	5.9
20	4.8	3.8	13	27	37	21	7.5	4.7	116	7.8	3.4	3.9
21	275	3.8	6.9	12	45	9.1	5.5	4.9	49	3.1	4.4	3.4
22	14	3.5	6.5	9.0	15	6.1	5.0	5.8	9.9	4.3	5.9	76
23	6.5	3.2	5.4	8.3	21	5.1	19	3.7	6.1	3.7	4.0	8.1
24	4.8	11	4.9	40	10	4.8	8.5	3.5	20	2.5	2.8	6.3
25	4.1	4.5	4.6	15	7.3	4.8	5.8	3.4	10	13	2.8	4.9
26	3.8	3.9	3.8	7.6	6.7	6.0	7.7	3.4	5.6	13	3.0	3.5
27	30	3.2	3.4	107	5.8	6.3	4.8	28	6.2	2.4	3.7	4.8
28	95	3.2	3.5	16	5.7	55	4.3	12	5.3	1.6	3.6	18
29	9.0	32	3.4	9.2	4.8	92	5.9	39	4.7	18	2.7	18
30	6.0	6.8	3.3	8.0	---	14	38	7.2	32	51	2.4	4.3
31	4.7	---	4.0	6.9	---	8.2	---	4.7	---	46	2.4	---
TOTAL	803.4	498.2	276.7	970.9	354.1	466.6	601.9	606.3	1082.1	615.4	395.3	443.1
MEAN	25.9	16.6	8.93	31.3	12.2	15.1	20.1	19.6	36.1	19.9	12.8	14.8
MAX	275	97	91	472	48	92	202	135	375	251	197	111
MIN	1.3	3.2	2.4	3.5	4.8	4.3	4.3	3.4	2.5	1.6	2.4	2.4
CFSM	3.41	2.18	1.17	4.12	1.60	1.98	2.64	2.57	4.74	2.61	1.68	1.94
IN.	3.93	2.44	1.35	4.75	1.73	2.28	2.94	2.96	5.29	3.01	1.93	2.17

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1959 - 1989, 1993 - 1996, BY WATER YEAR (WY)

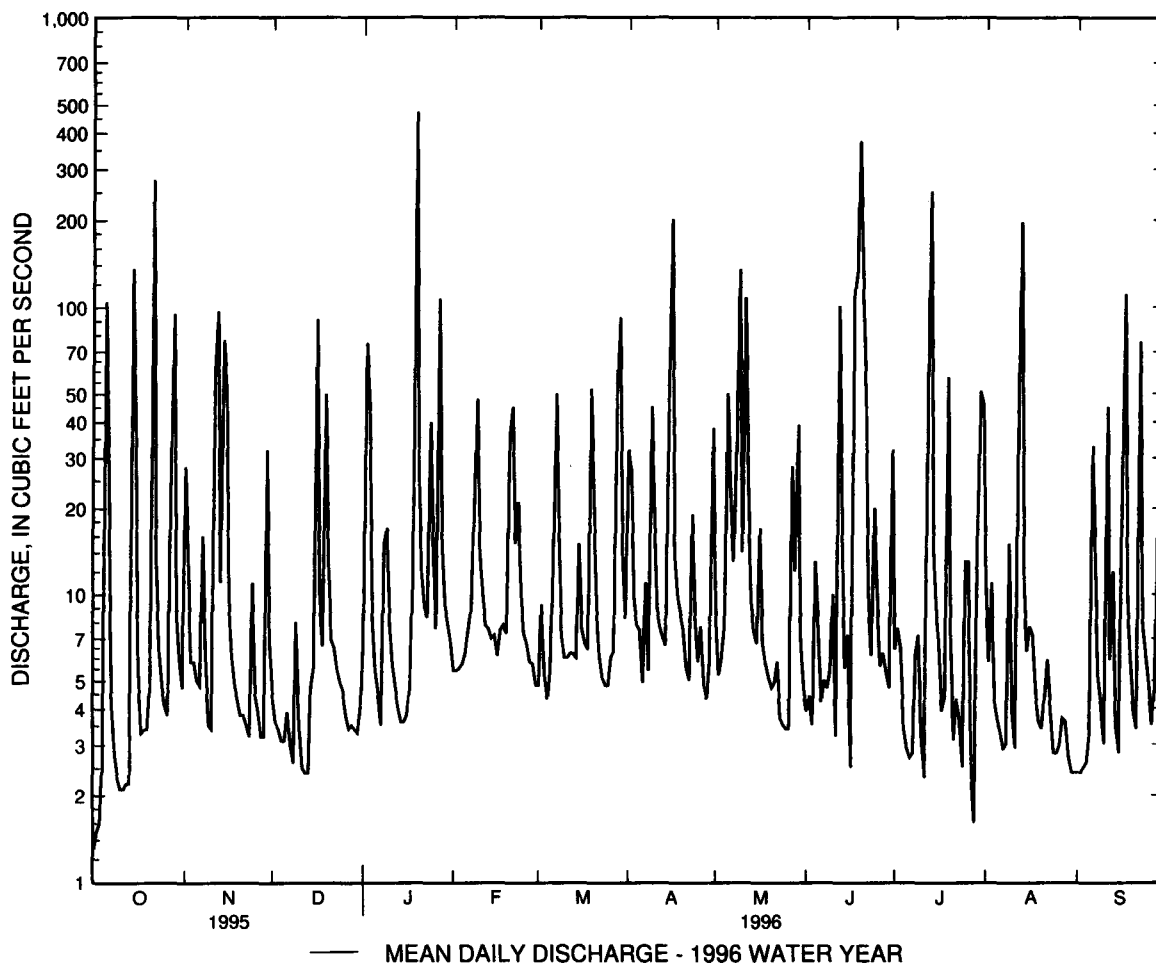
MEAN	7.24	10.5	13.2	14.1	15.6	16.5	13.2	11.6	9.34	9.20	10.4	9.95
MAX	27.2	31.8	41.5	45.2	42.7	43.2	43.5	43.7	44.5	45.4	90.1	36.3
(WY)	1972	1973	1984	1978	1979	1993	1983	1989	1972	1989	1971	1971
MIN	1.92	1.82	1.69	1.82	4.11	4.66	4.35	2.24	2.01	1.34	1.18	1.41
(WY)	1970	1966	1966	1981	1968	1969	1985	1969	1986	1966	1962	1980

01585100 WHITEMARSH RUN AT WHITE MARSH, MD--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1959 - 1989	
					1993 - 1996	
ANNUAL TOTAL	3737.52		7114.0			
ANNUAL MEAN	10.2		19.4		12.0	
HIGHEST ANNUAL MEAN					21.0	
LOWEST ANNUAL MEAN					4.27	
HIGHEST DAILY MEAN	275	Oct 21	472	Jan 19	820	Jun 22 1972
LOWEST DAILY MEAN	.50	Sep 4	1.3	Oct 1	.10	Sep 11 1966
ANNUAL SEVEN-DAY MINIMUM	.59	Sep 1	2.5	Aug 29	.39	Sep 1 1966
INSTANTANEOUS PEAK FLOW			1720	Jan 19	(a) 8000	Aug 1 1971
INSTANTANEOUS PEAK STAGE			8.87	Jan 19	14.05	Aug 1 1971
INSTANTANEOUS LOW FLOW			.25	Jun 1	(b) .00	Mar 20 1965
ANNUAL RUNOFF (CFSM)	1.35		2.55		1.58	
ANNUAL RUNOFF (INCHES)	18.27		34.78		21.42	
10 PERCENT EXCEEDS	20		48		21	
50 PERCENT EXCEEDS	3.4		6.2		4.1	
90 PERCENT EXCEEDS	.89		3.0		1.5	

a From rating curve extended above 1,300 ft³/s on the basis of a culvert measurement at a gage height of 10.04 ft and on the basis of a culvert and flow-over-road measurement of peak flow.

b Result of construction work upstream from station.



PATAPSCO RIVER BASIN

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 mi².

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

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

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

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

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 80 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 19	1245	*738	*4.85	July 7	0830	89	2.82
Jan. 27	1400	104	2.91	Sept. 6	2015	142	3.11
June 24	1530	88	2.81				

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.03	1.3	.60	.63	e5.4	e1.7	5.0	5.0	1.8	2.8	5.0	2.8
2	.03	.84	.62	6.9	e5.2	e1.6	5.4	4.5	1.4	5.9	3.7	2.8
3	.03	1.6	.55	12	e4.9	e1.5	3.2	4.7	1.3	5.0	3.6	2.6
4	.03	.37	e.56	2.3	e4.5	e1.4	4.3	4.4	1.9	3.9	3.1	2.3
5	2.5	e.60	e.53	1.0	e4.0	3.0	4.2	6.3	3.3	3.5	3.0	4.6
6	.69	e.98	.53	e.57	e3.4	4.1	3.5	6.6	2.5	3.2	3.3	20
7	.34	e1.6	e.52	e.55	e3.0	11	3.7	5.0	2.5	2.6	3.5	6.5
8	.30	e.78	e.52	e.55	e4.5	6.4	3.7	6.3	3.4	3.6	2.9	3.5
9	.29	e.39	e.51	1.3	e7.2	2.9	4.6	13	2.8	4.0	4.0	3.0
10	.29	e1.1	.49	3.1	e6.3	e2.4	4.0	6.1	2.5	3.3	3.3	2.4
11	.32	e9.0	.55	e1.0	e4.9	e2.3	3.6	14	2.6	2.4	3.1	2.6
12	.33	e.88	e.49	e1.2	e2.6	e2.2	3.4	8.2	2.4	2.6	5.1	2.8
13	.29	e24	e.44	e1.0	1.5	e2.2	3.1	6.1	2.6	17	16	4.5
14	2.1	e11	e.50	e.93	1.2	2.5	3.0	4.5	2.6	4.8	4.8	3.4
15	.92	e5.4	.72	e.90	1.1	5.4	5.2	4.3	3.2	3.2	3.2	2.2
16	.35	e3.7	e4.3	e1.2	1.1	3.2	14	4.6	3.0	2.9	3.4	5.3
17	.34	e2.7	1.3	e2.0	e1.0	1.9	3.9	4.1	2.9	2.9	3.6	13
18	.73	e2.2	.82	4.3	e.98	2.8	3.0	3.8	2.4	2.8	3.8	4.5
19	.58	e1.8	2.2	242	2.7	7.5	4.3	3.7	17	12	3.7	2.8
20	21	e1.6	.92	15	7.0	6.2	3.8	3.8	5.9	4.4	3.2	2.5
21	2.3	e1.3	.82	6.2	12	3.9	3.6	4.1	3.7	3.0	3.2	2.5
22	.51	e1.2	.75	2.0	8.2	4.2	3.2	4.4	2.4	3.0	3.1	7.3
23	.42	e2.6	.74	1.8	7.6	3.2	3.9	4.1	2.1	3.2	3.0	3.3
24	.48	e2.0	.68	e8.6	5.7	2.8	3.1	4.0	19	3.3	2.8	2.7
25	1.0	e1.4	.60	e5.2	1.9	2.9	1.2	4.0	7.0	3.6	2.8	3.0
26	.98	e1.0	e.58	e2.0	e2.0	2.9	3.0	3.5	4.0	2.9	3.1	2.7
27	2.8	e.82	e.55	47	e1.9	3.0	2.6	4.4	3.0	3.4	2.7	2.4
28	1.1	e.62	.54	19	e1.8	7.9	1.1	5.4	2.9	2.8	2.4	3.9
29	.71	.65	.53	8.3	e1.7	12	2.3	6.6	2.6	2.9	2.8	4.9
30	1.1	.56	.53	5.6	---	6.9	5.4	2.9	3.5	21	3.1	3.4
31	.30	---	.58	5.5	---	3.3	---	2.6	---	11	3.1	---
TOTAL	43.19	83.99	24.57	409.63	115.28	125.2	118.3	165.0	118.2	152.9	117.4	130.2
MEAN	1.39	2.80	.79	13.2	3.98	4.04	3.94	5.32	3.94	4.93	3.79	4.34
MAX	21	24	4.3	242	12	12	14	14	19	21	16	20
MIN	.03	.37	.44	.55	.98	1.4	1.1	2.6	1.3	2.4	2.4	2.2
CFSM	.42	.85	.24	4.02	1.21	1.23	1.20	1.62	1.20	1.50	1.15	1.32
IN.	.49	.95	.28	4.63	1.30	1.42	1.34	1.87	1.34	1.73	1.33	1.47

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1950 - 1996, BY WATER YEAR (WY)

	MEAN	2.13	2.49	3.06	3.61	4.47	4.69	4.68	4.17	3.63	2.82	2.18	2.40
MAX	9.96	6.66	7.16	13.2	10.7	12.9	12.3	11.3	29.5	11.1	6.91	21.7	
(WY)	1980	1953	1973	1996	1974	1994	1993	1952	1972	1972	1955	1975	
MIN	.40	.53	.79	.56	.70	.77	.89	.88	.64	.67	.36	.30	
(WY)	1987	1974	1996	1992	1992	1981	1992	1986	1986	1991	1986	1977	

01585500 CRANBERRY BRANCH NEAR WESTMINSTER, MD--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1950 - 1996	
ANNUAL TOTAL	876.03		1603.86			
ANNUAL MEAN	(a) 2.40		(a) 4.38		(a) 3.35	
HIGHEST ANNUAL MEAN					7.82	
LOWEST ANNUAL MEAN					.86	
HIGHEST DAILY MEAN	75	Jul 11	242	Jan 19	440	Jun 22 1972
LOWEST DAILY MEAN	.01	(b)	.03	(c)	.01	(b) 1992
ANNUAL SEVEN-DAY MINIMUM	.01	Sep 6	.31	Oct 7	.01	Sep 6 1995
INSTANTANEOUS PEAK FLOW			738	Jan 19	(d) 2220	Sep 26 1975
INSTANTANEOUS PEAK STAGE			4.85	Jan 19	7.47	Sep 26 1975
INSTANTANEOUS LOW FLOW			(f) .01	Oct 3	(f) .00	(g)
ANNUAL RUNOFF (CFSM)	.73		1.33		1.02	
ANNUAL RUNOFF (INCHES)	9.91		18.13		13.85	
10 PERCENT EXCEEDS	3.4		6.9		5.9	
50 PERCENT EXCEEDS	1.7		2.9		2.3	
90 PERCENT EXCEEDS	.40		.56		.80	

a Unadjusted for storage and diversions.

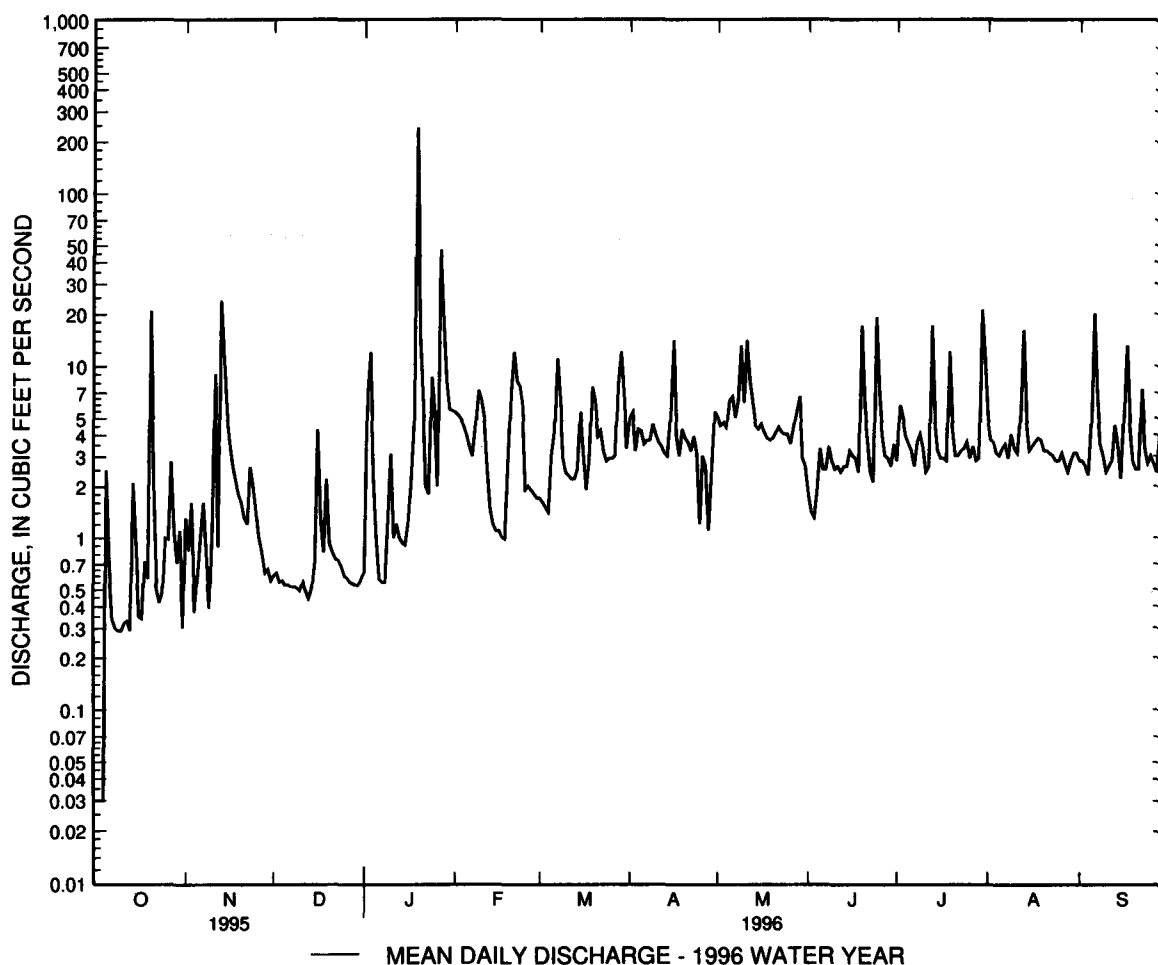
b Sept. 6-16, 1995

c Oct. 1-4, 1995.

d From rating curve extended above 200 ft³/s on the basis of culvert measurements at gage heights 5.54 ft and 7.47 ft.

f Result of regulation.

g Sept. 5-11, 13-16, 1995.



PATAPSCO RIVER BASIN

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 mi².

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

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 420.70 ft above sea level.

REMARKS.--Records good except those for estimated daily discharges (ice effect), which are poor. Slight diurnal fluctuation at low and medium flow caused by mill upstream from station. Low flow affected slightly by Cranberry Reservoir since August 1957, capacity, 113,700,000 gal. Records do not include a mean discharge of 2.90 ft³/s diverted upstream from station for municipal supply of Westminster; sewage effluent discharged into Little Pipe Creek in Monocacy River basin.

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

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 21	0930	1,470	5.07	July 8	2130	1,100	4.32
Nov. 14	1445	1,170	4.47	July 13	0900	1,130	4.37
Nov. 14	2400	1,120	4.35	July 19	1600	1,770	5.65
Jan. 19	1445	*5,740	*10.33	July 30	1015	1,640	5.40
Jan. 27	1600	1,760	5.64	July 31	1000	1,290	4.72
May 9	0515	1,270	4.68	Aug. 13	0315	1,490	5.12
June 19	0800	1,290	4.72	Sept. 6	2315	2,090	6.19
June 24	1730	1,620	5.37				

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	37	50	48	128	80	122	90	69	71	133	52
2	21	46	52	101	125	e80	174	75	65	116	97	50
3	18	38	46	368	118	78	112	74	63	136	88	48
4	18	33	44	118	e110	69	108	74	64	78	80	49
5	80	29	41	77	e90	73	103	80	73	69	72	66
6	45	28	41	72	e80	94	97	127	59	64	68	356
7	26	36	39	38	e75	173	96	78	56	60	65	295
8	22	47	38	e58	e85	119	91	103	54	153	63	74
9	20	32	42	e100	e145	91	110	366	54	113	103	67
10	18	29	37	e70	124	88	111	132	55	66	75	58
11	18	57	e30	66	115	79	93	212	67	58	65	56
12	17	201	e30	64	99	78	87	175	65	59	80	55
13	17	68	36	67	84	78	83	117	55	462	542	78
14	50	521	38	63	78	76	80	106	51	112	119	60
15	59	376	39	e60	77	97	92	97	50	88	93	53
16	26	129	99	e56	75	85	310	104	47	77	85	78
17	21	90	131	59	e70	74	120	94	46	68	80	233
18	21	77	64	69	e65	74	102	90	52	67	75	87
19	20	72	79	e2500	e65	134	99	86	536	402	69	64
20	20	66	105	389	157	165	95	79	150	134	63	58
21	478	62	e65	188	300	103	91	77	93	87	62	56
22	67	58	60	142	141	93	84	81	71	83	60	153
23	39	55	56	126	140	86	87	72	62	80	58	75
24	33	72	54	272	130	79	88	69	402	73	57	60
25	31	55	51	190	106	77	77	66	169	68	56	58
26	27	51	e48	153	99	74	78	66	87	71	54	55
27	41	49	42	748	94	71	82	88	73	64	95	55
28	107	47	e42	248	92	106	71	101	69	60	64	64
29	44	55	42	175	83	232	72	130	65	62	57	105
30	34	51	41	158	---	127	104	90	88	485	56	61
31	33	---	43	147	---	108	---	75	---	384	53	---

e Estimated

TOTAL	1489	2567	1625	6990	3150	3041	3119	3274	2910	3970	2787	2679
MEAN	48.0	85.6	52.4	225	109	98.1	104	106	97.0	128	89.9	89.3
MAX	478	521	131	2500	300	232	310	366	536	485	542	356
MIN	17	28	30	38	65	69	71	66	46	58	53	48
CFSM	.85	1.51	.93	3.98	1.92	1.73	1.84	1.87	1.71	2.26	1.59	1.58
IN.	.98	1.69	1.07	4.59	2.07	2.00	2.05	2.15	1.91	2.61	1.83	1.76

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1945 - 1996, BY WATER YEAR (WY)

MEAN	41.1	50.8	60.7	75.0	86.7	94.9	87.3	76.8	64.8	50.7	42.8	42.7
MAX	214	114	164	225	212	243	213	201	389	149	165	356
(WY)	1980	1953	1973	1996	1979	1994	1993	1952	1972	1972	1955	1975
MIN	11.8	15.8	15.5	17.6	36.4	37.1	36.3	26.3	19.5	9.72	6.91	12.4
(WY)	1964	1966	1966	1966	1992	1959	1969	1969	1969	1966	1966	1964

PATAPSCO RIVER BASIN

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

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1945 - 1996	
ANNUAL TOTAL	19612		37601			
ANNUAL MEAN	53.7		103		64.0	
HIGHEST ANNUAL MEAN					121	
LOWEST ANNUAL MEAN					30.1	
HIGHEST DAILY MEAN	978	Jul 11	2500	Jan 19	6000	Jun 22 1972
LOWEST DAILY MEAN	13	Sep 2	17	(a)	3.1	(b)
ANNUAL SEVEN-DAY MINIMUM	13	Sep 2	20	Oct 7	3.5	Sep 7 1966
INSTANTANEOUS PEAK FLOW			5740	Jan 19	(c) 27800	Jun 22 1972
INSTANTANEOUS PEAK STAGE			10.33	Jan 19	(d) 20.75	Jun 22 1972
INSTANTANEOUS LOW FLOW			13	Dec 11	(f) 1.3	(g)
ANNUAL RUNOFF (CFSM)	.95		1.82		1.13	
ANNUAL RUNOFF (INCHES)	12.89		24.71		15.36	
10 PERCENT EXCEEDS	79		153		113	
50 PERCENT EXCEEDS	41		74		44	
90 PERCENT EXCEEDS	19		39		19	

a Oct. 12, 13.

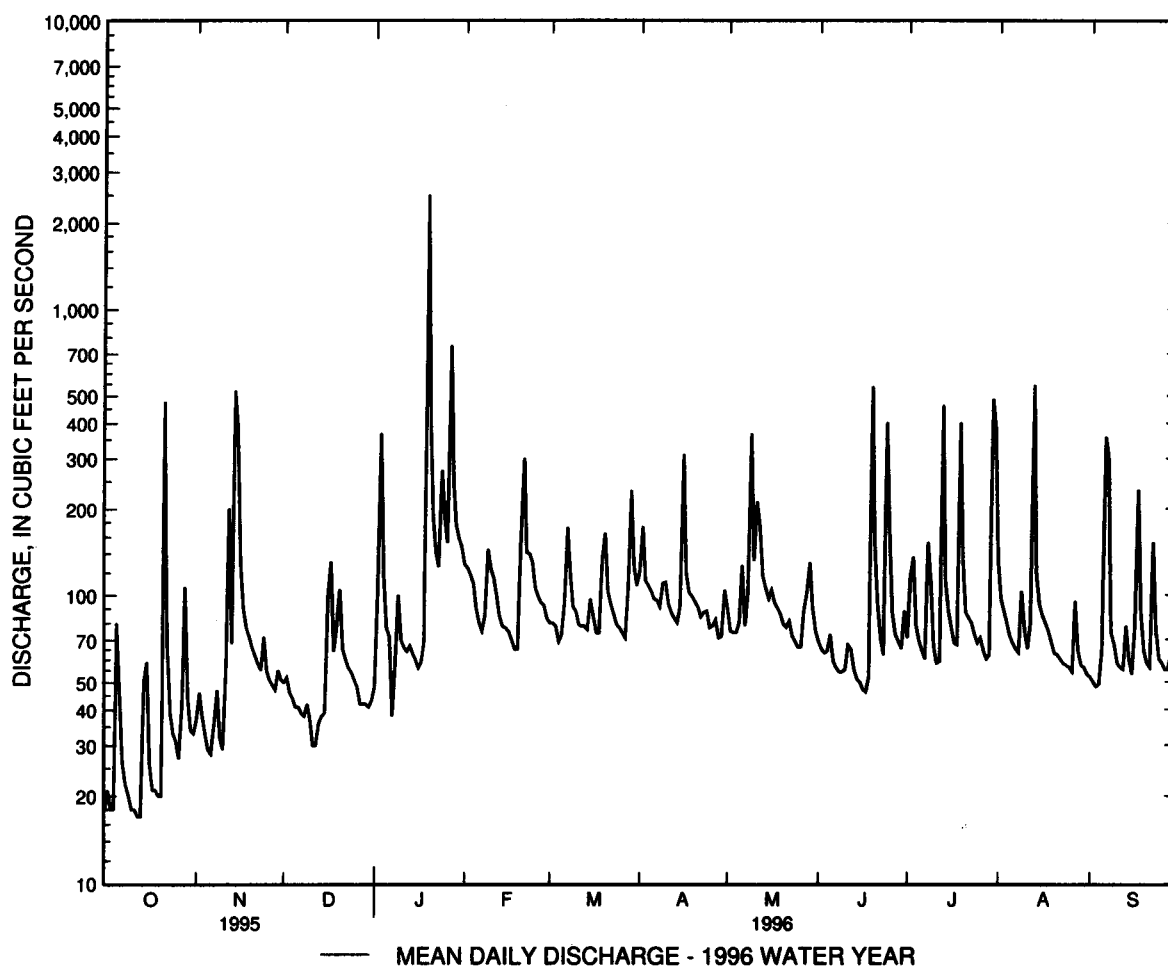
b Sept. 10, 12, 1966

c From rating curve extended above 4,100 ft³/s on basis of contracted-opening measurement of peak flow.

d From high-water mark in well.

f Result of regulation.

g Sept. 17, 1983 and Aug. 10, 1985.



PATAPSCO RIVER BASIN

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 mi².

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

GAGE.--Water-stage recorder. Datum of gage is 428.70 ft above sea level.

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

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 19	1245	*1,300	*4.84	July 19	1815	576	3.49
June 19	0315	515	3.34	Sept. 6	2230	1,090	4.50

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.9	7.5	12	e13	e31	23	38	22	17	e19	34	16
2	3.9	9.0	13	44	e31	23	45	20	16	e26	26	15
3	3.7	7.7	12	64	e30	22	33	19	15	e30	24	15
4	3.7	6.6	12	24	e27	e20	31	19	16	e21	22	15
5	13	6.4	11	e16	e24	21	29	21	16	e17	20	17
6	6.7	6.2	11	e13	e23	25	28	25	14	e16	20	140
7	4.9	8.4	11	e11	e21	39	27	19	14	e15	19	46
8	4.4	9.3	10	e28	e20	e28	25	25	13	42	18	23
9	4.1	6.9	11	e23	51	e25	29	70	13	25	41	20
10	4.1	6.4	e9.3	e19	31	e23	29	31	13	e16	24	18
11	4.1	19	e9.1	e17	e27	22	26	43	15	e15	20	17
12	3.9	36	e9.5	e17	e24	e21	25	36	15	e15	27	17
13	3.9	18	e10	e16	e23	e20	24	29	14	110	130	22
14	10	89	e10	e15	e22	20	23	26	13	e36	38	17
15	8.8	57	11	e14	e21	26	29	24	13	e30	32	16
16	5.1	27	33	e12	e20	23	55	26	11	e24	28	23
17	4.6	22	19	13	e20	21	31	24	13	e20	26	46
18	4.5	20	16	15	e19	21	28	23	15	e21	24	22
19	4.4	18	25	528	e19	31	27	21	129	125	22	19
20	4.4	17	19	63	56	34	25	19	e45	39	21	17
21	88	15	16	e46	60	27	25	19	e35	28	20	17
22	14	14	14	e37	38	24	23	19	e29	25	20	42
23	8.8	13	14	31	38	23	24	18	e25	24	19	22
24	6.9	17	13	58	34	22	23	17	e32	22	18	19
25	6.3	13	e12	38	30	22	21	16	e25	20	18	18
26	5.8	12	12	29	28	21	21	16	e19	20	17	17
27	10	12	e11	155	27	20	20	23	e18	18	24	16
28	21	11	11	55	26	30	19	23	e16	17	19	20
29	9.1	13	11	44	24	48	20	34	e18	17	17	24
30	7.4	12	11	41	---	32	26	22	e22	61	16	17
31	6.9	---	11	38	---	29	---	19	---	89	16	---
TOTAL	290.3	529.4	409.9	1537	845	786	829	768	669	1003	820	753
MEAN	9.36	17.6	13.2	49.6	29.1	25.4	27.6	24.8	22.3	32.4	26.5	25.1
MAX	88	89	33	528	60	48	55	70	129	125	130	140
MIN	3.7	6.2	9.1	11	19	20	19	16	11	15	16	15
CFSM	.67	1.26	.94	3.54	2.08	1.81	1.97	1.77	1.59	2.31	1.89	1.79
IN.	.77	1.41	1.09	4.08	2.25	2.09	2.20	2.04	1.78	2.67	2.18	2.00

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 1996, BY WATER YEAR (WY)

	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
MEAN	9.18	14.1	17.2	20.0	22.3	26.3	25.7	22.9	13.4	11.5	10.6	8.73		
MAX	17.2	25.0	35.5	49.6	41.4	62.0	54.7	51.9	25.3	32.4	29.9	25.1		
(WY)	1991	1994	1984	1996	1994	1993	1993	1989	1989	1996	1984	1996		
MIN	3.73	7.75	8.20	8.41	10.7	13.8	11.9	10.1	5.50	4.30	4.01	2.78		
(WY)	1987	1983	1983	1983	1992	1990	1985	1986	1986	1991	1986	1986		

PATAPSCO RIVER BASIN

01586210 BEAVER RUN NEAR FINKSBURG, MD--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1983 - 1996	
ANNUAL TOTAL	4411.2		8817.5			
ANNUAL MEAN	12.1		24.1		16.7	
HIGHEST ANNUAL MEAN					24.7	
LOWEST ANNUAL MEAN					9.92	
HIGHEST DAILY MEAN	92	Jan 20	528	Jan 19	528	Jan 19 1996
LOWEST DAILY MEAN	2.3	Sep 8	3.7	(a)	2.1	(b)
ANNUAL SEVEN-DAY MINIMUM	2.4	Sep 3	4.2	Oct 7	2.2	Sep 15 1986
INSTANTANEOUS PEAK FLOW			1300	Jan 19	(c) 2150	May 6 1989
INSTANTANEOUS PEAK STAGE			4.84	Jan 19	(d) 5.70	May 6 1989
INSTANTANEOUS LOW FLOW			3.7	(f)	2.0	(g)
ANNUAL RUNOFF (CFSM)	.86		1.72		1.19	
ANNUAL RUNOFF (INCHES)	11.72		23.43		16.22	
10 PERCENT EXCEEDS	19		38		30	
50 PERCENT EXCEEDS	11		20		12	
90 PERCENT EXCEEDS	3.9		7.4		5.3	

a Oct. 3, 4.

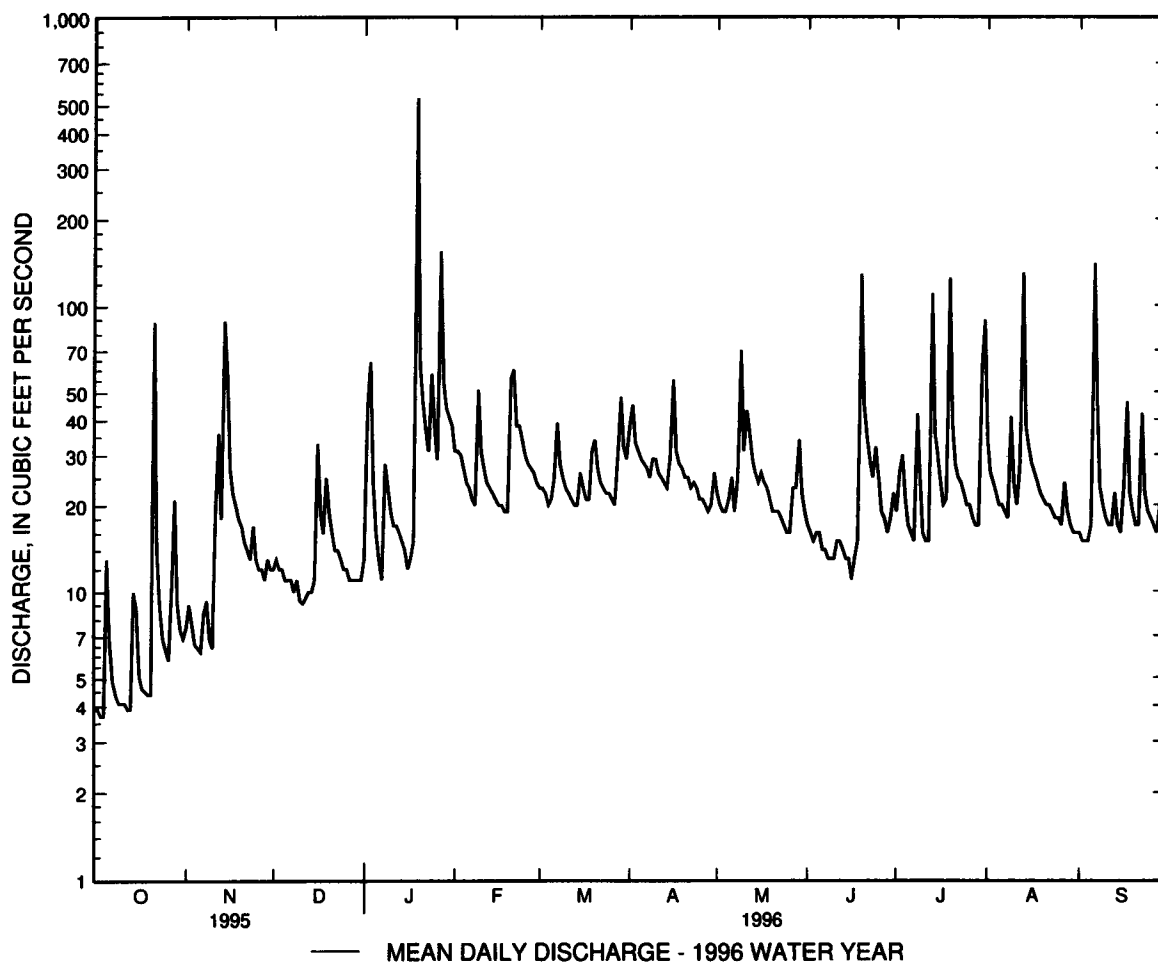
b Sept. 17, 18, 1986.

c From rating curve extended above 600 ft³/s.

d From floodmarks.

f Oct. 2-5.

g 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 mi².

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

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

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 430 ft above sea level, from topographic map.

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

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 750 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 19	1430	*3,550	*8.45	June 19	0300	1,640	5.94
Jan. 27	1530	805	4.34	July 13	0645	916	4.59

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e7.6	14	24	23	60	46	86	44	36	58	77	e36
2	e7.6	16	24	95	57	46	108	40	34	50	57	e34
3	e7.2	14	21	155	56	43	75	39	34	54	52	e31
4	e7.2	12	21	56	e52	e39	70	38	35	42	47	e33
5	e25	12	20	e37	e47	41	65	44	35	38	43	e54
6	e12	11	19	e27	e45	48	60	51	31	37	42	e680
7	e9.2	15	19	e20	e42	81	58	40	29	36	e41	e300
8	e8.4	17	18	e66	e40	62	54	51	28	76	e39	e95
9	e8.0	13	19	e48	80	e49	62	104	28	73	e88	e47
10	e8.0	12	16	e40	60	e45	62	61	28	39	e63	e42
11	e7.8	29	e16	e37	e54	e43	53	82	37	35	e47	e38
12	7.5	83	e17	36	e48	e41	50	77	35	36	e59	e38
13	7.2	29	17	e35	44	e40	47	59	31	340	e280	e49
14	19	206	18	e32	e43	e39	45	53	28	89	e110	e41
15	18	175	19	e30	e42	52	56	49	29	70	e72	e36
16	10	71	90	e28	e41	47	128	56	23	58	e61	e50
17	8.7	47	42	34	e39	42	69	50	57	48	e57	e103
18	8.5	39	32	43	e38	41	60	47	69	49	e52	e55
19	8.5	35	59	1370	e36	74	57	42	587	188	e48	e47
20	9.8	31	42	179	98	86	54	39	209	87	e46	e38
21	202	28	34	99	136	63	51	39	121	60	e44	e38
22	23	25	30	78	83	57	48	39	85	59	e43	e94
23	16	24	27	69	80	52	51	36	70	57	e41	e55
24	13	33	e25	127	72	47	48	35	95	50	e39	e46
25	12	26	e24	87	63	46	44	34	81	46	e39	e42
26	11	24	23	66	59	43	44	34	57	48	e37	e38
27	16	23	e22	330	56	40	41	47	51	42	e52	e36
28	38	22	21	131	54	63	39	48	47	39	e42	e43
29	17	25	e19	91	48	107	39	72	45	40	e38	e54
30	14	23	20	79	---	70	54	47	67	98	e36	e40
31	13	---	21	71	---	63	---	38	---	185	e36	---
TOTAL	580.2	1134	819	3619	1673	1656	1778	1535	2142	2227	1828	2333
MEAN	18.7	37.8	26.4	117	57.7	53.4	59.3	49.5	71.4	71.8	59.0	77.8
MAX	202	206	90	1370	136	107	128	104	587	340	280	680
MIN	7.2	11	16	20	36	39	39	34	23	35	36	31
CFSM	.67	1.35	.94	4.17	2.06	1.91	2.12	1.77	2.55	2.57	2.11	2.78
IN.	.77	1.51	1.09	4.81	2.22	2.20	2.36	2.04	2.85	2.96	2.43	3.10

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 1996, BY WATER YEAR (WY)

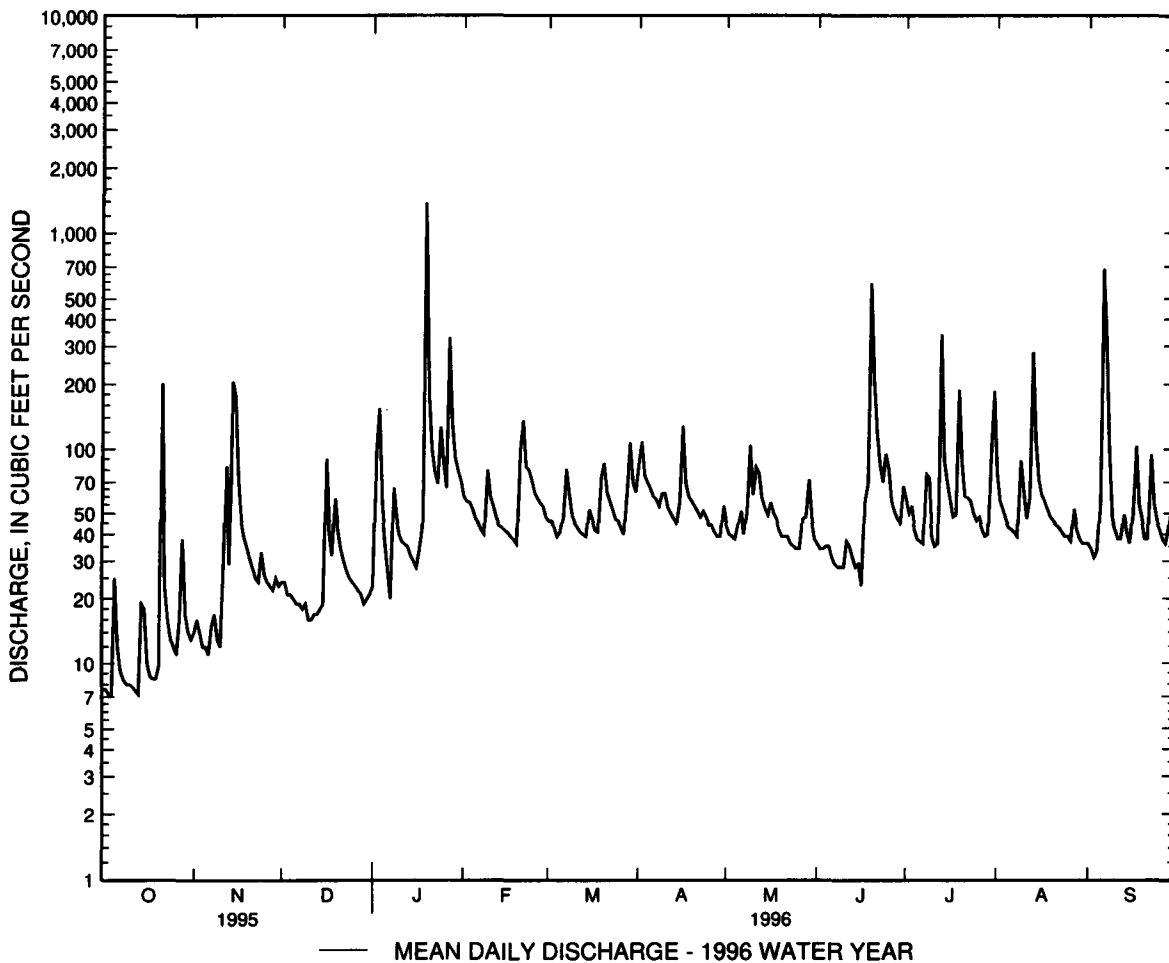
MEAN	17.9	26.6	35.6	42.8	45.2	59.2	57.8	47.7	29.9	23.2	20.2	18.6
MAX	44.3	51.6	85.9	117	91.2	154	141	111	71.4	71.8	59.0	77.8
(WY)	1991	1994	1984	1996	1984	1993	1993	1989	1996	1996	1996	1996
MIN	5.69	13.7	15.5	17.0	20.6	29.1	27.0	20.5	11.5	7.47	6.48	5.15
(WY)	1987	1992	1983	1992	1992	1985	1985	1986	1986	1986	1986	1986

01586610 MORGAN RUN NEAR LOUISVILLE, MD--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1983 - 1996	
ANNUAL TOTAL	9879.8		21558.7			
ANNUAL MEAN	27.1		58.9		35.4	
HIGHEST ANNUAL MEAN					58.9	
LOWEST ANNUAL MEAN					19.5	
HIGHEST DAILY MEAN	331	Jan 20	1370	Jan 19	1370	Jan 19 1996
LOWEST DAILY MEAN	5.0	Sep 8	7.2	(a)	4.0	(b)
ANNUAL SEVEN-DAY MINIMUM	5.2	Sep 2	8.0	Oct 7	4.2	Sep 17 1986
INSTANTANEOUS PEAK FLOW			3550	Jan 19	(c) 3550	Jan 19 1996
INSTANTANEOUS PEAK STAGE			8.45	Jan 19	8.45	Jan 19 1996
INSTANTANEOUS LOW FLOW			6.8	Oct 14	4.2	Aug 18 1991
ANNUAL RUNOFF (CFSM)	.97		2.10		1.26	
ANNUAL RUNOFF (INCHES)	13.13		28.64		17.17	
10 PERCENT EXCEEDS	43		90		66	
50 PERCENT EXCEEDS	22		44		25	
90 PERCENT EXCEEDS	7.6		17		10	

a Oct. 3, 4, 13.

b Sept. 18-20, 1986.

c From rating curve extended above 1,900 ft³/s

PATAPSCO RIVER BASIN

01589300 GWYNNS FALLS AT VILLA NOVA, MD

LOCATION.--Lat 39°20'45", long 76°44'01", Baltimore County, Hydrologic Unit 02070003, on right bank 300 ft downstream from bridge on Essex Road, 300 ft north of State Highway 26 (Liberty Road), in Villa Nova, 1.1 mi west of Baltimore City limits, and 11.5 mi upstream from mouth.

DRAINAGE AREA.--32.5 mi².

PERIOD OF RECORD.--Water years 1969-72, October 1994 to September 1995.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	TEMPER- ATURE AIR (DEG C) (00020)	OXYGEN, DIS- SOLVED (MG/L) AS N) (00300)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L) AS N) (00613)
OCT 1995								
19...	0740	11	276	7.3	10.5	10.0	12.9	--
NOV								
21...	1010	27	283	7.2	6.0	9.0	11.6	<0.010

DATE	NITRO- GEN, NO2+NO3 TOTAL (MG/L) AS N) (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L) AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L) AS N) (00608)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L) AS N) (00625)	NITRO- GEN, AM- MONIA + ORGANIC DIS. TOTAL (MG/L) AS N) (00623)	PHOS- PHORUS TOTAL (MG/L) AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L) AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L) AS P) (00671)
OCT 1995								
19...	--	--	--	--	--	--	--	--
NOV								
21...	1.70	1.70	<0.015	<0.20	<0.20	<0.010	0.020	<0.010

01589330 DEAD RUN AT FRANKLINTOWN, MD

LOCATION.--Lat 39°18'40", long 76°43'02", Baltimore County, Hydrologic Unit 02070003, on right bank at downstream side of bridge on Colonial Road at Security Boulevard at Franklinton, 0.3 mi west of Baltimore City limits, 1.2 mi southwest of Woodlawn, and 2.5 mi upstream from mouth.

DRAINAGE AREA.--5.52 mi².

PERIOD OF RECORD.--October 1994 to September 1996 (Discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	TEMPER- ATURE AIR (DEG C) (00020)	OXYGEN, DIS- SOLVED (MG/L) AS NO3 (00300)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L) AS NO3 (71851)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L) AS N (00613)
OCT 1995									
19...	0920	0.87	734	7.3	11.0	16.0	12.4	--	--
NOV									
21...	1305	1.9	977	7.8	7.5	12.5	13.2	5.3	0.010

DATE	NITRO- GEN, NO2+NO3 TOTAL (MG/L) AS N (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L) AS N (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L) AS N (00608)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L) AS N (00625)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L) AS N (00623)	PHOS- PHORUS TOTAL (MG/L) AS P (00665)	PHOS- PHORUS DIS- SOLVED (MG/L) AS P (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L) AS P (00671)
OCT 1995								
19...	--	--	--	--	--	--	--	--
NOV								
21...	1.20	1.20	<0.015	<0.20	<0.20	<0.010	<0.010	<0.010

01589500 SAWMILL CREEK AT GLEN BURNIE, MD--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS	1944 - 1952
				1983 - 1996
ANNUAL TOTAL	1137.0	1994.8		
ANNUAL MEAN	3.12	5.45	4.78	
HIGHEST ANNUAL MEAN			11.0	1949
LOWEST ANNUAL MEAN			.43	1986
HIGHEST DAILY MEAN	23 Aug 6	54 Jan 19	84 Sep 1	1952
LOWEST DAILY MEAN	1.3 (a)	1.8 (b)	.01 (c)	
ANNUAL SEVEN-DAY MINIMUM	1.4 Aug 30	2.1 Oct 7	.01 Jul 25	1986
INSTANTANEOUS PEAK FLOW		119 Jan 19	(d) 178 Aug 29	1989
INSTANTANEOUS PEAK STAGE		4.14 Jan 19	5.12 Aug 29	1989
INSTANTANEOUS LOW FLOW		(f) 1.3 Jan 7	.00 (g)	
ANNUAL RUNOFF (CFSM)	.63	1.10	.96	
ANNUAL RUNOFF (INCHES)	8.51	14.93	13.06	
10 PERCENT EXCEEDS	4.9	8.5	9.4	
50 PERCENT EXCEEDS	2.5	4.4	4.0	
90 PERCENT EXCEEDS	1.6	2.9	.37	

a Sept. 2, 3, 11.

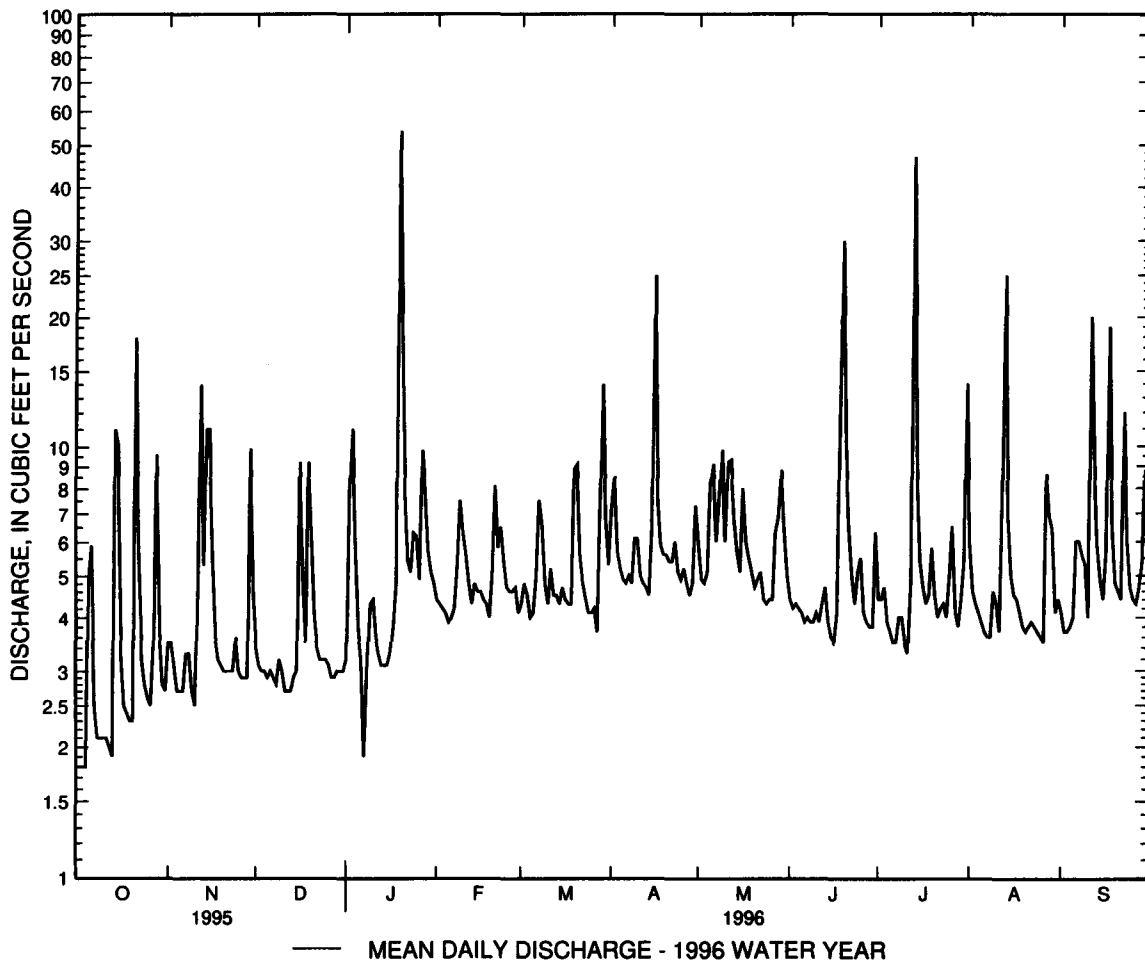
b Oct. 1-4.

c Many days in 1985-87.

d From rating curve extended above 157 ft³/s, on basis of contracted-opening measurement at gage height 4.77 ft.

f Result of freezeup.

g Part of each day Sept. 6, 7, 1985, July 29, Aug. 2, 1986.



PATUXENT RIVER BASIN

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 mi².

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WSP 1111: 1947. WSP 1432: 1948.

GAGE.--Water stage recorder and concrete control. Datum of gage is 364.76 ft above sea level (Washington Suburban Sanitary Commission bench mark). Prior to Aug. 14, 1946, non-recording gage at same site and datum.

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

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 770 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 19	1730	4,350	10.29	July 31	0245	937	5.85
June 19	1015	2,570	8.49	Aug. 13	0545	987	5.97
June 20	0445	1,160	6.35	Sept. 6	2230	*4,610	*10.52

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.2	16	28	28	59	49	96	59	45	90	96	34
2	6.3	21	31	113	56	50	204	53	42	63	68	33
3	5.8	19	26	150	57	47	96	49	40	50	60	33
4	5.9	16	25	58	74	43	84	49	41	44	55	41
5	20	14	24	43	74	45	76	66	45	41	50	51
6	14	14	24	38	47	53	71	96	38	38	47	830
7	8.7	16	23	e30	46	86	68	59	36	36	46	420
8	7.1	24	21	e68	50	74	64	68	33	40	43	68
9	6.5	17	24	e84	89	57	75	130	36	39	52	54
10	6.7	15	21	e60	69	54	79	83	41	34	51	53
11	6.6	24	e16	e44	66	e50	66	111	41	33	42	157
12	6.6	109	e16	e45	60	e50	62	119	43	35	52	60
13	6.6	40	e19	e46	49	e49	59	78	37	232	368	89
14	22	231	e20	e42	49	48	56	69	33	63	85	58
15	19	210	22	e41	48	55	63	64	33	54	66	48
16	10	72	105	e38	48	52	160	84	30	47	59	61
17	8.6	48	55	e38	47	49	84	74	35	41	56	119
18	8.0	39	39	46	45	47	73	69	95	43	53	66
19	8.0	34	71	1840	44	112	68	59	677	177	49	54
20	8.3	31	59	225	67	133	65	54	352	80	47	49
21	124	31	43	97	153	80	62	51	97	53	46	46
22	26	28	38	76	84	68	59	53	73	51	45	126
23	16	27	34	68	99	62	58	46	60	50	42	61
24	13	34	32	128	78	57	59	44	57	44	41	53
25	12	28	31	104	66	55	54	43	56	42	40	50
26	11	26	29	69	63	53	53	43	48	42	38	46
27	14	25	e28	335	61	49	51	56	45	37	39	46
28	50	25	e26	125	59	70	48	61	43	35	40	46
29	22	31	e26	85	52	124	48	83	42	38	38	56
30	17	29	e26	75	---	80	65	64	79	87	37	44
31	16	---	25	69	---	70	---	50	---	340	35	---
TOTAL	511.9	1294	1007	4308	1859	1971	2226	2087	2373	2099	1886	2952
MEAN	16.5	43.1	32.5	139	64.1	63.6	74.2	67.3	79.1	67.7	60.8	98.4
MAX	124	231	105	1840	153	133	204	130	677	340	368	830
MIN	5.8	14	16	28	44	43	48	43	30	33	35	33
CFSM	.47	1.24	.93	3.99	1.84	1.83	2.13	1.93	2.27	1.95	1.75	2.83
IN.	.55	1.38	1.08	4.61	1.99	2.11	2.38	2.23	2.54	2.24	2.02	3.16

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1944 - 1996, BY WATER YEAR (WY)

MEAN	21.4	28.5	39.3	47.6	54.8	61.6	58.5	49.8	36.8	26.8	22.6	27.2
MAX	150	82.8	106	139	152	173	158	141	206	102	120	214
(WY)	1980	1953	1949	1996	1979	1993	1993	1952	1972	1956	1971	1971
MIN	4.19	9.09	8.51	10.0	19.6	23.9	21.6	15.2	8.75	4.15	2.79	4.51
(WY)	1987	1966	1966	1966	1947	1981	1963	1963	1986	1966	1966	1986

01591000 PATUXENT RIVER NEAR UNITY, MD--Continued

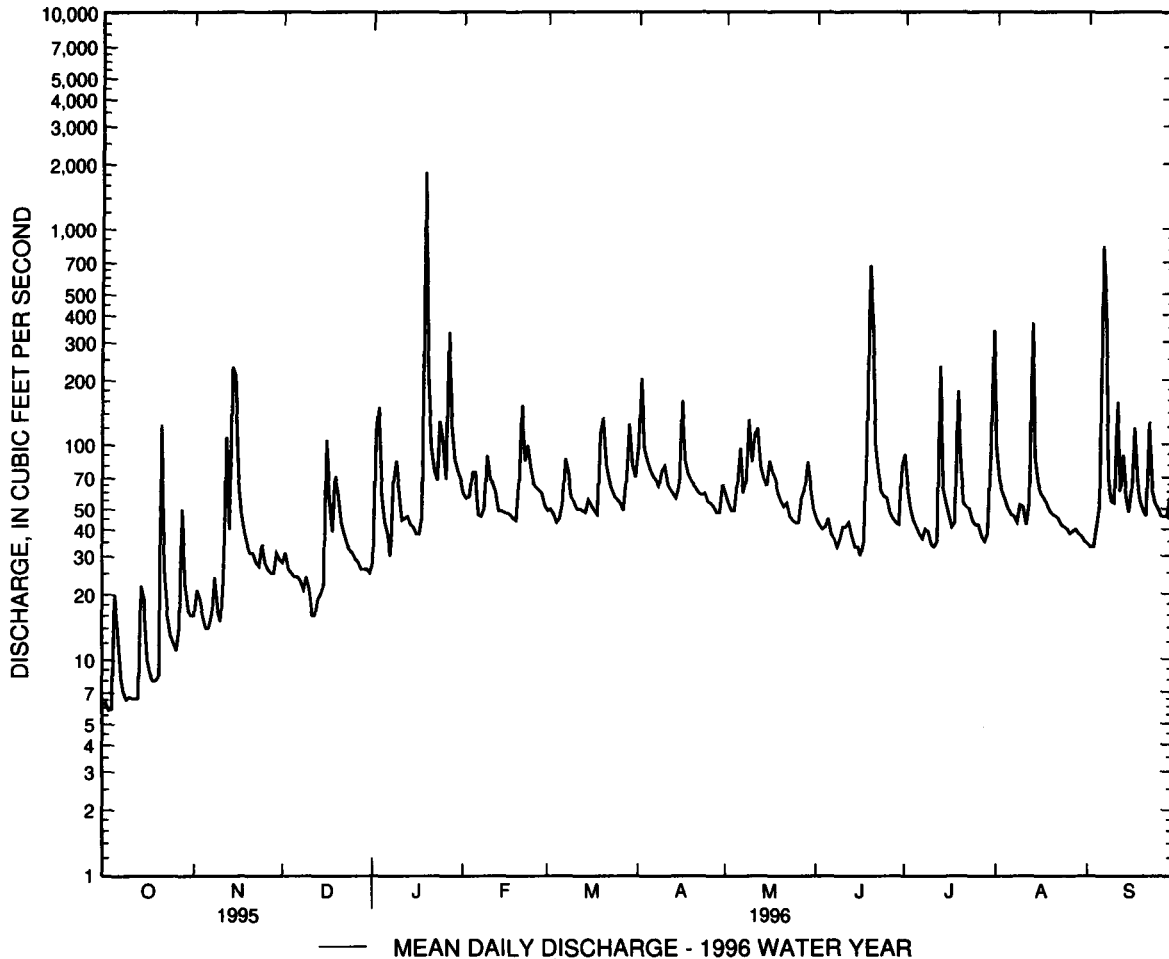
SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1944 - 1996	
ANNUAL TOTAL	10178.9		24573.9			
ANNUAL MEAN	27.9		67.1		39.5	
HIGHEST ANNUAL MEAN					82.3	
LOWEST ANNUAL MEAN					19.8	
HIGHEST DAILY MEAN	373	Jan 20	1840	Jan 19	2590	Sep 26 1975
LOWEST DAILY MEAN	2.7	Sep 11	5.8	Oct 3	.20	(a)
ANNUAL SEVEN-DAY MINIMUM	2.9	Sep 6	7.0	Oct 7	.40	Sep 6 1966
INSTANTANEOUS PEAK FLOW			4610	Sep 6	(b) 21800	Sep 11 1971
INSTANTANEOUS PEAK STAGE			10.52	Sep 6	18.60	Sep 11 1971
INSTANTANEOUS LOW FLOW			5.7	(c)	.20	(d)
ANNUAL RUNOFF (CFSM)	.80		1.93		1.14	
ANNUAL RUNOFF (INCHES)	10.88		26.27		15.43	
10 PERCENT EXCEEDS	46		96		71	
50 PERCENT EXCEEDS	24		49		26	
90 PERCENT EXCEEDS	6.1		20		9.0	

a Sept. 10, 11, 1966.

b From rating curve extended above 1,500 ft³/s on basis of slope-area measurement at gage height 13.00 ft.

c Oct. 3, 4.

d Sept. 10-12, 1966.



PATUXENT RIVER BASIN

01591000 PATUXENT RIVER NEAR UNITY, MD--Continued

WATER-QUALITY RECORDS

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

REMARKS.--Water-quality data available through September 1995 only at time of publication.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	TEMPER- ATURE AIR (DEG C) (00020)	TUR- BID- ITY (NTU) (00076)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN DEMAND, CHEM- ICAL (LOW LEVEL) (MG/L) (00335)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L) (00310)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)
OCT 1994												
11...	1105	14	117	7.3	11.0	11.5	2.1	10.9	--	--	--	--
26...	0800	16	118	6.6	8.0	7.0	1.8	--	<10	<2.0	--	--
NOV												
14...	1100	14	113	8.2	10.0	20.0	1.8	11.3	--	--	--	--
14...	1105	14	113	6.6	9.0	18.0	1.9	11.3	--	<2.0	--	--
DEC												
12...	1040	41	115	8.7	3.5	1.5	5.8	12.5	--	--	--	--
28...	1400	20	114	6.1	3.5	16.5	3.1	--	<10	<2.0	--	--
JAN 1995												
07...	0715	170	--	--	--	--	73	--	<10	--	--	--
09...	1240	42	195	7.5	3.0	4.5	6.4	12.9	--	--	--	--
15...	2100	508	--	--	--	--	390	--	12	--	--	--
20...	1245	582	--	--	--	--	210	--	15	--	--	--
26...	1230	41	--	5.9	2.0	0.0	7.3	--	<10	<2.0	--	--
FEB												
07...	1115	32	123	7.4	0.5	-3.5	6.8	13.5	--	--	--	--
22...	1500	31	120	6.2	4.0	4.0	5.8	--	<10	<2.0	--	--
28...	0915	111	--	--	--	--	83	--	<10	--	--	--
MAR												
09...	0200	172	--	--	--	--	120	--	<10	--	--	--
20...	1215	34	105	7.4	11.5	18.0	5.5	10.9	--	--	--	--
22...	1245	34	113	6.3	10.0	13.0	5.4	--	<10	<2.0	--	--
APR												
10...	0935	29	122	7.6	11.5	8.5	5.6	10.3	--	--	--	--
18...	1200	27	110	6.5	11.5	20.0	4.7	--	<10	<2.0	--	--
MAY												
16...	1010	31	113	7.8	14.5	21.0	6.4	9.9	--	--	--	--
24...	1415	27	105	6.6	19.0	27.0	6.7	--	<10	<2.0	--	--
JUN												
05...	1000	22	118	7.5	18.5	26.0	11	8.0	--	--	--	--
22...	0730	10	108	6.7	20.0	20.0	17	--	--	2.5	--	--
JUL												
10...	0942	16	126	7.5	18.5	23.0	13	8.4	--	--	--	--
18...	0845	14	112	6.8	22.0	24.5	13	--	<10	<2.0	--	--
18...	0850	14	--	--	--	--	13	--	<10	--	--	--
18...	0855	14	--	--	--	--	13	--	<10	--	--	--
AUG												
07...	1105	18	125	7.4	21.0	22.0	21	8.0	--	--	--	--
14...	1430	8.9	112	6.6	24.0	32.0	5.6	--	<10	<2.0	--	--
14...	1435	8.5	112	6.6	24.0	32.0	--	--	--	--	8.0	12
SEP												
25...	0940	7.2	112	7.2	14.0	14.0	4.4	9.3	--	--	--	--
28...	0915	6.6	122	6.6	13.0	16.0	3.4	--	<10	<2.0	--	--

PATUXENT RIVER BASIN

01591000 PATUXENT RIVER NEAR UNITY, MD--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	SILICA, DIS- SOLVE (MG/L AS SIO2) (00955)	ALKA- LINITY WAT WH TOT IT DEG. C FIELD MG/L AS CACO3 (00419)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDED (MG/L) (00530)
OCT 1994										
11...	--	--	--	--	--	--	21	--	2	
26...	--	--	--	--	--	9.5	25	--	2	
NOV										
14...	--	--	--	--	--	--	21	--	3	
14...	--	--	--	--	--	8.0	20	--	2	
DEC										
12...	--	--	--	--	--	--	17	--	2	
28...	--	--	--	--	--	8.4	15	--	5	
JAN 1995										
07...	--	--	--	--	--	10	--	--	244	
09...	--	--	--	--	--	--	15	--	2	
15...	--	--	--	--	--	8.8	--	--	788	
20...	--	--	--	--	--	8.1	--	--	430	
26...	--	--	--	--	--	8.6	13	--	8	
FEB										
07...	--	--	--	--	--	--	15	--	5	
22...	--	--	--	--	--	8.3	12	--	7	
28...	--	--	--	--	--	10	--	--	158	
MAR										
09...	--	--	--	--	--	9.3	--	--	360	
20...	--	--	--	--	--	--	15	--	10	
22...	--	--	--	--	--	7.3	13	--	4	
APR										
10...	--	--	--	--	--	--	16	--	10	
18...	--	--	--	--	--	7.5	15	--	4	
MAY										
16...	--	--	--	--	--	--	19	--	6	
24...	--	--	--	--	--	8.4	15	--	10	
JUN										
05...	--	--	--	--	--	--	23	--	14	
22...	--	--	--	--	--	8.7	18	--	21	
JUL										
10...	--	--	--	--	--	--	24	--	17	
18...	--	--	--	--	--	8.8	20	--	21	
18...	--	--	--	--	--	8.8	--	--	19	
18...	--	--	--	--	--	8.8	--	--	18	
AUG										
07...	--	--	--	--	--	--	24	--	25	
14...	--	--	--	--	--	9.0	21	--	5	
14...	<0.10	3.4	1.9	6.1	2.1	9.0	21	65	65	
SEP										
25...	--	--	--	--	--	--	24	--	6	
28...	--	--	--	--	--	9.4	20	--	7	

PATUXENT RIVER BASIN

01591000 PATUXENT RIVER NEAR UNITY, MD--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	PHEO- PHYTIN PHYTO- PLANK- TON, ACID M. (UG/L) (32218)	CHLORO- PHYLL A PHYTO- PLANK- TON, UNCORR. (UG/L) (32230)	CHLORO- PHYLL B PHYTO- PLANK- TON, UNCORR. (UG/L) (32231)	CHLORO- PHYLL C PHYTO- PLANK- TON, UNCORR. (UG/L) (32232)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L) AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L) AS N) (00623)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L) AS N) (00625)	NITRO- GEN DIS- SOLVED (MG/L) AS N) (00602)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L) AS N) (00618)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L) AS NO3) (71851)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L) AS N) (00631)
OCT 1994											
11...	--	--	--	--	0.021	--	0.20	--	--	--	2.44
26...	--	--	--	--	<0.008	0.18	0.22	1.9	1.74	7.7	1.74
NOV											
14...	--	--	--	--	0.012	--	0.23	--	--	--	1.97
14...	--	--	--	--	<0.008	0.24	0.20	2.3	2.03	9.0	2.03
DEC											
12...	--	--	--	--	0.023	--	0.34	--	--	--	1.99
28...	--	--	--	--	0.010	0.10	0.14	2.7	2.63	12	2.64
JAN 1995											
07...	--	--	--	--	0.012	0.35	0.94	1.9	1.60	7.1	1.60
09...	--	--	--	--	0.021	--	0.29	--	--	--	2.11
15...	--	--	--	--	0.050	0.36	2.9	2.3	1.92	8.5	1.93
20...	--	--	--	--	0.048	0.48	1.4	2.0	1.53	6.8	1.53
26...	--	0.052	<0.001	0.036	0.021	0.15	0.17	3.4	3.24	14	3.25
FEB											
07...	--	--	--	--	0.009	--	--	--	--	--	3.74
22...	0.040	0.099	0.009	<0.001	0.017	0.09	0.13	3.2	3.14	14	3.14
28...	--	--	--	--	0.044	0.18	0.47	2.4	2.24	9.9	2.25
MAR											
09...	--	--	--	--	0.028	0.17	1.1	2.0	1.83	8.1	1.83
20...	--	--	--	--	<0.008	--	0.14	--	--	--	3.04
22...	0.022	0.151	<0.001	<0.001	0.017	0.13	0.17	3.0	2.82	12	2.83
APR											
10...	--	--	--	--	0.013	--	0.23	--	--	--	3.02
18...	0.016	0.132	<0.001	<0.001	0.021	0.23	0.25	2.9	2.67	12	2.68
MAY											
16...	--	--	--	--	--	--	0.27	--	--	--	1.98
24...	--	0.163	<0.001	<0.001	0.024	0.17	0.28	2.5	2.27	10	2.28
JUN											
05...	--	--	--	--	0.037	--	0.40	--	--	--	1.78
22...	0.273	0.300	0.006	0.003	0.045	0.24	0.34	2.3	2.00	8.9	2.02
JUL											
10...	--	--	--	--	0.021	--	0.40	--	--	--	2.02
18...	--	--	--	--	0.034	0.27	0.35	3.2	2.93	13	2.95
18...	--	--	--	--	0.036	0.26	0.36	2.4	2.09	9.3	2.11
18...	--	--	--	--	0.038	0.28	0.38	2.4	2.14	9.5	2.15
AUG											
07...	--	--	--	--	0.050	--	0.76	--	--	--	1.69
14...	0.115	0.175	<0.001	<0.001	0.023	0.25	0.28	2.1	1.86	8.2	1.87
14...	--	--	--	--	--	--	--	--	--	--	1.80
SEP											
25...	--	--	--	--	0.021	--	0.44	--	--	--	1.73
28...	0.074	0.183	<0.001	<0.001	0.010	0.41	0.46	2.1	1.73	7.7	1.74

PATUXENT RIVER BASIN

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01591000 PATUXENT RIVER NEAR UNITY, MD--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N) (00607)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)
OCT 1994											
11...	--	2.6	--	--	0.011	<0.010	--	--	2.0	--	--
26...	--	2.0	0.003	<0.010	0.005	<0.010	--	--	3.5	4	0.17
NOV											
14...	--	2.2	--	--	0.010	<0.010	--	--	1.6	3	0.11
14...	--	2.2	0.004	0.012	0.010	<0.010	--	--	1.6	3	0.11
DEC											
12...	--	2.3	--	--	0.017	0.033	--	--	4.0	--	--
28...	0.09	2.8	0.004	<0.010	0.008	<0.010	--	--	1.5	5	0.27
JAN 1995											
07...	0.33	2.5	0.005	0.049	--	0.249	--	--	3.3	230	106
09...	--	2.4	--	--	0.018	0.030	--	--	1.9	--	--
15...	0.31	4.9	0.008	0.020	0.017	0.900	--	--	5.5	1070	1470
20...	0.43	2.9	0.007	0.035	0.025	0.459	--	--	5.6	487	765
26...	0.13	3.4	0.006	<0.010	0.016	0.014	--	--	1.2	6	0.66
FEB											
07...	--	--	--	--	0.007	0.017	--	--	1.1	--	--
22...	0.07	3.3	0.003	<0.010	<0.004	0.010	--	--	1.6	4	0.33
28...	0.14	2.7	0.005	0.090	0.014	0.136	--	--	3.1	149	45
MAR											
09...	0.14	2.9	0.006	0.018	0.018	0.258	--	--	3.2	383	178
20...	--	3.2	--	--	0.015	0.011	--	--	1.9	--	--
22...	0.11	3.0	0.006	<0.010	0.010	<0.010	--	--	1.4	4	0.37
APR											
10...	--	3.2	--	--	0.017	0.030	--	--	2.0	--	--
18...	0.21	2.9	0.006	0.011	0.007	0.029	--	--	1.1	4	0.29
MAY											
16...	--	2.2	--	--	0.015	0.034	--	--	2.0	--	--
24...	0.15	2.6	0.006	<0.010	0.013	0.019	--	--	1.8	10	0.73
JUN											
05...	--	2.2	--	--	0.025	0.032	--	--	--	--	--
22...	0.19	2.4	0.014	<0.010	0.014	0.035	--	--	1.6	25	0.68
JUL											
10...	--	2.4	--	--	0.038	0.046	--	--	2.6	--	--
18...	0.23	3.3	0.012	0.010	0.014	0.034	--	--	2.4	13	0.49
18...	0.22	2.5	0.014	0.039	0.012	0.041	--	--	2.3	--	--
18...	0.24	2.5	0.013	0.016	0.012	0.033	--	--	2.3	--	--
AUG											
07...	--	2.5	--	--	0.046	0.084	--	--	6.4	--	--
14...	0.22	2.2	0.014	0.011	0.012	0.018	--	--	1.8	3	0.07
14...	--	--	<0.010	--	--	--	130	38	--	--	--
SEP											
25...	--	2.2	--	--	0.015	0.030	--	--	2.2	--	--
28...	0.40	2.2	0.009	<0.010	0.011	0.023	--	--	2.6	3	0.04

PATUXENT RIVER BASIN

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 mi².

PERIOD OF RECORD.--June 1978 to September 1983 (published as "at Roxbury Mills Road at Roxbury Mills, MD"), October 1983 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 400 ft above sea level, from topographic map. Prior to Dec. 28, 1983, at site 800 ft upstream at datum 1.76 ft lower.

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

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 19	1530	*5,210	*8.96	July 19	1400	702	4.32
Jan. 27	1100	530	3.91	July 30	2245	1,260	5.32
June 19	0815	1,660	5.88	July 31	1200	748	4.42
June 20	0430	1,260	5.33	Aug. 13	0315	1,570	5.76
July 13	0930	1,360	5.48	Sept. 6	2345	4,030	8.11

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.3	16	20	e18	30	26	63	32	25	59	48	21
2	4.2	21	20	91	29	28	104	28	24	62	35	20
3	4.1	18	18	90	e28	27	43	26	23	33	31	20
4	4.4	15	17	30	e27	25	38	27	24	28	29	26
5	15	15	16	24	e26	26	35	41	24	25	27	31
6	9.8	14	17	e19	27	32	33	57	22	24	26	873
7	6.8	18	16	e17	26	62	33	32	21	23	25	435
8	6.4	21	15	e46	29	44	31	42	20	26	25	39
9	6.3	17	17	e38	66	32	39	87	21	28	37	32
10	6.3	15	15	e29	43	30	43	43	23	22	32	30
11	6.4	25	e11	24	40	29	34	73	25	20	26	31
12	6.1	76	e12	e25	34	e28	31	62	26	21	36	29
13	6.0	29	e14	e24	28	e27	30	37	24	368	425	42
14	27	181	15	e23	e27	26	28	33	20	43	46	32
15	18	110	16	e22	e26	32	37	31	20	34	36	28
16	9.7	35	66	e21	e25	29	83	43	18	31	32	40
17	8.0	27	31	e22	e23	27	40	38	26	27	30	69
18	7.7	24	23	25	e22	26	34	35	85	29	29	37
19	7.5	23	44	2100	e23	84	33	30	440	144	27	31
20	8.7	21	31	117	60	69	31	27	241	44	26	28
21	136	20	23	49	105	40	30	26	44	31	26	27
22	23	18	21	37	47	34	29	27	34	31	25	107
23	15	18	e19	34	56	31	30	24	29	31	24	38
24	13	23	e18	91	42	29	31	23	28	28	24	32
25	13	19	e17	54	34	28	28	23	29	27	23	30
26	12	18	e16	35	e31	27	27	23	25	27	23	28
27	16	18	e15	234	e30	26	27	33	23	24	23	28
28	39	17	e14	59	e28	44	25	36	23	23	24	30
29	19	22	e14	40	e26	75	25	56	22	24	23	39
30	16	20	e13	37	---	41	37	37	69	153	22	29
31	15	---	e13	35	---	35	---	28	---	219	21	---
TOTAL	489.7	914	617	3510	1038	1119	1132	1160	1478	1709	1286	2282
MEAN	15.8	30.5	19.9	113	35.8	36.1	37.7	37.4	49.3	55.1	41.5	76.1
MAX	136	181	66	2100	105	84	104	87	440	368	425	873
MIN	4.1	14	11	17	22	25	25	23	18	20	21	20
CFSM	.69	1.33	.87	4.94	1.56	1.58	1.65	1.63	2.15	2.41	1.81	3.32
IN.	.80	1.48	1.00	5.70	1.69	1.82	1.84	1.88	2.40	2.78	2.09	3.71

e Estimated

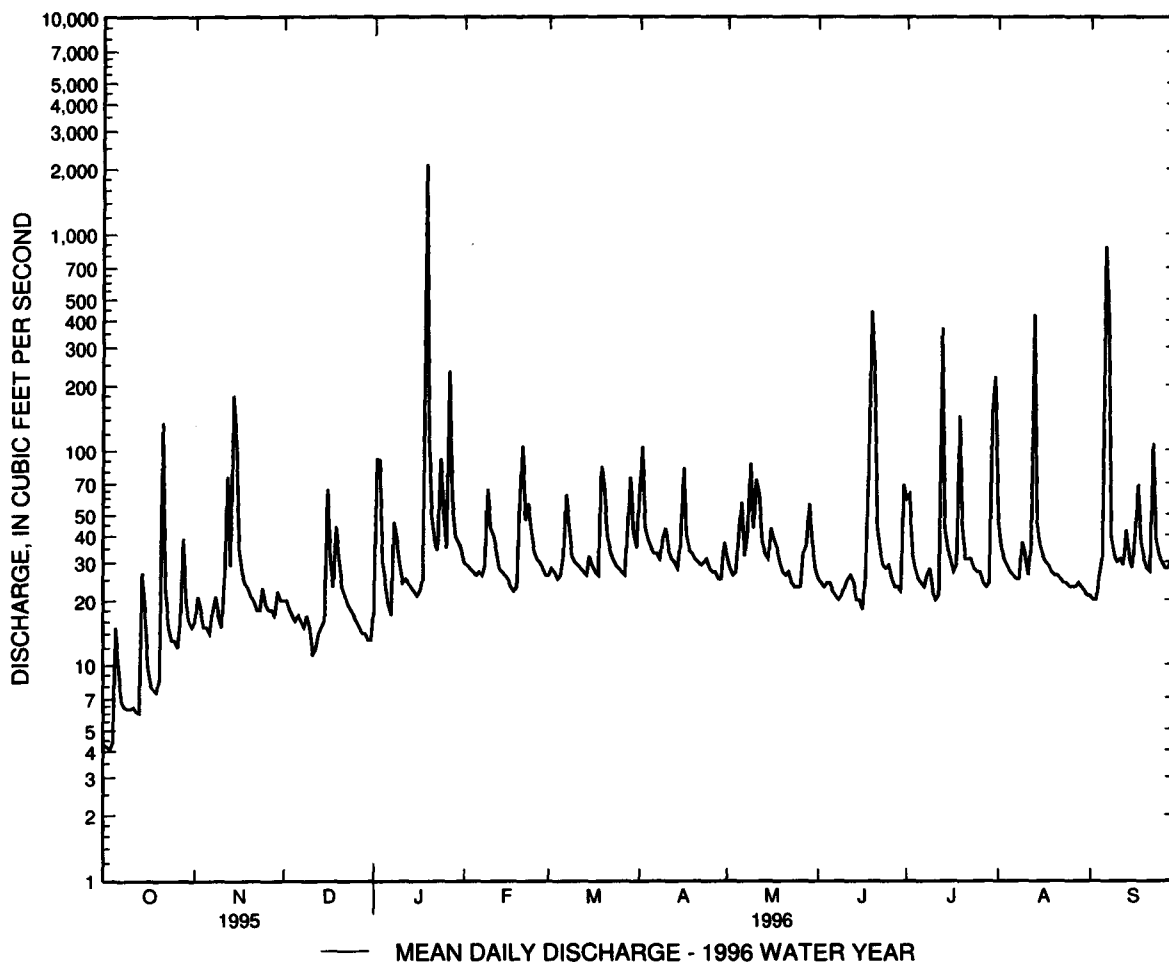
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1978 - 1996, BY WATER YEAR (WY)

MEAN	17.9	21.7	27.2	34.4	39.2	39.1	37.4	32.4	22.6	17.6	14.0	17.6
MAX	76.6	62.8	83.1	113	103	109	112	92.5	49.3	55.1	41.5	81.6
(WY)	1980	1994	1984	1996	1979	1993	1993	1989	1996	1996	1996	1979
MIN	3.73	5.96	9.24	8.38	14.6	14.5	14.9	14.1	6.96	4.23	4.63	3.81
(WY)	1987	1982	1982	1981	1992	1981	1985	1986	1986	1986	1991	1995

01591400 CATTAIL CREEK NEAR GLENWOOD, MD--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1978 - 1996
ANNUAL TOTAL	6855.9	16734.7	
ANNUAL MEAN	18.8	45.7	26.8
HIGHEST ANNUAL MEAN			45.7
LOWEST ANNUAL MEAN			13.1
HIGHEST DAILY MEAN	388 Jan 20	2100 Jan 19	2100 Jan 19 1996
LOWEST DAILY MEAN	1.9 (a)	4.1 Oct 3	1.9 Sep 3 1995
ANNUAL SEVEN-DAY MINIMUM	2.0 Sep 2	6.3 Oct 7	2.0 Sep 2 1995
INSTANTANEOUS PEAK FLOW		5210 Jan 19	(b) 5210 Jan 19 1996
INSTANTANEOUS PEAK STAGE		8.96 Jan 19	8.96 Jan 19 1996
INSTANTANEOUS LOW FLOW		3.8 Oct 4	1.7 Aug 19 1991
ANNUAL RUNOFF (CFSM)	.82	2.00	1.17
ANNUAL RUNOFF (INCHES)	11.14	27.18	15.92
10 PERCENT EXCEEDS	28	62	41
50 PERCENT EXCEEDS	16	27	17
90 PERCENT EXCEEDS	4.2	15	6.5

a Sept. 3, 4, 7, 8.

b From rating curve extended above 175 ft ³/s on basis of contracted-opening and flow-over-road measurement at gage height of 8.41 ft.

PATUXENT RIVER BASIN

01591610 PATUXENT RIVER BELOW BRIGHTON DAM NEAR BRIGHTON, MD

LOCATION.--Lat 39°11'32", long 77°00'17", Montgomery County, Hydrologic Unit 02060006, on right bank at Brighton Dam, 500 ft downstream from Triadelphia Reservoir, 1.3 mi east of Brighton, and 92 mi upstream from mouth.

DRAINAGE AREA.--78.6 mi².

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

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

REMARKS.--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 measurements of water temperature were made during the year. Water-quality records for some prior years have been collected at this station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 22, 1972, reached a discharge of 17,800 ft³/s. Data provided by Washington Suburban Sanitary Commission.

PEAK DISCHARGE FOR CURRENT YEAR.--Peak discharge, 1,870 ft³/s, Sept. 9, gage height, 7.82 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	289	110	101	44	50	49	161	51	101	66	460	54
2	205	67	101	46	35	51	389	51	101	175	246	54
3	156	42	118	47	50	51	318	68	101	208	103	142
4	134	42	135	47	50	117	272	95	101	95	50	207
5	78	42	78	47	50	161	271	63	101	96	50	429
6	68	42	48	47	50	161	211	190	111	96	50	724
7	58	42	48	47	49	161	158	204	118	69	50	1300
8	59	42	47	47	106	164	158	103	116	65	51	623
9	58	44	47	43	202	164	158	103	116	78	52	131
10	48	45	46	11	197	164	97	103	102	85	120	56
11	44	44	65	12	202	161	30	138	102	126	209	56
12	45	33	106	12	132	161	48	260	101	276	209	54
13	45	14	106	12	50	161	48	257	102	229	417	53
14	44	15	106	12	51	161	48	254	101	256	297	53
15	25	15	68	12	52	161	127	148	100	200	212	152
16	8.8	13	41	12	113	161	224	101	99	183	211	623
17	62	9.4	18	8.6	165	161	310	101	99	50	210	298
18	101	9.8	44	8.1	165	174	250	101	99	49	208	51
19	130	9.3	45	45	162	165	163	101	394	177	127	52
20	130	29	45	273	161	161	163	101	786	346	54	74
21	78	47	45	288	162	159	164	101	711	251	54	111
22	45	98	45	191	164	124	125	161	329	95	54	199
23	45	143	45	53	164	49	51	190	95	50	53	254
24	74	214	45	51	165	48	50	99	82	50	55	179
25	133	267	45	52	163	118	50	95	49	50	55	108
26	133	242	45	164	161	106	95	99	53	50	54	108
27	96	218	45	303	88	48	167	99	53	50	127	111
28	46	187	46	277	50	120	165	100	56	50	211	106
29	46	132	45	307	51	161	165	101	63	50	210	106
30	88	102	45	272	---	161	93	181	65	117	131	106
31	111	---	45	99	---	161	---	181	---	451	54	---
TOTAL	2682.8	2359.5	1909	2889.7	3260	4125	4729	4000	4607	4189	4444	6574
MEAN	86.5	78.7	61.6	93.2	112	133	158	129	154	135	143	219
MAX	289	267	135	307	202	174	389	260	786	451	460	1300
MIN	8.8	9.3	18	8.1	35	48	30	51	49	49	50	51
(†)	3000	3430	3800	5950	6375	6450	6200	6400	6450	6700	6250	6175

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1981 - 1996, BY WATER YEAR (WY)

	MEAN	60.3	52.6	82.8	77.5	83.1	117	131	96.5	77.9	60.5	65.3	83.3
	MAX	117	85.8	373	183	256	320	304	229	170	135	143	219
	(WY)	1981	1994	1984	1991	1994	1993	1993	1989	1989	1996	1996	1996
	MIN	7.87	17.1	14.9	9.33	10.1	8.90	8.49	8.63	22.4	30.3	18.1	26.1
	(WY)	1987	1989	1992	1982	1987	1981	1981	1981	1981	1995	1987	1991

† Monthend contents, in millions of gallons, in Triadelphia Reservoir (contents on Sept. 30, 1995, 3,800,000,000 gal). Records provided by Washington Suburban Sanitary Commission.

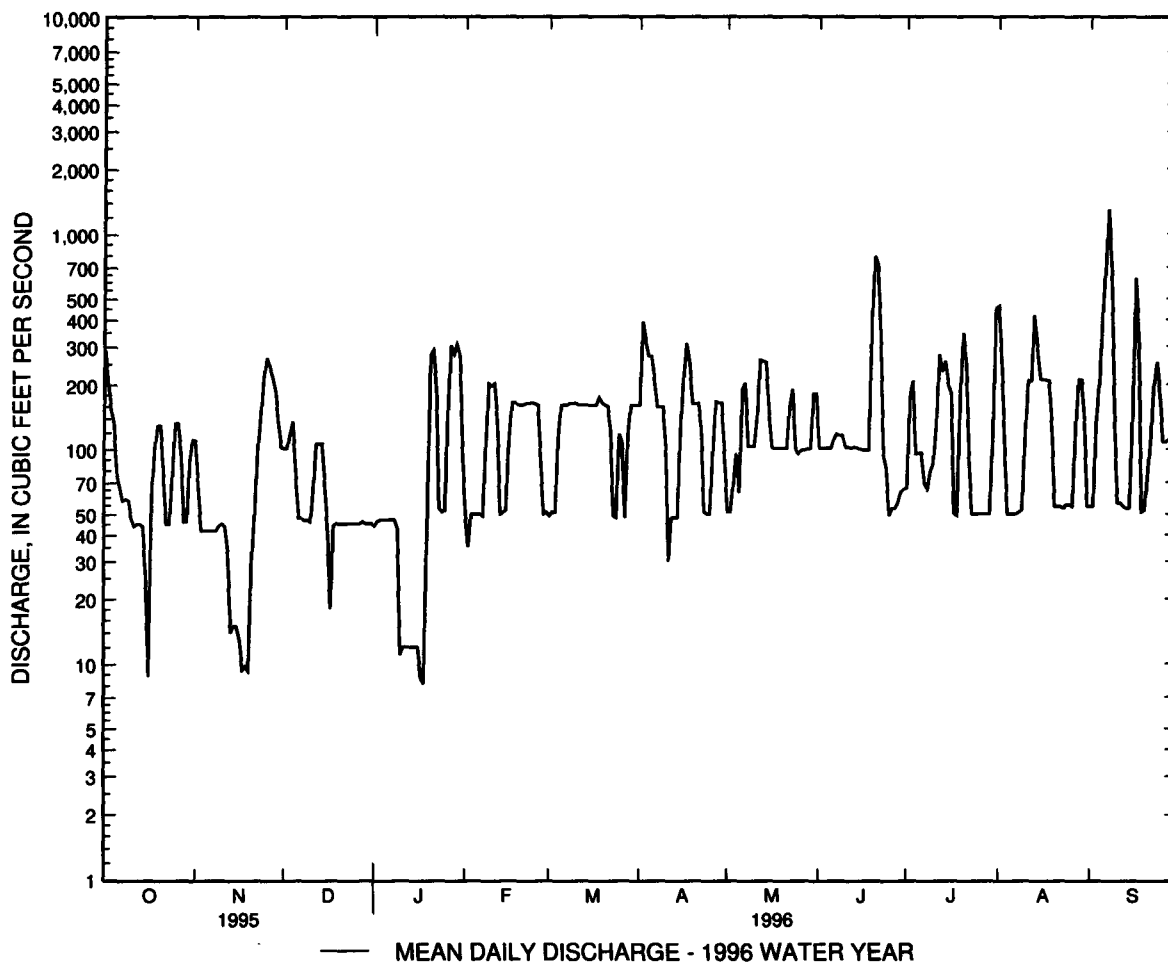
PATUXENT RIVER BASIN

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

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1981 - 1996	
ANNUAL TOTAL	26649.4		45769.0			
ANNUAL MEAN	73.0		125		82.2	
ANNUAL MEAN*	64.5		136		81.6	
HIGHEST ANNUAL MEAN					134	
LOWEST ANNUAL MEAN					47.5	
HIGHEST DAILY MEAN	775	Jan 21	1300	Sep 7	1730	May 6 1989
LOWEST DAILY MEAN	8.6	Aug 13	8.1	Jan 18	2.1	(a)
ANNUAL SEVEN-DAY MINIMUM	9.1	May 22	11	Jan 12	4.0	Oct 16 1980
INSTANTANEOUS PEAK FLOW			1870		2650	
INSTANTANEOUS PEAK STAGE			7.82		10.26	
INSTANTANEOUS LOW FLOW			2.1		1.2	
ANNUAL RUNOFF (CFSM)	.93		1.59		1.05	
ANNUAL RUNOFF (CFSM)*	.82		1.73		1.04	
ANNUAL RUNOFF (INCHES)	12.61		21.66		14.21	
ANNUAL RUNOFF (INCHES)*	11.14		23.55		14.10	
10 PERCENT EXCEEDS	106		247		170	
50 PERCENT EXCEEDS	58		101		54	
90 PERCENT EXCEEDS	12		44		9.2	

* Adjusted for change in reservoir contents.

a Jan. 27, 28, 1983.



PATUXENT RIVER BASIN

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 mi².

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

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

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

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 19	1530	*5,180	*9.24	Sept. 6	2245	4,410	8.85
June 18	0330	1,740	6.82	Sept. 11	1545	791	4.74
July 1	2000	1,010	5.33				

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.4	28	28	e21	39	31	65	43	28	198	63	16
2	3.4	41	26	e82	35	34	142	32	24	103	37	15
3	3.3	33	21	e110	e33	32	58	28	23	45	31	15
4	3.4	25	20	e42	e32	27	47	28	23	33	27	28
5	16	20	19	e31	e31	30	42	47	24	28	24	35
6	11	19	18	e25	e30	36	38	80	20	24	23	773
7	5.2	28	17	e22	e30	65	37	41	19	22	22	488
8	4.4	41	16	e54	e33	65	35	50	18	22	20	55
9	4.2	27	e16	e60	76	52	47	88	21	26	31	33
10	4.3	23	e15	e41	65	47	59	53	28	23	33	40
11	4.3	46	e15	e34	55	37	43	68	21	20	22	264
12	4.4	145	e15	e32	45	36	38	93	29	22	35	80
13	4.5	53	e15	e30	e32	34	35	47	26	241	305	95
14	49	218	19	e28	33	32	33	38	19	66	64	54
15	29	201	102	e26	32	37	43	34	18	41	42	37
16	9.6	69	46	e24	33	36	137	62	16	34	33	52
17	6.7	42	33	e24	31	32	57	48	72	26	31	152
18	5.9	33	100	36	30	30	45	43	610	28	26	56
19	5.7	30	91	e1840	29	118	40	34	287	112	23	39
20	5.8	27	29	e150	65	130	37	30	131	70	22	31
21	200	24	24	e64	135	59	35	27	58	37	21	29
22	46	22	23	e50	64	45	33	33	40	33	21	67
23	19	21	e21	e45	81	39	33	26	32	33	19	37
24	13	26	e20	92	56	35	34	23	34	28	19	30
25	11	23	e19	82	44	34	30	23	37	25	18	29
26	9.9	21	e19	52	39	32	29	23	27	26	17	26
27	20	21	e18	218	39	30	28	31	23	22	29	27
28	74	20	e18	92	38	59	27	45	22	21	25	29
29	29	38	e17	55	33	119	27	68	21	22	20	46
30	20	34	e17	47	---	60	45	52	85	41	17	29
31	19	---	e17	45	---	47	---	33	---	153	16	---
TOTAL	644.4	1399	874	3554	1318	1500	1399	1371	1836	1625	1136	2707
MEAN	20.8	46.6	28.2	115	45.4	48.4	46.6	44.2	61.2	52.4	36.6	90.2
MAX	200	218	102	1840	135	130	142	93	610	241	305	773
MIN	3.3	19	15	21	29	27	27	23	16	20	16	15
CFSM	.77	1.73	1.04	4.25	1.68	1.79	1.73	1.64	2.27	1.94	1.36	3.34
IN.	.89	1.93	1.20	4.90	1.82	2.07	1.93	1.89	2.53	2.24	1.57	3.73

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1978 - 1996, BY WATER YEAR (WY)

	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
MEAN	21.2	27.9	31.7	38.6	43.5	47.6	41.9	37.5	27.4	17.8	13.8	18.1							
MAX	129	68.8	88.9	115	112	116	90.7	94.3	68.3	52.4	36.6	90.2							
(WY)	1980	1994	1984	1996	1979	1993	1993	1989	1989	1996	1996	1996							
MIN	2.68	7.27	11.8	9.31	20.3	18.8	18.5	15.1	6.21	4.72	3.98	3.11							
(WY)	1987	1982	1981	1981	1992	1981	1995	1986	1986	1986	1987	1986							

01591700 HAWLINGS RIVER NEAR SANDY SPRING, MD--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1978 - 1996	
ANNUAL TOTAL	8158.8		19363.4			
ANNUAL MEAN	22.4		52.9		30.4	
HIGHEST ANNUAL MEAN					52.9	
LOWEST ANNUAL MEAN					16.0	
HIGHEST DAILY MEAN	297	Jan 20	1840	Jan 19	1840	Jan 19 1996
LOWEST DAILY MEAN	1.7	(a)	3.3	Oct 3	1.7	(a)
ANNUAL SEVEN-DAY MINIMUM	1.8	Sep 10	4.5	Oct 7	1.8	Sep 10 1995
INSTANTANEOUS PEAK FLOW			5180	Jan 19	(b) 5180	Jan 19 1996
INSTANTANEOUS PEAK STAGE			9.24	Jan 19	9.24	Jan 19 1996
INSTANTANEOUS LOW FLOW			3.3	(c)	(d) .75	Jan 30 1981
ANNUAL RUNOFF (CFSM)	.83		1.96		1.13	
ANNUAL RUNOFF (INCHES)	11.24		26.68		15.30	
10 PERCENT EXCEEDS	36		83		50	
50 PERCENT EXCEEDS	19		32		19	
90 PERCENT EXCEEDS	3.4		17		5.8	

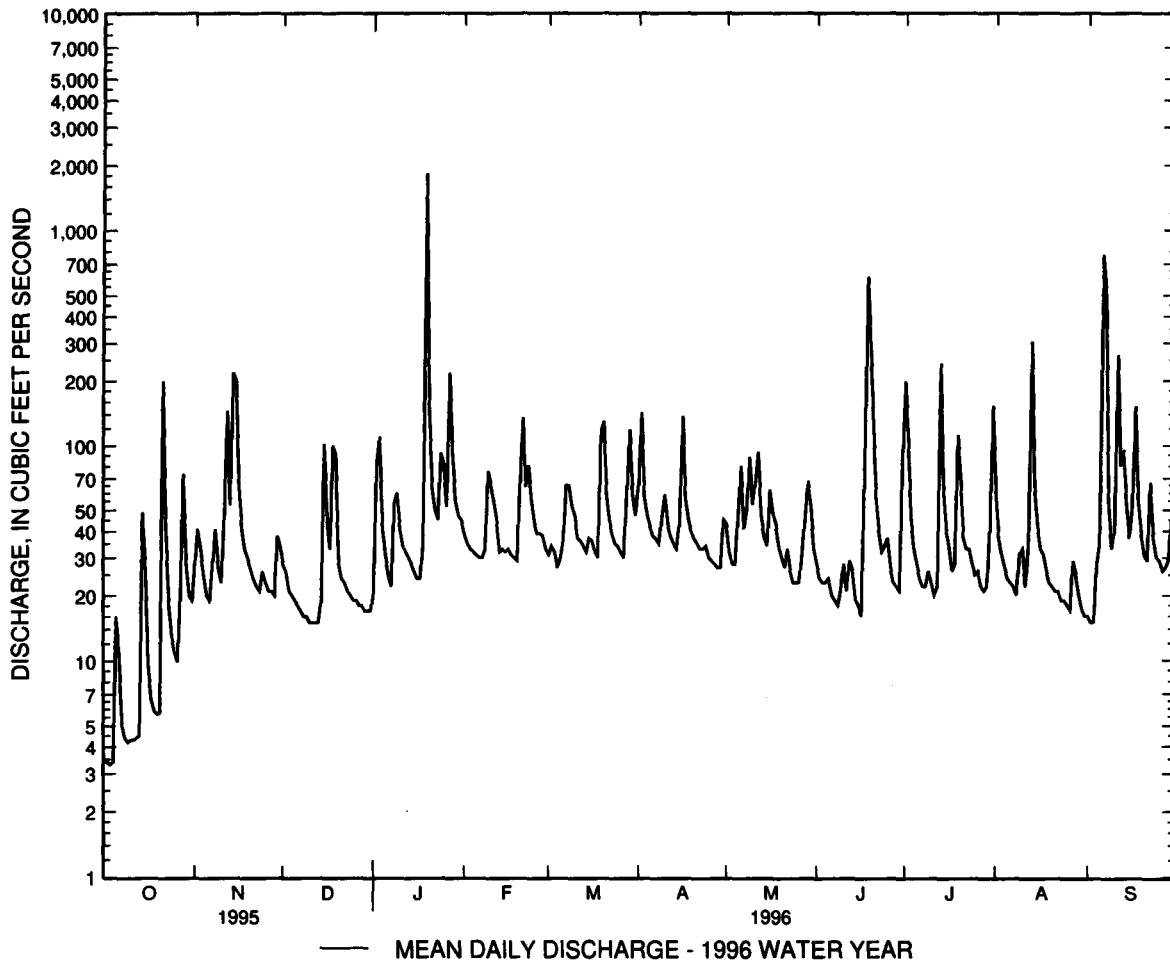
e Estimated

a Sept. 11-13, 1995.

b From rating curve extended above 1,200 ft³/s on basis of contracted-opening and flow-over-road measurement of peak flow.

c Oct. 1-4.

d Result of freezeup.



PATUXENT RIVER BASIN

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 mi².

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

REVISED RECORDS.--WDR MD-DE-78-1: 1976(M). WDR MD-DE-89-1: 1978(M), 1979(M).

GAGE.--Water-stage recorder. Datum of gage is 153.5 ft above sea level (levels by Washington Suburban Sanitary Commission). Prior to Oct. 1, 1955, water-stage recorder and concrete control at site 0.3 mi downstream at different datum. Oct. 1, 1955 to Sept. 30, 1956, nonrecording gage at present site at datum 1.2 ft lower. Oct. 1, 1956 to Jan. 27, 1957, nonrecording gage at present site and datum. Jan. 28, 1957 to May 3, 1972, water-stage recorder and concrete control at present site and datum. May 4, 1972 to Sept. 4, 1973, nonrecording gage at present site and datum.

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

PEAK DISCHARGE FOR CURRENT YEAR.--Peak discharge, 1,660 ft³/s, July 12, gage height, 8.49 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	22	85	23	295	158	147	159	93	86	136	171
2	22	22	85	23	290	158	268	159	94	158	131	171
3	22	22	85	23	285	157	366	158	94	160	131	171
4	22	23	85	23	176	159	530	157	93	159	130	173
5	22	23	85	23	61	159	675	159	94	159	132	582
6	21	23	86	23	21	159	408	159	96	159	132	919
7	21	23	76	23	22	159	154	160	95	159	146	1420
8	22	23	85	23	21	157	156	159	94	159	158	691
9	21	22	85	23	49	159	158	158	93	159	160	156
10	22	22	85	23	88	159	157	158	89	159	157	156
11	21	22	85	23	88	151	148	158	88	159	158	158
12	21	22	85	62	89	156	150	160	86	843	159	159
13	21	22	85	84	89	156	157	160	86	272	160	160
14	22	76	85	85	130	155	157	161	86	157	290	163
15	22	134	67	85	154	156	158	162	86	159	344	162
16	22	154	21	83	156	154	156	159	86	153	349	818
17	22	154	21	225	156	154	143	159	44	158	233	250
18	22	114	21	228	157	154	156	159	115	156	171	160
19	22	81	22	540	156	154	156	161	844	156	175	160
20	21	80	22	1240	156	141	156	162	887	155	174	156
21	22	78	22	1140	153	146	157	161	695	156	159	156
22	22	83	22	248	154	146	157	160	471	154	171	156
23	21	83	23	92	154	149	154	161	222	154	173	156
24	21	83	23	92	156	150	159	161	160	153	171	156
25	21	83	23	325	156	149	159	162	159	154	174	156
26	21	83	23	757	157	148	157	160	159	156	172	156
27	22	83	23	452	156	148	160	157	116	156	169	156
28	21	83	23	292	155	148	160	151	83	154	169	155
29	21	82	23	298	156	147	158	159	83	152	168	156
30	21	83	23	301	---	147	158	126	84	154	169	156
31	21	---	23	299	---	148	---	93	---	154	171	---
TOTAL	667	1908	1607	7181	4036	4741	6135	4838	5575	5582	5492	8515
MEAN	21.5	63.6	51.8	232	139	153	205	156	186	180	177	284
MAX	22	154	86	1240	295	159	675	162	887	843	349	1420
MIN	21	22	21	23	21	141	143	93	44	86	130	155
(†)	8630	9370	9430	11730	12010	12140	11630	11790	11910	11940	11220	11120
(*)	64.9	69.7	71.3	67.7	71.8	75.8	66.4	71.2	71.4	71.6	69.3	70.8

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1945 - 1996, BY WATER YEAR (WY)

	MEAN	43.1	47.8	73.2	107	118	135	140	114	87.1	61.4	51.0	66.8
	MAX	379	272	390	480	462	557	444	397	822	280	226	587
	(WY)	1980	1953	1984	1978	1979	1993	1952	1989	1972	1945	1971	1979
	MIN	7.76	7.21	8.45	7.84	7.92	7.88	7.47	9.04	7.88	7.81	5.72	4.91
	(WY)	1968	1985	1966	1966	1966	1966	1966	1985	1967	1967	1966	1966

† Combined month-end total contents, in millions of gallons, in Tridelphia and T. Howard Duckett Reservoirs (contents on Sept. 30, 1995, 8,650,000,000 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.

PATUXENT RIVER BASIN

01592500 PATUXENT RIVER NEAR LAUREL, MD--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1945 - 1996	
ANNUAL TOTAL	9796		56277			
ANNUAL MEAN	26.8		154		86.8	
ANNUAL MEAN*	96.9		224			
HIGHEST ANNUAL MEAN					241	1972
LOWEST ANNUAL MEAN					9.09	1966
HIGHEST DAILY MEAN	154	Nov 16	1420	Sep 7	13000	Jun 22 1972
LOWEST DAILY MEAN	18	Jan 7	21	(a)	1.1	Jun 26 1956
ANNUAL SEVEN-DAY MINIMUM	19	Jan 1	21	Oct 23	3.7	Aug 29 1966
INSTANTANEOUS PEAK FLOW			1660	Jul 12	(b) 26000	Jun 22 1972
INSTANTANEOUS PEAK STAGE			8.49	Jul 12	(c) 25.00	Jun 22 1972
INSTANTANEOUS LOW FLOW			20	Oct 7	(d) .05	Jul 18 1985
ANNUAL RUNOFF (CFSM)	.20		1.16		.66	
ANNUAL RUNOFF (INCHES)	2.76		15.86		8.93	
10 PERCENT EXCEEDS	23		226		189	
50 PERCENT EXCEEDS	21		154		22	
90 PERCENT EXCEEDS	20		22		11	

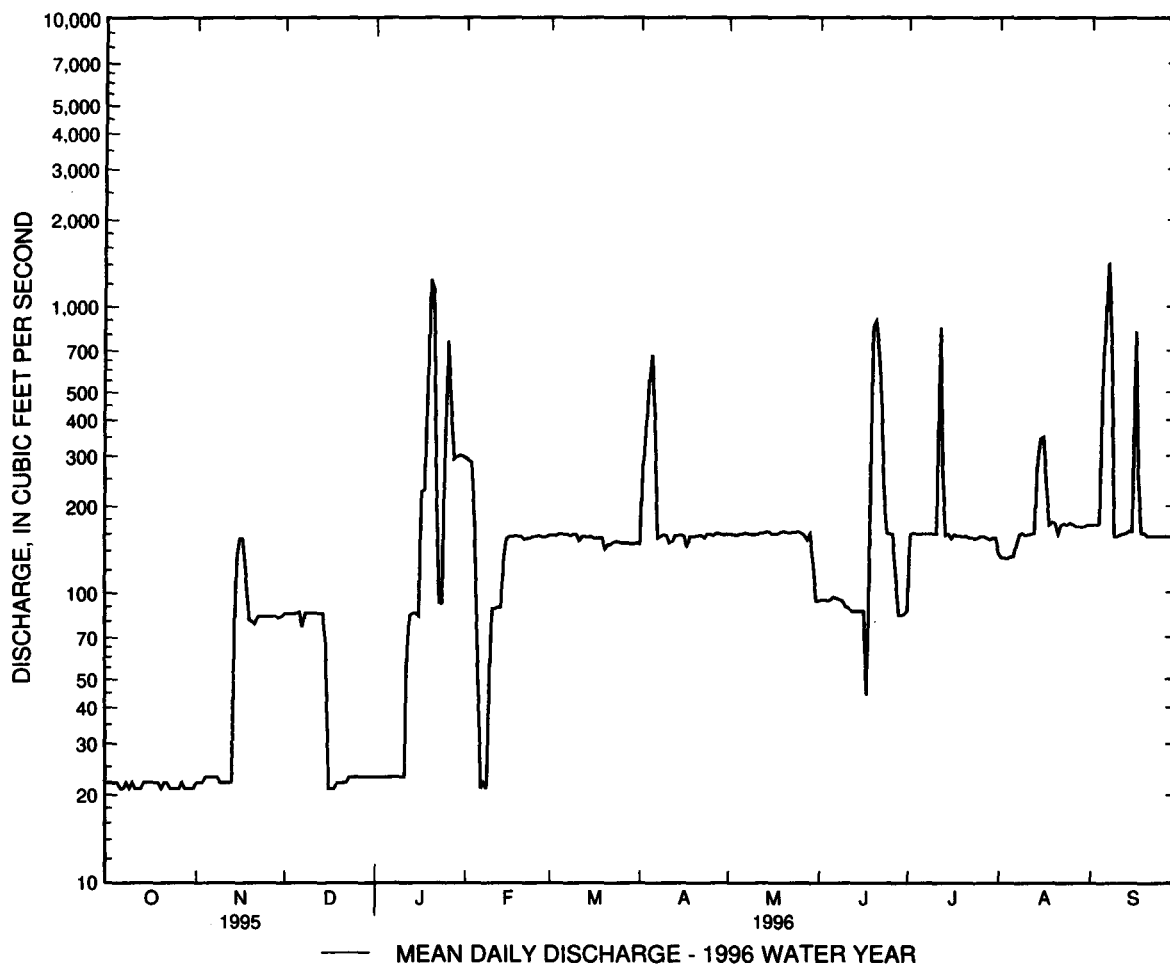
* Adjusted for diversions.

a Oct. 6, 7, 9, 11-13, 20 23-26, 28-31, Dec. 16-18, Feb. 6, 8.

b From rating curve extended above 6,600 ft³/s on basis of contracted-opening measurement of peak flow.

c From floodmarks.

d Valve closed for repair.



PATUXENT RIVER BASIN

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 mi².

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

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

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

REMARKS.--Records good except those for estimated daily discharges (ice effect, missing record), which are fair. Low flow affected by regulation from unknown source. 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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 21	0930	1,040	7.16	June 19	2330	816	6.13
Nov. 11	2400	808	6.09	July 8	2200	910	6.59
Nov. 14	2300	892	6.51	July 13	0830	1,880	9.57
Jan. 19	2030	*2,460	*10.51	Aug. 13	0430	925	6.66
Mar. 19	2000	848	6.29	Sept. 11	1100	866	6.38
June 18	0330	894	6.52	Sept. 17	0330	982	6.92

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.5	32	31	26	37	35	69	66	32	42	64	21
2	8.9	40	27	146	37	42	104	41	29	47	36	20
3	8.4	29	24	289	e34	40	53	37	28	32	33	19
4	8.5	22	24	52	e32	33	44	37	27	27	29	26
5	48	19	23	36	e30	35	40	92	33	24	26	31
6	52	18	23	30	e28	46	39	118	25	22	25	78
7	17	27	22	e31	e26	83	40	51	24	21	24	118
8	13	35	21	e30	e30	74	37	84	23	171	22	33
9	11	25	26	e32	e85	47	52	195	23	130	49	26
10	11	22	26	e33	69	41	60	69	26	35	54	24
11	10	91	e35	e34	49	40	41	122	24	25	30	362
12	9.7	381	e40	e33	44	40	38	119	73	38	55	59
13	9.4	49	e25	e32	34	38	35	51	72	1190	563	101
14	84	456	e21	e32	34	36	34	41	31	95	67	42
15	78	363	24	e31	36	45	63	38	26	48	43	30
16	22	56	254	e31	36	44	356	75	22	39	36	50
17	15	39	65	37	38	36	70	50	67	32	33	478
18	13	32	39	50	33	34	51	42	457	34	29	59
19	13	29	118	1380	31	223	45	37	501	106	25	39
20	12	27	62	457	64	192	42	33	573	53	22	34
21	637	26	37	62	154	57	40	32	82	33	21	30
22	62	24	33	50	69	45	38	39	45	34	20	67
23	29	23	29	45	83	40	44	29	36	34	19	39
24	21	33	27	104	59	36	49	26	40	30	18	31
25	18	25	26	102	47	35	36	25	43	31	18	30
26	17	23	25	51	43	34	36	25	30	43	17	27
27	26	23	e25	387	44	33	36	54	27	29	197	28
28	93	22	22	93	42	87	32	64	25	25	114	47
29	34	63	22	49	38	249	33	95	24	35	32	97
30	24	41	22	44	---	68	87	60	72	52	25	38
31	21	---	22	42	---	50	---	39	---	283	23	---
TOTAL	1435.4	2095	1220	3851	1386	1938	1744	1886	2540	2840	1769	2084
MEAN	46.3	69.8	39.4	124	47.8	62.5	58.1	60.8	84.7	91.6	57.1	69.5
MAX	637	456	254	1380	154	249	356	195	573	1190	563	478
MIN	8.4	18	21	26	26	33	32	25	22	21	17	19
CFSM	1.22	1.84	1.04	3.27	1.26	1.65	1.53	1.60	2.23	2.41	1.50	1.83
IN.	1.41	2.05	1.19	3.77	1.36	1.90	1.71	1.85	2.49	2.78	1.73	2.04

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1932 - 1996, BY WATER YEAR (WY)

MEAN	26.2	37.1	44.5	53.0	60.6	65.3	59.0	49.8	39.0	30.3	28.1	31.2
MAX	107	108	119	145	147	181	160	197	265	119	130	214
(WY)	1980	1973	1973	1978	1979	1993	1973	1989	1972	1945	1955	1975
MIN	5.90	9.31	11.6	12.9	19.7	24.9	21.0	15.7	9.32	6.66	4.91	3.88
(WY)	1942	1942	1966	1955	1947	1981	1947	1955	1986	1966	1957	1932

01593500 LITTLE PATUXENT RIVER AT GUILFORD, MD--Continued

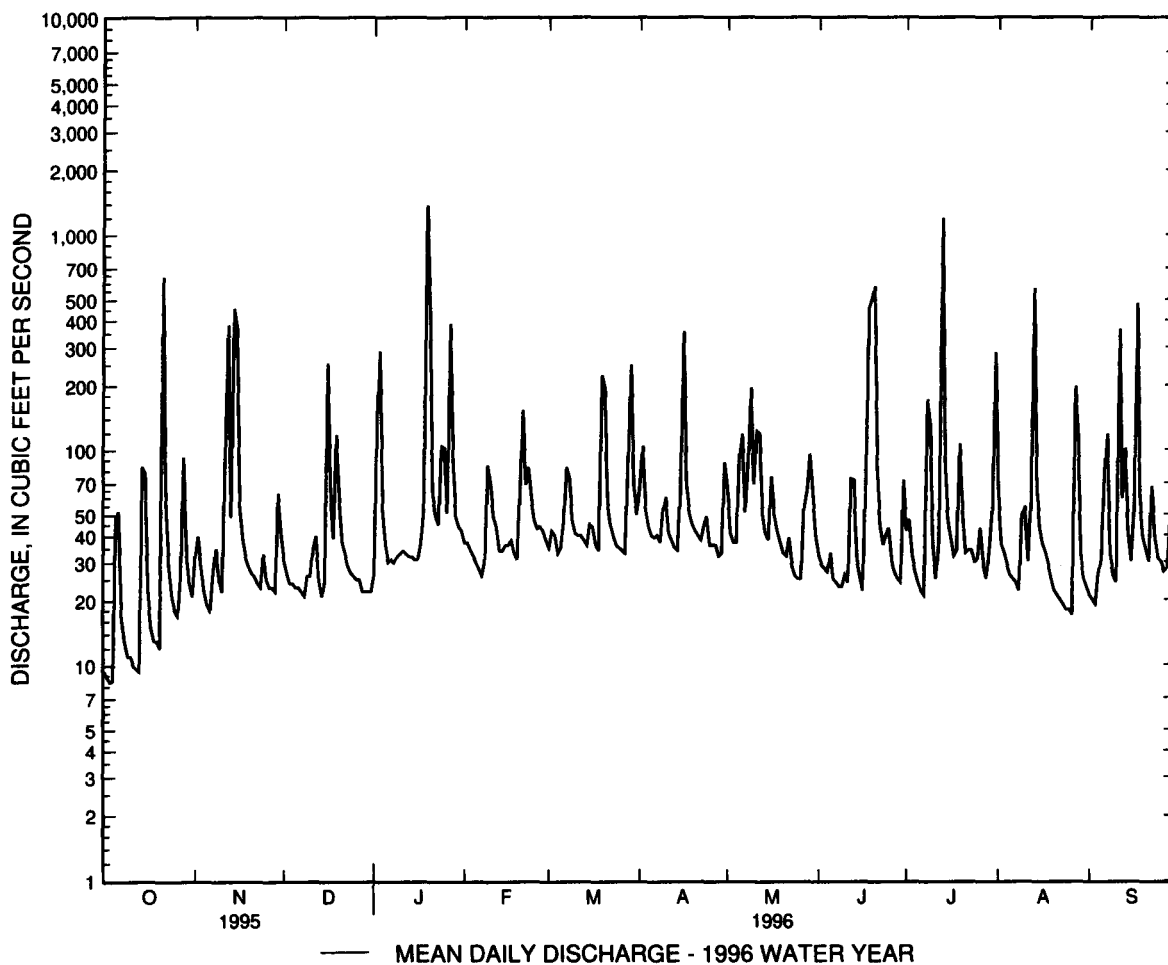
SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1932 - 1996	
ANNUAL TOTAL	14105.7		24788.4			
ANNUAL MEAN	38.6		67.7		43.5	
HIGHEST ANNUAL MEAN					93.7	
LOWEST ANNUAL MEAN					17.7	
HIGHEST DAILY MEAN	637	Oct 21	1380	Jan 19	4680	Jun 22 1972
LOWEST DAILY MEAN	4.9	(a)	8.4	Oct 3	.00	Sep 8 1966
ANNUAL SEVEN-DAY MINIMUM	5.1	Sep 2	12	Oct 7	.73	Sep 6 1966
INSTANTANEOUS PEAK FLOW			2460	Jan 19	(b) 12400	Jun 22 1972
INSTANTANEOUS PEAK STAGE			10.51	Jan 19	(c) 18.38	Jun 22 1972
INSTANTANEOUS LOW FLOW			7.8	Oct 4	.00	(d)
ANNUAL RUNOFF (CFSM)	1.02		1.78		1.15	
ANNUAL RUNOFF (INCHES)	13.81		24.27		15.57	
10 PERCENT EXCEEDS	60		103		72	
50 PERCENT EXCEEDS	24		36		26	
90 PERCENT EXCEEDS	7.6		22		10	

a Sept. 6, 8, 13.

b From rating curve extended above 1,800 ft³/s on basis of contracted-opening measurement at gage height 13.26 ft and contracted-opening and flow-over-embankment measurement at gage height 18.38 ft.

c From high-water mark in well.

d Sept. 6-12, 1966.



PATUXENT RIVER BASIN

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 mi².

PERIOD OF RECORD.--October 1939 to September 1958. Annual maximums, water years 1959-66, 68, 72, 75. October 1975 to September 1980. May 1985 to current year. Prior to December 1939 monthly discharge only, published in WSP 1302.

REVISED RECORDS.--WRD MD-DE-89: 1985, 1987-88(P).

GAGE.--Water-stage recorder. Elevation of gage is 125 ft above sea level, from topographic maps. Prior to October 1958, water-stage recorder at site 400 ft downstream at same datum. October 1958 to September 1972, crest-stage gage at site 400 ft downstream on right bank at same datum. October 1975 to September 1980, water-stage recorder at site 500 ft downstream at same datum.

REMARKS.--No estimated daily discharges. Records good except those for estimated daily discharges (periods of fragmentary or no gage-height record, ice effect), 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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 21	1115	2,070	8.84	July 13	1045	3,990	11.08
Jan. 19	2115	*7,750	*14.10	Aug. 13	0630	2,430	9.33
Jan. 27	1615	1,580	8.08	Sept. 7	0430	2,950	9.97
June 18	0430	2,670	9.63	Sept. 17	0445	2,110	8.90

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	75	79	80	123	103	195	183	96	208	197	72
2	20	94	74	387	117	114	385	114	90	148	105	68
3	18	76	68	582	e110	112	173	104	87	99	92	67
4	19	62	68	169	e110	96	145	105	87	85	85	80
5	112	55	66	107	e105	101	129	208	104	78	80	102
6	118	52	69	92	e110	124	121	313	83	73	75	413
7	40	63	68	e75	e105	215	120	138	78	70	74	1040
8	27	87	64	e80	e100	222	113	209	76	142	70	131
9	24	63	71	e90	325	131	139	430	76	249	110	98
10	23	56	73	e85	255	113	181	197	82	90	159	89
11	22	115	75	e85	173	113	125	234	77	73	83	473
12	22	675	90	e84	165	113	114	382	163	90	112	149
13	22	147	66	e83	118	110	108	154	210	e2200	1170	233
14	199	679	65	e82	114	106	103	126	90	288	194	130
15	188	743	70	e82	119	121	122	117	80	138	116	95
16	57	186	433	e81	119	124	680	209	74	113	99	128
17	38	114	191	e80	113	103	196	152	141	94	92	866
18	32	92	106	e110	107	102	144	131	1040	93	86	173
19	30	85	337	e3700	104	298	128	115	e860	324	80	114
20	29	78	214	1140	197	479	122	104	e950	167	74	99
21	e1100	75	115	239	596	181	116	99	241	98	72	90
22	169	70	96	162	229	141	111	112	129	95	73	185
23	73	68	87	144	273	123	114	93	104	99	71	113
24	58	84	84	291	185	113	130	88	105	88	70	92
25	51	72	80	354	141	111	107	84	117	90	68	89
26	46	68	77	157	124	107	106	84	88	107	67	83
27	55	66	78	801	126	102	103	131	81	80	344	86
28	267	65	79	385	122	196	96	175	77	74	269	109
29	83	144	75	181	108	575	99	261	75	88	97	256
30	60	102	77	153	---	210	198	184	215	103	82	105
31	57	---	70	147	---	154	---	111	---	641	75	---
TOTAL	3079	4411	3265	10288	4693	5013	4723	5147	5776	6385	4441	5828
MEAN	99.3	147	105	332	162	162	157	166	193	206	143	194
MAX	1100	743	433	3700	596	575	680	430	1040	2200	1170	1040
MIN	18	52	64	75	100	96	96	84	74	70	67	67
CFSM	1.01	1.49	1.07	3.37	1.64	1.64	1.60	1.69	1.96	2.09	1.46	1.97
IN.	1.16	1.67	1.23	3.89	1.77	1.90	1.79	1.95	2.18	2.41	1.68	2.20

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1996, BY WATER YEAR (WY)

MEAN	71.0	96.7	115	148	141	163	140	128	95.4	78.5	65.7	68.7
MAX	336	228	260	386	375	368	351	367	294	312	315	432
(WY)	1980	1953	1978	1979	1979	1994	1952	1989	1951	1945	1955	1979
MIN	14.7	22.5	35.8	34.0	57.7	85.3	60.0	39.5	25.5	21.9	15.1	12.8
(WY)	1942	1942	1942	1942	1942	1947	1947	1955	1986	1957	1957	1986

PATUXENT RIVER BASIN

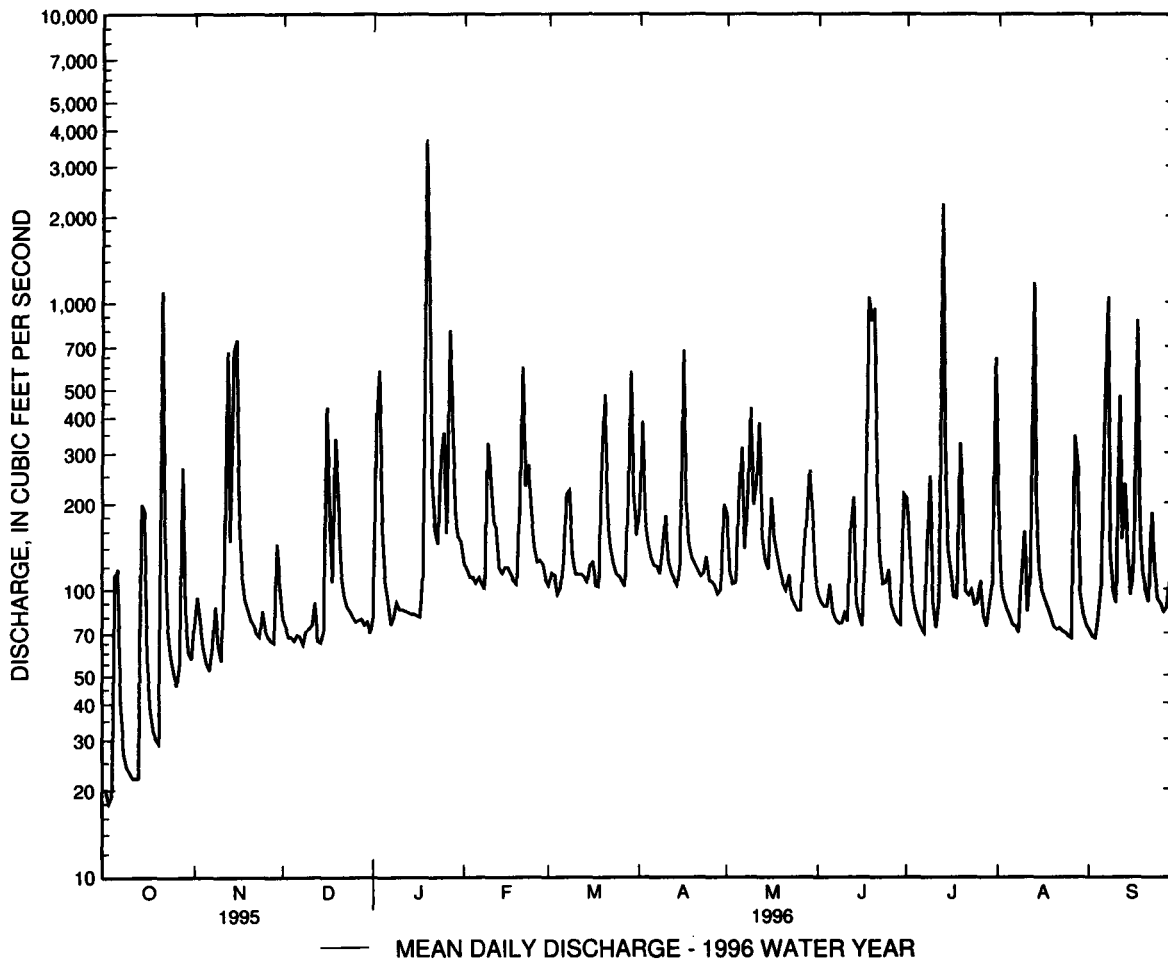
01594000 LITTLE PATUXENT RIVER AT SAVAGE, MD--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1940 - 1996	
ANNUAL TOTAL	31352.3		63049		109	
ANNUAL MEAN	85.9		172		196	
HIGHEST ANNUAL MEAN					1979	
LOWEST ANNUAL MEAN					59.3	
HIGHEST DAILY MEAN	1100	Oct 21	3700	Jan 19	5250	Sep 6 1979
LOWEST DAILY MEAN	8.5	Sep 8	18	Oct 3	7.0	Sep 19 1943
ANNUAL SEVEN-DAY MINIMUM	9.1	Sep 3	26	Oct 7	8.7	Oct 6 1986
INSTANTANEOUS PEAK FLOW			7750	Jan 19	(a) 35400	Jun 22 1972
INSTANTANEOUS PEAK STAGE			14.10	Jan 19	(b) 25.40	Jun 22 1972
INSTANTANEOUS LOW FLOW			18	(c)	1.6	Aug 26 1944
ANNUAL RUNOFF (CFSM)	.87		1.75		1.11	
ANNUAL RUNOFF (INCHES)	11.85		23.84		15.10	
10 PERCENT EXCEEDS	137		289		185	
50 PERCENT EXCEEDS	66		106		72	
90 PERCENT EXCEEDS	18		68		28	

a From rating curve extended above 11,000 ft³/s on basis of contracted-opening measurement of peak flow.

b From floodmarks.

c Oct. 3, 4.



PATUXENT RIVER BASIN

01594000 LITTLE PATUXENT RIVER AT SAVAGE, MD--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1969, 1985-92, October 1992 to current year.

REMARKS.--Water-quality data available through September 1995 only at time of publication.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	TEMPER- ATURE AIR (DEG C) (00020)	TUR- BID- ITY (NTU) (00076)	OXYGEN DEMAND, CHEM- ICAL (LOW LEVEL) (MG/L) (00335)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L) (00310)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)
OCT 1994											
26...	1000	38	247	6.9	10.0	9.0	1.6	<10	<2.0	--	--
NOV											
14...	1300	42	255	7.2	11.0	22.0	1.4	--	<2.0	--	--
DEC											
05...	1530	449	--	--	--	--	130	--	--	--	--
11...	0545	418	--	--	--	--	63	17	--	--	--
28...	1130	57	263	6.8	2.5	5.5	3.4	<10	<2.0	--	--
28...	1135	57	--	--	--	--	2.7	<10	<2.0	--	--
JAN 1995											
07...	0537	993	--	--	--	--	290	<10	--	--	--
07...	1030	715	--	--	--	--	220	<10	--	--	--
16...	0400	385	--	--	--	--	110	<10	--	--	--
20...	1030	893	--	--	--	--	870	21	--	--	--
26...	1045	80	--	6.2	1.5	0.0	4.9	<10	<2.0	--	--
FEB											
23...	1000	69	292	6.7	3.5	5.0	2.8	<10	<2.0	--	--
28...	1015	421	--	--	--	--	120	10	--	--	--
28...	2400	187	--	--	--	--	58	<10	--	--	--
MAR											
09...	0915	719	--	--	--	--	230	25	--	--	--
22...	1100	75	383	6.9	11.0	12.5	2.6	<10	<2.0	--	--
APR											
18...	1030	60	261	6.9	12.5	14.0	2.8	<10	<2.0	--	--
18...	1035	60	--	--	--	--	2.2	<10	--	--	--
18...	1040	60	--	--	--	--	1.8	<10	--	--	--
MAY											
19...	0715	318	--	--	--	--	110	16	--	--	--
19...	1245	370	--	--	--	--	87	15	--	--	--
24...	1230	58	259	7.3	22.0	23.0	2.4	<10	<2.0	--	--
JUN											
22...	0945	28	263	7.3	22.5	20.5	1.0	--	<2.0	--	--
25...	2240	321	--	--	--	--	1200	<10	--	--	--
JUL											
18...	1030	25	269	7.7	26.0	25.0	1.2	<10	<2.0	--	--
AUG											
14...	1230	21	262	7.6	26.5	28.0	1.5	<10	<2.0	--	--
14...	1235	20	262	7.6	26.5	28.0	--	--	--	26	30
SEP											
28...	1100	29	239	7.2	16.0	18.0	2.2	13	<2.0	--	--

PATUXENT RIVER BASIN

01594000 LITTLE PATUXENT RIVER AT SAVAGE, MD--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	ALKA- LIVITY WAT WH TOT IT FIELD MG/L AS CACO3 (00419)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDE (MG/L) (00530)
OCT 1994										
26...	--	--	--	--	--	14	60	--	--	2
NOV										
14...	--	--	--	--	--	11	57	--	--	3
DEC										
05...	--	--	--	--	--	--	--	--	--	335
11...	--	--	--	--	--	9.4	--	--	--	86
28...	--	--	--	--	--	13	54	--	--	5
28...	--	--	--	--	--	12	--	--	--	2
JAN 1995										
07...	--	--	--	--	--	7.0	--	--	--	960
07...	--	--	--	--	--	5.6	--	--	--	870
16...	--	--	--	--	--	10	--	--	--	172
20...	--	--	--	--	--	6.2	--	--	--	1390
26...	--	--	--	--	--	16	50	--	--	6
FEB										
23...	--	--	--	--	--	13	48	--	--	2
28...	--	--	--	--	--	8.6	--	--	--	72
28...	--	--	--	--	--	9.5	--	--	--	124
MAR										
09...	--	--	--	--	--	6.8	--	--	--	630
22...	--	--	--	--	--	11	52	--	--	4
APR										
18...	--	--	--	--	--	9.9	54	--	--	2
18...	--	--	--	--	--	9.9	--	--	--	2
18...	--	--	--	--	--	10	--	--	--	3
MAY										
19...	--	--	--	--	--	8.4	--	--	--	450
19...	--	--	--	--	--	9.0	--	--	--	170
24...	--	--	--	--	--	14	52	--	--	5
JUN										
22...	--	--	--	--	--	11	57	--	--	2
25...	--	--	--	--	--	8.8	--	--	--	1540
JUL										
18...	--	--	--	--	--	10	59	--	--	6
AUG										
14...	--	--	--	--	--	13	59	--	--	2
14...	<0.10	6.2	3.4	13	8.0	13	59	158	145	--
SEP										
28...	--	--	--	--	--	12	52	--	--	5

PATUXENT RIVER BASIN

01594000 LITTLE PATUXENT RIVER AT SAVAGE, MD--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	PHEO- PHYTO- PLANK- TON, ACID M. (UG/L) (32218)	CHLORO- PHYLL A PHYTO- PLANK- TON, UNCORR. (UG/L) (32230)	CHLORO- PHYLL B PHYTO- PLANK- TON, UNCORR. (UG/L) (32231)	CHLORO- PHYLL C PHYTO- PLANK- TON, UNCORR. (UG/L) (32232)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN DIS- SOLVED (MG/L AS N) (00602)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N) (00618)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS NO3) (71851)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)
OCT 1994											
26...	--	--	--	--	<0.008	0.19	0.21	1.2	1.01	4.5	1.01
NOV											
14...	--	--	--	--	<0.008	0.20	0.22	1.7	1.49	6.6	1.50
DEC											
05...	--	--	--	--	0.034	--	1.1	--	--	--	1.29
11...	--	--	--	--	0.055	0.34	0.79	1.7	1.36	6.0	1.37
28...	--	--	--	--	<0.008	0.10	0.12	2.2	2.05	9.1	2.06
28...	--	--	--	--	<0.008	0.09	0.10	2.1	2.03	9.0	2.04
JAN 1995											
07...	--	--	--	--	0.147	0.58	3.2	1.7	1.10	4.9	1.11
07...	--	--	--	--	0.165	0.59	2.4	1.6	0.972	4.3	0.987
16...	--	--	--	--	0.036	0.33	1.1	1.9	1.58	7.0	1.59
20...	--	--	--	--	0.096	0.48	6.4	1.3	0.814	3.6	0.830
26...	--	0.138	<0.001	0.080	0.200	0.11	0.21	2.7	2.59	11	2.59
FEB											
23...	0.303	0.387	0.065	0.094	0.017	0.09	0.11	2.4	2.29	10	2.29
28...	--	--	--	--	0.132	0.46	1.1	2.1	1.59	7.0	1.60
28...	--	--	--	--	0.095	0.38	0.69	2.1	1.67	7.4	1.68
MAR											
09...	--	--	--	--	0.116	0.44	2.7	1.5	1.01	4.5	1.03
22...	0.112	0.532	0.057	0.050	0.010	0.14	0.22	2.3	2.16	9.6	2.17
APR											
18...	0.046	0.225	0.006	<0.001	0.016	0.22	0.21	2.0	1.79	7.9	1.79
18...	--	--	--	--	0.014	0.21	0.23	2.0	1.76	7.8	1.77
18...	--	--	--	--	0.018	0.17	0.21	2.0	1.77	7.8	1.78
MAY											
19...	--	--	--	--	0.046	0.56	1.7	1.5	0.884	3.9	0.901
19...	--	--	--	--	0.063	0.53	1.1	1.5	0.917	4.1	0.928
24...	--	0.101	<0.001	<0.001	0.016	0.16	0.24	2.0	1.80	8.0	1.81
JUN											
22...	0.026	0.139	<0.001	<0.001	0.023	0.15	0.16	1.6	1.42	6.3	1.44
25...	--	--	--	--	0.047	0.35	4.1	1.3	0.980	4.3	0.993
JUL											
18...	--	--	--	--	0.015	0.19	0.26	1.3	1.14	5.0	1.15
AUG											
14...	0.076	0.107	<0.001	0.013	0.008	0.17	0.25	1.4	1.23	5.4	1.24
14...	--	--	--	--	--	--	--	--	--	--	1.20
SEP											
28...	0.077	0.138	<0.001	0.020	0.011	0.63	0.62	2.0	1.30	5.8	1.32

PATUXENT RIVER BASIN

01594000 LITTLE PATUXENT RIVER AT SAVAGE, MD--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N) (00607)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00600)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHOPHOS- PHORUS DIS- SOLVED (MG/L AS P) (00671)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)
OCT 1994											
26...	--	1.2	0.004	<0.010	0.006	<0.010	--	--	4.0	19	1.9
NOV											
14...	--	1.7	0.008	0.023	0.008	<0.010	--	--	2.3	1	0.11
DEC											
05...	--	2.4	<0.002	0.312	0.017	--	--	--	5.3	245	297
11...	0.28	2.2	0.009	0.026	0.020	0.179	--	--	4.3	111	125
28...	--	2.2	0.006	<0.010	0.007	0.034	--	--	2.2	3	0.46
28...	--	2.1	0.006	<0.010	0.008	0.010	--	--	2.3	--	--
JAN 1995											
07...	0.44	4.3	0.014	0.012	0.013	0.800	--	--	3.9	752	2020
07...	0.43	3.4	0.015	0.092	0.058	0.728	--	--	5.6	577	1110
16...	0.30	2.7	0.010	0.029	0.022	0.290	--	--	4.3	208	216
20...	0.39	7.2	0.016	0.082	0.043	2.20	--	--	5.6	2130	5140
26...	0.0	2.8	0.006	<0.010	0.009	0.026	--	--	2.8	15	3.2
FEB											
23...	0.07	2.4	0.006	<0.010	<0.004	<0.010	--	--	2.4	2	0.37
28...	0.33	2.7	0.015	0.024	0.009	0.297	--	--	4.8	259	294
28...	0.29	2.4	0.010	<0.010	0.010	0.135	--	--	5.0	118	60
MAR											
09...	0.32	3.7	0.011	0.031	0.033	0.900	--	--	6.0	817	1590
22...	0.13	2.4	0.012	<0.010	0.008	<0.010	--	--	2.7	2	0.40
APR											
18...	0.21	2.0	0.007	<0.010	0.007	<0.010	--	--	2.3	3	0.49
18...	0.19	2.0	0.007	<0.010	0.007	0.012	--	--	2.5	--	--
18...	0.16	2.0	0.009	0.030	0.007	0.035	--	--	2.4	--	--
MAY											
19...	0.51	2.6	0.017	0.049	0.023	0.405	--	--	7.5	368	316
19...	0.47	2.0	0.011	0.031	0.022	0.216	--	--	7.9	140	140
24...	0.14	2.1	0.013	<0.010	0.015	0.013	--	--	2.7	2	0.31
JUN											
22...	0.13	1.6	0.011	<0.010	0.017	<0.010	--	--	2.6	1	0.08
25...	0.30	5.1	0.013	0.022	0.021	2.10	--	--	4.8	1780	1540
JUL											
18...	0.17	1.4	0.011	0.017	0.015	0.027	--	--	2.8	1	0.07
AUG											
14...	0.17	1.5	0.006	0.013	0.017	0.022	--	--	2.6	1	0.06
14...	--	--	<0.010	--	--	--	32	14	--	--	--
SEP											
28...	0.62	1.9	0.019	0.028	0.018	0.031	--	--	3.7	4	0.34

PATUXENT RIVER BASIN

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 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1955 to June 1977 (gage heights and discharge measurements only), June 1977 to current year.

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

REMARKS.--Water-discharge records good except those for estimated daily discharges (orifice line leak), which are fair. Flow regulated by T. Howard Duckett Reservoir, usable capacity 5,600,000,000 gal, 21 mi upstream from station.

PEAK DISCHARGE FOR CURRENT YEAR.--Peak discharge, 8,280 ft³/s, Jan. 20, gage height, 16.14 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	101	199	395	216	e650	e390	569	716	315	539	1060	272
2	103	322	330	361	614	411	1030	436	288	385	467	265
3	101	274	298	1440	574	e440	867	388	275	424	330	262
4	98	213	288	925	589	e390	779	384	270	351	310	268
5	260	181	273	383	414	380	847	702	278	316	291	388
6	979	171	270	279	379	436	952	979	260	299	278	634
7	291	174	265	222	330	607	785	687	248	290	268	1940
8	148	285	249	211	310	e870	468	712	242	286	271	1800
9	123	217	260	380	662	e570	453	915	242	549	281	1470
10	114	179	295	451	899	e450	669	929	259	459	466	438
11	112	186	241	390	624	e450	508	606	247	303	347	818
12	107	1190	235	354	531	e430	431	1140	238	289	298	1490
13	101	1210	245	406	e395	424	413	707	440	1210	1310	669
14	333	655	243	373	367	406	396	482	279	3800	1940	628
15	1560	2470	260	342	421	419	394	430	238	1230	722	392
16	473	1360	505	365	446	475	1560	577	225	567	638	386
17	184	618	965	355	437	405	1210	629	227	423	654	1670
18	148	480	377	633	428	389	609	498	1320	364	405	1780
19	135	380	546	1910	e400	454	511	438	2210	431	334	510
20	127	323	985	6350	443	1650	473	389	3000	743	309	386
21	878	302	452	4170	1130	902	448	386	2920	446	296	353
22	2300	281	311	2080	1010	551	426	532	1460	347	288	661
23	447	272	271	972	784	461	410	374	924	358	287	601
24	231	326	259	614	724	426	460	338	547	339	281	378
25	185	310	241	1090	551	405	397	322	856	315	272	350
26	164	275	228	e900	479	394	378	319	469	775	267	325
27	163	268	208	1180	465	368	388	360	378	495	270	321
28	825	265	205	2240	455	434	358	617	299	332	795	329
29	588	672	198	980	424	1420	356	601	264	321	398	761
30	246	673	192	781	---	1120	403	845	414	363	304	502
31	196	---	204	726	---	637	---	415	---	605	283	---
TOTAL	11821	14731	10294	32079	15935	17564	17948	17853	19632	17954	14720	21047
MEAN	381	491	332	1035	549	567	598	576	654	579	475	702
MAX	2300	2470	985	6350	1130	1650	1560	1140	3000	3800	1940	1940
MIN	98	171	192	211	310	368	356	319	225	286	267	262
CFSM	1.10	1.41	.95	2.97	1.58	1.63	1.72	1.65	1.88	1.66	1.36	2.02
IN.	1.26	1.57	1.10	3.43	1.70	1.88	1.92	1.91	2.10	1.92	1.57	2.25

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1977 - 1996, BY WATER YEAR (WY)

	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
MEAN	239	287	376	502	460	590	514	484	332	222	210	243
MAX	1093	491	1030	1316	1232	1358	1247	1291	846	579	532	1358
(WY)	1980	1996	1984	1978	1979	1993	1983	1989	1989	1996	1979	1979
MIN	80.4	108	136	119	228	173	167	154	113	102	86.1	65.2
(WY)	1987	1982	1981	1981	1995	1981	1985	1986	1977	1986	1987	1986

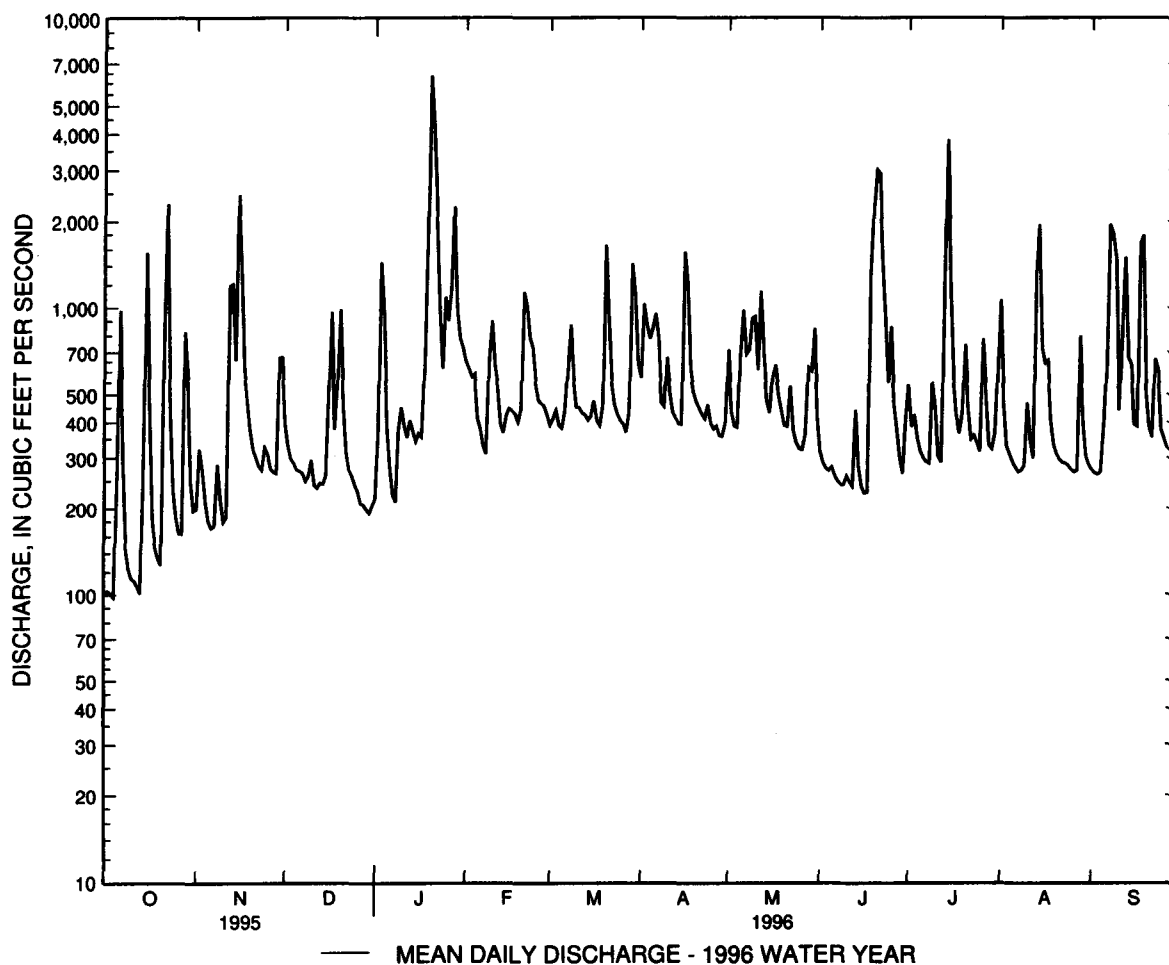
01594440 PATUXENT RIVER NEAR BOWIE, MD--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1977 - 1996	
ANNUAL TOTAL	102419		211578			
ANNUAL MEAN	281		578		369	
HIGHEST ANNUAL MEAN					637	1979
LOWEST ANNUAL MEAN					112	1977
HIGHEST DAILY MEAN	3170	Mar 9	6350	Jan 20	8860	Jan 27 1978
LOWEST DAILY MEAN	65	Aug 5	98	Oct 4	56	(a)
ANNUAL SEVEN-DAY MINIMUM	69	Jul 30	142	Oct 7	57	Sep 15 1986
INSTANTANEOUS PEAK FLOW			8280	Jan 20	(b) 31100	Jun 22 1972
INSTANTANEOUS PEAK STAGE			16.14	Jan 20	(c) 27.90	Jun 22 1972
INSTANTANEOUS LOW FLOW			95	Oct 4	32	Aug 9 1966
ANNUAL RUNOFF (CFSM)	.81		1.66		1.06	
ANNUAL RUNOFF (INCHES)	10.95		22.62		14.42	
10 PERCENT EXCEEDS	521		1100		775	
50 PERCENT EXCEEDS	198		405		219	
90 PERCENT EXCEEDS	86		228		100	

a Sept. 17-19, 1986.

b On basis of contracted-opening measurement of peak flow.

c From floodmarks.



PATUXENT RIVER BASIN

01594440 PATUXENT RIVER NEAR BOWIE, MD--Continued

WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: December 1977 to September 1980, October 1984 to September 1991.

WATER TEMPERATURE: December 1977 to September 1980, October 1984 to September 1991.

SUSPENDED-SEDIMENT DISCHARGE: October 1985 to September 1991.

REMARKS.--Water-quality samples are collected from bridge on Governor Bridge Road located 0.3 mi downstream from U.S. Highway 50 (John Hanson Highway). On May 6 and Nov. 16, 1994 samples were collected and analyzed using ultraclean methodologies. Data on trace metals for these dates are available from the University of Delaware. Data on organics for these dates are available from George Mason University.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE (water years 1985-91): Maximum daily, 954 microsiemens, 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: Maximum daily mean, 700 mg/L, June 3, 1985; minimum daily mean, 1 mg/L, Jan. 22, 1990.

SEDIMENT LOAD: Maximum daily, 4,050 tons, May 7, 1989; minimum daily, 0.55 ton, Jan. 22, 1990.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	TEMPER- ATURE AIR (DEG C) (00020)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (MG/L) (00301)	SILICA, DIS- SOLVED (MG/L AS SiO2) (00955)
OCT 1995										
05...	0945	160	300	7.2	19.0	22.0	--	6.6	--	8.6
06...	0945	1030	173	7.4	21.0	23.0	--	5.9	--	5.2
07...	0730	300	210	7.2	21.0	22.0	--	6.2	--	8.2
22...	0800	3250	125	7.1	12.0	7.0	--	7.7	--	5.4
23...	0800	459	192	7.1	12.0	7.0	--	8.3	--	8.2
NOV										
12...	0900	783	213	7.3	8.0	3.0	--	9.0	--	7.1
13...	1030	1190	167	7.1	8.0	8.0	768	9.5	79	7.2
DEC										
05...	1000	271	245	7.2	7.0	4.0	768	10.3	84	8.6
JAN 1996										
16...	1530	366	665	7.4	1.5	1.5	771	12.5	89	9.6
19...	1615	2580	583	7.2	0.5	4.0	752	11.9	84	4.8
20...	1930	8030	209	6.3	-1.5	2.0	774	13.1	85	3.6
21...	1100	4110	250	6.8	1.0	-2.0	774	13.4	93	5.1
22...	1600	2000	185	7.3	--	--	--	--	--	6.4
23...	1615	710	266	7.3	--	--	--	--	--	9.0
25...	1400	1270	298	7.4	3.5	9.5	772	--	--	7.7
29...	1230	936	218	6.5	2.0	3.0	--	--	--	7.3
FEB										
13...	1715	374	342	7.3	2.0	-2.0	761	12.5	91	9.6
21...	0915	981	740	7.4	5.0	10.5	764	11.6	91	8.4
22...	0930	1030	435	7.3	6.0	10.5	763	11.0	89	7.5
MAR										
20...	1215	2060	285	7.2	7.0	7.0	745	10.0	85	5.5
21...	1100	860	285	7.1	6.0	6.0	749	10.4	85	7.7
APR										
02...	1030	1050	276	7.4	14.0	10.5	762	9.9	96	7.1
16...	1230	1710	206	7.3	12.0	15.0	752	8.2	77	4.7
MAY										
01...	0900	836	246	7.5	14.0	14.5	764	7.4	72	5.6
09...	1030	837	231	7.3	13.5	13.0	769	8.3	79	7.6
28...	0815	625	250	7.6	14.0	12.5	763	7.8	76	7.9
30...	0745	984	221	7.5	13.0	15.0	760	8.5	81	7.5
JUN										
18...	1200	1150	176	7.2	22.5	27.0	761	5.8	67	9.1
19...	1045	2130	150	7.1	22.0	27.5	759	5.3	61	6.2
20...	1630	3740	130	7.1	22.0	28.0	758	--	--	5.4
21...	1815	2490	135	7.2	23.0	25.0	758	5.7	67	5.7
22...	1530	1300	164	7.3	24.5	32.0	754	6.1	74	6.8
JUL										
13...	1900	1870	134	7.2	21.0	23.0	756	5.9	66	5.1
14...	1115	4350	114	7.1	23.0	33.0	760	5.6	66	5.2
16...	0745	615	195	--	22.5	24.0	765	6.4	73	9.0
AUG										
01...	0830	1230	165	7.3	21.5	24.0	760	6.5	74	7.0
13...	1200	1100	162	7.4	19.5	20.0	760	6.6	72	5.9
SEP										
07...	0945	1640	167	7.4	22.0	26.5	756	5.5	63	7.2
08...	0930	1700	139	7.1	23.0	27.0	758	6.0	71	6.5

PATUXENT RIVER BASIN

01594440 PATUXENT RIVER NEAR BOWIE, MD--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	ALKA- LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	BICAR- BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN DIS- SOLVED (MG/L AS N) (00602)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N) (00618)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS NO3) (71851)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N) (00607)
OCT 1995										
05...	45	54	0.050	0.30	0.40	1.3	0.990	4.4	1.00	0.25
06...	27	34	0.040	0.40	1.0	1.0	0.630	2.8	0.640	0.36
07...	30	37	0.040	0.40	0.50	1.1	--	--	0.700	0.36
22...	22	27	0.020	0.30	0.50	0.99	0.680	3.0	0.690	0.28
23...	35	43	0.120	0.40	0.60	1.3	--	--	0.890	0.28
NOV										
12...	41	50	0.080	0.50	1.1	1.3	0.820	3.6	0.840	0.42
13...	29	35	0.020	0.40	0.70	1.1	0.650	2.9	0.660	0.38
DEC										
05...	46	56	0.240	0.50	0.60	1.8	1.26	5.6	1.30	0.26
JAN 1996										
16...	42	51	0.390	0.80	0.80	2.4	1.58	7.0	1.60	0.41
19...	23	28	0.220	0.60	0.70	1.4	0.810	3.6	0.830	0.38
20...	--	--	0.170	0.50	0.90	1.2	0.650	2.9	0.660	0.33
21...	--	--	0.140	0.50	0.60	1.4	0.900	4.0	0.920	0.36
22...	--	--	0.150	0.40	0.50	1.6	1.18	5.2	1.20	0.25
23...	--	--	0.320	0.60	0.60	2.0	1.36	6.0	1.40	0.28
25...	--	--	0.190	0.50	0.80	1.8	1.27	5.6	1.30	0.31
29...	26	32	0.120	0.50	0.50	1.7	1.18	5.2	1.20	0.38
FEB										
13...	35	43	0.170	0.40	0.60	2.0	1.53	6.8	1.60	0.23
21...	38	46	0.310	0.70	0.90	2.2	1.47	6.5	1.50	0.39
22...	32	39	0.290	0.60	0.70	2.0	1.37	6.1	1.40	0.31
MAR										
20...	--	--	0.180	0.70	0.60	1.5	0.750	3.3	0.810	0.52
21...	30	37	0.090	0.40	0.80	1.4	0.990	4.4	1.00	0.31
APR										
02...	37	46	0.060	0.30	0.50	1.3	0.980	4.3	1.00	0.24
16...	29	35	0.120	0.50	0.70	1.3	0.770	3.4	0.790	0.38
MAY										
01...	44	53	0.060	0.30	0.70	1.4	1.08	4.8	1.10	0.24
09...	40	48	0.140	0.40	0.60	1.6	1.18	5.2	1.20	0.26
28...	45	55	0.090	0.40	0.60	2.1	1.67	7.4	1.70	0.31
30...	41	50	0.090	0.40	0.50	1.5	1.07	4.7	1.10	0.31
JUN										
18...	27	34	0.190	0.80	0.90	2.3	1.46	6.5	1.50	0.61
19...	22	26	0.100	0.40	0.90	1.3	0.830	3.7	0.860	0.30
20...	--	--	0.110	0.50	0.70	1.3	0.750	3.3	0.770	0.39
21...	--	--	0.090	0.50	0.50	1.4	0.890	3.9	0.910	0.41
22...	--	--	0.120	0.30	0.60	1.5	1.16	5.1	1.20	0.18
JUL										
13...	--	--	0.050	0.30	0.60	1.1	0.780	3.5	0.800	0.25
14...	--	--	0.050	0.50	0.60	1.1	0.590	2.6	0.610	0.45
16...	--	--	0.090	0.40	0.50	1.6	1.18	5.2	1.20	0.31
AUG										
01...	--	--	0.050	0.30	1.0	1.1	0.780	3.5	0.800	0.25
13...	33	40	0.060	0.30	0.60	0.95	0.630	2.8	0.650	0.24
SEP										
07...	--	--	0.030	0.30	0.70	1.4	1.08	4.8	1.10	0.27
08...	--	--	0.040	0.30	0.50	1.3	0.970	4.3	0.980	0.26

PATUXENT RIVER BASIN

01594440 PATUXENT RIVER NEAR BOWIE, MD--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	NITRO- GEN, TOTAL (MG/L AS N) (00600)	NITRO- GEN, DIS- SOLVED (MG/L AS N) (00613)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT 1995									
05...	1.4	0.010	0.070	0.060	0.180	5.8	30	13	--
06...	1.6	0.010	0.070	0.070	0.410	15	--	--	--
07...	1.2	<0.010	0.060	0.060	0.130	7.4	40	33	--
22...	1.2	0.010	0.030	0.040	0.170	11	105	925	--
23...	1.5	<0.010	0.050	0.050	0.130	7.4	34	42	--
NOV									
12...	1.9	0.020	0.070	0.070	0.490	14	246	520	--
13...	1.4	0.010	0.050	0.030	0.120	9.6	42	134	--
DEC									
05...	1.9	0.040	0.020	0.020	0.060	--	4	3.2	--
JAN 1996									
16...	2.4	0.020	0.030	0.020	0.060	5.4	10	9.4	--
19...	1.5	0.020	0.030	0.020	0.060	6.4	142	989	83
20...	1.6	0.010	<0.010	0.020	0.200	7.5	131	2840	--
21...	1.5	0.020	0.030	0.040	0.030	5.6	33	363	--
22...	1.7	0.020	<0.010	<0.010	0.060	3.9	19	101	--
23...	2.0	0.040	0.030	0.020	0.050	--	26	49	--
25...	2.1	0.030	0.030	0.030	0.180	6.8	113	389	--
29...	1.7	0.020	0.010	<0.010	0.080	--	30	76	--
FEB									
13...	2.2	0.070	<0.010	0.020	0.040	5.3	11	12	--
21...	2.4	0.030	<0.010	0.020	0.130	9.3	218	577	--
22...	2.1	0.030	0.020	0.020	0.080	7.7	62	172	--
MAR									
20...	1.4	0.060	--	--	--	13	261	1450	--
21...	1.8	0.010	0.020	0.010	0.130	6.8	59	137	--
APR									
02...	1.5	0.020	0.020	0.020	0.060	7.0	92	261	--
16...	1.5	0.020	0.020	<0.010	0.130	5.3	103	476	--
MAY									
01...	1.8	0.020	0.040	0.030	0.110	8.2	50	113	--
09...	1.8	0.020	0.030	0.030	0.100	5.7	33	75	--
28...	2.3	0.030	0.030	0.030	0.100	6.1	37	63	--
30...	1.6	0.030	0.040	0.030	0.060	9.4	75	200	--
JUN									
18...	2.4	0.040	0.110	0.080	0.160	15	373	1160	--
19...	1.8	0.030	0.030	0.030	0.220	11	86	495	--
20...	1.5	0.020	0.030	0.030	0.150	9.9	123	1250	--
21...	1.4	0.020	0.020	0.020	0.080	7.7	23	155	--
22...	1.8	0.040	<0.010	0.020	0.070	5.4	23	82	--
JUL									
13...	1.4	0.020	0.020	0.040	0.180	11	127	642	86
14...	1.2	0.020	0.020	0.030	0.110	14	70	817	91
16...	1.7	0.020	0.030	0.040	0.080	5.3	37	61	--
AUG									
01...	1.8	0.020	0.020	0.030	0.230	10	131	435	--
13...	1.2	0.020	0.030	0.040	0.120	11	203	603	--
SEP									
07...	1.8	0.020	0.030	0.040	0.200	11	213	943	87
08...	1.5	0.010	0.030	0.020	0.080	6.3	31	142	--

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PATUXENT RIVER BASIN

01594526 WESTERN BRANCH AT UPPER MARLBORO, MD

LOCATION...Lat 38°48'50", long 76°44'50", Prince Georges County, Hydrologic Unit 02060006, on left bank 1000 ft upstream from bridge on Water street, 0.2 mi south of Upper Marlboro, and 4.7 mi upstream from mouth.

DRAINAGE AREA...89.7 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD...October 1985 to April 1989, April 1992 to current year.

GAGE...Water-stage recorder. Elevation of gage is 5 ft above sea level, from topographic map.

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

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

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 15	1300	1,020	8.97	Jan. 19	2300	*3,630	*13.20
Oct. 21	2030	1,240	9.97	July 13	2000	1,020	9.01

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.0	55	108	57	99	75	188	118	70	160	89	17
2	6.2	80	80	171	97	87	521	74	59	69	45	15
3	6.1	67	65	472	e95	87	210	67	54	65	35	13
4	5.8	61	60	178	e95	71	140	76	51	43	31	33
5	131	44	56	102	e90	73	116	456	68	33	28	73
6	225	38	55	79	e90	120	103	523	45	27	25	106
7	66	47	52	e53	e90	235	111	193	39	26	23	222
8	26	84	49	e55	e110	253	96	270	36	22	22	59
9	14	49	66	e55	394	144	113	384	50	49	24	32
10	10	39	68	e55	303	106	171	202	64	120	31	24
11	8.9	47	52	e55	192	99	115	175	41	34	23	269
12	8.7	438	e46	e60	141	96	96	366	36	46	27	305
13	7.8	216	44	e65	109	89	87	145	33	773	466	101
14	150	317	46	e80	104	83	81	104	29	526	153	61
15	834	481	50	e100	97	92	79	90	26	115	64	41
16	202	247	232	e120	95	87	709	157	22	77	51	49
17	74	125	193	e115	101	80	430	123	21	59	90	268
18	47	93	98	e180	96	76	152	99	424	69	50	113
19	32	79	274	1560	90	164	124	83	490	140	35	54
20	23	69	372	1960	142	539	105	71	303	115	26	34
21	700	63	145	361	328	184	95	84	480	56	25	28
22	716	57	98	177	181	118	87	249	110	44	24	215
23	115	53	81	143	182	97	82	97	64	46	22	109
24	61	93	74	242	137	85	85	68	101	37	20	52
25	42	65	68	291	109	81	73	59	467	33	19	37
26	33	58	62	155	99	77	70	56	121	280	17	30
27	41	52	57	320	95	71	68	67	65	93	61	29
28	585	50	55	383	93	160	61	165	48	51	118	32
29	194	383	52	170	81	606	61	193	36	42	42	218
30	78	203	49	136	---	277	103	170	85	47	27	74
31	53	---	51	119	---	149	---	91	---	56	21	---
TOTAL	4502.5	3753	2858	8069	3935	4561	4532	5075	3538	3353	1734	2713
MEAN	145	125	92.2	260	136	147	151	164	118	108	55.9	90.4
MAX	834	481	372	1960	394	606	709	523	490	773	466	305
MIN	5.8	38	44	53	81	71	61	56	21	22	17	13
CFSM	1.62	1.39	1.03	2.90	1.51	1.64	1.68	1.83	1.31	1.21	.62	1.01
IN.	1.87	1.56	1.19	3.35	1.63	1.89	1.88	2.10	1.47	1.39	.72	1.13

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1986 - 1996, BY WATER YEAR (WY)

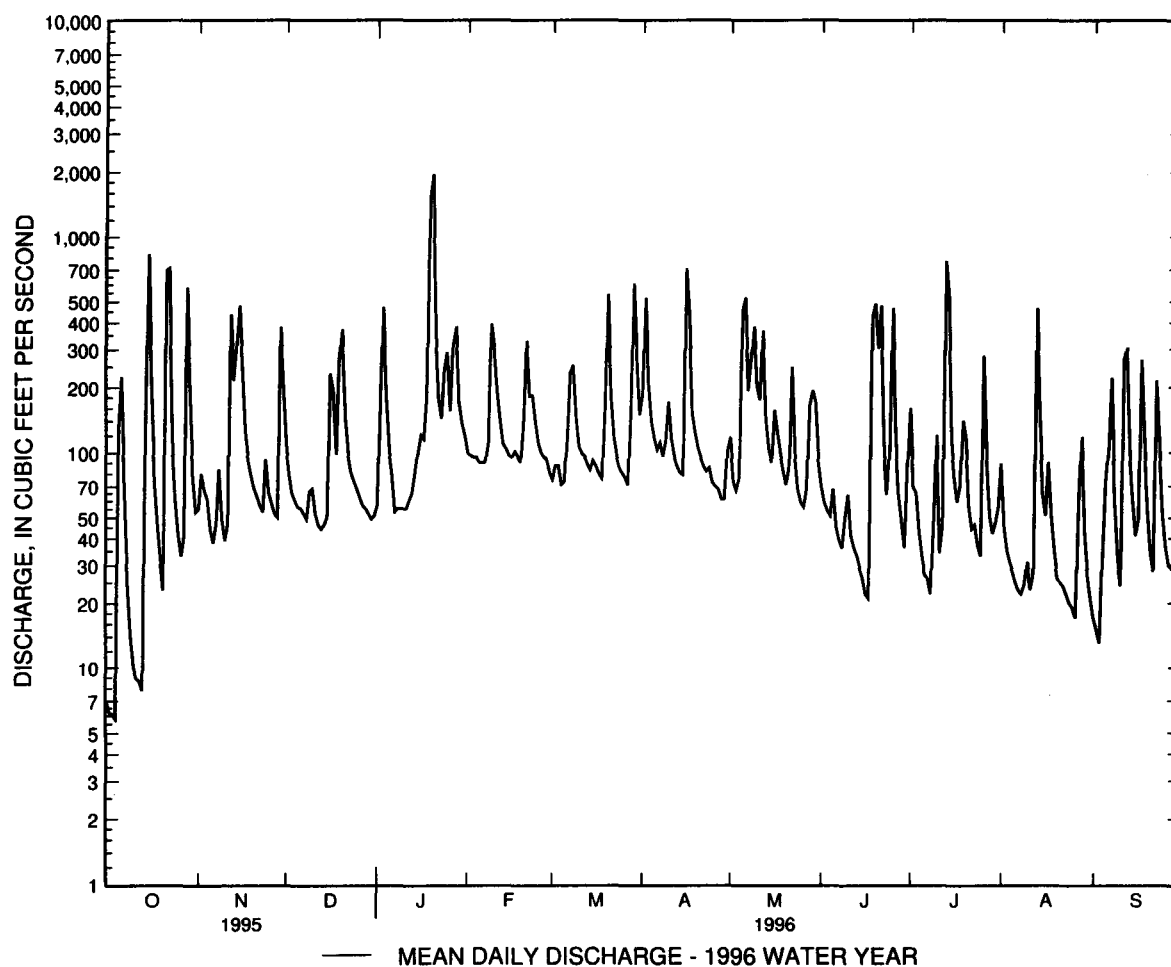
MEAN	44.3	84.7	88.8	126	125	186	112	83.5	45.4	53.0	41.3	40.7
MAX	145	125	146	260	220	445	191	164	118	108	95.5	90.4
(WY)	1996	1996	1987	1996	1994	1994	1993	1996	1996	1996	1994	1996
MIN	10.9	37.9	38.4	54.5	71.0	76.8	49.1	23.3	9.42	12.3	9.74	9.35
(WY)	1987	1995	1989	1986	1995	1986	1995	1986	1986	1987	1995	1986

01594526 WESTERN BRANCH AT UPPER MARLBORO, MD--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1986 - 1996
ANNUAL TOTAL	28883.1	48623.5	
ANNUAL MEAN	79.1	133	88.7
HIGHEST ANNUAL MEAN			133
LOWEST ANNUAL MEAN			54.8
HIGHEST DAILY MEAN	1340 Mar 9	1960 Jan 20	2100 Mar 3 1994
LOWEST DAILY MEAN	2.1 (a)	5.8 Oct 4	2.1 (a)
ANNUAL SEVEN-DAY MINIMUM	2.4 Sep 7	20 Oct 7	2.4 Sep 7 1995
INSTANTANEOUS PEAK FLOW		3630 Jan 19	3630 Jan 19 1996
INSTANTANEOUS PEAK STAGE		13.20 Jan 19	13.20 Jan 19 1996
INSTANTANEOUS LOW FLOW		5.6 (b)	1.9 (a)
ANNUAL RUNOFF (CFSM)	.88	1.48	.99
ANNUAL RUNOFF (INCHES)	11.98	20.16	13.43
10 PERCENT EXCEEDS	167	295	182
50 PERCENT EXCEEDS	49	81	50
90 PERCENT EXCEEDS	6.3	28	11

a Sept. 11, 12, 1995.

b Oct. 3, 4.



PATUXENT RIVER BASIN

01594526 WESTERN BRANCH AT UPPER MARLBORO, MD--Continued

WATER-QUALITY RECORDS

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

REMARKS.--Water-quality records available through September 1995 only at time of publication.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	TEMPER- ATURE AIR (DEG C) (00020)	TUR- BID- ITY (NTU) (00076)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN DEMAND, CHEM- ICAL (LOW LEVEL) (MG/L) (00335)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L) (00310)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)
OCT 1994												
05...	0920	24	301	7.5	15.0	18.0	--	9.0	--	--	--	--
19...	0715	21	297	7.4	11.5	9.0	--	8.9	--	--	--	--
25...	1215	40	230	6.8	14.0	16.0	10	--	18	<2.0	--	--
NOV												
21...	1030	28	281	8.1	10.5	15.0	--	10.6	--	--	--	--
29...	1300	55	234	6.6	8.0	8.0	12	--	--	<2.0	--	--
29...	1305	55	--	--	--	--	11	--	--	<2.0	--	--
DEC												
19...	1015	39	258	7.4	6.5	9.0	--	11.0	--	--	--	--
28...	0900	35	269	6.4	3.0	2.0	10	--	<10	<2.0	--	--
JAN 1995												
07...	0800	546	--	--	--	--	170	--	<10	--	--	--
07...	1415	519	--	--	--	--	110	--	<10	--	--	--
07...	2130	376	--	--	--	--	74	--	<10	--	--	--
19...	1014	51	258	7.2	8.0	7.5	--	10.5	--	--	--	--
20...	1030	701	--	--	--	--	490	--	20	--	--	--
20...	2315	828	--	--	--	--	140	--	18	--	--	--
21...	0815	623	--	--	--	--	130	--	310	--	--	--
26...	0845	58	--	6.5	2.0	-1.0	12	--	<10	<2.0	--	--
FEB												
17...	0932	154	580	7.2	2.5	6.0	--	12.8	--	--	--	--
22...	1200	62	356	6.6	3.5	4.5	9.7	--	<10	<2.0	--	--
28...	1115	281	--	--	--	--	94	--	14	--	--	--
28...	2400	204	--	--	--	--	53	--	<10	--	--	--
MAR												
02...	1025	90	315	7.3	5.5	4.0	--	11.6	--	--	--	--
08...	2300	765	--	--	--	--	440	--	34	--	--	--
09...	0545	1300	--	--	--	--	210	--	22	--	--	--
09...	1430	1570	--	--	--	--	130	--	20	--	--	--
16...	0930	67	255	7.2	11.0	16.0	--	10.0	--	--	--	--
22...	0845	64	274	6.7	11.0	13.0	8.3	--	<10	<2.0	--	--
22...	0850	64	--	--	--	--	8.1	--	<10	--	--	--
22...	0855	64	--	--	--	--	7.9	--	<10	--	--	--
APR												
03...	1055	42	261	7.7	9.5	14.0	--	12.7	--	--	--	--
17...	1026	41	256	7.5	13.0	17.5	--	10.4	--	--	--	--
18...	0800	39	261	6.7	12.0	16.0	7.5	--	<10	<2.0	--	--
MAY												
01...	1100	104	241	7.5	13.5	15.5	--	8.8	--	--	--	--
18...	1030	187	180	7.2	20.0	28.0	--	6.8	--	--	--	--
19...	0045	460	--	--	--	--	370	--	23	--	--	--
19...	1240	596	--	--	--	--	150	--	23	--	--	--
20...	0015	511	--	--	--	--	120	--	26	--	--	--
23...	0915	33	246	6.7	17.5	23.0	11	--	<10	<2.0	--	--
JUN												
12...	0930	95	234	7.3	22.0	24.0	--	5.9	--	--	--	--
21...	0715	12	303	7.2	21.0	26.0	9.3	--	11	<2.0	--	--
24...	1215	547	--	--	--	--	270	--	11	--	--	--
24...	2200	761	--	--	--	--	120	--	11	--	--	--
25...	0250	583	--	--	--	--	100	--	<10	--	--	--
28...	0930	39	294	7.4	20.5	20.0	--	7.5	--	--	--	--
JUL												
07...	2245	595	--	--	--	--	1100	--	38	--	--	--
08...	0410	576	--	--	--	--	330	--	33	--	--	--
17...	1222	17	287	8.4	28.0	33.0	--	12.0	--	--	--	--
19...	0945	15	316	7.3	25.0	24.0	7.4	--	<10	<2.0	--	--
31...	1125	10	288	8.2	28.0	33.5	--	12.2	--	--	--	--
AUG												
14...	0845	5.6	311	7.0	24.0	29.5	11	--	<10	<2.0	--	--
14...	0850	8.3	311	7.0	24.0	29.5	--	--	--	42	--	25
14...	1015	5.6	318	7.4	26.0	30.5	--	7.8	--	--	--	--
30...	1015	3.2	370	7.5	24.0	29.0	--	8.1	--	--	--	--
SEP												
14...	0837	2.4	410	7.5	21.0	25.0	--	6.1	--	--	--	--
26...	0935	39	289	7.6	16.5	16.5	--	8.1	--	--	--	--
27...	1230	30	246	7.1	17.5	21.0	12	--	19	<2.0	--	--
27...	1235	30	--	--	--	--	13	--	20	--	--	--
27...	1240	30	--	--	--	--	12	--	18	--	--	--

PATUXENT RIVER BASIN

01594526 WESTERN BRANCH AT UPPER MARLBORO, MD--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	SILICA, DIS- SOLVE (MG/L AS SIO2) (00955)	ALKA- LINITY WAT WH TOT IT FIELD MG/L AS CACO3 (00419)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDE (MG/L) (00530)
OCT 1994										
05...	--	--	--	--	--	10	--	--	--	3
19...	--	--	--	--	--	9.2	--	--	--	2
25...	--	--	--	--	--	9.5	45	--	--	9
NOV										
21...	--	--	--	--	--	8.8	--	--	--	<2
29...	--	--	--	--	--	10	42	--	--	16
29...	--	--	--	--	--	10	--	--	--	15
DEC										
19...	--	--	--	--	--	11	--	--	--	3
28...	--	--	--	--	--	11	44	--	--	7
JAN 1995										
07...	--	--	--	--	--	4.6	--	--	--	295
07...	--	--	--	--	--	5.3	--	--	--	235
07...	--	--	--	--	--	6.1	--	--	--	186
19...	--	--	--	--	--	12	--	--	--	3
20...	--	--	--	--	--	4.9	--	--	--	910
20...	--	--	--	--	--	5.5	--	--	--	140
21...	--	--	--	--	--	6.8	--	--	--	200
26...	--	--	--	--	--	13	40	--	--	11
FEB										
17...	--	--	--	--	--	8.0	--	--	--	37
22...	--	--	--	--	--	12	39	--	--	4
28...	--	--	--	--	--	7.7	--	--	--	232
28...	--	--	--	--	--	7.9	--	--	--	148
MAR										
02...	--	--	--	--	--	9.7	--	--	--	8
08...	--	--	--	--	--	5.6	--	--	--	870
09...	--	--	--	--	--	4.8	--	--	--	295
09...	--	--	--	--	--	5.1	--	--	--	275
16...	--	--	--	--	--	13	--	--	--	6
22...	--	--	--	--	--	10	38	--	--	6
22...	--	--	--	--	--	12	--	--	--	6
22...	--	--	--	--	--	11	--	--	--	4
APR										
03...	--	--	--	--	--	9.0	--	--	--	<2
17...	--	--	--	--	--	8.8	--	--	--	<2
18...	--	--	--	--	--	8.6	45	--	--	4
MAY										
01...	--	--	--	--	--	7.7	--	--	--	32
18...	--	--	--	--	--	6.2	--	--	--	156
19...	--	--	--	--	--	6.0	--	--	--	530
19...	--	--	--	--	--	6.1	--	--	--	250
20...	--	--	--	--	--	6.8	--	--	--	162
23...	--	--	--	--	--	14	48	--	--	9
JUN										
12...	--	--	--	--	--	9.4	--	--	--	54
21...	--	--	--	--	--	13	73	--	--	4
24...	--	--	--	--	--	5.2	--	--	--	400
24...	--	--	--	--	--	5.1	--	--	--	196
25...	--	--	--	--	--	6.3	--	--	--	172
28...	--	--	--	--	--	14	--	--	--	10
JUL										
07...	--	--	--	--	--	6.0	--	--	--	1770
08...	--	--	--	--	--	6.9	--	--	--	700
17...	--	--	--	--	--	15	--	--	--	10
19...	--	--	--	--	--	15	64	--	--	5
31...	--	--	--	--	--	8.6	--	--	--	8
AUG										
14...	--	--	--	--	--	14	87	--	--	6
14...	0.20	4.5	4.3	11	17	13	87	195	176	--
14...	--	--	--	--	--	13	--	--	--	26
30...	--	--	--	--	--	12	--	--	--	10
SEP										
14...	--	--	--	--	--	13	--	--	--	4
26...	--	--	--	--	--	9.4	--	--	--	11
27...	--	--	--	--	--	9.1	45	--	--	12
27...	--	--	--	--	--	9.1	--	--	--	20
27...	--	--	--	--	--	9.1	--	--	--	16

PATUXENT RIVER BASIN

01594526 WESTERN BRANCH AT UPPER MARLBORO, MD--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	PHEO- PHYTO- PLANK- TON, ACID M. (UG/L) (32218)	CHLORO- PHYLL A PHYTO- PLANK- TON, UNCORR. (UG/L) (32230)	CHLORO- PHYLL B PHYTO- PLANK- TON, UNCORR. (UG/L) (32231)	CHLORO- PHYLL C PHYTO- PLANK- TON, UNCORR. (UG/L) (32232)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN DIS- SOLVED (MG/L AS N) (00602)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N) (00618)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS NO3) (71851)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)
OCT 1994											
05...	--	--	--	--	0.045	--	--	--	--	--	0.574
19...	--	--	--	--	0.006	--	--	--	--	--	0.429
25...	--	--	--	--	0.014	0.25	0.35	0.39	0.139	0.62	0.144
NOV											
21...	--	--	--	--	0.013	--	--	--	--	--	0.271
29...	--	--	--	--	--	0.36	0.40	0.57	0.211	0.93	0.217
29...	--	--	--	--	--	0.37	0.45	0.56	0.183	0.81	0.190
DEC											
19...	--	--	--	--	0.108	--	--	--	--	--	0.428
28...	--	--	--	--	0.065	0.22	0.25	0.68	0.452	2.0	0.463
JAN 1995											
07...	--	--	--	--	0.077	0.33	1.9	0.75	0.399	1.8	0.411
07...	--	--	--	--	0.118	0.40	1.2	0.83	0.419	1.9	0.429
07...	--	--	--	--	0.113	0.40	1.0	0.80	0.393	1.7	0.401
19...	--	--	--	--	0.085	--	--	--	--	--	0.370
20...	--	--	--	--	0.082	0.35	3.2	0.64	0.280	1.2	0.293
20...	--	--	--	--	0.073	0.45	0.95	0.72	0.254	1.1	0.263
21...	--	--	--	--	0.058	0.41	0.95	0.65	0.233	1.0	0.241
26...	--	0.176	<0.001	0.054	0.134	0.23	0.32	0.76	0.521	2.3	0.530
FEB											
17...	--	--	--	--	0.260	--	--	--	--	--	0.657
22...	--	0.228	0.035	<0.001	0.107	0.25	0.29	0.87	0.611	2.7	0.621
28...	--	--	--	--	0.176	0.37	1.1	1.2	0.808	3.6	0.828
28...	--	--	--	--	0.155	0.37	0.74	0.98	0.590	2.6	0.605
MAR											
02...	--	--	--	--	0.080	--	--	--	--	--	0.532
08...	--	--	--	--	0.103	0.35	3.1	0.71	0.346	1.5	0.357
09...	--	--	--	--	0.085	0.43	1.4	0.79	0.354	1.6	0.364
09...	--	--	--	--	0.071	0.44	0.88	0.80	0.356	1.6	0.365
16...	--	--	--	--	0.058	--	--	--	--	--	0.512
22...	0.031	0.336	0.013	0.028	0.025	0.24	0.31	0.80	0.551	2.4	0.564
22...	--	--	--	--	0.030	0.26	0.31	0.84	0.571	2.5	0.584
22...	--	--	--	--	0.027	0.24	0.30	0.81	0.565	2.5	0.578
APR											
03...	--	--	--	--	0.004	--	--	--	--	--	0.335
17...	--	--	--	--	0.023	--	--	--	--	--	0.323
18...	0.016	0.342	0.024	<0.001	0.030	0.31	0.37	0.63	0.311	1.4	0.320
MAY											
01...	--	--	--	--	0.130	--	--	--	--	--	0.493
18...	--	--	--	--	0.167	--	--	--	--	--	0.321
19...	--	--	--	--	0.114	0.52	2.4	0.89	0.343	1.5	0.370
19...	--	--	--	--	0.108	0.65	1.5	1.0	0.329	1.5	0.346
20...	--	--	--	--	0.083	0.59	1.1	0.87	0.259	1.1	0.275
23...	0.024	0.178	0.031	<0.001	0.135	0.46	0.59	0.95	0.445	2.0	0.488
JUN											
12...	--	--	--	--	0.072	--	--	--	--	--	0.608
21...	0.029	0.305	0.014	0.022	0.027	0.22	0.24	0.58	0.338	1.5	0.357
24...	--	--	--	--	0.122	0.41	1.7	0.71	0.277	1.2	0.306
24...	--	--	--	--	0.092	0.42	1.0	0.72	0.291	1.3	0.303
25...	--	--	--	--	0.082	0.46	1.0	0.77	0.292	1.3	0.305
28...	--	--	--	--	0.083	--	--	--	--	--	0.412
JUL											
07...	--	--	--	--	0.108	0.48	5.5	1.1	0.565	2.5	0.583
08...	--	--	--	--	0.075	0.51	2.3	0.93	0.401	1.8	0.425
17...	--	--	--	--	0.028	--	--	--	--	--	0.364
19...	--	--	--	--	0.029	0.28	0.41	0.64	0.351	1.6	0.362
31...	--	--	--	--	0.022	--	--	--	--	--	0.210
AUG											
14...	0.025	0.632	0.066	<0.001	0.053	0.25	0.38	0.45	0.185	0.82	0.194
14...	--	--	--	--	--	--	--	--	--	--	0.160
14...	--	--	--	--	0.060	--	--	--	--	--	0.254
30...	--	--	--	--	0.086	--	--	--	--	--	0.223
SEP											
14...	--	--	--	--	0.044	--	--	--	--	--	0.169
26...	--	--	--	--	0.024	--	--	--	--	--	0.321
27...	0.043	0.373	0.021	0.023	0.027	0.51	0.64	0.82	0.298	1.3	0.311
27...	--	--	--	--	0.026	0.58	--	0.88	0.291	1.3	0.301
27...	--	--	--	--	0.026	0.56	--	0.86	0.294	1.3	0.304

PATUXENT RIVER BASIN

01594526 WESTERN BRANCH AT UPPER MARLBORO, MD--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N) (00607)	NITRO- GEN, DIS- SOLVED TOTAL (MG/L AS N) (00600)	NITRO- GEN, DIS- SOLVED (MG/L AS N) (00613)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)
OCT 1994											
05...	--	--	--	0.022	0.013	0.049	--	--	4.2	--	--
19...	--	--	--	0.017	0.009	0.047	--	--	4.0	--	--
25...	0.23	0.49	0.005	<0.010	0.017	0.068	--	--	5.9	9	0.97
NOV											
21...	--	--	--	0.016	0.011	0.046	--	--	4.6	--	--
29...	--	0.62	0.006	0.021	--	0.063	--	--	3.9	8	1.2
29...	--	0.64	0.007	0.018	--	0.067	--	--	3.7	--	--
DEC											
19...	--	--	--	0.023	0.020	0.052	--	--	4.1	--	--
28...	0.16	0.72	0.011	0.018	0.013	0.055	--	--	3.6	7	0.66
JAN 1995											
07...	0.26	2.3	0.012	0.016	0.014	0.900	--	--	5.1	468	690
07...	0.28	1.6	0.010	0.013	0.015	0.476	--	--	5.3	345	483
07...	0.29	1.4	0.008	0.013	0.013	0.336	--	--	5.4	240	244
19...	--	--	--	0.022	0.012	0.053	--	--	4.2	--	--
20...	0.26	3.5	0.013	0.041	0.029	2.20	--	--	5.7	1210	2290
20...	0.38	1.2	0.009	0.015	0.017	0.455	--	--	5.9	265	592
21...	0.35	1.2	0.008	0.046	0.014	0.425	--	--	6.4	224	377
26...	0.10	0.85	0.009	0.026	0.014	0.053	--	--	3.3	12	1.9
FEB											
17...	--	--	--	0.024	0.014	0.144	--	--	7.8	--	--
22...	0.14	0.91	0.010	<0.010	0.006	0.047	--	--	6.1	9	1.5
28...	0.20	1.9	0.020	<0.010	0.012	0.482	--	--	6.3	319	242
28...	0.22	1.3	0.015	<0.010	0.012	0.246	--	--	5.9	202	111
MAR											
02...	--	--	--	0.019	0.012	0.062	--	--	4.7	--	--
08...	0.25	3.4	0.011	<0.010	0.019	2.20	--	--	6.7	1210	2500
09...	0.34	1.7	0.010	0.021	0.017	0.800	--	--	6.8	340	1190
09...	0.37	1.2	0.009	0.011	0.015	0.388	--	--	6.7	148	627
16...	--	--	--	0.022	0.011	0.052	--	--	4.1	--	--
22...	0.21	0.88	0.013	<0.010	0.018	0.046	--	--	4.6	7	1.2
22...	0.23	0.90	0.013	<0.010	0.015	0.044	--	--	4.7	--	--
22...	0.21	0.88	0.013	<0.010	0.011	0.058	--	--	4.5	--	--
APR											
03...	--	--	--	0.022	0.010	0.042	--	--	3.8	--	--
17...	--	--	--	0.029	0.016	0.054	--	--	4.9	--	--
18...	0.28	0.69	0.009	0.032	0.014	0.051	--	--	4.2	4	0.42
MAY											
01...	--	--	--	0.058	0.029	0.152	--	--	9.6	--	--
18...	--	--	--	0.045	0.026	0.317	--	--	--	--	--
19...	0.40	2.8	0.027	0.041	0.023	2.50	--	--	9.4	677	841
19...	0.54	1.8	0.017	0.064	0.021	0.520	--	--	10	254	409
20...	0.51	1.4	0.016	0.044	0.021	0.338	--	--	11	215	297
23...	0.32	1.1	0.043	0.023	0.025	0.098	--	--	6.5	9	0.80
JUN											
12...	--	--	--	0.056	0.033	0.258	--	--	--	--	--
21...	0.19	0.60	0.019	0.040	0.017	0.052	--	--	5.9	5	0.16
24...	0.29	2.0	0.029	0.031	0.028	1.20	--	--	7.3	504	744
24...	0.33	1.3	0.012	0.034	0.022	0.424	--	--	7.1	285	586
25...	0.38	1.3	0.013	0.022	0.022	0.405	--	--	7.1	186	293
28...	--	--	--	0.050	0.037	0.112	--	--	6.2	--	--
JUL											
07...	0.37	6.0	0.018	0.078	0.062	5.20	--	--	8.4	2270	3650
08...	0.43	2.7	0.024	0.064	0.040	1.60	--	--	8.9	815	1270
17...	--	--	--	0.037	0.024	0.091	--	--	6.0	--	--
19...	0.25	0.77	0.011	0.026	0.052	0.042	--	--	5.0	6	0.24
31...	--	--	--	0.050	0.032	0.108	--	--	8.4	--	--
AUG											
14...	0.20	0.57	0.009	<0.010	0.016	0.079	--	--	5.5	7	0.11
14...	--	--	<0.010	--	--	--	240	190	--	--	--
14...	--	--	--	0.030	0.019	0.124	--	--	8.3	--	--
30...	--	--	--	0.018	0.010	0.076	--	--	6.0	--	--
SEP											
14...	--	--	--	0.017	0.007	0.056	--	--	5.3	--	--
26...	--	--	--	0.038	0.023	0.096	--	--	6.5	--	--
27...	0.49	0.95	0.013	0.023	0.020	0.090	--	--	6.9	15	1.2
27...	0.55	--	0.010	0.028	0.022	--	--	--	6.7	--	--
27...	0.53	--	0.010	0.015	0.016	--	--	--	7.7	--	--

PATUXENT RIVER BASIN

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 mi².

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder and timber control. Elevation of gage is 10 ft above sea level, from topographic map.

REMARKS.--Water-discharge records good above 1.0 ft³/s and poor below due to leakage around and under control except those for estimated daily discharges (ice effect), which are fair.

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

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 19	1715	*239	*8.01	No peak greater than base discharge.			

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.14	2.9	5.0	8.8	13	11	25	e13	5.5	6.4	8.8	1.3
2	.14	3.7	4.5	13	e8.1	13	30	10	4.5	4.9	5.6	1.2
3	.13	3.4	3.8	23	e5.9	14	21	10	4.1	4.7	4.0	1.1
4	.14	6.4	3.9	12	e5.7	10	19	9.5	4.9	4.1	3.6	1.2
5	4.9	3.8	3.7	7.8	e5.5	11	18	26	13	3.2	3.2	1.7
6	6.4	2.9	3.8	e5.5	e5.3	15	17	18	5.7	2.8	2.8	2.9
7	2.1	3.4	4.0	e3.4	e5.3	20	19	13	3.9	2.6	2.5	10
8	1.3	8.3	4.2	e2.6	e17	22	16	19	3.6	2.5	2.3	3.4
9	.89	4.5	7.5	e2.5	31	14	20	22	4.1	3.4	2.2	3.9
10	.61	3.2	9.0	e2.5	25	12	23	16	19	3.3	2.6	3.0
11	.47	4.1	4.4	e2.4	24	13	18	14	10	2.7	2.5	14
12	.45	31	3.6	e2.4	21	13	16	18	6.6	4.9	3.9	11
13	.35	16	e3.4	e2.4	16	12	16	9.8	7.0	84	50	12
14	5.5	20	e3.1	e2.3	16	12	15	8.3	18	21	14	6.2
15	43	42	e3.0	e2.3	15	12	14	7.9	6.6	14	6.6	3.4
16	7.1	16	e11	e2.7	16	11	33	18	3.8	21	4.4	3.0
17	2.2	9.8	12	e3.7	18	15	20	14	3.4	8.7	4.5	6.1
18	1.5	7.2	7.0	e18	16	13	16	10	8.0	6.8	3.9	4.8
19	1.1	6.4	22	137	14	19	16	8.8	50	17	3.2	3.2
20	1.0	5.7	27	69	20	33	15	6.8	36	18	2.7	2.7
21	17	5.3	13	27	24	18	14	5.4	30	7.2	2.4	2.3
22	11	4.8	8.6	22	17	15	e14	18	13	5.6	2.4	3.7
23	3.0	4.4	7.7	19	19	13	e14	8.0	8.9	6.6	2.3	3.7
24	2.1	5.3	7.5	24	15	13	e14	5.3	6.9	5.2	2.2	2.7
25	1.8	4.8	6.7	26	13	13	e14	4.6	9.0	4.5	2.0	2.4
26	1.5	4.4	6.0	18	13	12	e13	5.1	5.5	6.8	1.8	2.2
27	2.2	4.2	5.1	22	14	11	e13	9.5	4.3	4.6	1.6	2.1
28	53	4.2	4.8	24	14	20	e13	19	4.0	3.5	1.6	2.3
29	14	7.9	4.6	17	11	42	e12	15	3.6	3.4	1.5	23
30	4.3	7.2	4.5	16	---	23	e18	12	4.9	7.3	1.6	5.9
31	3.0	---	5.4	15	---	19	---	7.3	---	7.6	1.4	---
TOTAL	192.32	253.2	219.8	553.3	437.8	494	526	381.3	307.8	298.3	154.1	146.4
MEAN	6.20	8.44	7.09	17.8	15.1	15.9	17.5	12.3	10.3	9.62	4.97	4.88
MAX	53	42	27	137	31	42	33	26	50	84	50	23
MIN	.13	2.9	3.0	2.3	5.3	10	12	4.6	3.4	2.5	1.4	1.1
CFM	.66	.90	.76	1.90	1.61	1.70	1.87	1.31	1.09	1.03	.53	.52
IN.	.76	1.00	.87	2.19	1.74	1.96	2.09	1.51	1.22	1.18	.61	.58

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 1996, BY WATER YEAR (WY)

	4.40	6.62	7.62	12.4	11.8	20.7	16.7	15.2	11.6	7.66	5.48	4.75
MEAN	4.40	6.62	7.62	12.4	11.8	20.7	16.7	15.2	11.6	7.66	5.48	4.75
MAX	10.3	11.4	12.8	18.6	22.8	45.5	27.4	28.8	31.0	24.0	14.2	12.8
(WY)	1990	1990	1993	1990	1994	1994	1993	1990	1989	1989	1990	1994
MIN	.52	1.43	3.80	4.77	5.54	9.66	7.74	6.82	2.19	.93	.20	.068
(WY)	1989	1992	1989	1992	1992	1995	1995	1992	1991	1993	1995	1995

01594670 HUNTING CREEK NEAR HUNTINGTOWN, MD--Continued

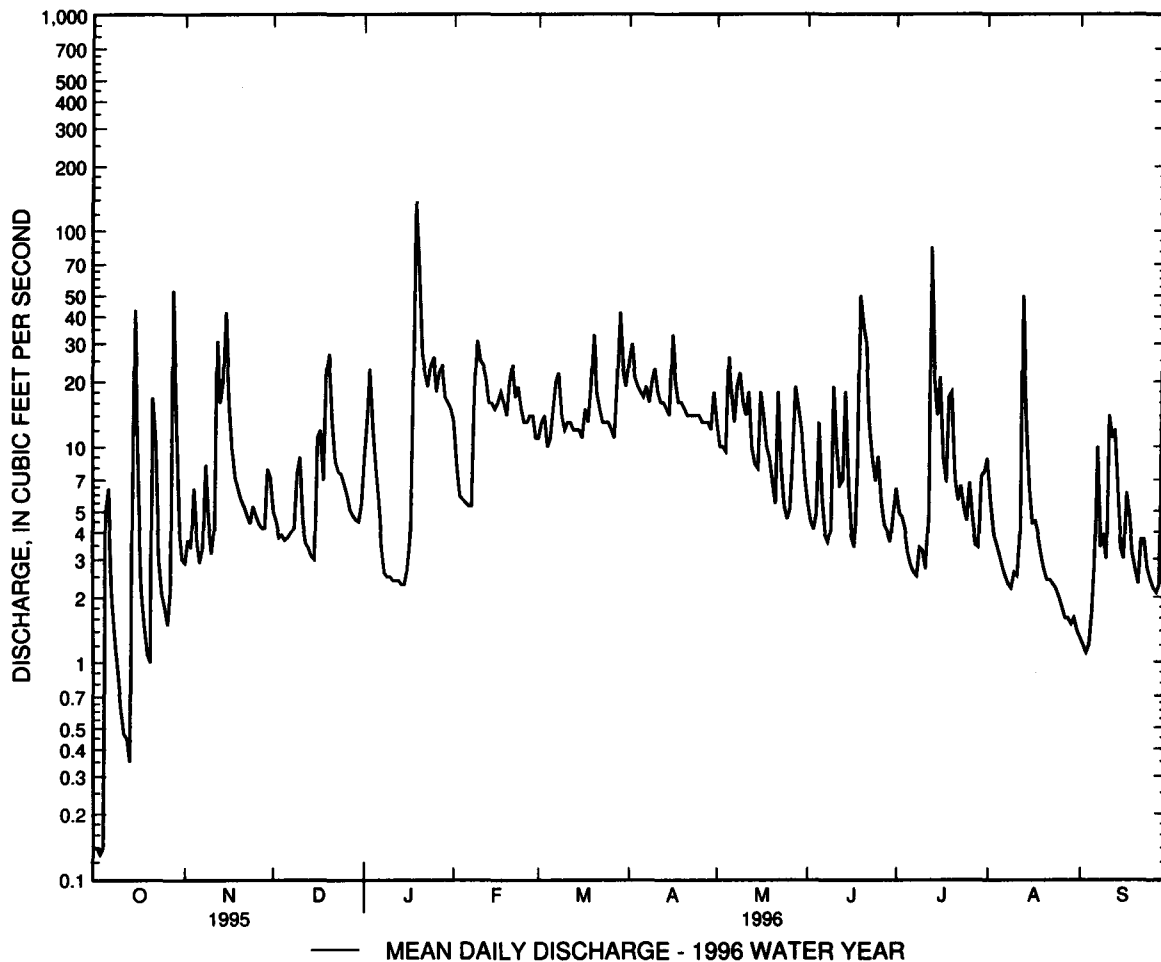
SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1989 - 1996
ANNUAL TOTAL	2293.85	3964.32	
ANNUAL MEAN	6.28	10.8	10.4
HIGHEST ANNUAL MEAN			14.7
LOWEST ANNUAL MEAN			5.79
HIGHEST DAILY MEAN	53 Oct 28	137 Jan 19	274 Mar 3 1994
LOWEST DAILY MEAN	.00 (a)	.13 Oct 3	.00 (b)
ANNUAL SEVEN-DAY MINIMUM	.00 Aug 31	.88 Oct 7	.00 Aug 27 1993
INSTANTANEOUS PEAK FLOW		239 Jan 19	568 Jun 15 1990
INSTANTANEOUS PEAK STAGE		8.01 Jan 19	9.54 Jun 15 1990
INSTANTANEOUS LOW FLOW		.12 (c)	.00 (d)
ANNUAL RUNOFF (CFSM)	.67	1.15	1.11
ANNUAL RUNOFF (INCHES)	9.10	15.72	15.08
10 PERCENT EXCEEDS	12	21	22
50 PERCENT EXCEEDS	5.2	7.2	6.6
90 PERCENT EXCEEDS	.14	2.3	.80

a Aug. 31, Sept. 1-16, 21.

b Sept. 12, 16, 17, 19-23, 1991, Aug. 31, Sept. 1-16, 21, 1995.

c Oct. 3, 4.

d Sept. 10-24, 1991, Aug. 26, 27, 31, Sept. 1-16, 21, 22, 1995.



PATUXENT RIVER BASIN

01594670 HUNTING CREEK NEAR HUNTINGTOWN, MD--Continued

WATER-QUALITY RECORDS

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

REMARKS.--Water-quality data available through September 1995 only at time of publication.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	TEMPER- ATURE AIR (DEG C) (00020)	TUR- BID- ITY (NTU) (00076)	OXYGEN DEMAND, CHEM- ICAL (LOW LEVEL) (MG/L) (00335)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L) (00310)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)
OCT 1994											
25...	0845	5.4	153	6.5	11.5	14.0	9.2	15	<2.0	--	--
NOV											
07...	1445	5.8	162	6.5	13.5	16.0	--	--	--	19	15
07...	1500	5.4	162	6.5	13.5	16.0	9.4	24	<2.0	--	--
DEC											
27...	1115	4.8	155	6.1	2.0	13.0	12	<10	<2.0	--	--
JAN 1995											
20...	0900	36	--	--	--	--	33	33	--	--	--
20...	1415	61	--	--	--	--	43	21	--	--	--
20...	1900	55	--	--	--	--	39	17	--	--	--
21...	0100	40	--	--	--	--	37	19	--	--	--
25...	1315	7.6	--	6.3	3.0	5.5	8.7	<10	<2.0	--	--
25...	1320	7.6	--	--	--	--	8.8	<10	<2.0	--	--
25...	1325	7.6	--	--	--	--	8.7	<10	<2.0	--	--
FEB											
21...	1700	7.2	144	6.2	5.5	5.0	7.0	<10	--	--	--
MAR											
09...	0315	72	--	--	--	--	59	15	--	--	--
09...	0630	74	--	--	--	--	49	18	--	--	--
09...	1030	62	--	--	--	--	38	19	--	--	--
21...	1230	16	146	6.6	14.5	18.0	11	<10	<2.0	--	--
APR											
13...	0820	40	--	--	--	--	29	13	--	--	--
17...	0900	6.4	144	6.5	11.0	11.0	5.8	<10	<2.0	--	--
MAY											
24...	0815	3.2	157	6.7	17.0	22.0	15	<10	<2.0	--	--
JUN											
20...	0730	0.66	195	6.8	20.0	23.0	20	13	2.1	--	--
20...	0735	0.66	--	--	--	--	21	10	--	--	--
20...	0740	0.66	--	--	--	--	21	13	--	--	--
25...	1830	50	--	--	--	--	64	23	--	--	--
JUL											
11...	1215	74	--	--	--	--	86	22	--	--	--
11...	1635	54	--	--	--	--	54	21	--	--	--
19...	1315	3.4	129	6.6	26.0	25.0	15	16	<2.0	--	--
AUG											
09...	1445	0.30	289	6.7	22.0	22.0	58	12	<2.0	--	--
09...	1450	1.5	289	6.7	22.0	22.0	--	--	--	33	24
SEP											
27...	0845	0.34	267	6.6	16.0	15.5	23	20	4.6	--	--

PATUXENT RIVER BASIN

01594670 HUNTING CREEK NEAR HUNTINGTOWN, MD--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	SILICA, DIS- SOLVE (MG/L AS SIO2) (00955)	ALKA- LINITY WAT WH TOT IT FIELD MG/L AS CACO3 (00419)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDE (MG/L) (00530)
OCT 1994										
25...	--	--	--	--	--	16	35	--	6	
NOV										
07...	0.10	2.9	2.0	7.2	4.8	16	43	110	--	
07...	--	--	--	--	--	15	43	--	4	
DEC										
27...	--	--	--	--	--	13	31	--	3	
JAN 1995										
20...	--	--	--	--	--	11	--	--	26	
20...	--	--	--	--	--	9.5	--	--	19	
20...	--	--	--	--	--	9.8	--	--	14	
21...	--	--	--	--	--	10	--	--	13	
25...	--	--	--	--	--	14	29	--	8	
25...	--	--	--	--	--	15	--	--	4	
25...	--	--	--	--	--	15	--	--	7	
FEB										
21...	--	--	--	--	--	13	27	--	2	
MAR										
09...	--	--	--	--	--	8.0	--	--	56	
09...	--	--	--	--	--	8.5	--	--	32	
09...	--	--	--	--	--	9.2	--	--	24	
21...	--	--	--	--	--	11	33	--	7	
APR										
13...	--	--	--	--	--	--	--	--	45	
17...	--	--	--	--	--	9.7	38	--	2	
MAY										
24...	--	--	--	--	--	15	48	--	7	
JUN										
20...	--	--	--	--	--	17	61	--	10	
20...	--	--	--	--	--	17	--	--	6	
20...	--	--	--	--	--	17	--	--	2	
25...	--	--	--	--	--	8.9	--	--	55	
JUL										
11...	--	--	--	--	--	8.2	--	--	62	
11...	--	--	--	--	--	9.2	--	--	35	
19...	--	--	--	--	--	17	36	--	11	
AUG										
09...	--	--	--	--	--	19	96	--	13	
09...	0.20	4.0	2.7	13	1.0	20	96	181	--	
SEP										
27...	--	--	--	--	--	22	23	--	16	

PATUXENT RIVER BASIN

01594670 HUNTING CREEK NEAR HUNTINGTOWN, MD--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	PHEO- PHYTIN PHYTO- PLANK- TON, ACID M. (UG/L) (32218)	CHLORO- PHYLL A PHYTO- PLANK- TON, UNCORR. (UG/L) (32230)	CHLORO- PHYLL B PHYTO- PLANK- TON, UNCORR. (UG/L) (32231)	CHLORO- PHYLL C PHYTO- PLANK- TON, UNCORR. (UG/L) (32232)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, AM- MONIA + ORGANIC DIS- (MG/L AS N) (00623)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN DIS- SOLVED (MG/L AS N) (00602)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N) (00618)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS NO3) (71851)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)
OCT 1994											
25...	--	--	--	--	0.015	0.23	0.27	--	--	--	<0.020
NOV											
07...	--	--	--	--	--	--	--	--	--	--	<0.050
07...	--	--	--	--	0.021	0.31	0.34	--	--	--	<0.020
DEC											
27...	--	--	--	--	0.042	0.16	0.21	0.33	0.166	0.73	0.173
JAN 1995											
20...	--	--	--	--	0.041	0.27	0.51	0.43	0.150	0.66	0.156
20...	--	--	--	--	0.020	0.25	0.44	0.36	0.106	0.47	0.110
20...	--	--	--	--	0.026	0.29	0.43	0.40	0.109	0.48	0.113
21...	--	--	--	--	0.022	0.29	0.43	0.39	0.095	0.42	0.100
25...	0.038	0.070	<0.001	0.018	0.046	0.17	0.16	0.36	0.181	0.80	0.186
25...	--	--	--	--	0.040	0.12	0.24	0.30	0.179	0.79	0.184
25...	--	--	--	--	0.040	0.14	0.16	0.34	0.185	0.82	0.191
FEB											
21...	0.032	0.157	<0.001	0.002	0.032	0.17	0.17	0.33	0.159	0.70	0.164
MAR											
09...	--	--	--	--	0.039	0.24	0.54	0.40	0.162	0.72	0.169
09...	--	--	--	--	0.029	0.20	0.43	0.37	0.169	0.75	0.175
09...	--	--	--	--	0.025	0.18	0.44	0.33	0.145	0.64	0.150
21...	0.104	0.802	0.047	0.146	0.012	0.20	0.29	0.30	0.093	0.41	0.099
APR											
13...	--	--	--	--	0.642	0.36	0.66	0.47	0.101	0.45	0.107
17...	0.046	0.221	0.039	<0.001	0.025	0.24	0.28	0.30	0.056	0.25	0.059
MAY											
24...	0.047	0.150	<0.001	<0.001	0.048	0.33	0.41	0.51	0.165	0.73	0.176
JUN											
20...	0.046	0.329	0.029	<0.001	0.098	0.38	0.46	0.50	0.102	0.45	0.111
20...	--	--	--	--	0.100	0.35	0.44	0.46	0.106	0.47	0.112
20...	--	--	--	--	0.095	0.36	0.44	0.47	0.104	0.46	0.111
25...	--	--	--	--	0.020	0.43	0.83	0.73	0.296	1.3	0.303
JUL											
11...	--	--	--	--	<0.008	0.36	0.74	0.50	0.137	0.61	0.145
11...	--	--	--	--	<0.008	0.34	0.64	0.41	0.061	0.27	0.070
19...	--	--	--	--	0.037	0.40	0.48	0.45	0.043	0.19	0.049
AUG											
09...	0.034	0.397	0.040	<0.001	0.631	1.0	1.1	1.1	--	--	0.025
09...	--	--	--	--	--	--	--	--	--	--	<0.050
SEP											
27...	0.145	1.31	0.263	0.065	0.103	0.60	0.70	0.66	0.049	0.22	0.059

01594670 HUNTING CREEK NEAR HUNTINGTOWN, MD--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N) (00607)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)
OCT 1994											
25...	0.21	0.29	<0.002	0.010	0.011	0.039	--	--	5.8	10	0.15
NOV											
07...	--	--	<0.010	--	--	--	87	93	--	--	--
07...	0.29	0.36	0.013	0.015	0.015	0.069	--	--	6.2	10	0.15
DEC											
27...	0.12	0.38	0.007	0.018	0.021	0.041	--	--	4.1	6	0.08
JAN 1995											
20...	0.23	0.67	0.006	0.026	0.019	0.207	--	--	5.8	40	3.9
20...	0.23	0.55	0.004	0.026	0.017	0.136	--	--	7.2	37	6.1
20...	0.26	0.54	0.004	0.047	0.016	0.126	--	--	7.4	34	5.0
21...	0.27	0.53	0.005	0.027	0.014	0.106	--	--	7.8	24	2.6
25...	0.12	0.35	0.005	0.016	0.018	0.031	--	--	3.4	7	0.14
25...	0.08	0.42	0.005	0.022	0.013	0.024	--	--	3.5	--	--
25...	0.10	0.35	0.006	<0.010	0.017	0.031	--	--	3.3	--	--
FEB											
21...	0.14	0.34	0.005	0.013	0.013	0.052	--	--	3.0	2	0.04
MAR											
09...	0.20	0.71	0.007	0.012	0.015	0.244	--	--	7.1	59	11
09...	0.17	0.61	0.006	<0.010	0.015	0.156	--	--	6.9	37	7.4
09...	0.16	0.59	0.005	<0.010	0.014	0.138	--	--	7.5	28	4.7
21...	0.19	0.38	0.006	<0.010	0.014	0.039	--	--	4.6	20	0.86
APR											
13...	0.0	0.76	0.006	0.024	0.022	0.204	--	--	--	41	4.4
17...	0.21	0.34	0.003	<0.010	0.014	0.035	--	--	4.8	3	0.05
MAY											
24...	0.28	0.59	0.011	0.032	0.026	0.081	--	--	6.7	6	0.05
JUN											
20...	0.29	0.57	0.009	0.035	0.024	0.086	--	--	8.3	12	0.02
20...	0.25	0.55	0.006	0.026	0.016	0.088	--	--	8.5	--	--
20...	0.26	0.55	0.007	0.012	0.015	0.088	--	--	8.8	--	--
25...	0.40	1.1	0.007	0.036	0.024	0.246	--	--	10	57	7.7
JUL											
11...	--	0.88	0.008	0.040	0.021	0.267	--	--	12	73	15
11...	--	0.71	0.009	0.045	0.023	0.190	--	--	10	50	7.3
19...	0.37	0.52	0.006	0.047	0.034	0.118	--	--	8.6	12	0.11
AUG											
09...	0.40	1.2	<0.002	<0.010	0.013	0.121	--	--	10	14	0.01
09...	--	--	<0.010	--	--	--	49	7000	--	--	--
SEP											
27...	0.50	0.76	0.010	0.013	0.018	0.122	--	--	5.9	34	0.03

PATUXENT RIVER BASIN

01594710 KILLPECK CREEK AT HUNTERSVILLE, MD

LOCATION.--Lat 38°28'37", long 76°44'08", St Marys County, Hydrologic Unit 02060006, on left bank at private footbridge, 600 ft upstream from culvert on All Faith Church Road, 0.65 mi north of Huntersville, and 2.3 mi upstream from mouth.

DRAINAGE AREA.--3.26 mi².

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WRD MD-DE-95: Drainage area.

GAGE.--Water-stage recorder and concrete block control. Elevation of gage is 50 ft above sea level, from topographic map.

REMARKS.--Water-discharge records unavailable for publication. Discharges for the 1996 water year will be published with discharges for the 1997 water year.

PATUXENT RIVER BASIN

01594710 KILLPECK CREEK AT HUNTERSVILLE, MD--Continued

WATER-QUALITY RECORDS

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

REMARKS.--Water-quality data available through September 1995 only at time of publication.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	TEMPER- ATURE AIR (DEG C) (00020)	TUR- BID- ITY (NTU) (00076)	OXYGEN DEMAND, CHEM- ICAL (LOW LEVEL) (MG/L) (00335)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L) (00310)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)
OCT 1994											
25...	1030	1.8	168	6.2	13.0	13.0	3.0	<10	<2.0	--	--
NOV											
07...	1200	1.8	166	6.6	13.5	16.0	--	--	--	15	15
07...	1215	1.8	166	6.6	13.5	16.0	3.1	21	<2.0	--	--
DEC											
27...	1000	2.4	165	6.1	3.0	6.0	7.1	<10	<2.0	--	--
JAN 1995											
07...	0045	19	--	--	--	--	280	18	--	--	--
07...	0630	11	--	--	--	--	90	15	--	--	--
20...	0600	78	--	--	--	--	580	39	--	--	--
25...	1530	3.4	--	6.4	5.0	5.5	8.0	<10	<2.0	--	--
FEB											
21...	1145	2.9	158	6.4	5.5	9.0	6.7	<10	<2.0	--	--
21...	1150	2.9	--	--	--	--	6.2	<10	<2.0	--	--
21...	1155	2.9	--	--	--	--	6.0	<10	<2.0	--	--
MAR											
08...	2145	64	--	--	--	--	550	41	--	--	--
09...	0030	29	--	--	--	--	250	46	--	--	--
20...	1100	2.9	155	6.5	10.0	11.5	7.0	<10	2.3	--	--
APR											
17...	1030	2.9	158	6.4	11.0	11.0	5.7	<10	<2.0	--	--
MAY											
23...	1345	1.5	170	6.6	17.5	21.0	5.1	<10	<2.0	--	--
23...	1350	1.5	--	--	--	--	4.8	<10	--	--	--
23...	1355	1.5	--	--	--	--	5.3	<10	--	--	--
JUN											
21...	0930	0.88	193	6.8	20.0	27.0	5.7	<10	<2.0	--	--
JUL											
11...	0415	24	--	--	--	--	570	27	--	--	--
19...	1145	0.76	197	6.9	23.5	25.0	4.2	<10	<2.0	--	--
AUG											
09...	1330	0.49	206	6.6	21.0	24.0	3.8	<10	2.1	--	--
09...	1335	0.50	206	6.6	21.0	24.0	--	--	--	15	25
SEP											
27...	1030	0.57	254	6.4	15.5	19.5	4.1	88	<2.0	--	--

PATUXENT RIVER BASIN

01594710 KILLPECK CREEK AT HUNTERSVILLE, MD--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	SILICA DIS- SOLVE (MG/L AS SIO2) (00955)	ALKA- LINITY WAT WH TOT IT FIELD MG/L AS CACO3 (00419)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDED (MG/L) (00530)
OCT 1994										
25...	--	--	--	--	--	12	28	--	--	5
NOV										
07...	0.10	2.8	3.3	9.3	12	11	32	102	102	--
07...	--	--	--	--	--	10	32	--	--	5
DEC										
27...	--	--	--	--	--	10	28	--	--	3
JAN 1995										
07...	--	--	--	--	--	5.3	--	--	--	600
07...	--	--	--	--	--	6.8	--	--	--	172
20...	--	--	--	--	--	3.6	--	--	--	730
25...	--	--	--	--	--	11	27	--	--	10
FEB										
21...	--	--	--	--	--	9.9	27	--	--	5
21...	--	--	--	--	--	9.9	--	--	--	4
21...	--	--	--	--	--	9.9	--	--	--	8
MAR										
08...	--	--	--	--	--	4.0	--	--	--	1330
09...	--	--	--	--	--	4.8	--	--	--	640
20...	--	--	--	--	--	9.1	27	--	--	6
APR										
17...	--	--	--	--	--	9.3	28	--	--	3
MAY										
23...	--	--	--	--	--	11	27	--	--	4
23...	--	--	--	--	--	11	--	--	--	3
23...	--	--	--	--	--	4.4	--	--	--	3
JUN										
21...	--	--	--	--	--	10	26	--	--	21
JUL										
11...	--	--	--	--	--	4.2	--	--	--	960
19...	--	--	--	--	--	11	27	--	--	6
AUG										
09...	--	--	--	--	--	9.9	25	--	--	4
09...	0.10	3.3	4.2	15	15	10	25	124	113	--
SEP										
27...	--	--	--	--	--	11	25	--	--	7

PATUXENT RIVER BASIN

01594710 KILLPECK CREEK AT HUNTERSVILLE, MD--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	PHEO- PHYTIN PHYTO- PLANK- TON, ACID M. (UG/L) (32218)	CHLORO- PHYLL A PHYTO- PLANK- TON, UNCORR. (UG/L) (32230)	CHLORO- PHYLL B PHYTO- PLANK- TON, UNCORR. (UG/L) (32231)	CHLORO- PHYLL C PHYTO- PLANK- TON, UNCORR. (UG/L) (32232)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN DIS- SOLVED (MG/L AS N) (00602)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N) (00618)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS NO3) (71851)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)
OCT 1994											
25...	--	--	--	--	0.020	0.22	0.18	1.3	1.11	4.9	1.11
NOV											
07...	--	--	--	--	--	--	--	--	--	--	0.700
07...	--	--	--	--	0.027	0.24	0.26	1.1	--	--	0.843
DEC											
27...	--	--	--	--	0.040	0.16	0.18	1.4	1.24	5.5	1.24
JAN 1995											
07...	--	--	--	--	0.119	0.49	3.4	1.0	0.506	2.2	0.515
07...	--	--	--	--	0.076	0.39	1.0	0.78	0.382	1.7	0.385
20...	--	--	--	--	0.059	0.46	4.0	0.71	0.245	1.1	0.251
25...	--	0.338	0.043	0.204	0.063	0.14	0.22	1.4	1.26	5.6	1.26
FEB											
21...	0.053	0.169	0.002	<0.001	0.059	0.17	0.17	1.5	1.27	5.6	1.28
21...	--	--	--	--	0.055	0.19	0.21	1.4	1.22	5.4	1.23
21...	--	--	--	--	0.049	0.15	0.21	1.3	1.16	5.1	1.16
MAR											
08...	--	--	--	--	0.211	0.69	5.7	1.0	0.343	1.5	0.354
09...	--	--	--	--	0.157	0.51	2.6	0.86	0.344	1.5	0.351
20...	--	0.365	<0.001	0.002	0.033	0.28	0.25	1.5	1.21	5.4	1.22
APR											
17...	--	0.301	<0.001	<0.001	0.033	0.21	0.30	1.4	1.20	5.3	1.20
MAY											
23...	0.015	0.099	0.007	<0.001	0.067	0.30	0.39	2.1	1.82	8.0	1.84
23...	--	--	--	--	0.066	0.25	0.30	2.1	1.80	8.0	1.82
23...	--	--	--	--	0.067	0.23	0.29	2.1	1.82	8.1	1.84
JUN											
21...	0.029	0.095	<0.001	<0.001	0.042	0.17	0.23	2.7	--	--	2.51
JUL											
11...	--	--	--	--	0.105	0.50	2.8	0.97	0.453	2.0	0.469
19...	--	--	--	--	0.051	0.25	0.29	2.0	1.78	7.9	1.79
AUG											
09...	0.022	0.045	<0.001	<0.001	0.031	0.20	0.21	2.3	2.04	9.0	2.05
09...	--	--	--	--	--	--	--	--	--	--	2.10
SEP											
27...	0.026	0.033	<0.001	<0.001	0.020	0.42	0.43	2.1	1.68	7.4	1.69

PATUXENT RIVER BASIN

01594710 KILLPECK CREEK AT HUNTERSVILLE, MD--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N) (00607)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	NITRO- GEN, DIS- SOLVED (MG/L AS N) (00613)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)
OCT 1994											
25...	0.20	1.3	0.003	0.015	0.021	0.036	--	--	3.5	5	0.02
NOV											
07...	--	--	<0.010	--	--	--	230	62	--	--	--
07...	0.21	1.1	<0.002	0.010	0.010	0.066	--	--	4.1	6	0.03
DEC											
27...	0.12	1.4	0.005	0.022	0.016	0.034	--	--	3.0	5	0.03
JAN 1995											
07...	0.37	3.9	0.009	0.025	0.015	1.60	--	--	7.0	887	46
07...	0.31	1.4	0.003	0.032	0.018	0.352	--	--	6.8	196	5.8
20...	0.40	4.2	0.006	0.040	0.032	1.50	--	--	11	1750	369
25...	0.08	1.5	0.006	<0.010	0.018	0.032	--	--	2.7	10	0.09
FEB											
21...	0.11	1.5	0.007	<0.010	0.014	0.048	--	--	2.7	6	0.05
21...	0.13	1.4	0.006	0.011	0.014	0.038	--	--	2.4	--	--
21...	0.10	1.4	0.006	0.030	0.012	0.026	--	--	2.4	--	--
MAR											
08...	0.48	6.1	0.011	0.055	0.039	2.20	--	--	11	2560	442
09...	0.35	3.0	0.007	0.039	0.032	1.10	--	--	10	933	73
20...	0.25	1.5	0.007	<0.010	0.016	0.026	--	--	2.7	7	0.05
APR											
17...	0.18	1.5	0.006	0.014	0.018	0.051	--	--	3.1	9	0.07
MAY											
23...	0.23	2.2	0.022	0.013	0.021	0.058	--	--	3.5	1	0.00
23...	0.19	2.1	0.026	0.016	0.031	0.077	--	--	3.8	--	--
23...	0.17	2.1	0.024	0.031	0.027	0.046	--	--	3.5	--	--
JUN											
21...	0.13	2.7	<0.011	0.028	0.032	0.045	--	--	3.7	1	0.00
JUL											
11...	0.40	3.2	0.016	0.052	0.030	1.40	--	--	11	1230	80
19...	0.20	2.1	0.009	0.029	0.029	0.060	--	--	3.5	2	0.00
AUG											
09...	0.17	2.3	0.003	0.058	0.035	0.074	--	--	2.9	1	0.00
09...	--	--	<0.010	--	--	--	120	29	--	--	--
SEP											
27...	0.40	2.1	0.009	0.025	0.030	0.049	--	--	3.5	2	0.00

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POTOMAC RIVER BASIN

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 mi².

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

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 2,600 ft above sea level, from topographic map.

REMARKS.--Records good except those for estimated daily discharges (beaver dam, ice effect), which are fair. Natural flow of stream affected by inflow from deep coal mine dewatering process. Several measurements of water temperature were made during the year. Water-quality records for some prior years have been collected at this location.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 170 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 19	0945	*788	*9.28	May 21	2045	207	4.06
Jan. 24	1300	181	3.85	July 19	1330	487	6.24
Feb. 8	2215	212	4.10	July 22	1045	424	5.71
Mar. 6	0830	183	3.87	July 31	1130	341	5.08
Mar. 7	1300	181	3.85	Aug. 8	2345	173	3.79
May 5	0015	462	6.03	Aug. 12	2230	518	6.49
May 6	0015	255	4.43	Sept. 6	1615	655	7.85
May 11	2030	183	3.87	Sept. 17	1100	311	4.86

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.2	7.5	37	11	26	45	37	24	39	e5.0	67	8.7
2	2.1	7.7	37	17	22	37	38	30	32	e6.0	44	8.2
3	2.2	11	31	48	e21	32	32	31	27	e13	36	7.8
4	2.5	9.3	52	31	e20	27	28	64	25	e9.0	27	8.9
5	3.5	7.7	38	22	e19	33	34	183	21	e6.0	23	8.0
6	3.9	7.8	33	18	19	112	28	148	17	e4.5	20	229
7	3.0	14	25	e16	20	123	26	73	15	e4.0	18	132
8	2.6	22	19	e14	66	75	24	61	15	e18	37	55
9	2.6	11	e17	e12	101	51	25	81	20	e13	57	37
10	2.5	11	15	e11	52	40	24	56	17	e10	28	28
11	2.4	27	e14	e10	70	34	25	93	13	e7.0	22	22
12	2.3	35	12	e10	47	30	29	104	12	e4.5	151	19
13	2.3	20	12	e11	38	28	25	63	10	e4.0	205	24
14	6.0	18	15	e12	33	26	24	47	10	e3.5	64	19
15	7.2	19	25	e13	27	62	21	48	9.7	e4.0	43	16
16	3.7	16	63	e16	23	46	58	91	8.2	e5.0	64	39
17	2.9	15	43	e25	21	43	50	103	7.6	e4.5	46	166
18	2.6	15	40	111	19	38	48	68	7.7	55	35	89
19	2.5	22	46	443	17	55	47	49	13	265	29	49
20	3.3	20	36	128	21	75	39	40	11	110	25	37
21	7.1	25	27	61	32	48	33	79	9.0	44	22	29
22	5.1	22	22	44	48	39	27	72	8.1	167	20	28
23	3.7	20	18	37	54	34	24	47	9.0	75	17	32
24	3.2	23	16	111	60	31	22	39	17	44	27	24
25	2.9	19	16	74	45	47	19	33	22	32	19	22
26	2.7	18	15	50	49	77	19	37	11	25	15	20
27	3.4	31	13	69	77	48	20	74	8.8	20	14	18
28	6.9	105	12	52	115	46	16	76	8.0	17	13	22
29	20	61	11	42	62	43	15	122	e7.0	19	12	24
30	13	40	10	36	---	37	25	77	e5.6	27	10	17
31	9.8	---	10	31	---	33	---	51	---	169	9.6	---
TOTAL	140.1	680.0	780	1586	1224	1495	882	2164	435.7	1190.0	1219.6	1238.6
MEAN	4.52	22.7	25.2	51.2	42.2	48.2	29.4	69.8	14.5	38.4	39.3	41.3
MAX	20	105	63	443	115	123	58	183	39	265	205	229
MIN	2.1	7.5	10	10	17	26	15	24	5.6	3.5	9.6	7.8
CFSM	.55	2.75	3.06	6.22	5.13	5.86	3.57	8.48	1.76	4.66	4.78	5.02
IN.	.63	3.07	3.53	7.17	5.53	6.76	3.99	9.78	1.97	5.38	5.51	5.60

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1980 - 1996, BY WATER YEAR (WY)

MEAN	9.48	19.5	30.5	26.9	37.1	40.1	32.2	30.3	18.8	18.8	13.1	8.97
MAX	20.4	42.8	51.9	51.2	68.5	71.6	61.0	69.8	62.8	42.8	40.2	41.3
(WY)	1990	1987	1985	1996	1994	1994	1984	1996	1981	1992	1980	1996
MIN	3.27	6.21	16.8	8.85	7.24	13.9	9.60	9.35	6.36	2.88	2.30	2.99
(WY)	1992	1992	1990	1981	1993	1990	1995	1991	1991	1988	1993	1991

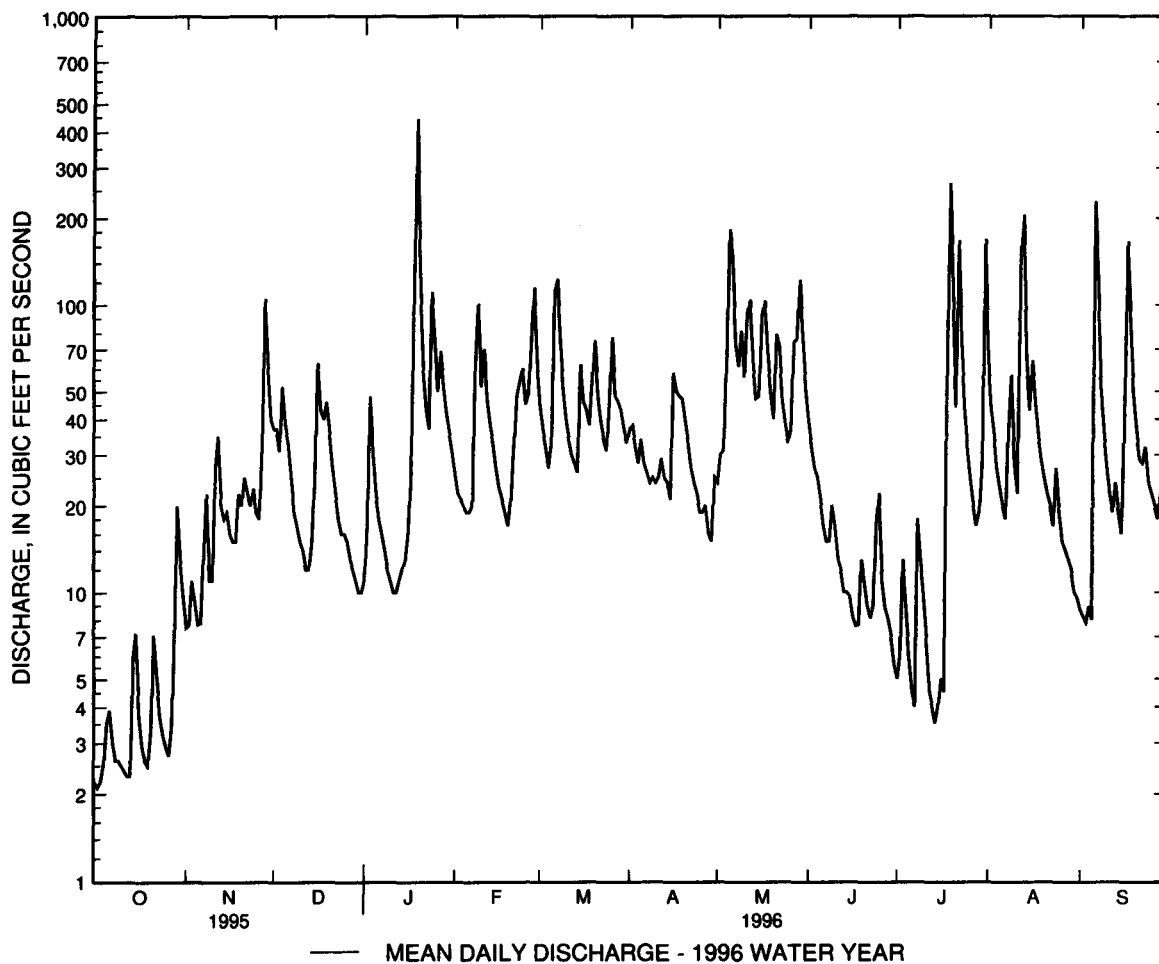
01594930 LAUREL RUN AT DOBBIN ROAD NEAR WILSON, MD--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1980 - 1996	
ANNUAL TOTAL	6308.4		13035.0			
ANNUAL MEAN	17.3		35.6		23.5	
HIGHEST ANNUAL MEAN					35.6	1996
LOWEST ANNUAL MEAN					16.2	1995
HIGHEST DAILY MEAN	277	Aug 6	443	Jan 19	492	Feb 9 1994
LOWEST DAILY MEAN	2.1	Oct 2	2.1	Oct 2	1.1	(a)
ANNUAL SEVEN-DAY MINIMUM	2.2	Sep 27	2.5	Oct 7	1.3	Aug 23 1993
INSTANTANEOUS PEAK FLOW			788	Jan 19	(b) 863	Nov 5 1985
INSTANTANEOUS PEAK STAGE			9.28	Jan 19	10.10	Nov 5 1985
INSTANTANEOUS LOW FLOW			2.1	(c)	UNKNOWN	
ANNUAL RUNOFF (CFSM)	2.10		4.33		2.85	
ANNUAL RUNOFF (INCHES)	28.51		58.92		38.75	
10 PERCENT EXCEEDS	37		74		50	
50 PERCENT EXCEEDS	11		24		15	
90 PERCENT EXCEEDS	2.9		6.0		4.1	

a Aug. 15, 27, 1993.

b From rating curve extended above 450 ft³/s on basis of runoff comparisons with nearby stations.

c Oct. 2, 3.



POTOMAC RIVER BASIN

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 north-west of Wilson-Corona Road, 0.1 mi upstream from mouth and 0.8 mi northwest of Wilson.

DRAINAGE AREA.--1.91 mi².

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

GAGE.--Water-stage recorder and steel weir plate. Elevation of gage is 2,515 ft above sea level, from topographic map.

REMARKS.--Records good above 0.5 ft³/s and fair below, 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 years have been collected at this location.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 40 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 19	0900	*400	*6.67	May 29	1015	54	3.44
Jan. 24	1045	54	3.45	July 19	1030	206	5.07
Mar. 6	0615	57	3.48	July 19	1715	231	5.29
Mar. 7	1115	45	3.32	July 22	0845	127	4.32
May 4	2215	93	3.94	July 31	0915	99	4.01
May 5	2215	60	3.53	Aug. 12	2030	234	5.32
May 9	0400	40	3.24	Sept. 6	1500	288	5.78
May 29	0500	69	3.64	Sept. 17	0845	91	3.92

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.44	1.2	9.2	2.5	5.3	9.6	8.7	4.2	8.4	.85	13	1.1
2	.30	1.3	8.7	4.3	4.2	7.8	8.4	5.1	6.0	.80	7.9	.94
3	.33	1.2	6.9	11	4.0	6.0	6.7	5.7	5.3	1.8	5.3	.87
4	.56	1.0	10	6.9	e3.8	5.1	6.0	17	5.5	1.1	3.8	1.5
5	1.1	.85	8.0	5.1	e3.7	8.2	6.8	28	4.5	.80	3.2	1.1
6	1.3	.74	7.1	4.5	e3.6	27	5.3	28	3.7	.67	2.8	77
7	.80	.99	6.0	3.3	3.6	28	4.9	15	3.0	.60	2.5	28
8	.61	2.8	5.1	e3.0	12	16	4.7	14	3.3	2.5	7.1	14
9	.42	1.8	e4.4	e2.7	16	10	5.2	22	3.7	1.2	11	8.8
10	.46	2.1	3.8	e2.4	11	7.8	5.0	13	3.2	.97	4.6	5.9
11	.61	5.5	e3.4	e2.2	16	6.8	5.6	19	2.8	.81	3.5	4.2
12	.58	6.6	e3.1	e2.2	10	6.2	5.7	16	2.7	.70	60	3.6
13	.48	4.0	2.7	2.3	8.0	5.6	4.7	12	2.1	.69	41	4.5
14	1.5	3.8	3.6	e2.7	7.1	5.2	4.3	9.2	2.0	.52	14	3.3
15	2.0	4.2	6.8	e3.0	5.9	15	4.2	10	1.9	.71	9.1	2.7
16	.86	3.6	14	3.5	4.8	10	13	18	1.3	.84	12	8.7
17	.65	3.3	9.1	9.5	4.3	9.5	9.3	19	1.1	.78	8.7	39
18	.70	3.8	8.7	26	4.0	8.4	7.8	13	1.5	9.8	5.4	18
19	.71	5.1	10	140	3.7	15	9.0	9.5	3.0	95	4.2	11
20	1.2	4.7	7.5	23	4.5	17	7.3	7.3	2.8	23	3.7	7.7
21	2.3	6.7	6.1	13	7.8	11	5.8	13	1.7	10	3.6	5.6
22	1.2	5.4	4.7	9.3	11	8.8	4.8	11	1.5	37	3.7	5.0
23	.82	5.3	3.8	7.9	12	7.3	4.6	7.4	1.2	15	3.0	5.7
24	.73	5.5	3.4	30	13	8.3	4.4	6.1	4.5	9.1	3.2	4.0
25	.74	4.4	3.1	16	9.8	13	4.1	5.2	4.3	5.9	2.4	3.6
26	.71	4.5	2.9	12	10	16	3.8	5.5	2.3	4.3	1.8	3.1
27	.86	8.1	2.6	18	21	10	3.6	12	2.0	3.6	1.7	3.0
28	1.8	21	2.2	12	22	10	2.8	11	1.8	2.9	2.7	3.3
29	4.1	12	1.9	8.9	13	9.2	2.7	34	1.3	3.2	3.0	3.4
30	2.6	8.9	1.7	7.7	---	8.0	5.4	16	.98	5.9	1.7	2.7
31	1.6	---	1.8	6.2	---	6.7	---	11	---	37	1.3	---
TOTAL	33.07	140.38	172.3	401.1	255.1	332.5	174.6	417.2	89.38	278.04	250.9	281.31
MEAN	1.07	4.68	5.56	12.9	8.80	10.7	5.82	13.5	2.98	8.97	8.09	9.38
MAX	4.1	21	14	140	22	28	13	34	8.4	95	60	77
MIN	.30	.74	1.7	2.2	3.6	5.1	2.7	4.2	.98	.52	1.3	.87
CFSM	.56	2.45	2.91	6.77	4.61	5.62	3.05	7.05	1.56	4.70	4.24	4.91
IN.	.64	2.73	3.36	7.81	4.97	6.48	3.40	8.13	1.74	5.42	4.89	5.48

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1980 - 1996, BY WATER YEAR (WY)

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
MEAN	1.41	4.29	5.76	5.63	7.74	8.63	6.71	6.03	3.35	3.41	2.23	1.64					
MAX	3.65	17.5	8.67	12.9	15.9	16.1	13.4	13.5	12.7	8.97	8.09	9.38					
(WY)	1990	1986	1991	1996	1986	1994	1984	1996	1981	1996	1996	1996					
MIN	.21	.62	2.83	1.29	1.37	2.52	2.22	1.58	.63	.28	.30	.19					
(WY)	1992	1992	1990	1981	1993	1990	1995	1991	1991	1988	1983	1991					

01594936 NORTH FORK SAND RUN NEAR WILSON, MD--Continued

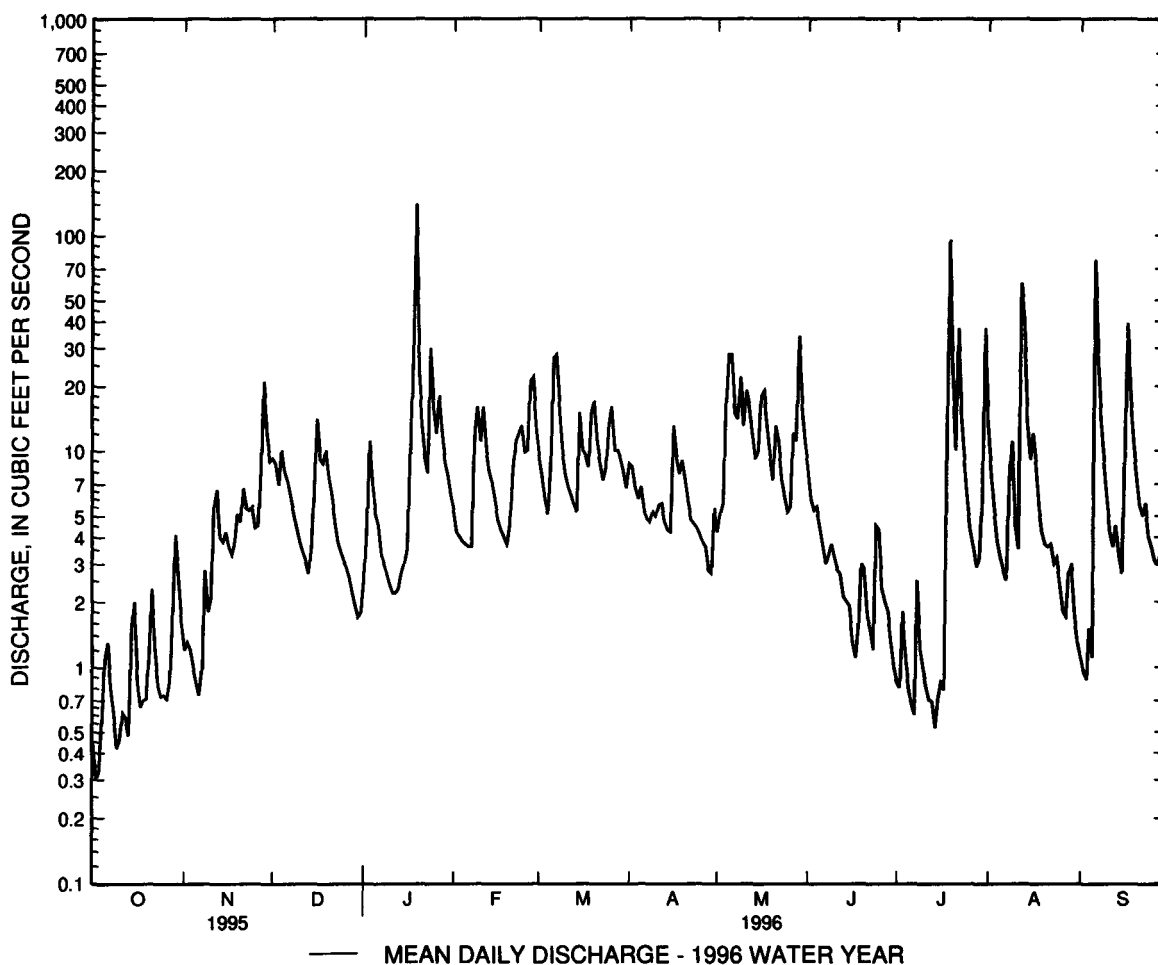
SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1980 - 1996	
ANNUAL TOTAL	1394.29		2825.88			
ANNUAL MEAN	3.82		7.72		4.67	
HIGHEST ANNUAL MEAN					7.72	1996
LOWEST ANNUAL MEAN					3.43	1983
HIGHEST DAILY MEAN	60	Aug 6	140	Jan 19	141	Feb 9 1994
LOWEST DAILY MEAN	.30	Sep 11	.30	Oct 2	.09	(a)
ANNUAL SEVEN-DAY MINIMUM	.43	Jul 4	.57	Oct 7	.12	Aug 12 1988
INSTANTANEOUS PEAK FLOW			400	Jan 19	(b) 895	May 31 1985
INSTANTANEOUS PEAK STAGE			6.67	Jan 19	10.47	May 31 1985
INSTANTANEOUS LOW FLOW			.27	(c)	.01	(d)
ANNUAL RUNOFF (CFSM)	2.00		4.04		2.45	
ANNUAL RUNOFF (INCHES)	27.16		55.04		33.25	
10 PERCENT EXCEEDS	8.7		15		11	
50 PERCENT EXCEEDS	2.6		4.7		2.8	
90 PERCENT EXCEEDS	.54		.96		.45	

a Aug. 22, 1985, Aug. 24, 1993.

b From rating curve extended above 90 ft³/s on basis of contracted-opening measurement of peak flow.

c Oct. 2, 3.

d July 18 and Aug. 9, 1988, result of beaver activity upstream.



POTOMAC RIVER BASIN

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-Corona 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 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1986 to current year.

REVISED RECORDS.--WDR MD-DE-95-1: 1988, 1991-93 (M).

GAGE.--Water-stage recorder and sacrete bag control. Datum of gage is 2,441.94 ft above sea level (Garrett County bench mark).

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

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 40 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 19	0545	*UNKNOWN	(a)*5.99	May 29	0400	82	3.13
Jan. 24	1045	50	2.47	May 29	0945	70	2.90
Feb. 8	2045	55	2.60	July 19	0930	UNKNOWN	(a)5.53
Feb. 27	1030	60	2.70	July 19	1830	UNKNOWN	(a)5.65
Mar. 6	0600	58	2.65	July 22	0830	123	3.83
Mar. 7	1115	46	2.38	July 31	0915	132	3.97
May 4	2200	85	3.20	Aug. 12	2300	UNKNOWN	(a)5.86
May 5	2130	72	2.94	Sept. 6	1700	UNKNOWN	(a)5.86
May 9	0330	45	2.34	Sept. 17	0845	76	3.02

a Backwater

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.07	.49	8.6	2.5	6.1	10	8.4	3.4	8.1	.34	16	1.4
2	.05	.41	8.4	3.8	4.3	7.8	8.3	4.0	6.1	.31	9.3	1.2
3	.04	.41	7.2	9.3	e4.0	6.2	7.0	4.4	5.2	.88	6.8	1.2
4	.05	.39	10	6.1	e3.6	e6.0	6.1	15	5.1	.49	5.2	1.6
5	.22	.29	7.7	4.9	e3.3	e5.7	6.3	29	3.9	.32	4.2	1.2
6	.15	.24	7.0	e4.3	e3.0	30	5.3	33	3.1	.25	3.5	e70
7	.05	.43	5.7	e3.5	2.7	31	4.9	16	2.6	.22	3.0	e30
8	.04	1.5	4.7	e3.0	16	19	4.4	13	3.2	1.7	e17	14
9	.03	.94	4.2	e2.8	20	12	4.4	26	3.6	.56	e10	8.0
10	.03	.96	e3.6	e2.6	11	9.4	4.3	15	3.0	.29	9.0	5.7
11	.02	3.4	e3.2	e2.4	18	6.6	4.8	19	2.3	.22	6.2	4.8
12	.02	4.4	e2.9	e2.3	11	5.8	5.1	19	2.1	.20	e45	4.0
13	.02	2.9	2.5	e2.2	7.9	5.3	4.5	12	1.7	.19	56	4.8
14	.24	2.8	3.1	2.1	6.6	4.9	4.2	9.1	1.7	.17	18	3.6
15	.30	3.3	5.3	2.5	5.3	16	3.9	9.5	1.7	.23	11	2.9
16	.19	2.5	14	2.4	4.4	11	10	19	1.3	.20	12	7.9
17	.07	2.4	9.2	6.7	e3.8	9.6	7.9	19	1.1	.15	8.6	35
18	.04	2.8	8.7	25	3.3	8.3	6.7	13	1.1	6.5	6.2	18
19	.03	4.1	9.4	e90	e3.2	15	7.6	9.7	2.0	e80	4.8	11
20	.16	4.0	7.1	e22	3.0	18	6.4	7.5	1.8	30	4.0	7.9
21	.82	5.1	5.8	15	4.6	11	5.4	11	1.1	11	4.7	6.1
22	.46	4.3	4.9	11	8.8	8.7	4.7	9.5	.87	35	4.2	6.1
23	.23	4.3	4.3	7.9	12	7.1	4.4	6.7	.67	15	3.1	6.1
24	.13	4.6	3.8	29	15	6.6	3.9	5.7	2.6	8.8	3.3	4.8
25	.07	4.0	3.5	17	11	11	3.4	4.8	2.3	6.0	2.7	4.1
26	.04	4.0	e3.2	12	11	17	3.3	5.1	1.2	4.6	2.2	3.5
27	.11	6.6	2.8	18	30	10	3.0	9.6	.80	3.5	1.9	3.0
28	.45	22	2.5	12	30	9.4	2.5	10	.62	2.9	2.8	3.5
29	2.4	13	e2.2	9.3	16	9.0	2.4	41	.50	3.0	2.8	3.4
30	1.5	8.8	e2.0	7.6	---	8.1	3.7	20	.41	5.1	1.9	2.7
31	.70	---	1.8	6.2	---	7.0	---	12	---	e37	1.6	---
TOTAL	8.73	115.36	169.3	345.4	278.9	342.5	157.2	431.0	71.77	255.12	287.0	277.5
MEAN	.28	3.85	5.46	11.1	9.62	11.0	5.24	13.9	2.39	8.23	9.26	9.25
MAX	2.4	22	14	90	30	31	10	41	8.1	80	56	70
MIN	.02	.24	1.8	2.1	2.7	4.9	2.4	3.4	.41	.15	1.6	1.2
CFSM	.12	1.67	2.37	4.84	4.18	4.80	2.28	6.04	1.04	3.58	4.03	4.02
IN.	.14	1.87	2.74	5.59	4.51	5.54	2.54	6.97	1.16	4.13	4.64	4.49

e Estimated

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

MEAN	1.28	3.28	5.87	7.49	7.54	9.16	6.50	6.90	1.99	2.95	2.21	1.83
MAX	4.57	10.2	10.0	11.5	14.7	17.6	11.3	13.9	5.29	8.23	9.26	9.25
(WY)	1990	1987	1991	1990	1994	1994	1987	1996	1989	1996	1996	1996
MIN	.060	.30	3.92	4.05	1.27	3.34	1.27	1.12	.23	.14	.065	.11
(WY)	1995	1992	1990	1992	1993	1990	1995	1993	1993	1993	1993	1991

01594950 MCMILLAN FORK NEAR FORT PENDLETON, MD--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1987 - 1996	
ANNUAL TOTAL	1203.26		2739.78			
ANNUAL MEAN	3.30		7.49		4.75	
HIGHEST ANNUAL MEAN					7.49	
LOWEST ANNUAL MEAN					2.91	
HIGHEST DAILY MEAN	61	Aug 6	(e) 90	Jan 19	110	May 26 1990
LOWEST DAILY MEAN	.02	(a)	.02	(b)	.02	(c)
ANNUAL SEVEN-DAY MINIMUM	.03	Oct 7	.03	Oct 7	.03	Oct 7 1995
INSTANTANEOUS PEAK FLOW			UNKNOWN	Jan 19	340	Feb 9 1994
INSTANTANEOUS PEAK STAGE			(d) 5.99	Jan 19	(d) 7.23	Feb 9 1994
INSTANTANEOUS LOW FLOW			.02	(f)	.01	(c)
ANNUAL RUNOFF (CFSM)	1.43		3.25		2.06	
ANNUAL RUNOFF (INCHES)	19.46		44.31		28.03	
10 PERCENT EXCEEDS	7.8		17		11	
50 PERCENT EXCEEDS	1.8		4.4		3.0	
90 PERCENT EXCEEDS	.07		.30		.15	

e Estimated.

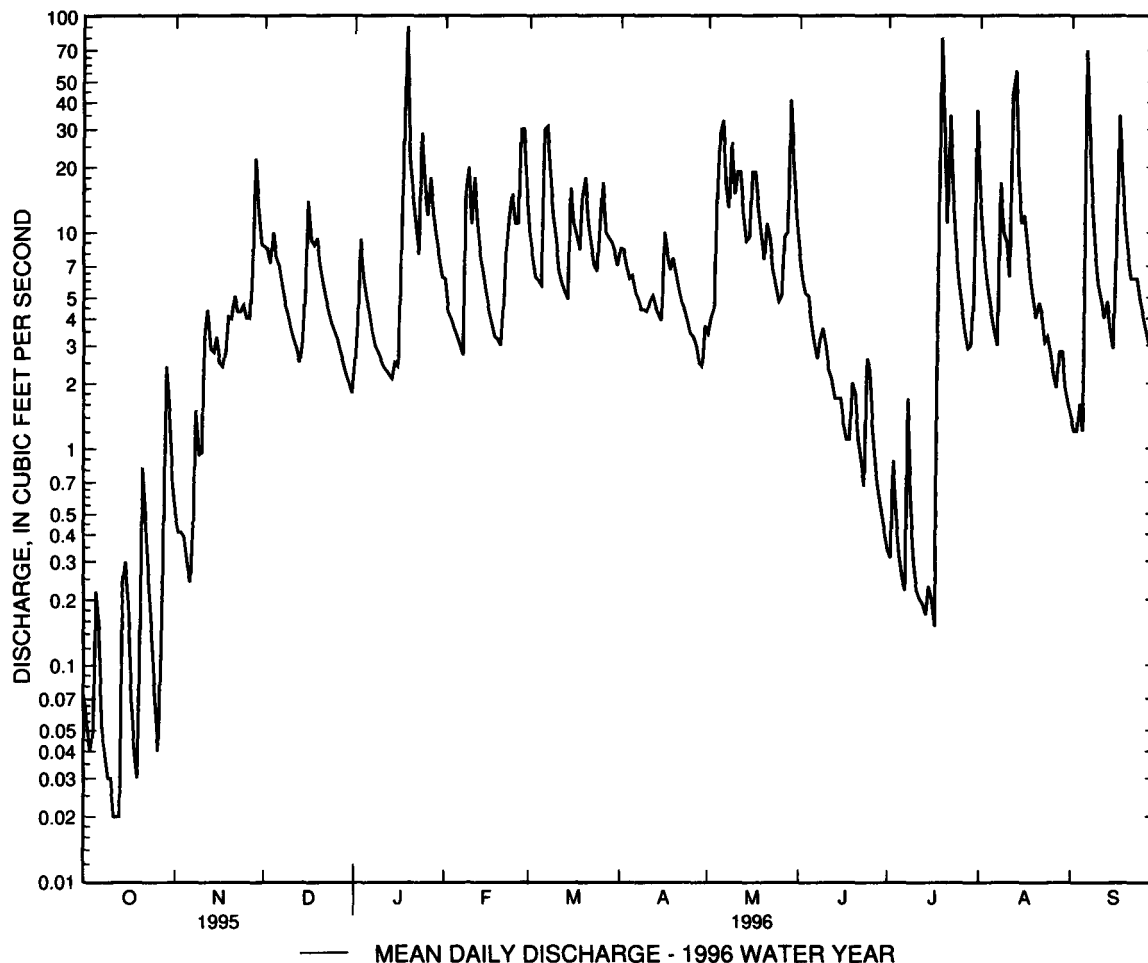
a Aug. 4, 5.

b Oct. 11-13.

c Aug. 4, 5, Oct. 11-13, 1995.

d Affected by backwater.

f Oct. 10-14.



POTOMAC RIVER BASIN

01594950 MCMILLAN FORK NEAR FORT PENDLETON, MD--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1987 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: November 1986 to current year.

pH: November 1986 to current year.

WATER TEMPERATURE: November 1986 to current year.

INSTRUMENTATION.--Water-quality monitor since November 1986. Digital recorder set for one-hour-interval punches.

REMARKS.--Periods of missing record due to monitor/probe malfunction or dead batteries.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 366 microsiemens, July 16, 1996; minimum, 54 microsiemens, Feb. 9, 1994.

pH: Maximum, 9.4 units, Sept. 15, 1993; minimum, 4.9 units, Nov. 21, 22, 1988.

WATER TEMPERATURE: Maximum, 25.1°C, July 15, 1995; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT PERIOD.--

SPECIFIC CONDUCTANCE: Maximum, 366 microsiemens, July 16; minimum, 59 microsiemens, Jan. 19.

WATER TEMPERATURE: Maximum, 20.2°C, July 17; minimum, 0.0°C, on many days during winter periods.

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	---	---	---	123	119	121	100	95	98	159	146	153
2	---	---	---	143	118	125	106	96	100	146	118	132
3	---	---	---	130	114	119	113	106	110	118	92	101
4	---	---	---	122	117	120	107	94	98	110	98	103
5	---	---	---	124	120	122	107	100	103	117	79	108
6	---	---	---	124	118	121	112	107	108	94	84	89
7	---	---	---	120	110	114	120	112	115	135	94	107
8	---	---	---	116	108	112	126	120	123	137	134	135
9	---	---	---	108	106	107	131	126	128	140	136	138
10	---	---	---	109	102	107	140	131	136	148	140	144
11	---	---	---	112	89	98	144	140	143	152	148	150
12	---	---	---	214	94	150	144	141	143	154	152	153
13	---	---	---	239	179	216	142	141	141	157	154	156
14	130	112	119	233	150	184	156	136	143	159	147	155
15	134	118	127	250	120	183	141	120	126	149	145	146
16	155	133	150	---	---	---	121	88	94	148	140	145
17	150	141	145	---	---	---	103	91	97	140	119	130
18	153	134	138	---	---	---	109	102	105	119	73	97
19	135	127	132	---	---	---	115	104	108	81	59	69
20	154	96	120	---	---	---	127	115	122	115	81	98
21	156	109	132	---	---	---	139	127	133	148	115	133
22	156	149	153	---	---	---	146	139	143	157	148	153
23	149	141	145	---	---	---	152	146	149	186	156	160
24	141	133	137	---	---	---	157	152	154	156	105	122
25	134	129	131	---	---	---	160	156	159	113	105	108
26	129	122	125	---	---	---	163	158	161	126	113	120
27	124	107	116	---	---	---	165	163	164	126	113	119
28	128	108	115	---	---	---	167	164	166	123	115	118
29	131	119	125	81	68	75	167	161	166	131	123	127
30	120	117	118	95	81	88	168	163	165	138	130	134
31	122	118	120	---	---	---	165	158	163	144	138	140
MONTH	---	---	---	---	---	---	168	88	131	186	59	127

POTOMAC RIVER BASIN

01594950 MCMILLAN FORK NEAR FORT PENDLETON, MD--Continued

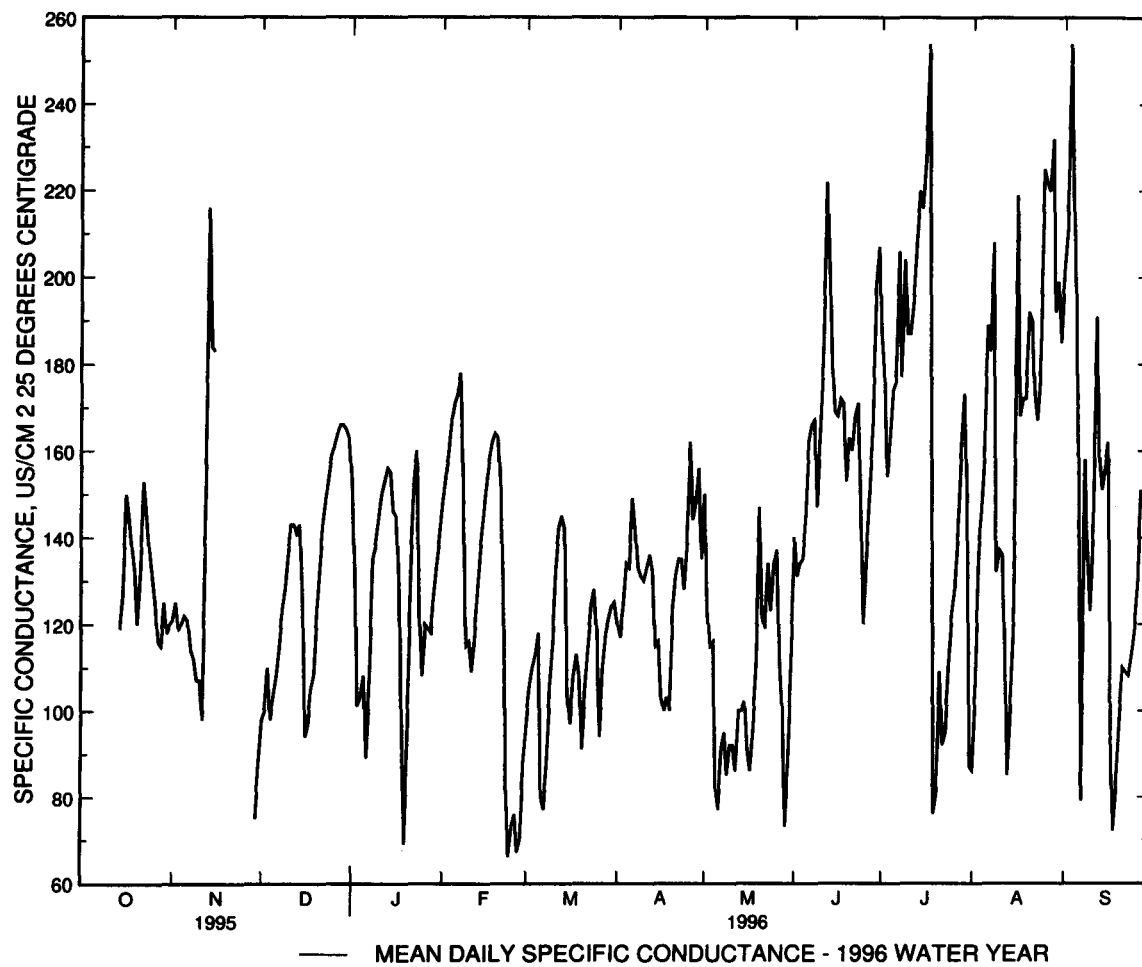
SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY				MARCH			APRIL			MAY		
1	151	144	148	101	95	97	129	112	120	156	139	150
2	156	150	154	109	101	105	123	112	117	140	104	123
3	163	155	159	114	106	110	143	118	124	140	96	115
4	171	163	167	121	107	113	174	123	134	141	76	116
5	172	169	171	124	99	118	147	122	133	92	65	82
6	174	172	173	99	73	80	154	147	149	102	64	77
7	201	172	178	80	73	77	166	125	142	102	89	91
8	175	123	152	97	79	87	138	127	133	100	90	95
9	123	112	115	111	97	105	138	125	131	96	78	85
10	121	112	116	123	108	116	136	123	130	100	86	92
11	120	106	109	141	118	133	149	121	133	113	82	92
12	123	111	117	145	140	142	159	110	136	90	81	86
13	133	123	127	147	142	145	163	113	132	141	88	100
14	140	133	137	146	137	142	116	114	115	141	94	100
15	148	140	144	138	88	104	118	106	116	126	95	102
16	157	148	152	103	90	97	107	97	103	97	84	91
17	162	153	158	110	103	108	105	92	100	89	83	86
18	165	158	162	117	110	113	135	97	103	101	88	96
19	168	158	164	121	84	108	112	93	100	123	99	111
20	169	157	163	99	85	91	131	96	123	169	118	147
21	157	140	151	112	99	105	153	114	131	151	105	122
22	148	96	125	120	112	115	157	116	135	133	113	119
23	96	66	80	128	120	124	167	115	135	172	117	134
24	68	65	66	130	123	128	138	122	128	133	117	123
25	77	68	73	127	94	118	162	122	139	140	125	134
26	79	68	76	102	90	94	165	157	162	142	128	137
27	80	60	67	117	102	110	171	122	144	128	91	112
28	79	63	70	121	116	118	170	126	148	104	97	101
29	95	78	88	126	118	121	164	133	156	105	62	73
30	---	---	---	128	118	124	154	121	135	113	72	88
31	---	---	---	128	123	125	---	---	---	131	98	113
MONTH	201	60	130	147	73	112	174	92	130	172	62	106
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE				JULY			AUGUST			SEPTEMBER		
1	185	115	140	244	165	187	94	78	86	277	163	201
2	183	124	131	250	169	178	154	94	106	348	168	211
3	138	132	134	179	138	154	186	113	136	322	182	254
4	142	124	135	194	151	162	200	125	146	282	186	220
5	196	137	144	246	163	174	213	136	159	277	152	196
6	215	147	162	234	168	176	266	145	189	218	66	154
7	246	155	166	270	175	206	257	160	183	169	66	79
8	233	137	167	291	121	177	260	146	208	231	89	158
9	162	137	147	262	170	204	190	110	132	177	114	135
10	206	142	163	259	169	187	220	105	137	131	114	123
11	222	152	181	260	171	187	200	117	136	203	129	144
12	228	215	222	272	174	195	148	69	113	230	140	191
13	231	161	203	299	180	209	128	65	85	226	138	158
14	270	156	181	342	184	220	144	87	102	216	141	151
15	180	162	169	232	178	216	171	108	123	162	151	156
16	172	165	168	366	176	229	377	141	219	252	114	162
17	175	170	172	364	202	254	225	112	168	231	61	93
18	175	153	171	270	97	180	312	122	172	104	64	72
19	164	131	153	105	60	76	252	155	172	89	77	83
20	223	145	163	126	60	81	317	154	192	152	88	98
21	166	157	160	137	94	109	297	158	190	160	100	110
22	206	165	168	147	72	92	257	139	173	111	100	109
23	176	168	171	136	79	95	230	139	167	111	100	108
24	251	90	146	159	98	111	243	152	178	115	110	113
25	142	98	120	154	114	122	391	182	225	122	115	119
26	151	128	136	138	123	128	336	203	222	182	122	129
27	200	141	150	166	135	141	240	210	220	204	130	151
28	221	148	165	222	147	160	365	148	232	177	130	148
29	230	162	198	239	146	173	245	152	192	169	130	134
30	300	161	207	224	125	150	325	155	199	177	129	135
31	---	---	---	134	67	87	233	155	185	---	---	---
MONTH	300	90	163	366	60	162	391	65	166	348	61	143

POTOMAC RIVER BASIN

01594950 MCMILLAN FORK NEAR FORT PENDLETON, MD--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996



01594950 MCMILLAN FORK NEAR FORT PENDLETON, MD--Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	---	---	---	---	---	---	7.6	7.5	7.5	7.4	7.3	7.4
2	---	---	---	---	---	---	7.6	7.5	7.5	7.4	7.2	7.3
3	---	---	---	---	---	---	7.6	7.5	7.6	7.3	7.0	7.1
4	---	---	---	---	---	---	7.6	7.5	7.6	7.1	6.3	6.9
5	---	---	---	---	---	---	7.6	7.5	7.6	6.8	6.4	6.6
6	---	---	---	---	---	---	7.6	7.6	7.6	6.8	6.4	6.6
7	---	---	---	---	---	---	7.7	7.6	7.6	6.9	6.6	6.8
8	---	---	---	---	---	---	7.7	7.6	7.6	7.0	6.7	6.8
9	---	---	---	---	---	---	7.7	7.6	7.6	---	---	---
10	---	---	---	---	---	---	7.6	7.6	7.6	---	---	---
11	---	---	---	---	---	---	7.6	7.4	7.6	---	---	---
12	---	---	---	---	---	---	7.5	7.4	7.5	---	---	---
13	---	---	---	---	---	---	7.6	7.4	7.5	---	---	---
14	---	---	---	---	---	---	7.6	7.4	7.5	---	---	---
15	---	---	---	---	---	---	7.6	7.4	7.5	---	---	---
16	---	---	---	---	---	---	7.4	7.2	7.3	---	---	---
17	---	---	---	---	---	---	7.4	7.4	7.4	---	---	---
18	---	---	---	---	---	---	7.5	7.4	7.4	7.3	6.9	7.1
19	---	---	---	---	---	---	7.4	7.4	7.4	7.4	7.2	7.3
20	---	---	---	---	---	---	7.6	7.4	7.5	7.4	7.2	7.3
21	---	---	---	---	---	---	7.6	7.5	7.5	7.4	6.9	7.2
22	---	---	---	---	---	---	7.7	7.5	7.6	7.2	6.9	7.0
23	---	---	---	---	---	---	7.7	7.5	7.6	7.2	6.9	7.1
24	---	---	---	---	---	---	7.6	7.6	7.6	7.1	7.0	7.1
25	---	---	---	---	---	---	7.7	7.6	7.6	7.1	7.0	7.1
26	---	---	---	---	---	---	7.7	7.5	7.6	7.1	6.9	7.0
27	---	---	---	7.7	7.6	7.6	7.6	7.5	7.6	6.9	6.5	6.7
28	---	---	---	7.6	7.5	7.6	7.7	7.5	7.6	6.8	6.5	6.7
29	---	---	---	7.6	7.4	7.5	7.7	7.4	7.5	6.7	6.1	6.2
30	---	---	---	7.6	7.6	7.6	7.5	7.3	7.4	6.7	6.1	6.4
31	---	---	---	7.6	7.6	7.6	---	---	---	6.9	6.4	6.7
MONTH	---	---	---	---	---	---	7.7	7.2	7.5	---	---	---

POTOMAC RIVER BASIN

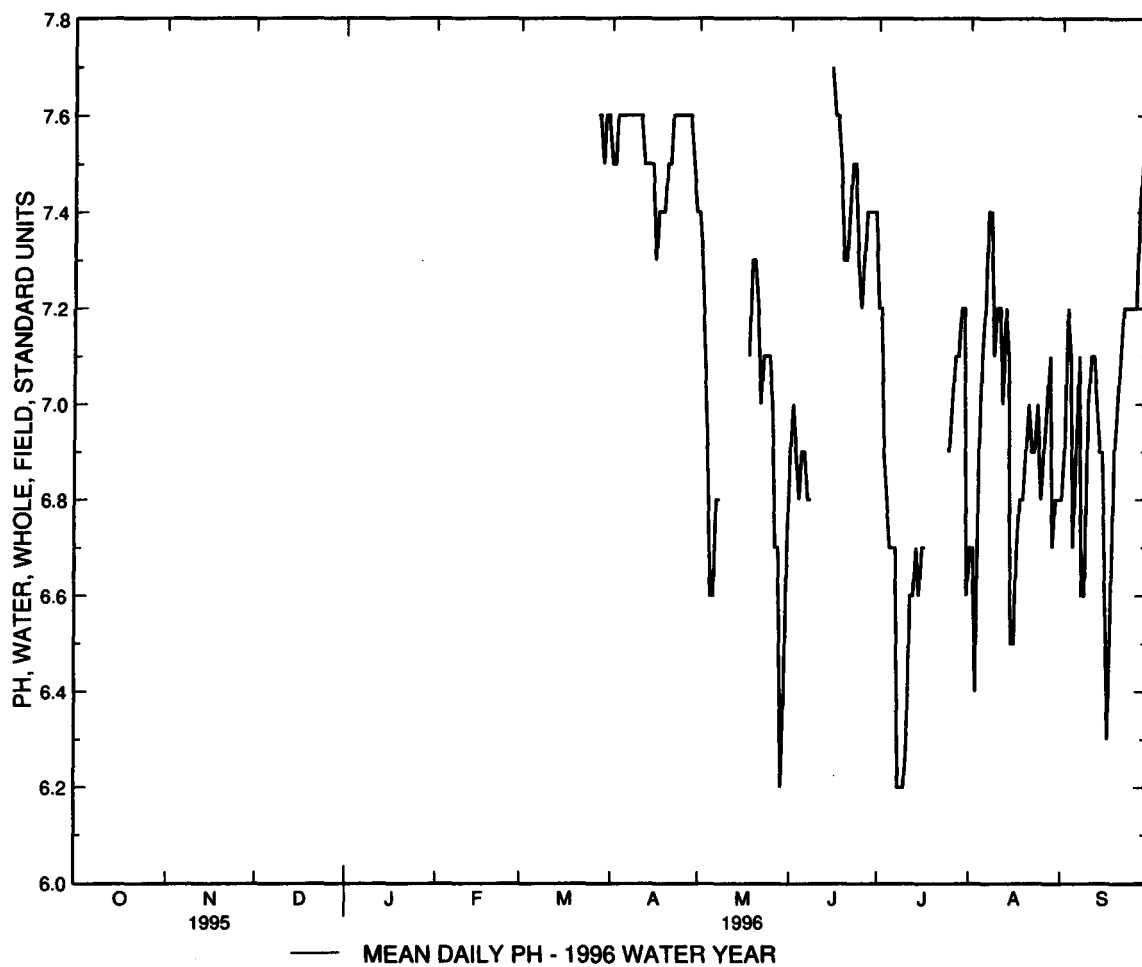
01594950 MCMILLAN FORK NEAR FORT PENDLETON, MD--Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	7.1	6.6	6.9	7.4	7.1	7.2	6.8	6.6	6.7	6.9	6.7	6.8
2	7.1	6.8	7.0	7.4	7.0	7.2	6.8	6.6	6.7	7.1	6.7	6.9
3	7.0	6.8	6.9	7.0	6.7	6.9	6.7	6.2	6.4	7.4	7.0	7.2
4	6.8	6.7	6.8	7.1	6.6	6.8	7.2	6.7	6.9	7.4	6.7	7.1
5	7.0	6.7	6.9	7.0	6.6	6.7	7.2	6.9	7.1	6.9	6.6	6.7
6	7.0	6.8	6.9	7.1	6.4	6.7	7.4	7.1	7.2	7.1	6.5	6.9
7	7.0	6.7	6.8	7.0	6.4	6.7	7.5	7.3	7.4	7.3	6.7	7.1
8	7.1	6.2	6.8	6.6	5.9	6.2	7.6	6.8	7.4	6.9	6.3	6.6
9	---	---	---	6.4	6.0	6.2	7.3	6.8	7.1	6.9	6.4	6.6
10	---	---	---	6.5	6.0	6.2	7.4	7.1	7.2	7.2	6.7	7.0
11	---	---	---	6.6	6.0	6.3	7.4	7.1	7.2	7.3	7.0	7.1
12	---	---	---	6.9	6.2	6.6	7.3	6.2	7.0	7.2	7.0	7.1
13	---	---	---	7.0	6.4	6.6	7.5	6.5	7.2	7.1	6.9	7.0
14	---	---	---	7.0	6.3	6.7	7.4	6.6	7.1	7.0	6.8	6.9
15	7.7	7.6	7.7	6.8	6.4	6.6	6.7	6.4	6.5	6.9	6.8	6.9
16	7.6	7.5	7.6	7.1	6.4	6.7	6.9	6.2	6.5	6.9	5.8	6.6
17	7.6	7.5	7.6	7.2	6.4	6.7	7.0	6.2	6.7	6.5	5.8	6.3
18	7.6	7.3	7.5	---	---	---	7.0	6.7	6.8	6.8	6.5	6.6
19	7.4	7.1	7.3	---	---	---	6.9	6.6	6.8	7.0	6.7	6.9
20	7.4	7.2	7.3	---	---	---	7.1	6.8	6.9	7.1	6.8	7.0
21	7.5	7.3	7.4	---	---	---	7.2	6.9	7.0	7.2	6.9	7.1
22	7.5	7.4	7.5	---	---	---	7.0	6.8	6.9	7.3	7.0	7.2
23	7.6	7.4	7.5	---	---	---	7.1	6.8	6.9	7.3	7.0	7.2
24	7.6	7.0	7.3	---	---	---	7.0	6.8	7.0	7.2	7.1	7.2
25	7.2	7.0	7.2	6.9	6.8	6.9	7.0	6.7	6.8	7.3	7.1	7.2
26	7.4	7.2	7.3	7.2	6.9	7.0	7.1	6.8	6.9	7.4	7.1	7.2
27	7.4	7.4	7.4	7.2	6.9	7.1	7.2	7.0	7.0	7.5	7.3	7.4
28	7.5	7.3	7.4	7.3	7.0	7.1	7.2	6.9	7.1	7.5	7.3	7.5
29	7.5	7.3	7.4	7.4	7.2	7.2	6.9	6.6	6.7	7.3	7.2	7.2
30	7.5	7.2	7.4	7.4	6.9	7.2	6.9	6.7	6.8	7.3	7.1	7.2
31	---	---	---	6.9	6.4	6.6	7.0	6.7	6.8	---	---	---
MONTH	---	---	---	---	---	---	7.6	6.2	6.9	7.5	5.8	7.0

01594950 MCMILLAN FORK NEAR FORT PENDLETON, MD--Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996



POTOMAC RIVER BASIN

01594950 MCMILLAN FORK NEAR FORT PENDLETON, MD--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	---	---	---	10.2	7.8	8.9	5.5	3.5	4.7	1.7	1.0	1.4
2	---	---	---	11.8	9.4	10.7	5.0	3.8	4.4	1.7	1.5	1.6
3	---	---	---	11.4	6.5	10.0	5.9	3.2	4.4	1.9	.3	1.2
4	---	---	---	6.5	2.3	4.2	5.9	4.0	5.2	.4	.1	.2
5	---	---	---	2.3	.7	1.8	5.5	3.6	4.5	.4	.0	.2
6	---	---	---	2.9	1.1	1.9	5.5	2.8	3.6	.1	.1	.1
7	---	---	---	4.9	1.4	3.3	2.8	1.7	2.4	.1	.0	.1
8	---	---	---	4.8	1.6	3.0	2.1	.7	1.5	.1	.0	.1
9	---	---	---	1.6	.5	1.0	2.2	.2	1.8	.1	.0	.1
10	---	---	---	3.0	.2	1.5	.2	.0	.1	.1	.0	.1
11	---	---	---	7.2	3.0	5.1	.1	.1	.1	.1	.1	.1
12	---	---	---	4.5	2.7	3.4	.4	.1	.2	.5	.1	.3
13	---	---	---	3.2	2.3	2.7	.7	.4	.6	.7	.3	.6
14	12.9	10.6	11.8	3.3	1.5	2.7	1.0	.4	.7	1.1	.5	.8
15	10.6	7.2	8.6	1.5	.6	.9	3.2	.8	2.2	1.3	.8	1.1
16	7.2	5.8	6.5	---	---	---	3.6	2.3	3.0	1.7	.7	1.2
17	7.2	3.6	5.3	---	---	---	3.4	2.1	2.8	1.2	.3	.8
18	7.7	2.8	5.4	---	---	---	3.5	2.6	3.1	2.0	.5	1.3
19	8.6	4.4	6.5	---	---	---	3.3	1.1	2.2	2.1	.4	1.6
20	10.2	4.2	7.6	---	---	---	1.3	.5	1.0	3.1	1.7	2.3
21	8.4	6.5	7.5	---	---	---	.9	.5	.7	3.2	2.1	2.6
22	7.6	5.7	6.7	---	---	---	.8	.3	.6	3.6	1.3	2.5
23	7.6	4.1	5.8	---	---	---	1.1	.5	.8	3.9	2.3	3.2
24	9.5	4.1	6.8	---	---	---	.6	.3	.5	3.6	1.6	2.8
25	7.2	3.5	5.6	---	---	---	.7	.2	.5	2.4	1.2	1.7
26	5.8	2.0	4.0	---	---	---	.4	.1	.2	3.5	.5	2.0
27	8.7	5.2	7.1	---	---	---	.5	.1	.3	3.9	1.7	3.2
28	8.3	7.2	7.9	---	---	---	.4	.1	.3	2.5	1.2	1.7
29	7.5	6.0	7.1	4.5	3.1	4.0	.7	.1	.4	3.3	1.6	2.5
30	6.8	5.5	6.2	4.1	3.5	3.7	.4	.1	.2	4.1	2.7	3.3
31	8.2	6.7	7.4	---	---	---	1.2	.3	.8	2.7	.2	1.5
MONTH	---	---	---	---	---	---	5.9	.0	1.7	4.1	.0	1.4
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	1.0	.1	.5	3.7	1.3	2.4	6.0	3.9	5.2	8.4	5.9	7.3
2	.7	.1	.4	3.6	1.3	2.5	6.4	2.6	4.3	10.7	6.4	8.6
3	.1	.1	.1	1.8	.0	.6	8.6	3.3	5.7	12.7	8.2	10.3
4	.2	.1	.2	1.9	.0	.7	9.9	5.5	7.5	12.7	9.4	10.7
5	.1	.1	.1	3.9	1.3	2.9	7.9	3.8	5.3	12.5	9.1	10.5
6	.3	.1	.2	5.0	3.6	4.5	3.8	3.1	3.6	10.6	8.8	9.9
7	.5	.1	.3	4.8	1.9	3.6	4.2	2.3	3.1	8.8	7.9	8.4
8	.5	.2	.4	1.9	.4	1.2	4.4	1.3	2.9	10.9	8.4	9.7
9	1.9	.4	1.4	1.6	.0	.7	4.1	2.2	2.9	13.1	9.9	11.1
10	4.5	1.8	3.1	2.8	.0	1.1	3.2	1.1	2.1	14.8	9.9	12.0
11	4.3	1.5	3.0	3.6	.0	1.6	7.2	1.9	4.3	12.5	9.4	11.3
12	1.8	.4	1.3	4.5	.2	2.2	10.9	4.9	7.6	10.3	7.6	8.9
13	1.4	.1	.7	5.1	1.1	3.0	11.0	6.5	8.8	9.0	6.5	7.7
14	2.4	.9	1.8	6.0	2.6	4.2	9.2	6.0	7.7	10.8	5.4	7.9
15	2.1	.5	1.7	5.1	4.2	4.8	7.5	5.1	6.5	8.1	7.7	7.9
16	.8	.0	.4	6.6	3.2	4.7	7.0	3.8	5.6	10.1	7.9	9.0
17	.1	.0	.0	4.5	3.8	4.2	7.6	3.5	5.2	11.8	9.5	10.5
18	.5	.0	.1	7.3	4.4	5.5	10.7	3.8	7.0	15.4	9.9	12.3
19	1.3	.0	.5	5.0	3.1	4.1	11.3	7.0	8.8	16.4	11.6	13.6
20	2.0	1.1	1.6	3.3	2.1	2.9	11.3	7.6	9.4	16.9	11.8	14.0
21	3.0	1.7	2.2	3.0	1.7	2.2	12.2	8.8	10.1	15.6	12.5	13.8
22	3.7	2.1	2.9	2.3	1.2	1.7	12.8	7.7	10.3	14.9	11.5	13.0
23	5.3	2.9	3.8	4.1	.8	2.2	11.8	7.3	10.0	15.1	10.0	12.4
24	4.7	3.2	3.8	5.6	1.0	3.0	9.7	5.8	7.6	13.2	11.9	12.5
25	5.7	3.1	4.1	6.0	2.3	4.0	11.6	6.7	9.1	12.1	10.6	11.4
26	5.3	3.7	4.6	5.3	2.5	3.6	10.1	8.1	9.4	10.6	9.9	10.3
27	6.2	4.5	5.2	5.9	1.6	3.5	9.1	6.2	7.6	10.0	9.8	9.9
28	6.5	3.2	5.6	3.5	2.8	3.1	9.7	5.3	7.8	11.7	9.8	10.5
29	3.2	1.7	2.4	4.0	2.7	3.3	13.2	8.4	10.7	10.9	9.4	10.4
30	---	---	---	7.3	3.4	4.9	12.2	7.1	10.1	11.9	8.7	10.0
31	---	---	---	6.4	3.5	5.1	---	---	---	12.5	7.7	10.0
MONTH	6.5	.0	1.8	7.3	.0	3.0	13.2	1.1	6.9	16.9	5.4	10.5

01594950 MCMILLAN FORK NEAR FORT PENDLETON, MD--Continued

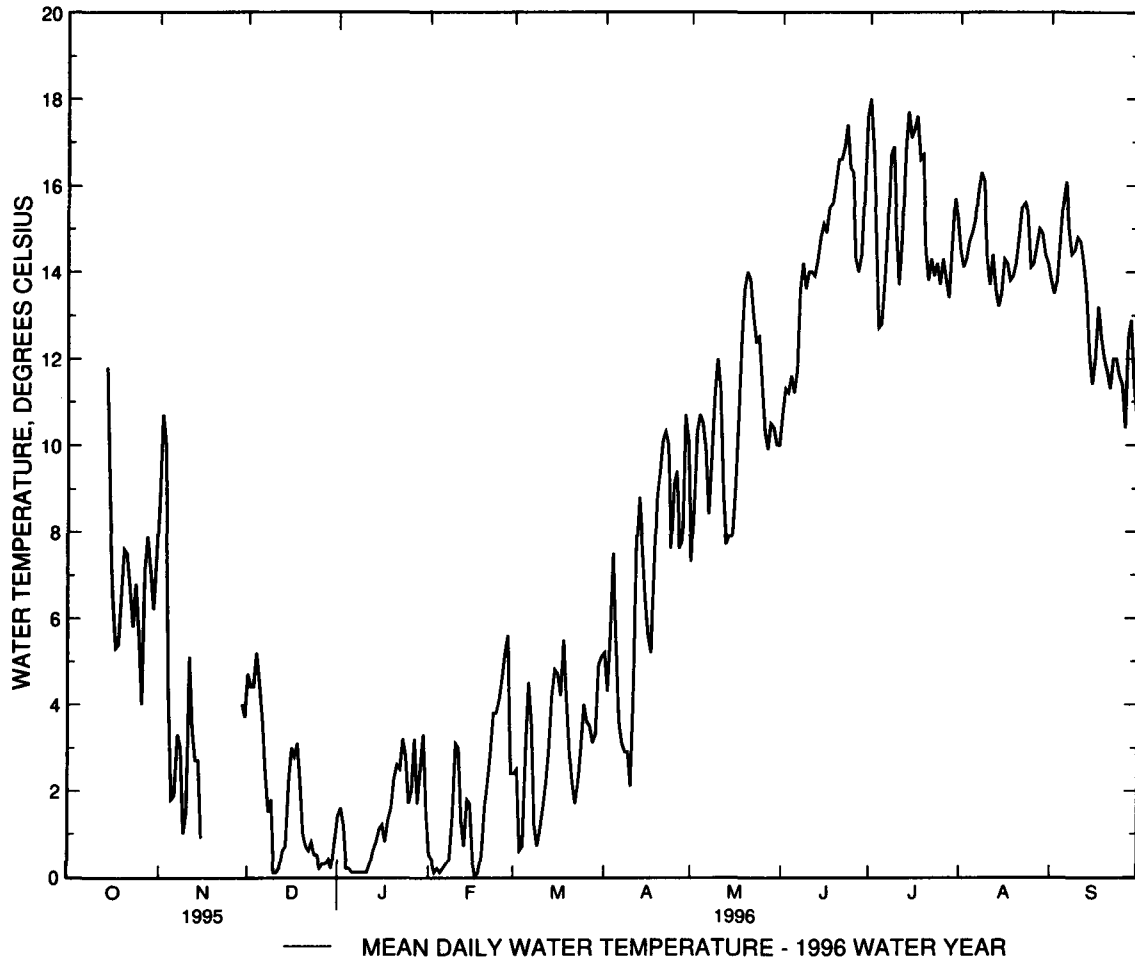
WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	13.0	8.5	10.7	19.6	16.7	18.0	15.5	13.8	14.5	14.5	13.0	13.8
2	13.5	9.2	11.3	18.4	15.8	16.9	15.0	13.2	14.1	14.2	12.4	13.5
3	11.8	10.1	11.2	16.3	13.5	15.0	15.2	13.6	14.3	14.4	13.1	13.8
4	12.8	10.7	11.6	14.0	11.7	12.7	16.3	13.4	14.7	15.1	14.1	14.7
5	12.9	9.5	11.2	15.4	10.4	12.8	16.1	13.8	14.9	16.5	14.7	15.6
6	14.1	9.1	11.7	16.8	11.2	13.7	16.3	14.0	15.2	16.8	15.5	16.1
7	15.5	11.6	13.6	17.7	12.3	14.9	17.0	14.8	15.9	15.5	13.9	15.0
8	15.2	13.0	14.2	18.2	15.2	16.7	17.7	14.9	16.3	15.4	13.6	14.4
9	14.0	13.2	13.6	17.8	15.6	16.9	16.8	14.8	16.1	15.3	13.7	14.5
10	15.3	13.0	14.0	16.3	13.2	15.0	15.6	13.1	14.3	16.2	13.9	14.8
11	15.0	12.7	14.0	16.0	11.3	13.7	15.2	12.1	13.7	15.8	14.0	14.7
12	14.8	12.9	13.9	17.1	12.5	14.8	16.9	13.8	14.4	15.7	12.7	14.2
13	15.7	12.9	14.3	19.3	15.0	16.8	14.2	12.8	13.6	14.5	12.5	13.5
14	16.3	13.5	14.8	19.9	15.9	17.7	14.3	12.2	13.2	12.7	11.1	12.1
15	16.6	13.6	15.1	17.9	16.5	17.1	14.5	12.5	13.5	12.2	10.4	11.4
16	16.3	13.2	14.9	19.6	15.8	17.3	16.2	13.2	14.3	13.6	11.3	12.0
17	17.3	13.7	15.5	20.2	15.7	17.6	15.4	13.4	14.2	13.7	12.7	13.2
18	16.8	14.3	15.6	17.3	16.2	16.6	15.2	12.7	13.8	13.1	11.8	12.5
19	16.7	15.3	16.1	17.3	15.1	16.7	14.8	12.8	13.9	13.1	11.2	12.0
20	17.9	15.4	16.6	15.1	13.9	14.5	15.3	13.1	14.2	13.3	10.8	11.7
21	17.4	15.9	16.6	14.8	12.7	13.8	16.0	13.8	14.8	13.1	9.6	11.3
22	18.6	15.2	16.9	15.3	13.7	14.3	16.4	14.7	15.5	12.5	11.6	12.0
23	18.5	16.2	17.4	14.7	13.4	13.9	16.7	14.4	15.6	12.6	11.4	12.0
24	17.7	15.0	16.4	15.6	13.3	14.2	15.8	14.7	15.4	12.1	11.0	11.6
25	17.3	14.6	16.3	14.2	12.9	13.7	15.0	13.0	14.1	12.4	10.2	11.4
26	15.7	12.8	14.3	15.4	13.5	14.3	15.4	12.9	14.2	11.8	8.8	10.4
27	15.7	12.2	14.0	15.1	12.6	13.8	15.4	13.8	14.6	13.5	11.2	12.5
28	16.3	12.3	14.4	14.4	12.1	13.4	15.8	14.2	15.0	13.5	11.6	12.9
29	17.6	14.2	15.9	15.7	13.6	14.6	15.7	14.1	14.9	12.1	10.4	11.4
30	19.6	16.0	17.6	16.8	14.8	15.7	15.1	13.5	14.4	12.0	9.1	10.6
31	---	---	---	15.7	14.5	15.3	15.1	13.4	14.2	---	---	---
MONTH	19.6	8.5	14.5	20.2	10.4	15.2	17.7	12.1	14.6	16.8	8.8	13.0

POTOMAC RIVER BASIN

01594950 MCMILLAN FORK NEAR FORT PENDLETON, MD--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996



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POTOMAC RIVER BASIN

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 mi².

PERIOD OF RECORD.--July 1956 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,276.01 ft above sea level.

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

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 15, 1954, reached a stage of 13.0 ft, from floodmarks; discharge, 11,300 ft³/s, from rating curve extended as explained above.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,200 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 19	1045	*9,260	*11.75	July 31	1100	2,720	6.74
Feb. 8	2400	2,330	6.29	Aug. 8	2200	3,030	7.07
May 4	2400	2,810	6.84	Aug. 12	2115	4,570	8.42
July 19	1830	3,640	7.63	Sept. 6	1730	7,620	10.65

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	54	286	e125	216	395	326	154	316	64	622	70
2	24	52	299	e170	190	315	347	223	254	66	351	67
3	15	52	231	e420	182	261	276	233	208	113	269	59
4	19	52	347	e250	e175	220	223	456	211	87	201	70
5	32	46	261	e200	e170	262	242	1460	178	72	157	64
6	39	44	233	e170	e180	891	211	1200	146	70	121	2440
7	29	48	178	e150	e300	1010	204	609	126	68	105	1240
8	25	103	150	e135	556	646	188	517	158	164	621	479
9	24	82	136	e125	922	421	197	848	196	100	980	300
10	25	73	124	e115	465	328	208	511	162	77	354	228
11	26	124	e115	e115	654	272	177	636	139	67	244	183
12	25	231	e110	e115	423	246	222	769	139	60	1420	152
13	32	129	e110	e120	315	235	187	476	118	41	1800	181
14	45	116	e110	e140	268	218	176	358	111	41	604	152
15	73	124	284	e160	226	583	157	356	115	57	382	123
16	43	126	495	e160	194	443	345	683	99	52	509	262
17	27	112	340	e300	170	376	326	830	93	49	377	1150
18	23	114	300	e600	157	338	334	532	90	191	265	709
19	25	186	399	4380	170	575	362	374	108	2000	208	404
20	26	170	322	1100	157	781	300	294	102	985	175	285
21	68	218	e270	561	254	445	238	459	90	368	161	210
22	47	180	e220	384	404	353	207	562	77	1010	154	195
23	31	166	e200	312	468	295	173	329	75	560	126	228
24	25	191	e170	937	536	276	153	265	108	330	149	161
25	25	154	e150	673	384	382	136	233	194	230	130	157
26	25	146	e140	441	370	559	135	230	104	185	93	129
27	25	244	e125	669	849	369	149	488	84	149	87	121
28	47	775	e115	493	1020	355	123	568	76	124	98	116
29	139	458	e110	363	539	360	109	1050	70	129	101	142
30	107	303	e110	300	---	337	148	619	67	262	81	109
31	66	---	e110	252	---	288	---	405	---	1510	74	---
TOTAL	1206	4873	6550	14435	10914	12835	6579	16727	4014	9281	11019	10186
MEAN	38.9	162	211	466	376	414	219	540	134	299	355	340
MAX	139	775	495	4380	1020	1010	362	1460	316	2000	1800	2440
MIN	15	44	110	115	157	218	109	154	67	41	74	59
CFSM	.53	2.23	2.89	6.38	5.16	5.67	3.00	7.39	1.83	4.10	4.87	4.65
IN.	.61	2.48	3.34	7.36	5.56	6.54	3.35	8.52	2.05	4.73	5.62	5.19

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1956 - 1996, BY WATER YEAR (WY)

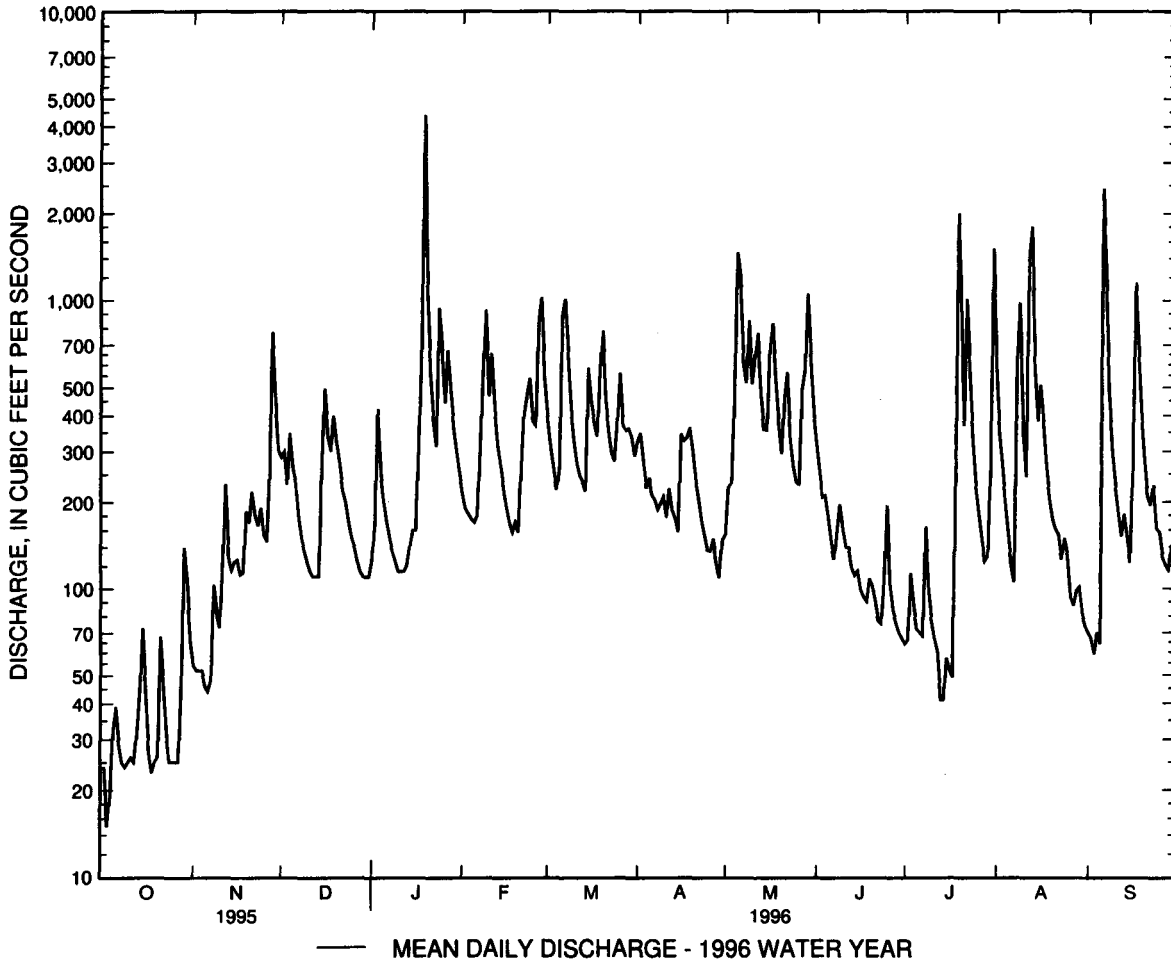
	MEAN	71.4	135	229	238	264	343	279	202	118	93.7	80.1	56.2
MAX	316	588	527	569	604	885	573	540	442	340	355	340	
(WY)	1977	1986	1973	1974	1994	1963	1958	1996	1981	1978	1996	1996	
MIN	12.8	26.2	56.7	41.8	65.9	112	78.2	62.5	15.5	14.3	6.72	5.99	
(WY)	1964	1966	1966	1977	1993	1990	1995	1965	1965	1965	1965	1959	

POTOMAC RIVER BASIN

01595000 NORTH BRANCH POTOMAC RIVER AT STEYER, MD--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1956 - 1996	
ANNUAL TOTAL	49146		108619			
ANNUAL MEAN	135		297		175	
HIGHEST ANNUAL MEAN					297	1996
LOWEST ANNUAL MEAN					115	1959
HIGHEST DAILY MEAN	1710	Aug 6	4380	Jan 19	4530	Feb 9 1994
LOWEST DAILY MEAN	15	Oct 3	15	Oct 3	3.1	Sep 9 1965
ANNUAL SEVEN-DAY MINIMUM	20	Jul 19	26	Oct 1	3.6	Sep 23 1959
INSTANTANEOUS PEAK FLOW			9260	Jan 19	(a)11500	Nov 5 1985
INSTANTANEOUS PEAK STAGE			11.75	Jan 19	13.14	Nov 5 1985
INSTANTANEOUS LOW FLOW			13	Oct 3	2.9	Sep 10 1965
ANNUAL RUNOFF (CFSM)	1.84		4.07		2.40	
ANNUAL RUNOFF (INCHES)	25.04		55.35		32.55	
10 PERCENT EXCEEDS	287		612		387	
50 PERCENT EXCEEDS	95		190		104	
90 PERCENT EXCEEDS	25		53		20	

a From rating curve extended above 3,000 ft³/s on basis of slope-area measurement at gage height 10.30 ft.



POTOMAC RIVER BASIN

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 Mount Storm, and at mile 6.4.

DRAINAGE AREA.--48.8 mi².

PERIOD OF RECORD.--October 1961 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,554.54 ft above sea level.

REMARKS.--Records fair except those for periods of estimated daily discharges (ice effect, recorder removed, and doubtful gage heights), which are poor. 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. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

PEAK DISCHARGE FOR CURRENT YEAR.--Peak discharge, 7,750 ft³/s, Sept. 6, gage height, 12.55 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.4	24	286	61	e95	e250	e180	56	360	e25	e400	45
2	4.0	26	258	90	e82	e150	e210	72	329	e21	e280	37
3	5.1	24	178	153	e74	e100	e150	78	207	e26	e200	34
4	6.2	18	234	119	e80	e70	e120	147	92	e100	e140	46
5	31	16	111	100	e90	e150	e110	494	80	e50	116	33
6	32	13	e80	82	e105	e300	e105	970	60	e35	104	2900
7	12	17	e62	e72	e130	e600	e98	205	52	e23	97	2580
8	8.0	22	e50	e63	e200	e400	e96	159	44	48	115	527
9	7.6	18	e40	e56	e450	e230	e94	208	49	31	144	82
10	14	20	e30	e50	e350	e150	e93	163	51	e27	82	61
11	14	32	e25	e46	e260	e120	e110	212	52	e23	63	42
12	11	54	e27	e43	e200	e110	e130	281	49	e20	445	60
13	10	39	30	e40	e160	e100	e110	202	51	e17	1540	95
14	13	46	35	e45	e120	e96	e92	129	41	e20	171	102
15	15	59	51	e52	e100	e300	e86	230	32	e22	164	107
16	10	60	109	e70	e86	e250	e200	445	e25	e20	246	250
17	10	66	88	e150	e80	e200	e190	195	e23	e19	235	576
18	13	76	96	e600	e74	e240	e210	413	30	e60	145	419
19	12	117	128	e2400	e70	e400	e230	356	44	e600	104	153
20	26	127	121	e1300	e90	e520	e210	128	47	e450	91	116
21	58	140	116	e350	e150	e300	e190	184	35	330	83	99
22	27	119	104	e250	e200	e200	e180	196	29	e450	77	92
23	18	103	89	e180	e300	e150	e160	146	e25	e345	67	94
24	20	101	81	e270	e430	e140	e150	127	e46	e142	63	91
25	16	89	e70	e350	e300	e300	137	104	94	48	80	86
26	11	83	e60	e230	e240	e370	115	102	67	43	113	78
27	13	117	e52	e320	e500	e240	102	189	58	32	138	71
28	18	196	e47	e250	e600	e200	62	255	48	27	150	60
29	32	167	e43	e200	e500	e230	32	509	36	e80	238	62
30	28	165	e41	e150	---	e190	59	451	29	e219	192	434
31	22	---	e48	e120	---	e170	---	402	---	e800	130	---
TOTAL	521.3	2154	2790	8262	6116	7226	4011	7808	2185	4153	6213	9432
MEAN	16.8	71.8	90.0	267	211	233	134	252	72.8	134	200	314
MAX	58	196	286	2400	600	600	230	970	360	800	1540	2900
MIN	4.0	13	25	40	70	70	32	56	23	17	63	33

e Estimate

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1962 - 1996, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	47.9	86.6	110	120	142	218	158	124	69.8	48.2	35.9	37.3
MAX	234	669	301	267	361	537	371	271	237	205	200	314
(WY)	1977	1986	1973	1996	1994	1963	1987	1988	1981	1978	1996	1996
MIN	3.36	7.00	10.8	20.9	21.3	46.9	51.8	28.3	9.91	4.36	3.92	3.89
(WY)	1992	1992	1966	1981	1978	1990	1995	1964	1964	1968	1988	1985

01595200 STONY RIVER NEAR MOUNT STORM, WV--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1962 - 1996	
ANNUAL TOTAL	32008.8		60871.3			
ANNUAL MEAN	(a) 87.7		(a) 166		(a) 99.7	
HIGHEST ANNUAL MEAN					166	
LOWEST ANNUAL MEAN					42.0	
HIGHEST DAILY MEAN	1020	Jan 16	2900	Sep 6	9880	Nov 5 1985
LOWEST DAILY MEAN	4.0	Oct 2	4.0	Oct 2	1.3	Aug 28 1988
ANNUAL SEVEN-DAY MINIMUM	5.6	Sep 28	11	Oct 7	1.7	Aug 28 1988
INSTANTANEOUS PEAK FLOW			7750	Sep 6	(b) 14000	Nov 5 1985
INSTANTANEOUS PEAK STAGE			12.55	Sep 6	(c) 16.41	Nov 5 1985
INSTANTANEOUS LOW FLOW			4.0	(d)	1.3	(f)
10 PERCENT EXCEEDS	192		350		233	
50 PERCENT EXCEEDS	55		96		49	
90 PERCENT EXCEEDS	7.8		22		8.7	

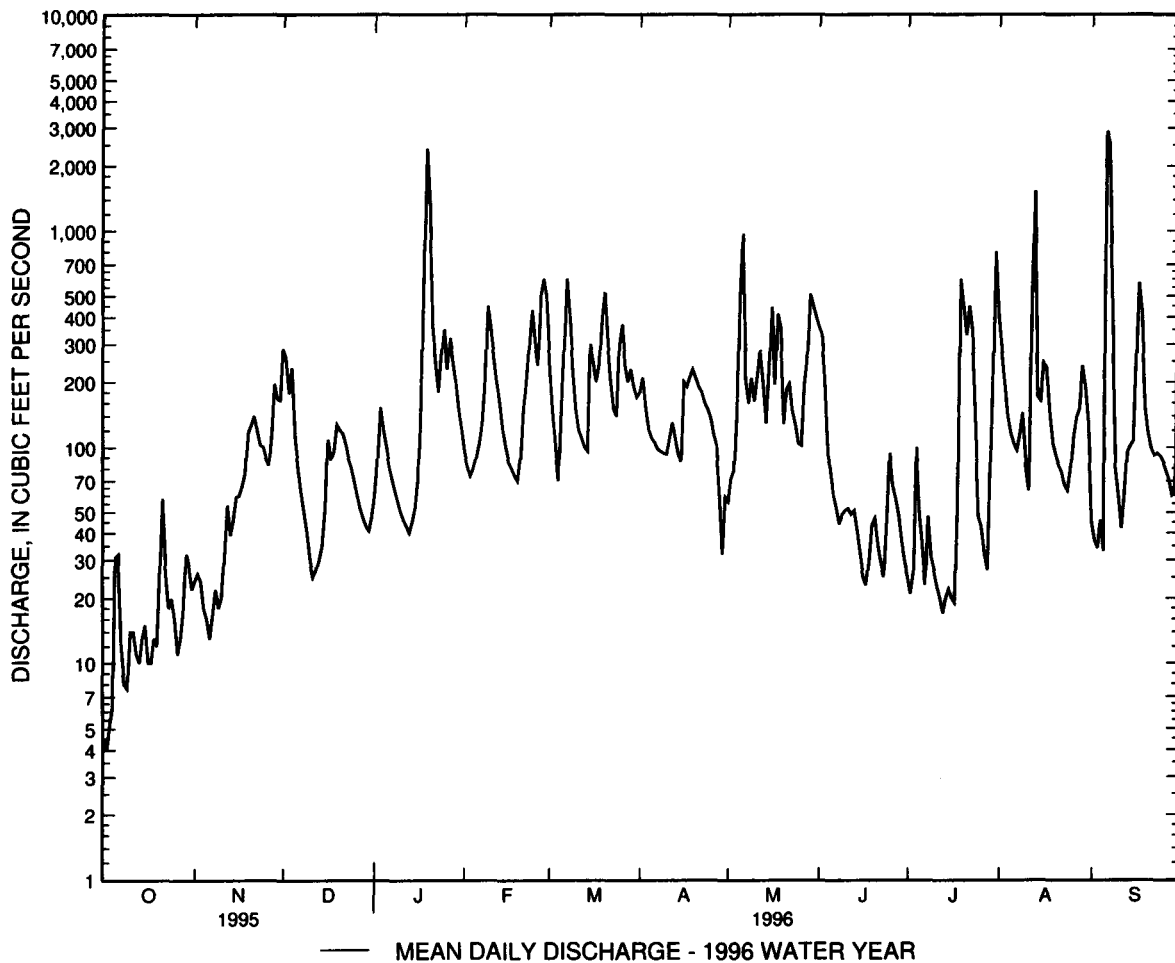
a Unadjusted.

b From rating curve extended above 7,500 ft³/s on basis of slope-area measurement of peak flow.

c From floodmarks.

d Oct. 2, 3.

f Aug. 22, 23, 28, 29, 1988.



POTOMAC RIVER BASIN

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 mi².

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1,603.88 ft above sea level.

REMARKS.--Records good except those for estimated daily discharges (ice effect and periods of no contact between well and stream and periods of lagging intake), which are fair. U.S. Army Corps of Engineers satellite telemeter at station. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 800 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 19	1045	5,860	7.54	July 19	1315	1,010	3.61
Feb. 28	0630	897	3.46	July 31	1200	1,080	3.70
Mar. 20	0045	1,340	4.03	Sept. 6	2000	*6,620	*7.97
June 11	1900	904	3.47				

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e1.8	12	110	e36	102	276	160	78	e170	33	490	10
2	e1.6	13	130	e47	e92	189	256	148	e130	27	272	9.0
3	e2.2	17	114	80	e86	140	237	172	e100	27	173	8.1
4	e2.5	15	111	60	e83	108	188	150	e72	30	114	14
5	e7.0	15	94	e50	e80	95	150	231	e78	26	75	15
6	19	12	81	e45	e80	178	122	545	e65	22	52	1770
7	8.2	11	66	e42	e80	323	105	366	54	19	41	1510
8	e5.4	13	51	e37	e105	397	92	344	59	17	139	455
9	e4.0	13	e45	e50	e190	253	81	619	109	19	340	209
10	e3.2	12	e33	e50	e160	186	75	457	93	18	168	124
11	e2.9	14	e34	e46	445	143	69	343	311	14	102	86
12	e2.7	54	e35	e44	322	115	64	310	511	12	124	64
13	e2.5	43	e36	e43	208	97	59	264	273	10	204	156
14	e6.0	38	e33	e41	162	86	56	218	171	9.2	155	146
15	13	39	e38	e45	123	112	52	177	134	8.9	106	115
16	7.7	36	e100	e46	95	134	e145	e300	100	10	85	156
17	e5.4	35	129	e47	84	127	e155	e250	81	9.9	62	654
18	e4.6	36	109	e48	86	125	e135	e200	62	16	47	455
19	e4.1	43	97	e2000	97	343	e105	e170	50	541	37	260
20	e6.0	50	77	844	84	952	e95	e130	46	e250	31	159
21	96	64	66	400	138	444	e80	e115	40	e130	33	108
22	34	66	61	237	285	268	e74	e100	32	e75	34	87
23	21	60	e58	170	422	188	e70	89	35	e70	25	75
24	18	57	e54	472	579	149	76	71	37	e58	22	57
25	12	51	e50	532	467	142	66	65	127	e48	19	50
26	9.0	47	e46	313	405	176	59	55	97	e40	17	40
27	8.1	60	e44	350	653	168	56	62	70	e35	15	35
28	11	286	e41	359	806	151	48	165	54	e30	17	43
29	14	225	e38	246	470	137	43	e500	43	e24	14	63
30	19	130	e35	178	---	139	56	e350	36	67	13	50
31	15	---	e36	134	---	135	---	e250	---	719	12	---
TOTAL	366.9	1567	2052	7092	6989	6476	3029	7294	3240	2415.0	3038	6983.1
MEAN	11.8	52.2	66.2	229	241	209	101	235	108	77.9	98.0	233
MAX	96	286	130	2000	806	952	256	619	511	719	490	1770
MIN	1.6	11	33	36	80	86	43	55	32	8.9	12	8.1
CFSM	.24	1.06	1.35	4.66	4.91	4.25	2.06	4.79	2.20	1.59	2.00	4.74
IN.	.28	1.19	1.55	5.37	5.30	4.91	2.29	5.53	2.45	1.83	2.30	5.29

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1948 - 1996, BY WATER YEAR (WY)

MEAN	26.8	50.7	90.4	97.8	127	182	143	94.8	46.4	21.2	18.0	19.4
MAX	157	336	256	251	307	362	343	235	154	111	116	233
(WY)	1955	1986	1973	1952	1956	1994	1993	1996	1981	1989	1956	1996
MIN	1.52	2.32	5.96	13.7	19.4	30.8	33.0	21.8	5.48	2.68	2.05	1.78
(WY)	1964	1954	1954	1977	1954	1990	1968	1991	1965	1965	1966	1991

01596500 SAVAGE RIVER NEAR BARTON, MD--Continued

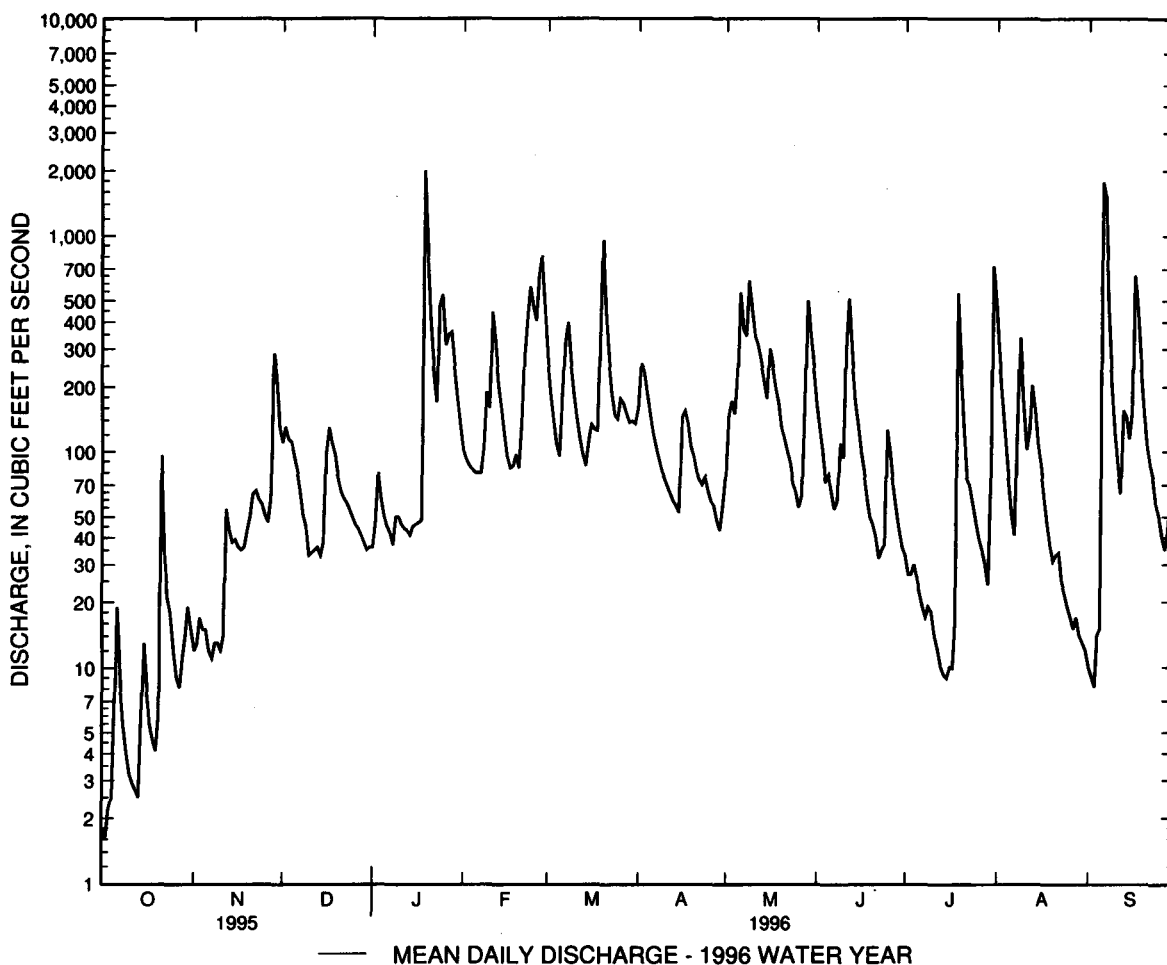
SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1948 - 1996	
ANNUAL TOTAL	22540.3		50542.0			
ANNUAL MEAN	61.8		138		76.2	
HIGHEST ANNUAL MEAN					138	
LOWEST ANNUAL MEAN					34.9	
HIGHEST DAILY MEAN	669	Jun 28	(e) 2000	Jan 19	2180	Nov 5 1985
LOWEST DAILY MEAN	(e) 1.6	Oct 2	(e) 1.6	Oct 2	.50	(a)
ANNUAL SEVEN-DAY MINIMUM	1.9	Sep 5	3.8	Oct 8	.63	Aug 29 1966
INSTANTANEOUS PEAK FLOW			6620	Sep 6	(b) 7510	Oct 15 1954
INSTANTANEOUS PEAK STAGE			7.97	Sep 6	8.45	Oct 15 1954
INSTANTANEOUS LOW FLOW			UNKNOWN		.40	(c)
ANNUAL RUNOFF (CFSM)	1.26		2.81		1.55	
ANNUAL RUNOFF (INCHES)	17.08		38.29		21.08	
10 PERCENT EXCEEDS	130		341		188	
50 PERCENT EXCEEDS	37		75		34	
90 PERCENT EXCEEDS	2.9		13		4.0	

e Estimated.

a Sept. 2, 3, 12, 1966

b From rating curve extended above 1,600 ft³/s on basis of slope-area measurement of peak flow.

c Sept. 3, 4, 1966.



POTOMAC RIVER BASIN

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 mi².

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 sea level.

REMARKS.--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, 9,190 ft³/s, Sept. 7, gage height, 10.09 ft.

REVISIONS.--The maximum discharge for water year 1986 has been revised to 6,640 ft³/s, Nov. 4, 1985, gage height, 7.81 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	58	56	103	130	534	639	347	115	434	83	1080	90
2	58	55	103	131	468	423	773	134	251	83	540	90
3	58	56	104	131	463	421	853	260	281	84	383	90
4	58	55	131	130	458	416	848	398	226	83	369	90
5	58	55	177	130	268	413	544	436	181	82	231	150
6	58	55	176	130	161	412	277	961	179	82	170	1270
7	58	55	151	130	161	421	182	774	130	83	145	e4320
8	58	55	137	130	162	425	182	635	120	83	132	951
9	58	55	137	130	164	425	180	1240	560	82	334	490
10	58	55	135	130	165	425	179	1060	420	81	436	301
11	58	55	114	130	175	421	179	771	1070	81	433	291
12	58	55	103	129	216	420	149	641	1860	69	250	235
13	58	55	103	128	243	416	134	511	816	61	319	211
14	58	56	103	128	369	308	134	370	528	61	232	211
15	58	74	103	109	392	259	134	282	606	61	126	211
16	58	84	105	99	255	211	134	595	545	61	221	214
17	57	75	105	100	192	178	103	870	216	61	218	1090
18	56	61	154	146	190	177	87	549	137	62	218	1120
19	56	62	184	660	188	255	88	460	137	286	218	594
20	57	63	182	1970	188	373	89	390	136	286	154	333
21	58	71	181	1070	189	918	89	288	134	249	121	235
22	58	77	181	1140	260	627	122	349	134	253	121	215
23	58	77	180	1230	558	436	186	278	134	193	120	214
24	58	77	178	1230	952	344	210	221	114	132	119	213
25	58	77	178	1230	954	312	211	208	105	132	119	211
26	56	78	178	1220	903	407	181	208	90	132	100	211
27	56	79	149	1210	988	308	164	233	83	130	92	168
28	57	96	133	1200	1420	265	164	853	83	129	92	112
29	58	190	132	845	1210	286	144	1360	83	129	92	111
30	58	152	130	651	---	280	121	1300	83	134	91	111
31	57	---	130	643	---	285	---	710	---	761	90	---
TOTAL	1786	2166	4360	16570	12846	11906	7188	17460	9876	4289	7366	14153
MEAN	57.6	72.2	141	535	443	384	240	563	329	138	238	472
MAX	58	190	184	1970	1420	918	853	1360	1860	761	1080	4320
(†)	7780	9970	9400	12250	15400	20120	19330	20020	17650	20200	17140	18690

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 1996, BY WATER YEAR (WY)

MEAN	108	120	211	222	275	339	219	205	112	70.0	73.5	94.7
MAX	446	641	655	713	596	842	813	563	329	329	262	472
(WY)	1955	1986	1973	1952	1956	1994	1993	1996	1996	1990	1956	1996
MIN	8.14	8.88	12.7	23.7	38.7	105	11.9	18.0	15.8	23.4	6.37	11.7
(WY)	1952	1952	1954	1954	1954	1976	1954	1976	1977	1951	1951	1951

† Monthend contents, in acre-feet, in Savage River Reservoir (contents on Sept. 30, 1995, 9,720 acre-feet).
Records furnished by U.S. Army Corps of Engineers.

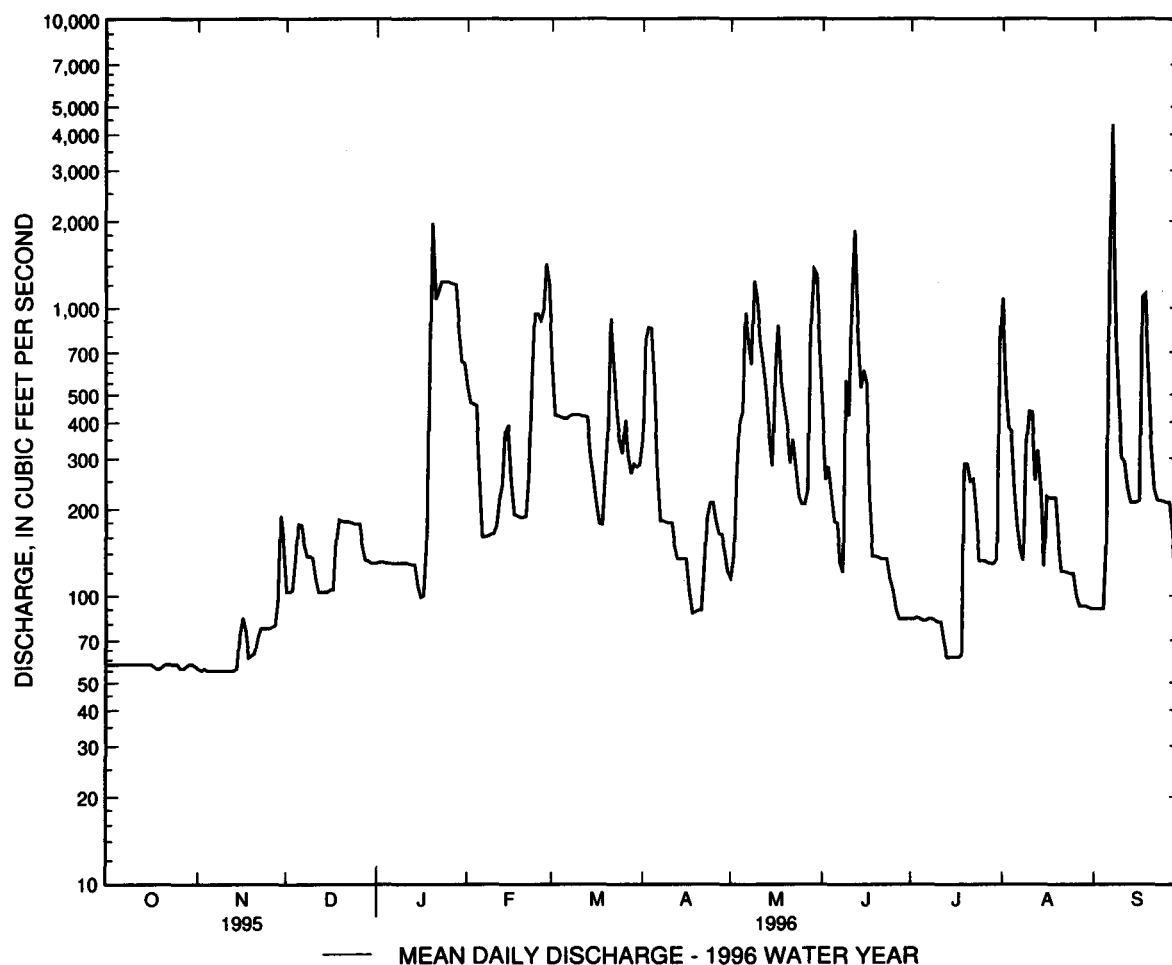
01597500 SAVAGE RIVER, BELOW SAVAGE RIVER DAM, NEAR BLOOMINGTON, MD--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1951 - 1996	
ANNUAL TOTAL	46922		109966			
ANNUAL MEAN	129		300		170	
ANNUAL MEAN*	129		312		171	
HIGHEST ANNUAL MEAN					300	1996
LOWEST ANNUAL MEAN					69.7	1954
HIGHEST DAILY MEAN	1360	Jan 17	4320	Sep 7	4320	Sep 7 1996
LOWEST DAILY MEAN	46	Aug 15	55	(a)	.60	(b)
ANNUAL SEVEN-DAY MINIMUM	55	Nov 4	55	Nov 4	.64	Aug 4 1951
INSTANTANEOUS PEAK FLOW			9190	Sep 7	9190	Sep 7 1996
INSTANTANEOUS PEAK STAGE			10.09	Sep 7	10.09	Sep 7 1996
INSTANTANEOUS LOW FLOW			6.3	Nov 2	.35	Oct 27 1966
ANNUAL RUNOFF (CFSM)	1.21		2.83		1.61	
ANNUAL RUNOFF (INCHES)	16.47		38.59		21.83	
10 PERCENT EXCEEDS	192		773		422	
50 PERCENT EXCEEDS	79		164		84	
90 PERCENT EXCEEDS	58		58		22	

* Adjusted for change in reservoir contents since December 1950.

a Nov. 2, 4-13.

b July 27-31, Aug. 5, 6, 9, 10, 1951.



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.

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 944.22 ft above sea level. June 27, 1899, to July 15, 1906, nonrecording gage at bridge 1.1 mi downstream at datum about 35 ft lower.

REMARKS.--No estimated daily discharges. Records good. Flow regulated prior to July 1981 by Stony River Reservoir 45 mi upstream from station, since December 1950 by Savage River Reservoir, 5 mi upstream from station (see station 01597500), and since July 1981 by Jennings Randolph Lake, 9 mi upstream from station. Some regulation at low flow by West Virginia Pulp and Paper Company at site used 1899-1906. U.S. Army Corps of Engineers satellite telemeter at station. Upper Potomac River Commission gage height telemeter at station.

PEAK DISCHARGE FOR CURRENT YEAR.--Peak discharge, 11,800 ft³/s, September 7, gage height, 10.26 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	308	236	625	670	1520	3110	1610	404	1940	309	5330	420
2	307	235	527	706	1190	2220	2360	427	1520	314	2280	416
3	307	237	518	801	1140	2170	2100	764	1390	322	1640	414
4	308	239	549	744	1080	2380	1790	1320	1170	313	1470	427
5	411	239	636	717	902	2640	1380	2130	834	311	1080	839
6	532	238	635	707	735	2660	1230	5710	625	311	873	3840
7	367	236	595	714	689	2810	1070	4320	526	311	729	9030
8	362	236	556	712	625	2640	866	3130	451	314	530	9130
9	327	236	558	705	836	2220	856	3890	1050	311	2370	7510
10	285	236	550	697	1070	2190	843	3900	1020	311	1710	3880
11	283	245	489	692	1750	2170	826	3080	1580	311	1320	2590
12	261	257	414	694	1990	1920	806	2850	2630	303	2210	2200
13	236	251	414	688	1990	1180	830	2450	1370	297	8770	1350
14	270	258	413	690	1830	1060	769	1420	1010	296	4260	806
15	292	350	421	675	1520	1100	684	1420	996	298	1430	594
16	265	477	504	646	1180	1220	788	3200	898	296	1160	832
17	232	474	478	655	944	1240	960	3660	530	285	1140	3100
18	231	462	610	1120	800	1630	940	2300	424	288	1120	2900
19	231	468	817	3180	778	2240	1060	1600	427	2800	1110	1730
20	262	475	800	3890	780	3470	1150	1540	438	4600	924	1050
21	398	566	789	4630	811	3880	1000	1470	425	1340	621	862
22	331	667	777	6780	924	2940	701	2570	391	2760	613	745
23	237	665	773	8020	1230	1750	767	1560	376	3060	606	824
24	236	672	772	7410	1970	1610	799	1240	363	1290	603	811
25	236	667	767	5940	2430	1550	796	1000	349	1100	597	679
26	234	667	767	5060	2200	1830	766	860	328	752	577	672
27	236	675	724	4320	3010	1800	698	1550	311	444	495	630
28	237	721	673	3890	4370	1740	648	3470	311	441	426	574
29	239	846	672	3010	4170	1560	586	5300	310	448	426	571
30	237	830	668	2360	---	1200	472	5460	308	787	423	518
31	236	---	667	1900	---	1190	---	3020	---	4820	422	---
TOTAL	8934	13061	19158	73423	44464	63320	30151	77015	24301	30143	47265	59944
MEAN	288	435	618	2368	1533	2043	1005	2484	810	972	1525	1998
MAX	532	846	817	8020	4370	3880	2360	5710	2630	4820	8770	9130
MIN	231	235	413	646	625	1060	472	404	308	285	422	414
CFSM	.71	1.08	1.53	5.86	3.80	5.06	2.49	6.15	2.01	2.41	3.77	4

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1899 - 1906, 1950 - 1996, BY WATER YEAR (WY)

MEAN	332	443	814	928	1088	1567	1214	915	531	342	322	284
MAX	1423	2806	2536	2368	2487	3414	3098	2484	1493	1294	1525	1998
(WY)	1955	1986	1973	1996	1994	1963	1993	1996	1981	1990	1996	1996
MIN	27.6	33.5	131	166	99.8	467	278	165	108	91.4	37.0	17.1
(WY)	1905	1905	1954	1977	1905	1988	1995	1982	1969	1953	1904	1904

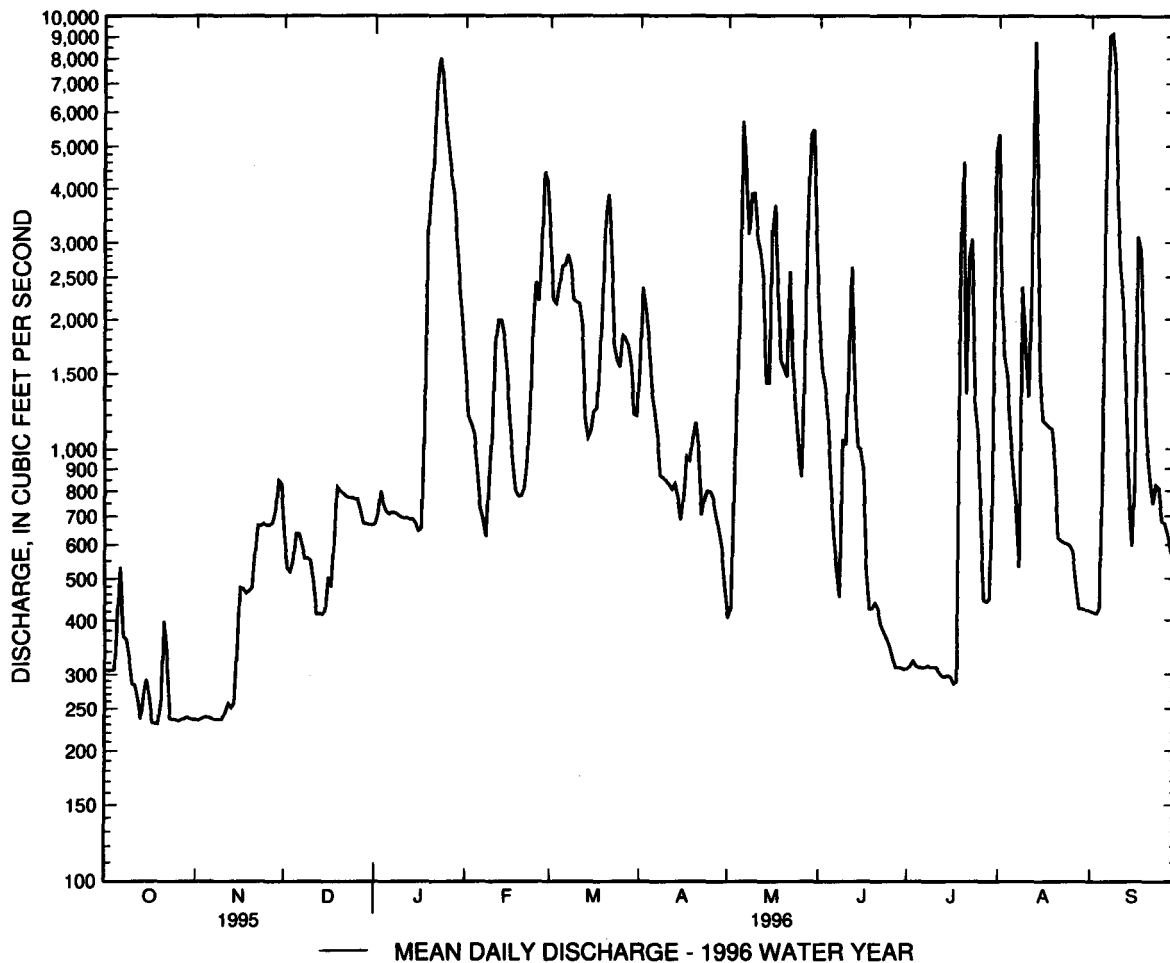
01598500 NORTH BRANCH POTOMAC RIVER AT LUKE, MD--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1899 - 1906 1950 - 1996	
ANNUAL TOTAL	222361		491179			
ANNUAL MEAN	609		1342		732	
ANNUAL MEAN*	610		1396		734	
HIGHEST ANNUAL MEAN					1342	
LOWEST ANNUAL MEAN					412	
HIGHEST DAILY MEAN	3880	May 15	9130	Sep 8	18400	Aug 18 1955
LOWEST DAILY MEAN	231	Oct 18	231	(a)	6.0	Sep 4 1904
ANNUAL SEVEN-DAY MINIMUM	236	Oct 23	236	Oct 23	11	Aug 29 1904
INSTANTANEOUS PEAK FLOW			11800	Sep 7	(b) 39400	Oct 15 1954
INSTANTANEOUS PEAK STAGE			10.26	Sep 7	17.15	Oct 15 1954
INSTANTANEOUS LOW FLOW			211	Nov 2	UNKNOWN	
ANNUAL RUNOFF (CFSM)	1.51		3.32		1.81	
ANNUAL RUNOFF (CFSM)*	1.51		3.46		1.82	
ANNUAL RUNOFF (INCHES)	20.47		45.23		24.63	
ANNUAL RUNOFF (INCHES)*	20.52		46.94		24.67	
10 PERCENT EXCEEDS	1130		3090		1660	
50 PERCENT EXCEEDS	442		779		408	
90 PERCENT EXCEEDS	268		295		109	

* Adjusted for change in reservoir contents since October 1949.

a Oct. 18, 19.

b From rating curve extended above 25,000 ft³/s on basis of slope-area measurement of peak flow.



POTOMAC RIVER BASIN

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 mi².

PERIOD OF RECORD.--May 1905 to July 1906 (published as "at Westernport"), October 1929 to current year.

REVISED RECORDS.--WSP 726: Drainage area. WSP 1502: 1940. WDR MD-DE-86-1: 1984(M).

GAGE.--Water-stage recorder. Datum of gage is 958.96 ft above sea level (Westvaco Corporation bench mark).

May 4, 1905, to July 15, 1906, nonrecording gage at bridge 0.8 mi downstream at different datum. Oct. 16, 1929, to Oct. 1, 1937, water-stage recorder at site 95 ft downstream at present datum.

REMARKS.--Records good except those for estimated daily discharges (ice effect), which are fair. Records include about 0.5 ft³/s of sewage from city of Frostburg, which obtains its water supply from Big Piney Run (Monongahela River basin) and Savage River. A negligible discharge is diverted upstream from station by Frostburg Water Co. for municipal supplies of Eckhart and Welsh Hill. An undetermined amount of water is diverted from the upper third of basin into the Wills Creek basin by the Hoffman drainage tunnel (see station 01601500). National Weather Service gage height telemeter at station. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 29, 1924, reached a stage of about 10 ft, from floodmarks, at site 95 ft downstream.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,200 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 19	1300	3,740	9.92	Sept. 6	1930	(a)*6,500	*12.77

a Discharge includes bypass flow.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.7	18	94	37	e150	269	210	65	214	38	251	26
2	9.4	18	106	47	e130	215	239	85	176	34	163	25
3	9.1	19	83	111	e110	184	198	83	152	40	137	24
4	11	18	79	91	e95	153	185	80	135	35	103	31
5	31	15	71	69	e90	148	169	133	122	30	86	29
6	28	14	67	55	e90	198	149	203	103	26	71	1970
7	15	15	58	44	88	323	135	178	91	24	61	1610
8	12	16	50	37	104	264	122	222	83	31	91	545
9	11	15	47	48	193	204	118	395	91	26	190	324
10	11	14	33	e48	162	177	110	293	100	22	113	228
11	10	17	34	e46	335	162	98	283	151	20	85	168
12	9.8	48	35	e44	241	153	89	239	218	19	234	134
13	9.3	36	36	43	193	139	84	191	150	19	314	293
14	22	31	33	42	178	128	79	166	113	18	181	185
15	22	35	45	46	156	161	73	177	95	20	137	141
16	15	34	102	46	136	144	93	339	80	19	123	232
17	12	34	127	47	116	136	86	260	70	17	97	511
18	11	35	94	118	111	138	80	217	62	42	80	346
19	11	41	98	1800	98	345	86	185	65	251	64	257
20	39	50	91	725	109	681	86	159	67	106	56	201
21	172	55	74	419	161	429	79	153	58	57	60	155
22	52	57	67	275	221	305	75	139	51	78	72	138
23	34	50	60	213	285	230	73	114	54	75	50	123
24	25	55	55	553	386	196	71	102	70	52	47	102
25	22	53	50	432	349	189	65	96	85	43	44	92
26	19	48	47	303	339	181	64	89	52	39	39	77
27	18	57	44	437	488	159	62	206	45	33	37	71
28	23	137	41	337	505	166	57	287	40	29	35	87
29	23	114	38	255	359	172	55	601	37	29	33	114
30	24	87	35	212	---	178	58	451	36	135	30	79
31	21	---	36	187	---	163	---	295	---	531	28	---
TOTAL	741.3	1236	1930	7167	5978	6690	3148	6486	2866	1938	3112	8318
MEAN	23.9	41.2	62.3	231	206	216	105	209	95.5	62.5	100	277
MAX	172	137	127	1800	505	681	239	601	218	531	314	1970
MIN	9.1	14	33	37	88	128	55	65	36	17	28	24
CFSM	.33	.57	.86	3.19	2.85	2.98	1.45	2.89	1.32	.86	1.39	3.83
IN.	.38	.64	.99	3.68	3.07	3.44	1.62	3.33	1.47	1.00	1.60	4.27

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1905 - 1996, BY WATER YEAR (WY)

	MEAN	32.5	41.3	73.6	94.6	124	206	174	122	58.1	31.3	23.2	23.2
MAX	270	355	314	371	283	682	420	294	171	185	120	277	
(WY)	1943	1986	1973	1937	1971	1936	1993	1989	1995	1989	1955	1996	
MIN	1.78	3.40	3.42	10.9	8.77	43.2	40.0	27.7	12.5	5.19	3.97	2.65	
(WY)	1931	1931	1944	1940	1954	1990	1954	1934	1969	1930	1930	1932	

POTOMAC RIVER BASIN

01599000 GEORGES CREEK AT FRANKLIN, MD--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1905 - 1996	
ANNUAL TOTAL	24885.7		49610.3			
ANNUAL MEAN	68.2		136		82.6	
HIGHEST ANNUAL MEAN					136	
LOWEST ANNUAL MEAN					30.7	
HIGHEST DAILY MEAN	756	Jun 27	1970	Sep 6	4130	Mar 17 1936
LOWEST DAILY MEAN	7.5	Sep 11	9.1	Oct 3	1.6	(a)
ANNUAL SEVEN-DAY MINIMUM	8.3	Sep 10	11	Oct 7	1.6	Sep 29 1930
INSTANTANEOUS PEAK FLOW			(b) 6500	Sep 6	(c) 8500	Mar 17 1936
INSTANTANEOUS PEAK STAGE			12.77	Sep 6	(d) 9.60	Mar 17 1936
INSTANTANEOUS LOW FLOW			9.1	(f)	1.6	(g)
ANNUAL RUNOFF (CFSM)	.94		1.87		1.14	
ANNUAL RUNOFF (INCHES)	12.79		25.49		15.50	
10 PERCENT EXCEEDS	115		286		199	
50 PERCENT EXCEEDS	45		86		38	
90 PERCENT EXCEEDS	11		22		7.1	

a Sept. 29, 30, 1930.

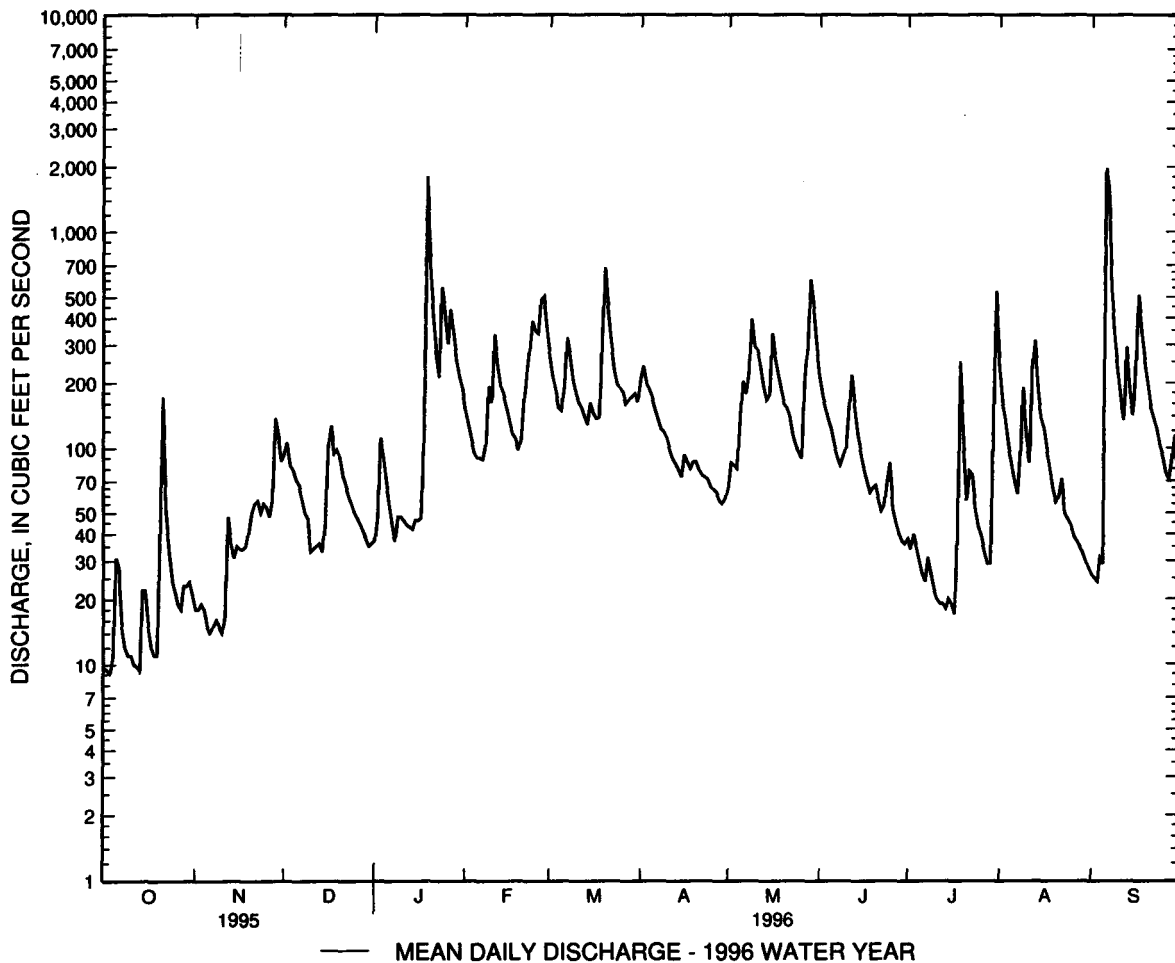
b Includes bypass flow.

c From rating curve extended above 2,000 ft³/s on basis of slope-area measurement of peak flow.

d At site then in use.

f Oct. 2-4, 13, 14.

g Sept. 29 to Oct. 13, 1930.



POTOMAC RIVER BASIN

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 mi².

PERIOD OF RECORD.--May 1905 to July 1906 (published as "at Cumberland"), October 1929 to current year.

REVISED RECORDS.--WSP 726: Drainage area. WSP 1432: 1906, 1930(M), 1933-34(M), 1936-37, 1945(M).

GAGE.--Water-stage recorder. Datum of gage is 640.89 ft above sea level. May 6, 1905, to July 14, 1906, nonrecording gage at highway bridge 700 ft upstream at different datum. Oct. 18, 1929, to Mar. 17, 1936, water-stage recorder, and Apr. 1, 1936, to Mar. 19, 1937, nonrecording gage at site 200 ft upstream at present datum.

REMARKS.--Records good except those for estimated daily discharges (ice effect), which are fair. Records include drainage from numerous active and abandoned coal mines. An undetermined amount of water is diverted into the basin from Georges Creek basin by Hoffman drainage tunnel. Miscellaneous measurements of discharge from the Hoffman drainage tunnel have been made in the water years 1944, 1964-65, 1967-82, and 1984 by the U.S. Geological Survey, and in the water years 1958 and 1959 by the Maryland Geological Survey. Slight diurnal fluctuation at low flow caused by quarry upstream. U.S. Army Corps of Engineers satellite telemeter at station. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 19	1330	*45,900	*23.11	June 11	1800	4,310	7.02
Mar. 20	0300	5,840	7.80	Sept. 6	2400	14,900	11.54
May 9	0730	6,480	8.09	Sept. 17	0845	4,310	7.02

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	62	599	166	556	1180	870	401	534	152	380	49
2	25	75	618	264	503	885	1240	477	433	139	250	47
3	24	89	548	618	389	697	1120	440	363	170	202	45
4	26	81	523	428	314	520	893	441	325	145	163	63
5	98	72	448	346	e300	497	718	628	299	122	139	61
6	137	66	398	264	e290	763	590	1350	245	107	122	3820
7	60	66	332	220	280	1130	512	1150	214	99	110	7870
8	40	71	278	e200	298	1190	445	1480	217	93	120	1890
9	33	70	248	e200	596	938	413	4740	272	92	187	957
10	30	63	e170	e200	609	727	367	2270	264	82	133	618
11	29	116	e165	e200	1150	622	332	1480	983	75	105	440
12	28	780	e160	204	1080	562	297	1120	1270	70	173	377
13	27	474	e160	203	814	508	277	872	879	69	236	1840
14	43	375	162	194	700	464	274	713	612	66	186	1040
15	59	423	194	214	582	529	248	627	459	69	153	686
16	56	332	660	210	478	542	322	836	354	73	148	940
17	40	291	724	220	377	559	310	1210	287	66	139	3540
18	35	290	621	408	376	562	298	1450	272	93	113	2370
19	33	334	624	19200	299	1160	341	1040	596	807	99	1350
20	88	387	499	5380	355	4570	363	767	490	598	90	867
21	898	421	401	2010	635	2130	352	609	352	312	94	614
22	325	423	330	1220	1100	1320	338	495	273	255	102	505
23	187	382	298	897	1470	973	330	397	226	221	84	476
24	132	385	262	1830	1880	782	330	336	350	164	76	357
25	103	342	238	1750	1640	711	297	299	507	133	67	306
26	84	321	216	1260	1380	702	288	263	308	116	62	253
27	81	354	185	2450	1690	650	281	345	245	101	59	227
28	88	990	185	2070	2440	661	246	478	208	91	60	275
29	79	1050	170	1340	1770	678	238	770	187	92	62	350
30	76	706	133	983	- - -	664	311	810	168	434	56	261
31	68	- - -	167	769	- - -	652	- - -	674	- - -	675	52	- - -
TOTAL	3057	9891	10716	45918	24351	28528	13241	28968	12192	5781	4022	32494
MEAN	98.6	330	346	1481	840	920	441	934	406	186	130	1083
MAX	898	1050	724	19200	2440	4570	1240	4740	1270	807	380	7870
MIN	24	62	133	166	280	464	238	263	168	66	52	45
CFSM	.40	1.33	1.40	6.00	3.40	3.73	1.79	3.78	1.65	.75	.53	4.39
IN.	.46	1.49	1.61	6.92	3.67	4.30	1.99	4.36	1.84	.87	.61	4.89

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1905 - 1906, 1930 - 1996, BY WATER YEAR (WY)

MEAN	137	194	327	398	508	815	682	461	231	116	91.2	87.7
MAX	1130	1520	1113	1481	1255	2410	1910	1109	967	641	674	1083
(WY)	1943	1986	1973	1996	1971	1936	1993	1989	1972	1989	1984	1996
MIN	11.9	15.5	18.4	54.2	65.8	182	184	101	51.1	24.3	16.6	12.1
(WY)	1931	1931	1944	1940	1954	1990	1968	1934	1965	1965	1930	1932

01601500 WILLS CREEK NEAR CUMBERLAND, MD--Continued

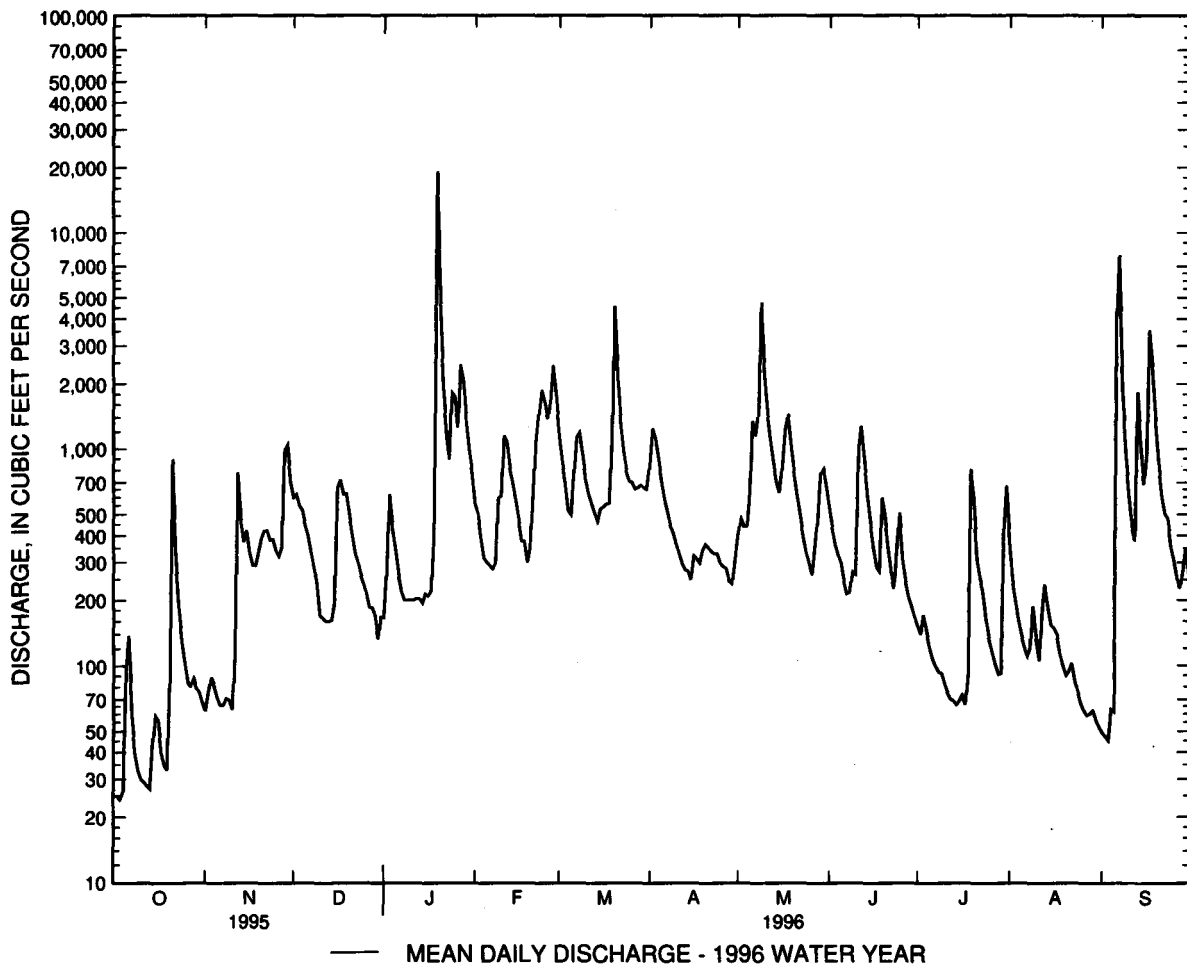
SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1905 - 1906 1930 - 1996	
ANNUAL TOTAL	101881		219159		337	
ANNUAL MEAN	279		599		599	1996
HIGHEST ANNUAL MEAN					122	1954
LOWEST ANNUAL MEAN					10	(b)
HIGHEST DAILY MEAN	2520	Jan 16	19200	Jan 19	19200	Jan 19 1996
LOWEST DAILY MEAN	24	(a)	24	Oct 3	10	(b)
ANNUAL SEVEN-DAY MINIMUM	24	Sep 10	33	Oct 8	10	Oct 8 1930
INSTANTANEOUS PEAK FLOW			45900	Jan 19	(c) 45900	Jan 19 1996
INSTANTANEOUS PEAK STAGE			23.11	Jan 19	(d) 23.11	Jan 19 1996
INSTANTANEOUS LOW FLOW			22	Oct 3	9.0	Oct 14 1930
ANNUAL RUNOFF (CFSM)	1.13		2.42		1.36	
ANNUAL RUNOFF (INCHES)	15.34		33.01		18.53	
10 PERCENT EXCEEDS	607		1200		798	
50 PERCENT EXCEEDS	188		332		149	
90 PERCENT EXCEEDS	31		69		30	

a Sept. 12, 13, 15, 16, Oct. 3.

b Oct. 8-10, 1930.

c From rating curve extended above 11,000 ft³/s on basis of slope-area measurements at gage heights of 13.45 and 20.2 ft.

d From floodmarks at present site.



POTOMAC RIVER BASIN

01603000 NORTH BRANCH POTOMAC RIVER NEAR CUMBERLAND, MD

LOCATION.--Lat 39°37'18", long 78°46'24", Allegany County, Hydrologic Unit 02070002, on left bank at downstream side of Wiley Ford Bridge, 2.0 mi south of Cumberland, 2.1 mi downstream from Wills Creek, and at mile 19.6.

DRAINAGE AREA.--875 mi².

PERIOD OF RECORD.--May 1929 to current year. Gage-height records collected at various sites about 2.0 mi upstream from September 1901 to December 1932 and thereafter at present site, are contained in reports of the National Weather Service.

REVISED RECORDS.--WSP 726: Drainage area. WSP 781: 1932(M).

GAGE.--Water-stage recorder. Datum of gage is 585.22 ft above sea level. Prior to June 18, 1929, nonrecording gage at same site and datum.

REMARKS.--Records good except those for estimated daily discharges (ice effect), which are fair. Prior to July 1981 some regulation at low flow by Stony River Reservoir, 79 mi upstream from station. Low-flow regulation since December 1950 by Savage River Reservoir, 39 mi upstream from station (see station 01597500). Flow regulated by Jennings Randolph Lake, 43 mi upstream from station since July 1981. Prior to July 1957, small amount of inflow from industrial wastes and sewage from city of Cumberland from water diverted from Evitts Creek, mouth of which is downstream from station. Diversion to Chesapeake and Ohio Canal prior to 1935. National Weather Service gage height telemeter at station. U.S. Army Corps of Engineers satellite telemeter at station. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, 29.2 ft June 1, 1889, discharge, about 89,000 ft³/s. Flood of Mar. 29, 1924, reached a stage of 28.4 ft, discharge, about 82,000 ft³/s.

PEAK DISCHARGE FOR CURRENT YEAR.--Peak discharge, 59,200 ft³/s, Jan. 19, gage height, 25.56 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	350	341	1580	955	2610	5240	2730	1150	3370	620	7300	651
2	349	352	1520	1170	2130	3600	4380	1250	2680	603	3640	640
3	345	366	1390	2230	e1850	3260	4020	1290	2250	671	2210	626
4	359	360	1350	1720	e1700	2990	3350	1830	2090	630	2120	706
5	553	350	1310	1410	e1600	3330	2770	2980	1720	577	1710	685
6	855	342	1270	1210	e1500	3730	2270	6390	1330	544	1270	7350
7	546	339	1170	1120	e1550	4670	2050	6800	1200	525	1190	29100
8	444	344	1040	e950	e1600	4980	1790	5610	1050	550	969	13400
9	427	341	994	e900	e1800	3830	1670	9280	1320	561	2600	10100
10	360	332	883	e850	2120	3350	1580	7520	1680	504	2590	6120
11	341	380	e780	e850	3450	3160	1490	5700	2230	486	1770	3730
12	335	1290	e760	e850	3810	3030	1420	4570	4520	477	2070	3440
13	298	923	749	e900	3310	2170	1370	4300	3050	460	9700	4260
14	345	804	732	e1000	3090	1940	1380	2790	2050	452	7310	2730
15	407	961	768	e1100	2590	1990	1220	2470	1750	463	2630	1820
16	390	986	1550	1140	2150	2220	1310	4210	1640	467	1930	2020
17	324	945	1790	1110	1690	2170	1520	5520	1310	446	1770	7220
18	295	924	1510	1410	1510	2420	1470	5190	979	500	1610	6890
19	288	982	1900	29400	1360	3610	1540	3280	1390	2240	1510	4390
20	436	1110	1720	13800	1410	11400	1820	2870	1300	6750	1440	2720
21	1890	1140	e1450	7510	1770	7360	1690	2550	1120	2420	1070	2170
22	1020	1320	e1300	8140	2440	5570	1420	3250	967	1770	1050	1790
23	573	1260	e1250	8950	3110	3510	1330	2490	868	4640	955	1710
24	453	1260	1210	10600	4070	2980	1400	2040	976	1980	926	1690
25	400	1200	1160	8690	4730	2760	1340	1800	1250	1500	909	1410
26	368	1160	1120	7090	4170	2810	1320	1450	921	1340	875	1270
27	374	1190	1060	7680	4990	2920	1270	1800	775	793	833	1220
28	389	1960	987	7240	7690	2730	1140	4560	705	722	714	1180
29	373	2210	966	5180	6850	2880	1110	6930	668	726	695	1350
30	370	1910	899	4080	---	2410	1100	9130	639	1410	673	1130
31	354	---	956	3230	---	2310	---	5180	---	4910	662	---
TOTAL	14611	27382	37124	142465	82650	111330	54270	126180	47798	40737	66701	123518
MEAN	471	913	1198	4596	2850	3591	1809	4070	1593	1314	2152	4117
MAX	1890	2210	1900	29400	7690	11400	4380	9280	4520	6750	9700	29100
MIN	288	332	732	850	1360	1940	1100	1150	639	446	662	626
CFSM	.54	1.04	1.37	5.25	3.26	4.10	2.07	4.65	1.82	1.50	2.46	4.71
IN.	.62	1.16	1.58	6.06	3.51	4.73	2.31	5.36	2.03	1.73	2.84	5.25

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1929 - 1996, BY WATER YEAR (WY)

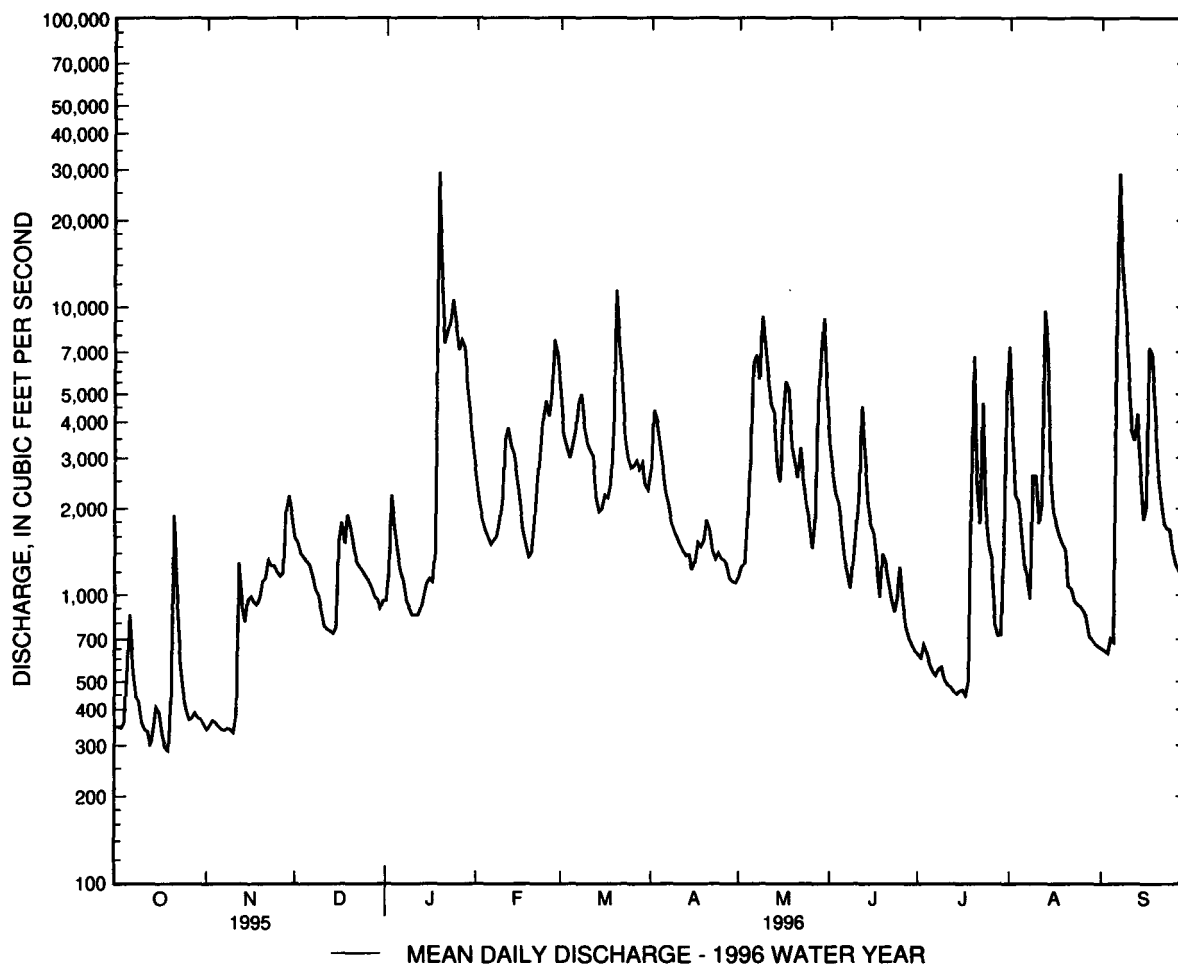
MEAN	597	755	1290	1597	1991	2910	2363	1748	897	530	465	444
MAX	3791	5350	4652	5115	4125	8763	5866	4070	2375	2270	2152	4117
(WY)	1943	1986	1973	1937	1961	1936	1993	1996	1981	1989	1996	1996
MIN	28.9	44.8	134	269	393	789	705	374	209	89.7	57.7	40.3
(WY)	1931	1931	1931	1940	1934	1990	1995	1934	1965	1930	1930	1932

01603000 NORTH BRANCH POTOMAC RIVER NEAR CUMBERLAND, MD--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1929 - 1996	
ANNUAL TOTAL	402848		874766			
ANNUAL MEAN	1104		2390		1297	
ANNUAL MEAN*	1105		2444		1298	
HIGHEST ANNUAL MEAN					2390	1996
LOWEST ANNUAL MEAN					632	1969
HIGHEST DAILY MEAN	8000	Jun 28	29400	Jan 19	47400	Mar 18 1936
LOWEST DAILY MEAN	288	Oct 19	288	Oct 19	13	(a)
ANNUAL SEVEN-DAY MINIMUM	335	Oct 13	335	Oct 13	16	Sep 20 1932
INSTANTANEOUS PEAK FLOW			59200	Jan 19	(b) 88200	Mar 17 1936
INSTANTANEOUS PEAK STAGE			25.56	Jan 19	29.10	Mar 17 1936
INSTANTANEOUS LOW FLOW			281	Oct 19	12	Sep 22 1932
ANNUAL RUNOFF (CFSM)	1.26		2.73		1.48	
ANNUAL RUNOFF (CFSM)*	1.26		2.79		1.48	
ANNUAL RUNOFF (INCHES)	17.13		37.19		20.14	
ANNUAL RUNOFF (INCHES)*	17.16		37.94		20.14	
10 PERCENT EXCEEDS	1900		5200		3000	
50 PERCENT EXCEEDS	824		1450		678	
90 PERCENT EXCEEDS	374		450		167	

* Adjusted for change in reservoir contents since October 1981.

a Sept. 21-24, 1932.

b From rating curve extended above 33,000 ft³/s on basis of slope-area measurement of peak flow.

POTOMAC RIVER BASIN

01604500 PATTERSON CREEK NEAR HEADSVILLE, WV

LOCATION.--Lat 39°26'35", long 78°49'20", Mineral County, Hydrologic Unit 02070002, on right bank 100 ft downstream from Hazel Run, 1.0 mi downstream from Cabin Run, 4.0 mi northeast of Headsville, 8.0 mi east of Keyser, and at mile 12.5.
DRAINAGE AREA.--219 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1938 to current year.

REVISED RECORDS.--WSP 951: 1939-40.

GAGE.--Water-stage recorder. Datum of gage is 624.90 ft above sea level (levels by U.S. Army Corps of Engineers). Prior to Oct. 11, 1946, nonrecording gage on bridge 1.0 mi upstream at datum 6.14 ft higher. Oct. 11-23, 1946, nonrecording gage at present site and datum.

REMARKS.--Water-discharge records good except those for estimated daily discharges (doubtful gage heights, ice effect), which are poor. The flow from 115 mi² upstream from station is partially controlled, but not diverted, by several floodwater detention reservoirs with a total combined detention capacity of 19,887 acre-ft.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,000 ft³/s, Aug. 19, 1955, gage height, 12.20 ft, from rating curve extended above 4,900 ft³/s, on basis of contracted-opening measurement at gage height 11.53 ft; minimum daily discharge, 1.2 ft³/s, Aug. 18, 1988.

PEAK DISCHARGE FOR CURRENT YEAR.--Peak discharge, 14,400 ft³/s, Jan. 19, gage height, 11.97 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.1	28	105	71	528	569	524	126	613	46	959	93
2	9.5	28	122	192	471	500	830	131	512	44	601	85
3	9.1	27	124	883	430	440	624	135	430	47	528	80
4	9.0	25	117	632	e350	379	522	141	377	47	427	91
5	12	24	104	455	e300	350	450	427	340	44	367	90
6	21	23	93	358	e270	350	398	878	265	41	299	2030
7	21	23	83	e280	e240	712	363	663	211	38	261	6910
8	17	24	75	e220	e300	887	325	599	171	48	368	2400
9	14	23	69	e190	369	623	313	978	155	63	1040	1270
10	13	22	57	e150	481	513	284	790	150	51	536	988
11	12	24	36	e130	738	453	251	671	232	44	358	692
12	11	66	e75	e110	596	409	225	586	345	41	725	600
13	11	72	e72	e100	462	372	207	502	172	39	3570	644
14	12	74	e69	122	411	337	197	442	128	36	1580	577
15	16	148	e140	308	368	358	185	410	106	36	1520	518
16	14	178	e200	615	323	367	196	530	90	35	842	515
17	13	153	350	508	275	369	188	544	79	30	674	1100
18	12	149	292	372	243	391	175	503	72	32	557	927
19	11	197	484	7330	214	758	177	449	75	256	469	591
20	12	292	521	e4000	201	2170	179	402	124	276	404	459
21	348	254	389	e2000	214	1080	171	367	105	164	357	390
22	224	224	317	1170	248	827	162	361	87	242	306	348
23	135	183	254	843	291	703	155	314	78	326	250	310
24	87	161	210	903	324	613	148	277	68	216	211	277
25	61	139	172	905	318	547	139	254	78	153	183	245
26	47	119	142	723	312	486	137	227	72	116	159	201
27	40	104	124	1300	584	428	137	306	62	89	143	169
28	39	92	110	1150	892	419	131	684	56	78	134	146
29	34	98	82	826	680	471	125	1300	52	81	124	141
30	31	101	74	696	---	450	120	1130	49	149	113	116
31	30	---	69	619	---	425	---	757	---	1240	102	---
TOTAL	1334.7	3075	5131	28161	11433	17756	8038	15884	5354	4148	18167	23003
MEAN	43.1	102	166	908	394	573	268	512	178	134	586	767
MAX	348	292	521	7330	892	2170	830	1300	613	1240	3570	6910
MIN	9.0	22	36	71	201	337	120	126	49	30	102	80
CFSM	.20	.47	.76	4.15	1.80	2.62	1.22	2.34	.81	.61	2.68	3.50
IN.	.23	.52	.87	4.78	1.94	3.02	1.37	2.70	.91	.70	3.09	3.91

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 1996, BY WATER YEAR (WY)

	MEAN	75.2	80.3	163	211	306	429	317	228	107	61.3	59.5	50.7
MAX	745	901	825	908	893	1346	1085	763	379	415	586	767	
(WY)	1943	1986	1973	1996	1994	1963	1993	1988	1940	1989	1996	1996	
MIN	2.24	4.39	9.70	22.0	30.7	58.3	54.1	21.2	13.4	4.45	5.20	2.80	
(WY)	1992	1992	1944	1981	1954	1990	1969	1969	1969	1966	1966	1991	

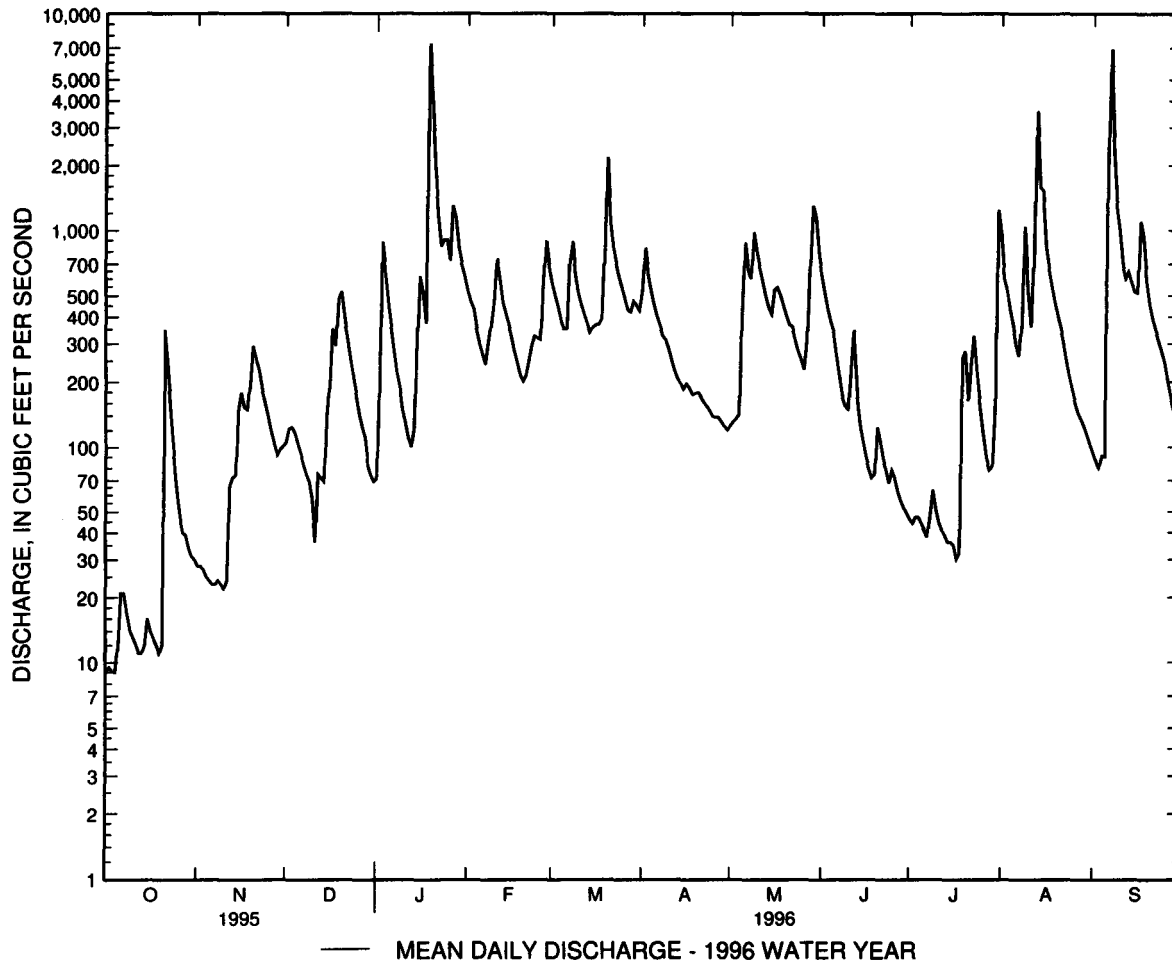
01604500 PATTERSON CREEK NEAR HEADSVILLE, WV--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1938 - 1996	
ANNUAL TOTAL	48566.8		141484.7			
ANNUAL MEAN	133		387		174	
HIGHEST ANNUAL MEAN					387	
LOWEST ANNUAL MEAN					35.1	
HIGHEST DAILY MEAN	1210	Jan 16	7330	Jan 19	11100	Oct 15 1942
LOWEST DAILY MEAN	7.7	Sep 15	9.0	Oct 4	1.2	Aug 18 1988
ANNUAL SEVEN-DAY MINIMUM	8.0	Sep 10	13	Oct 9	1.7	Sep 5 1965
INSTANTANEOUS PEAK FLOW			14400	Jan 19	(a) 16000	Aug 19 1955
INSTANTANEOUS PEAK STAGE			11.97	Jan 19	12.20	Aug 19 1955
INSTANTANEOUS LOW FLOW			8.8	(b)	1.1	(c)
ANNUAL RUNOFF (CFSM)	.61		1.77		.79	
ANNUAL RUNOFF (INCHES)	8.25		24.03		10.77	
10 PERCENT EXCEEDS	339		768		440	
50 PERCENT EXCEEDS	83		226		60	
90 PERCENT EXCEEDS	13		35		10	

a From rating curve extended above 4,900 ft³/s on basis of contracted-opening measurement of peak flow.

b Oct. 1, 3, 4, 5.

c Aug. 18, 19, 1988.



POTOMAC RIVER BASIN

01604500 PATTERSON CREEK NEAR HEADSVILLE, WV--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1960-61, 1969 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)
OCT 1995								
04...	1130	9.1	183	7.6	18.0	743	6.6	72
NOV								
28...	1535	89	225	7.8	7.0	746	10.3	87
JAN 1996								
24...	1230	964	125	7.6	4.0	728	11.9	95
MAR								
13...	0835	359	165	7.9	3.5	747	11.8	91
MAY								
14...	1730	432	127	6.4	15.0	750	9.6	97
JUL								
24...	1635	198	200	6.9	23.0	741	7.9	95

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01606500 SOUTH BRANCH POTOMAC RIVER NEAR PETERSBURG, WV

LOCATION...Lat 38°59'28", long 79°10'34", Grant County, Hydrologic Unit 02070001, on right bank 1.1 mi downstream from North Fork South Branch Potomac River, 2.6 mi west of Petersburg, and at mile 72.7.

DRAINAGE AREA. - - 642 mi².

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

REVISED RECORDS.--WSP 951: 1939-41. WSP 1141: 1932, 1933 (M), 1936-38.

GAGE.--Water-stage recorder. Datum of gage is 966.00 ft above sea level. Prior to Dec. 4, 1928, nonrecording gage at site 700 ft downstream and at different datum. June 1928 to Nov. 5, 1985, water-stage recorder at site 700 ft downstream at datum 4.00 ft lower. Nov. 5, 1985 to June 22, 1994, water-stage recorder at site 700 ft downstream at datum 2.34 ft higher.

REMARKS.--Records fair except those for periods of estimated daily discharges (ice effect), which are poor.

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 1877 reached a stage of 21.2 ft, from floodmarks at previous site and datum.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 6,000 ft³/s and maximum(*):

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Jan. 19	1600	82,400	(a) 20.00	May 28	0300	10,800	10.37
Jan. 27	1500	10,800	10.38	July 31	1600	13,800	11.21
May 6	0300	10,600	10.33	Aug. 13	0500	9,150	9.85
May 17	1300	28,800	14.29	Sept. 6	2100	*113,000	(a) *22.20

(a) From floodmarks obtained from local observer.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	78	187	567	353	1720	3050	e2600	1320	2240	410	6030	355
2	73	170	561	e600	1530	2310	e2300	1250	1650	383	3030	337
3	69	165	549	e1300	1290	1870	e2000	1130	1340	693	1770	320
4	67	161	536	2090	e1100	1440	1860	1120	1180	915	1200	369
5	108	157	533	1410	e1000	1320	1560	3070	1100	630	1130	440
6	260	151	469	1020	e920	1380	1310	7420	909	504	973	31300
7	278	146	420	e2800	e880	e1900	1180	4020	785	435	760	23000
8	179	152	377	e1600	e1700	e2500	1040	3070	733	431	655	6770
9	143	183	339	e1200	e2700	2900	981	3830	749	411	1300	4160
10	123	185	294	909	e1900	1970	900	3700	1450	372	1150	2870
11	112	186	260	611	e2300	1520	815	2910	1160	318	776	1900
12	103	649	230	e540	e2200	e1160	779	2950	1010	307	1590	1270
13	96	665	285	e480	2030	e1080	774	2410	951	286	7240	1610
14	104	519	274	e450	1780	e1000	742	1890	801	279	4110	936
15	110	461	294	597	1570	e950	702	1540	700	259	3450	793
16	133	412	407	848	1360	e900	724	4410	661	298	2420	956
17	139	385	660	969	e1200	e1000	761	16200	1810	303	1960	2680
18	121	372	620	3590	e1050	e1200	770	7230	1200	296	1410	2070
19	110	454	944	e35000	e960	e3000	788	4100	1210	2460	1110	1330
20	114	532	1530	e9000	e1100	e4000	774	2960	2280	3250	890	831
21	215	567	1210	e5000	e1300	e2900	731	2270	1660	1360	785	622
22	308	587	909	e3000	1550	e2300	675	2580	1150	1670	696	548
23	230	506	734	e2000	2110	e1900	627	1710	918	1850	585	478
24	187	503	619	2350	2710	e1700	592	1370	764	1170	544	464
25	163	487	530	3530	2630	e1500	546	1180	825	845	511	442
26	149	434	474	2390	2160	e1300	515	1100	691	665	472	418
27	142	421	416	6320	2480	e1200	512	2860	564	535	855	404
28	145	651	372	6050	e4100	e2000	468	8180	500	450	785	396
29	167	862	324	4050	e3500	e3300	425	5130	462	1310	539	497
30	217	687	311	2880	---	e3100	488	4000	446	1220	483	481
31	209	---	325	2040	---	e2800	---	3010	---	7470	421	---
TOTAL	4652	11997	16373	104977	52830	60450	28939	109920	31899	31785	49630	89047
MEAN	150	400	528	3386	1822	1950	965	3546	1063	1025	1601	2968
MAX	308	862	1530	35000	4100	4000	2600	16200	2280	7470	7240	31300
MIN	67	146	230	353	880	900	425	1100	446	259	421	320
CFSM	.23	.62	.82	5.27	2.84	3.04	1.50	5.52	1.66			

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 1996, BY WATER YEAR (WY)

MEAN	328	475	702	933	1149	1616	1274	1019	533	297	295	259
MAX	1863	5569	2511	3386	3519	4090	2888	3546	2175	1479	1601	2968
(WY)	1977	1986	1973	1996	1994	1936	1993	1996	1949	1949	1996	1996
MIN	49.3	62.7	95.1	143	212	543	398	233	128	70.5	54.1	52.3
(WY)	1931	1931	1966	1981	1934	1990	1986	1930	1991	1930	1930	1930

01606500 SOUTH BRANCH POTOMAC RIVER NEAR PETERSBURG, WV--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1928 - 1996	
ANNUAL TOTAL	224147		592499			
ANNUAL MEAN	614		1619		738	
HIGHEST ANNUAL MEAN					1619	
LOWEST ANNUAL MEAN					365	
HIGHEST DAILY MEAN	7610	Jan 16	(e) 35000	Jan 19	77000	Nov 5 1985
LOWEST DAILY MEAN	64	(a)	67	Oct 4	43	(b)
ANNUAL SEVEN-DAY MINIMUM	66	Sep 10	112	Oct 10	44	Sep 6 1966
INSTANTANEOUS PEAK FLOW			113000	Sep 6	(c) 130000	Nov 5 1985
INSTANTANEOUS PEAK STAGE			(d) 22.20	Sep 6	(f) 25.40	Nov 5 1985
INSTANTANEOUS LOW FLOW			67	(g)	42	(h)
ANNUAL RUNOFF (CFSM)	.96		2.52		1.15	
ANNUAL RUNOFF (INCHES)	12.99		34.33		15.62	
10 PERCENT EXCEEDS	1200		3060		1650	
50 PERCENT EXCEEDS	420		895		377	
90 PERCENT EXCEEDS	110		213		96	

e Estimated.

a Sept. 12, 16.

b Sept. 27-29, 1959, Sept. 11, 12, 1966.

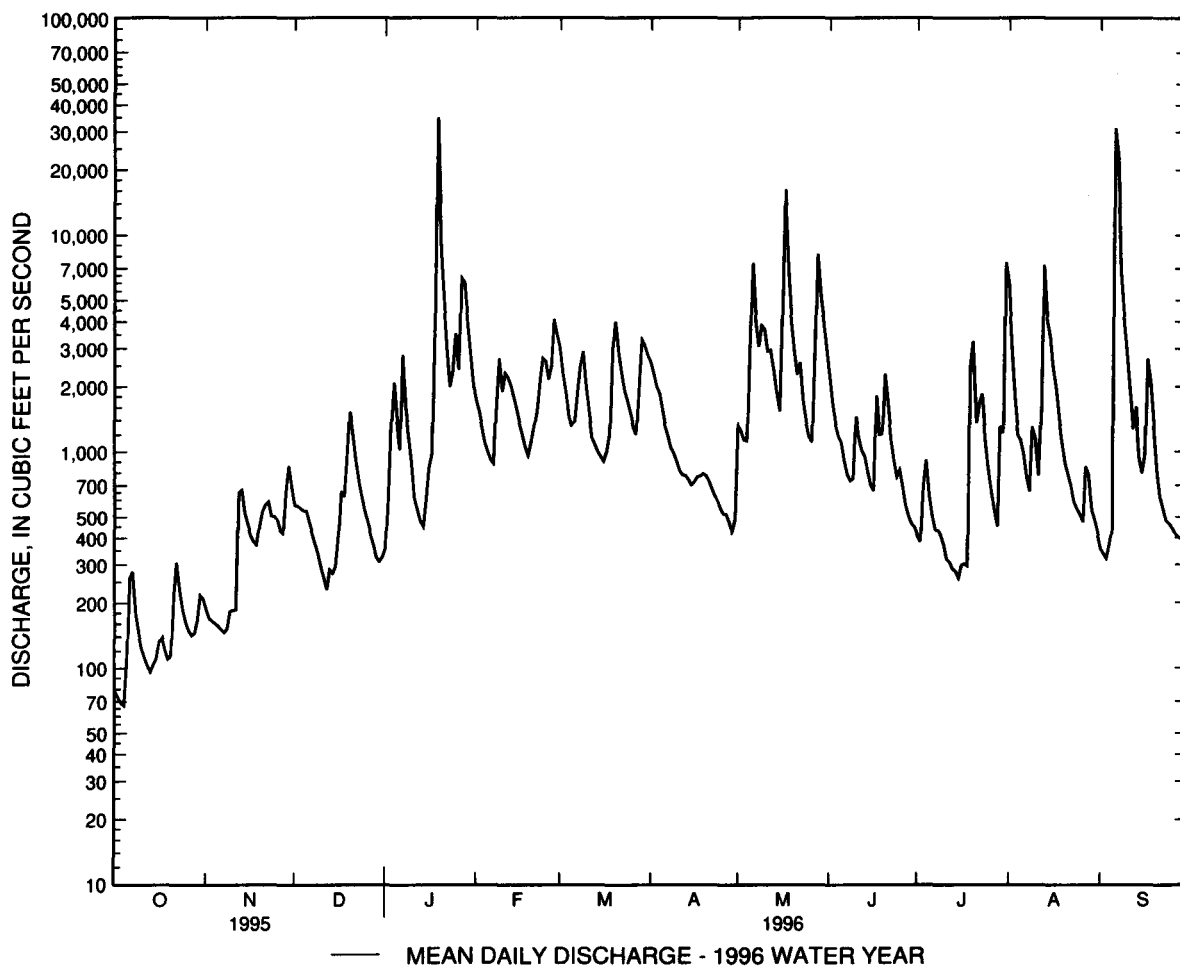
c From rating curve extended above 63,000 ft³/s on basis of slope-area measurement of peak flow.

d From floodmarks obtained by local observer.

f From floodmarks at former site at gage datum 962.00 ft.

g Oct. 3-5.

h Sept. 28, 29, 1959, Sept. 11, 12, 1966.



POTOMAC RIVER BASIN

01608000 SOUTH FORK SOUTH BRANCH POTOMAC RIVER NEAR MOOREFIELD, WV

LOCATION.--Lat 39°00'44", long 78°57'23", Hardy County, Hydrologic Unit 02070001, on right bank 0.2 mi downstream from Stony Creek, 3.5 mi south of Moorefield, and at mile 6.0.
DRAINAGE AREA.--283 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1928 to September 1935, August 1938 to current year.

REVISED RECORDS.--WSP 1141: 1933(M), 1940, 1942-43, 1945, 1948(M). WSP 1302: 1931(M), 1935(M).

GAGE.--Water-stage recorder. Datum of gage is 861.51 ft above sea level (U.S. Army Corps of Engineers datum). Prior to Mar. 11, 1940, nonrecording gage at Harness Ford Bridge 2.0 mi upstream at datum about 31 ft higher.

REMARKS.--Water-discharge records fair except those for estimated daily discharges (ice effect, sluggish intakes), which are poor. The flow from 92.7 mi² upstream from station is partially controlled, but not diverted, by several floodwater detention reservoirs with a total combined detention capacity of 19,870 acre-ft.

PEAK DISCHARGE FOR CURRENT YEAR.--Peak discharge, 19,700 ft³/s, Sept. 7, gage height, (a)12.27 ft.

a From floodmark.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	52	102	95	434	705	845	114	607	76	1400	137
2	18	50	101	111	343	532	964	155	442	67	833	119
3	17	48	107	444	e270	424	862	165	341	78	419	107
4	18	46	113	664	e230	329	675	169	285	87	269	101
5	26	44	112	516	e190	271	532	723	256	84	250	101
6	34	43	106	377	e160	249	424	2290	218	72	296	3350
7	32	42	101	324	e140	342	359	1370	183	62	244	10700
8	40	42	95	1170	153	590	312	839	162	60	173	5830
9	35	40	89	e640	363	540	286	695	169	57	206	4100
10	33	39	83	e310	552	423	259	719	700	52	261	2950
11	30	44	124	e220	511	349	230	609	958	51	214	2010
12	28	72	71	e170	517	306	206	551	779	47	201	1370
13	27	146	70	e150	434	279	188	453	607	45	1340	1150
14	30	170	65	e140	361	251	175	370	470	43	1570	1150
15	31	165	62	249	318	241	162	318	352	44	1070	897
16	27	140	69	378	277	240	154	330	273	45	768	635
17	26	125	89	474	232	226	146	1330	254	42	571	658
18	27	124	170	1360	208	222	137	2930	251	45	451	758
19	28	165	243	9250	188	311	130	2060	214	102	329	753
20	34	219	441	6020	170	2870	125	1410	214	215	248	678
21	185	242	477	3400	168	2000	120	924	242	167	194	543
22	130	247	362	2090	181	1030	114	636	239	132	163	429
23	109	201	278	1350	226	679	111	486	193	135	140	342
24	102	174	222	942	343	499	112	373	157	136	126	279
25	94	159	183	923	388	398	105	307	165	110	123	235
26	83	141	156	664	354	338	100	273	143	109	114	199
27	76	124	137	1400	356	287	97	261	122	108	125	174
28	71	112	121	2600	778	267	94	1160	107	105	216	159
29	63	112	106	1460	984	589	89	1550	95	102	259	150
30	59	107	108	814	---	778	90	1240	85	159	213	151
31	54	---	99	576	---	869	---	884	---	496	172	---
TOTAL	1587	3435	4662	39281	9829	17434	8203	25694	9283	3133	12958	40215
MEAN	51.2	114	150	1267	339	562	273	829	309	101	418	1340
MAX	185	247	477	9250	984	2870	964	2930	958	496	1570	10700
MIN	17	39	62	95	140	222	89	114	85	42	114	101
CFSM	.18	.40	.53	4.48	1.20	1.99	.97	2.93	1.09	.36	1.48	4.74
IN.	.21	.45	.61	5.16	1.29	2.29	1.08	3.38	1.22	.41	1.70	5.29

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 1935, 1938 - 1996, BY WATER YEAR (WY)

MEAN	130	173	207	268	324	484	408	332	167	85.3	109	93.9
MAX	776	2951	879	1267	902	1327	1787	946	1071	510	801	1340
(WY)	1977	1986	1974	1996	1994	1993	1987	1988	1949	1949	1955	1996
MIN	12.8	17.1	17.4	21.3	25.2	72.2	91.7	51.2	28.1	13.7	10.4	10.2
(WY)	1992	1932	1966	1981	1934	1981	1981	1930	1977	1966	1965	1968

01608000 SOUTH FORK SOUTH BRANCH POTOMAC RIVER NEAR MOOREFIELD, WV--Continued

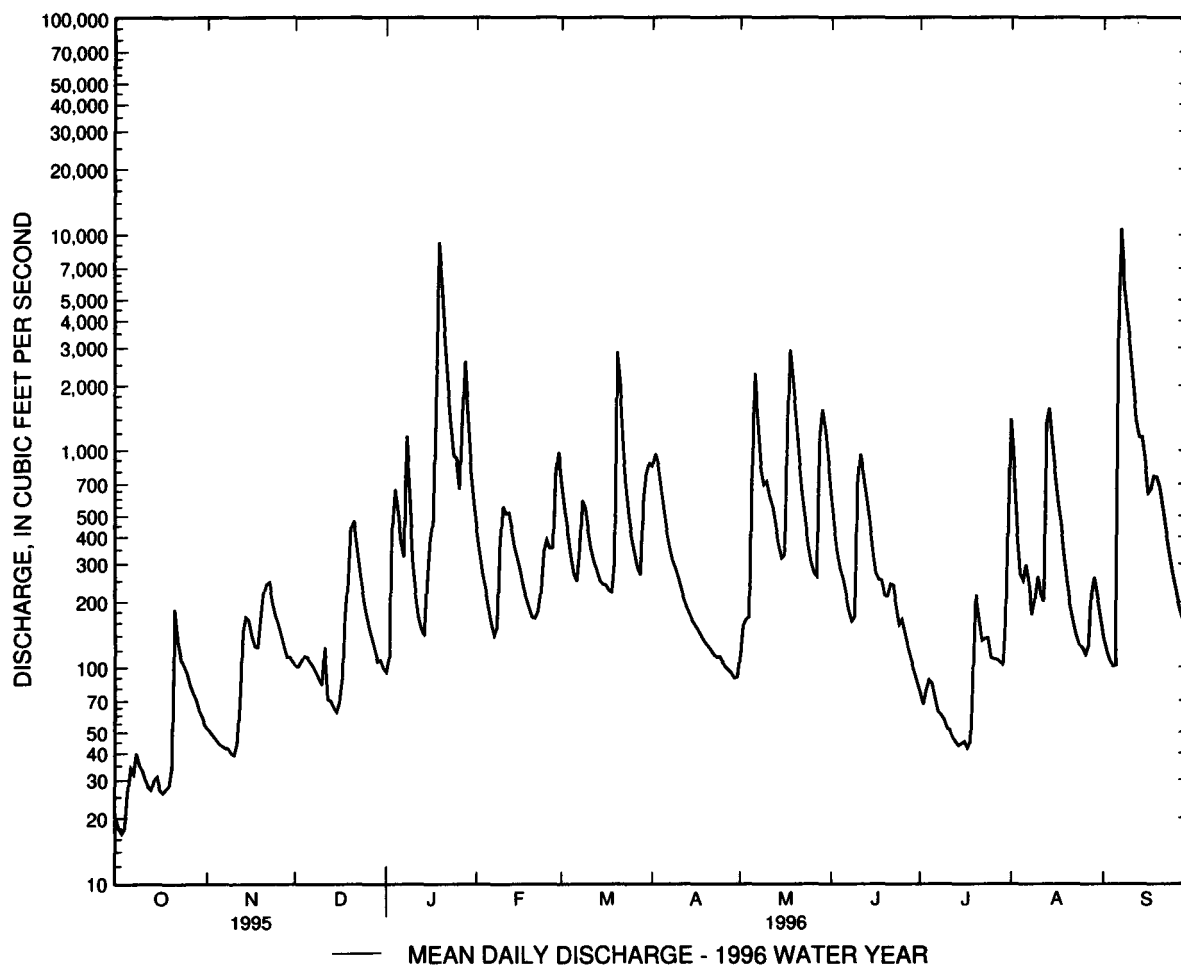
SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1928 - 1935 1938 - 1996	
ANNUAL TOTAL	69293		175714			
ANNUAL MEAN	190		480		231	
HIGHEST ANNUAL MEAN					480	
LOWEST ANNUAL MEAN					85.9	
HIGHEST DAILY MEAN	4400	Jan 16	10700	Sep 7	28000	Nov 5 1985
LOWEST DAILY MEAN	15	Sep 14	17	Oct 3	4.4	Sep 10 1966
ANNUAL SEVEN-DAY MINIMUM	17	Sep 10	24	Oct 1	5.3	Sep 5 1966
INSTANTANEOUS PEAK FLOW			19700	Sep 7	(a) 110000	Nov 5 1985
INSTANTANEOUS PEAK STAGE			(b) 12.27	Sep 7	(b) 19.99	Nov 5 1985
INSTANTANEOUS LOW FLOW			17	(c)	4.4	(d)
ANNUAL RUNOFF (CFSM)	.67		1.70		.82	
ANNUAL RUNOFF (INCHES)	9.11		23.10		11.10	
10 PERCENT EXCEEDS	368		970		505	
50 PERCENT EXCEEDS	109		214		96	
90 PERCENT EXCEEDS	24		49		21	

a From rating curve extended above 39,000 ft³/s on basis of slope-area measurement of peak flow.

b From floodmarks.

c Oct. 3, 4.

d Sept. 10, 11, 1965, Sept. 9-11, 1966.



POTOMAC RIVER BASIN

01608000 SOUTH FORK SOUTH BRANCH POTOMAC RIVER NEAR MOOREFIELD, WV--Continued

WATER-QUALITY RECORDS

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)
NOV 1995								
28...	1035	114	122	7.4	9.0	736	9.3	83
JAN 1996								
23...	1400	1170	100	7.5	4.0	736	11.7	92
MAR								
12...	1400	329	126	6.5	6.0	742	11.9	98
JUL								
24...	0830	136	90	6.8	20.0	737	7.9	90

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POTOMAC RIVER BASIN

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 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1894 to February 1896 (fragmentary), June 1899 to February 1902, August 1903 to July 1906, August 1928 to current year.

REVISED RECORDS.--WSP 1552: 1903-06, 1929-30(M), 1932-33(M), 1935(M), 1937-40(M), 1942-43(M), 1945(M).

GAGE.--Water-stage recorder. Datum of gage is 562.02 ft above sea level. June 1894 to February 1896, nonrecording gage at Baltimore & Ohio Railroad bridge 11.2 mi upstream at different datum. June 26, 1899, to Feb. 2, 1902, nonrecording gage at bridge 10.0 mi upstream at different datum. Aug. 28, 1903, to July 14, 1906, nonrecording gage at present site at different datum. Aug. 8, to Sept. 24, 1928, nonrecording gage at present site and datum.

REMARKS.--Water-discharge records good except those for estimated daily discharges (ice effect, doubtful gage-height record), which are poor. National Weather Service gage-height telemeter and U.S. Army Corps of Engineers satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in November 1877 reached a stage of about 34 ft, from floodmarks, discharge, 140,000 ft³/s.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 10,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 20	0515	93,900	28.41	May 28	1700	15,300	11.91
Jan. 28	0700	16,700	12.49	Aug. 1	0600	21,400	14.22
Mar. 20	1700	15,000	11.75	Aug. 13	1500	22,500	14.62
May 6	1900	19,200	13.42	Sept. 7	1200	*147,000	*34.98
May 18	0600	29,300	16.79				

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	152	345	1080	573	2990	e5000	4430	e1000	3990	600	16300	566
2	147	322	984	650	2330	e3600	5050	e1200	3140	549	6420	496
3	143	297	946	2870	e1700	e2900	5580	e1400	2500	538	3920	447
4	139	275	928	4280	e1400	e2500	e4500	1770	2060	793	2500	433
5	150	261	883	3030	e1200	e2300	e3300	4070	1830	1090	2040	457
6	169	257	864	2090	e1000	e3000	e2700	12800	1640	806	1910	5070
7	232	250	794	1620	e950	4320	e2200	17200	1390	652	1630	93900
8	382	245	722	984	1320	7310	e1900	7010	1230	583	1310	24900
9	303	239	659	891	2250	e5000	e1700	5610	1160	610	2280	10600
10	242	241	600	1290	5210	e4000	e1600	6730	1990	538	2360	7320
11	208	279	552	1150	4670	e3000	e1500	5080	2890	485	1740	4930
12	187	346	480	e1050	e3700	e2400	e1400	4460	2360	437	1650	3460
13	174	733	486	e900	e3100	e2080	e1300	3950	1930	398	17300	3510
14	176	996	492	e760	e2600	e1900	e1200	3210	1720	379	10800	3510
15	197	963	479	954	e2200	e1800	e1150	2650	1420	365	6120	2340
16	201	885	657	1880	e2000	e2000	e1100	2960	1210	357	4440	1770
17	190	801	1260	2420	e1700	e2050	e1200	10900	1360	354	3500	4930
18	187	762	1230	3960	e1400	e2200	e1200	20200	2220	396	2570	6220
19	198	828	1540	33300	e1300	5240	e1250	8620	1640	758	1910	4160
20	193	1170	2580	61400	e1200	12100	e1300	5400	1990	3840	1500	3060
21	758	1190	2510	20700	e1400	12500	e1250	3760	2560	2840	1220	2380
22	966	1210	1910	9640	e1600	e5500	e1150	3430	1960	1900	1050	1960
23	663	1150	1520	5460	e1800	e3800	e1100	2920	1540	2710	907	1700
24	525	1070	1280	4310	e2000	e3000	e1000	2250	1270	1930	795	1480
25	422	1070	1090	5760	2270	e2600	e960	1930	1170	1500	711	1290
26	352	967	965	4780	2440	e2300	e940	1720	1180	1170	644	1150
27	313	858	890	5300	2610	e2400	e920	1770	1010	942	654	1020
28	300	802	734	14300	5040	e2300	e880	10100	839	794	1140	939
29	284	1010	649	8760	7500	e2600	e860	10900	736	893	1110	960
30	277	1220	558	5680	---	e3000	e840	8730	665	2770	816	1170
31	296	---	592	4020	---	e3100	---	5620	---	7050	674	---
TOTAL	9126	21042	30914	214762	70880	117800	55460	179350	52600	39027	101921	196128
MEAN	294	701	997	6928	2444	3800	1849	5785	1753	1259	3288	6538
MAX	966	1220	2580	61400	7500	12500	5580	20200	3990	7050	17300	93900
MIN	139	239	479	573	950	1800	840	1000	665	354	644	433
CFSM	.20	.48	.68	4.71	1.66	2.58	1.26	3.93	1.19	.86	2.24	4.44
IN.	.23	.53	.78	5.43	1.79	2.98	1.40	4.54	1.33	.99	2.58	4.96

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1899 - 1906, 1928 - 1996, BY WATER YEAR (WY)

MEAN	624	836	1229	1643	2020	2987	2379	1841	1022	533	552	471
MAX	4629	12850	5000	6928	6150	10490	6421	5785	5231	2638	3923	6538
(WY)	1977	1986	1973	1996	1994	1936	1987	1996	1949	1949	1955	1996
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 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1899 - 1906 1928 - 1996	
ANNUAL TOTAL	388503		1089010			
ANNUAL MEAN	1064		2975		1341	
HIGHEST ANNUAL MEAN					2975	
LOWEST ANNUAL MEAN					566	
HIGHEST DAILY MEAN	19000	Jan 16	93900	Sep 7	145000	Nov 5 1985
LOWEST DAILY MEAN	125	(a)	139	Oct 4	52	(b)
ANNUAL SEVEN-DAY MINIMUM	127	Sep 10	162	Oct 1	54	Sep 7 1966
INSTANTANEOUS PEAK FLOW			147000	Sep 7	(c) 240000	Nov 5 1985
INSTANTANEOUS PEAK STAGE			34.98	Sep 7	(d) 44.22	Nov 5 1985
INSTANTANEOUS LOW FLOW			136	Oct 5	29	(f)
ANNUAL RUNOFF (CFSM)	.72		2.02		.91	
ANNUAL RUNOFF (INCHES)	9.82		27.54		12.39	
10 PERCENT EXCEEDS	1910		5520		3010	
50 PERCENT EXCEEDS	735		1400		645	
90 PERCENT EXCEEDS	178		350		153	

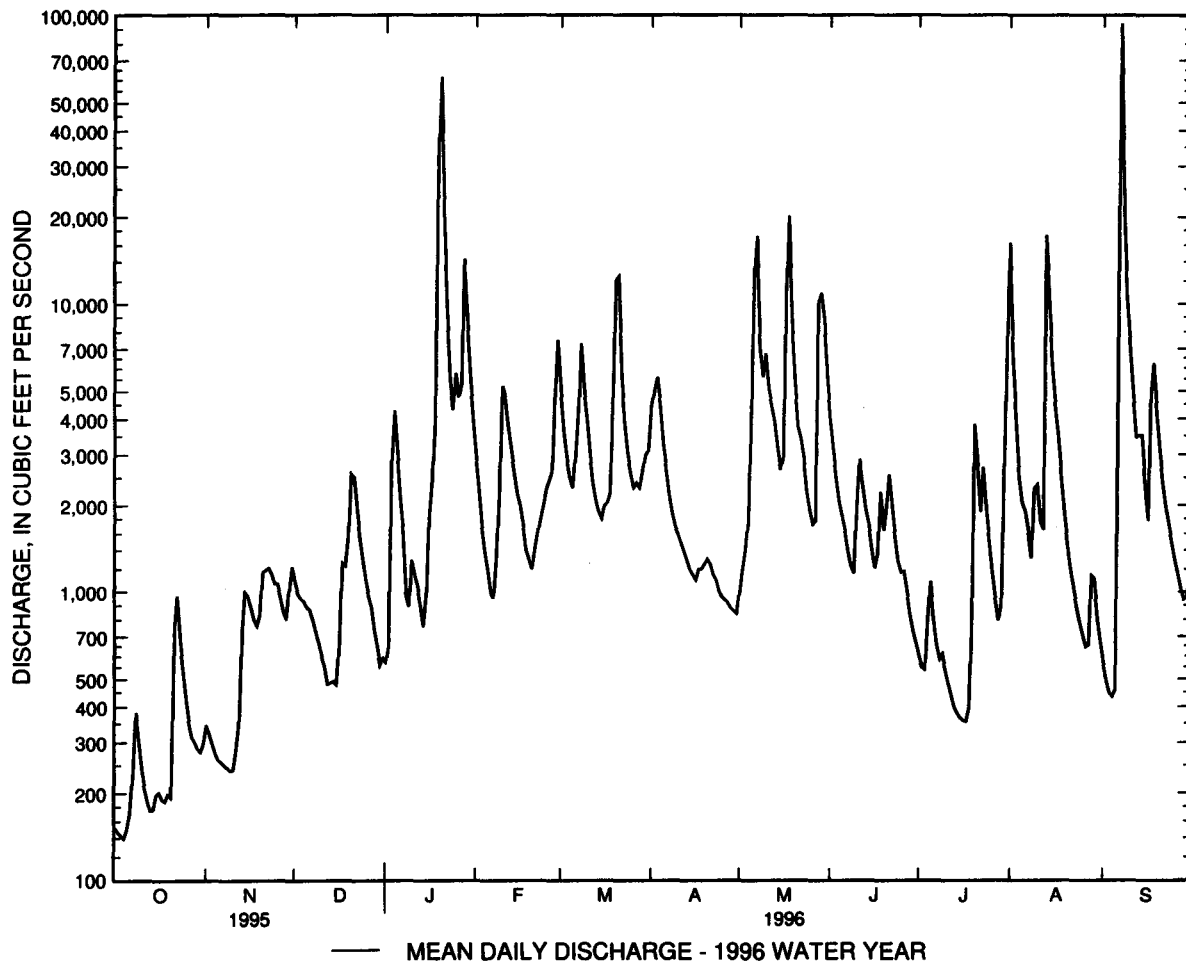
a Sept. 11, 12, 16.

b Sept. 11, 12, 1966.

c From rating curve extended above 145,000 ft³/s on basis of slope-area measurement of peak flow.

d From floodmarks.

f Jan. 28, 1956 (result of freeze-up), July 30, 1966 (result of temporary dam).



POTOMAC RIVER BASIN

01608500 SOUTH BRANCH POTOMAC RIVER NEAR SPRINGFIELD, WV--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1960-61, 1963, 1965, 1969, 1976-80, 1993 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

		DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	TEMPER- ATURE AIR (DEG C) (00020)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (MG/L) (00301)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	
SEP													
08...	1415	16300	158	7.3	18.5	30.0	732	8.6	96	72	24	2.9	
09...	1130	10400	162	7.3	19.0	29.0	733	8.1	91	73	24	3.1	
DATE		SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- LINITY WAT DIS TOT IT FIELD (MG/L AS CACO3) (39086)	BICAR- BONATE WATER DIS IT FIELD (MG/L AS HCO3) (00453)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L AS N) (70300)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	
SEP													
08...	1.6	1.9	53	65	13	1.6	0.20	6.3	100	<0.010	0.760		
09...	1.6	1.8	54	66	13	1.7	<0.10	6.5	100	<0.010	0.770		
DATE		NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS- PENDE TOTAL (MG/L AS C) (00689)	ETHAL- FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)
SEP													
08...	<0.020	0.80	0.20	0.220	0.010	0.020	5	4	3.8	2.2	<0.004	<0.002	
09...	0.020	0.40	<0.20	0.070	<0.010	0.010	4	3	3.4	2.0	<0.004	<0.002	
DATE		TER- BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	TRI- FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)	2,6-DI- ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)	BEN- ACETO- CHLOR, WATER FLTRD DISS, REC (UG/L) (49260)	ALA- CHLOR, WATER, DISS, REC (UG/L) (46342)	ALPHA BHC DIS- SOLVED (UG/L) (34253)	ATRA- ZINE, WATER, DISS, REC (UG/L) (39632)	FLUR- ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	BUTYL- ATE, WATER, DISS, REC (UG/L) (04028)	CAR- BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBO- FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	CHLOR- PYRIFOS DIS- SOLVED (UG/L) (38933)
SEP													
08...	<0.007	<0.002	<0.003	<0.002	<0.002	<0.002	0.008	<0.002	<0.002	E0.027	<0.003	<0.004	
09...	<0.007	<0.002	<0.003	<0.002	<0.002	<0.002	0.006	<0.002	<0.002	<0.011	<0.003	<0.004	
DATE		CYANA- ZINE, WATER, DISS, REC (UG/L) (04041)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	DEETHYL ATRA- ZINE, WATER, DISS, REC (UG/L) (04040)	DI- AZINON, DIS- SOLVED (UG/L) (39572)	DI- ELDRIN DIS- SOLVED (UG/L) (39381)	DISUL- FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	ETHO- PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	FONOFOS WATER FLTRD 0.7 U GF, REC (UG/L) (04095)	LINDANE DIS- SOLVED (UG/L) (39341)		
SEP													
08...	<0.004	<0.002	<0.006	E0.004	<0.002	<0.001	<0.017	<0.002	<0.003	<0.003	<0.004		
09...	<0.004	<0.002	<0.006	E0.003	<0.002	<0.001	<0.017	<0.002	<0.003	<0.003	<0.004		

E Estimated value.

01608500 SOUTH BRANCH POTOMAC RIVER NEAR SPRINGFIELD, WV--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	LIN- URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	MALA- THION, DIS- SOLVED (UG/L) (39532)	METHYL AZIN- PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	METHYL PARA- THION WAT FLT 0.7 U GF, REC (UG/L) (82667)	METO- LACHLOR WATER DISSOLV (UG/L) (39415)	METRI- BUZIN SENCOR WATER DISSOLV (UG/L) (82630)	MOL- INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	NAPROP- AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)	PEB- ULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)	PARA- THION, DIS- SOLVED (UG/L) (39542)	PENDI- METH- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)
	SEP										
	08...	<0.002	<0.005	<0.001	<0.006	0.010	<0.004	<0.004	<0.003	<0.004	<0.004
	09...	<0.002	<0.005	<0.001	<0.006	0.005	<0.004	<0.004	<0.003	<0.004	<0.004
DATE	PER- METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	PRO- METON, WATER, DISS, REC (UG/L) (04037)	PRON- AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	PROP- CHLOR, WATER, DISS, REC (UG/L) (04024)	PRO- PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	PRO- PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	SI- MAZINE, WATER, DISS, REC (UG/L) (04035)	TEBU- THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TER- BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	THIO- BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)	TRIAL- LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)
	SEP										
	08...	<0.005	<0.018	<0.003	<0.007	<0.013	<0.004	<0.005	<0.010	<0.013	<0.002
	09...	<0.005	<0.018	<0.003	<0.007	<0.013	<0.004	<0.005	<0.010	<0.013	<0.001

POTOMAC RIVER BASIN

01610000 POTOMAC RIVER AT PAW PAW, WV

LOCATION.--Lat 39°32'20", long 78°27'24", Allegany County, Md., Hydrologic Unit 02070003, on left bank 250 ft upstream from bridge on Maryland State Highway 51 at Paw Paw, 3.3 mi downstream from Little Cacapon River, and at mile 277.

DRAINAGE AREA.--3,109 mi².

PERIOD OF RECORD.--October 1938 to current year.

GAGE.--Water-stage recorder. Datum of gage is 487.88 ft above sea level. Prior to Mar. 25, 1939, nonrecording gage at bridge 250 ft downstream at same datum.

REMARKS.--Records good except those for estimated daily discharges (ice effect), which are fair. Low flow affected by Stony River Reservoir prior to July 1981, since December 1950 by Savage River Reservoir (see station 01597500), and since July 1981 by Jennings Randolph Lake. National Weather Service gage-height telemeter at station. U.S. Army Corps of Engineers satellite telemeter at station. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, 54.0 ft on Mar. 18, 1936, discharge, 240,000 ft³/s, from rating curve extended above 85,000 ft³/s on basis of slope-area measurement of peak flow at site 5.0 mi upstream at Okonoko, W. Va.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 20,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 20	1030	122,000	40.86	May 30	0015	25,600	17.56
Jan. 25	0030	22,400	16.44	June 12	0315	20,500	15.74
Jan. 28	0745	30,400	19.14	Aug. 1	0945	29,600	18.89
Mar. 20	1415	38,500	21.74	Aug. 13	1815	36,900	21.24
May 6	1915	29,500	18.85	Sept. 7	1830	*140,000	*43.45
May 9	1900	20,600	15.77	Sept. 18	0130	21,300	16.01
May 18	0915	33,600	20.20				

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	560	831	3380	1870	7370	12700	8870	2700	9710	1460	26000	1560
2	554	837	3340	2230	6080	9450	14400	3520	7420	1360	12800	1440
3	547	822	3140	7700	5180	7880	12200	3750	6010	1380	8000	1350
4	552	794	3010	8670	e4400	6640	9710	3920	5360	1450	5890	1410
5	611	774	2790	6370	e3400	6320	8050	7420	4830	1860	4740	1510
6	1020	727	2690	4890	e3200	6620	6570	21000	4110	1580	4120	11100
7	1090	718	2450	4040	e3400	8890	5820	20600	3400	1380	3530	97500
8	897	708	2190	e2600	e3500	16200	5200	14000	3110	1300	2910	63000
9	888	700	2010	e2400	4380	12000	4790	17000	2940	1350	5190	25000
10	777	679	1840	e2200	8510	9000	4570	18300	4170	1270	6790	17400
11	646	710	1440	e2000	9300	7720	4180	13800	5500	1140	4770	11000
12	606	1800	e1400	e2000	10000	6950	3820	11600	13500	1070	4300	8700
13	578	2020	e1400	e2000	8170	6030	3560	10100	7570	1010	27400	9160
14	567	2310	1500	e2100	7120	5180	3480	8030	5400	968	24000	9040
15	672	2810	1500	e2200	6310	4950	3220	6530	4310	948	12400	6310
16	714	3010	2530	e2400	5460	5680	3200	7600	3650	967	9250	5240
17	666	2540	5020	e2600	4510	5590	3410	14900	3250	933	7370	13600
18	574	2340	4240	e3400	4010	5840	3370	27700	3720	978	5870	18400
19	562	2430	4760	e40000	3580	6870	3300	14400	3950	1950	4880	11900
20	575	3300	6230	103000	3370	32000	3630	10000	4160	10000	4190	8180
21	3630	3450	5630	30800	3810	23500	3570	7810	4620	6940	3530	6250
22	3540	3440	4670	19100	4810	15000	3250	7250	3710	4320	3000	5250
23	2030	3310	3960	16500	6130	10400	2880	7000	3020	7500	2670	4700
24	1460	3160	3410	17300	7610	8180	2810	5430	2520	5360	2360	4280
25	1170	3110	2980	19600	9160	7060	2700	4710	3330	3720	2170	3800
26	1000	2820	2660	15000	8430	6540	2610	4090	2820	2940	2010	3280
27	907	2580	2330	16700	8700	6820	2530	4060	2290	2260	1850	2970
28	926	2790	2120	26600	15300	6320	2340	12800	1910	1770	2120	2800
29	900	3870	2040	16900	16900	7570	2200	20400	1710	1760	2250	3140
30	834	3920	1790	11900	---	8640	2280	22800	1580	3640	1950	3010
31	817	---	1870	9200	---	8520	---	14200	---	12000	1720	---
TOTAL	30870	63310	90320	404270	192100	291060	142520	347420	133580	86564	210030	362280
MEAN	996	2110	2914	13040	6624	9389	4751	11210	4453	2792	6775	12080
MAX	3630	3920	6230	103000	16900	32000	14400	27700	13500	12000	27400	97500
MIN	547	679	1400	1870	3200	4950	2200	2700	1580	933	1720	1350
CFSM	.32	.68	.94	4.19	2.13	3.02	1.53	3.60	1.43	.90	2.18	3.88
IN.	.37	.76	1.08	4.84	2.30	3.48	1.71	4.16	1.60	1.04	2.51	4.33

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 1996, BY WATER YEAR (WY)

	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950
MEAN	1529	1963	3287	4030	5286	7477	6033	4561	2564	1375	1286	1169
MAX	9709	17180	12300	13040	12910	17440	15620	11210	7612	5071	6775	12080
(WY)	1977	1986	1973	1996	1994	1994	1993	1996	1972	1949	1996	1996
MIN	261	327	388	679	1116	2043	1882	1074	544	303	278	252
(WY)	1952	1966	1966	1981	1954	1990	1995	1941	1965	1966	1944	1959

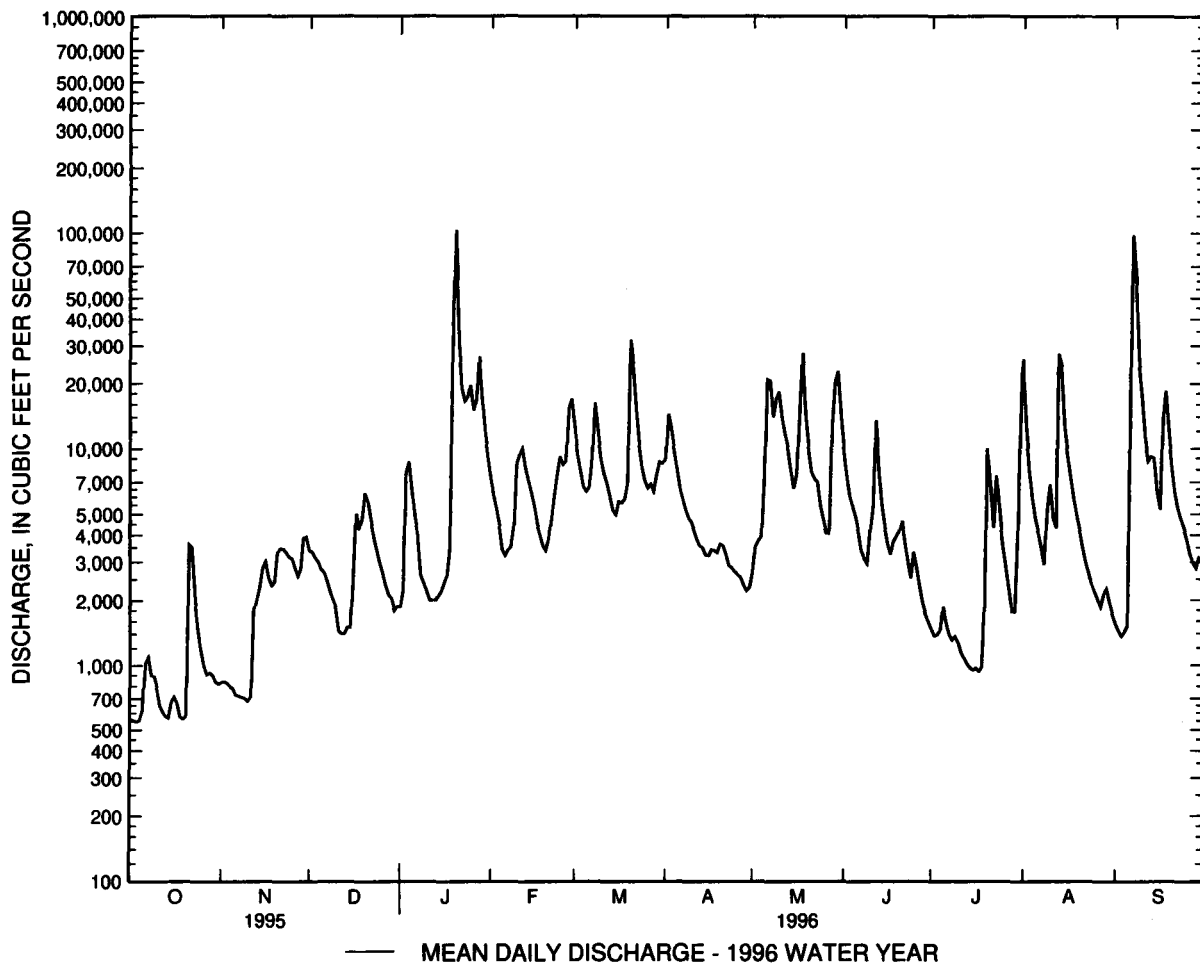
01610000 POTOMAC RIVER AT PAW PAW, WV--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1939 - 1996	
ANNUAL TOTAL	983152		2354324			
ANNUAL MEAN	2694		6433		3371	
HIGHEST ANNUAL MEAN					6433	1996
LOWEST ANNUAL MEAN					1499	1969
HIGHEST DAILY MEAN	29700	Jan 16	103000	Jan 20	125000	Nov 6 1985
LOWEST DAILY MEAN	502	Sep 16	547	Oct 3	172	(a)
ANNUAL SEVEN-DAY MINIMUM	563	Sep 28	619	Oct 14	179	Sep 7 1966
INSTANTANEOUS PEAK FLOW			140000	Sep 7	(b) 235000	Nov 5 1985
INSTANTANEOUS PEAK STAGE			16.01	Sep 7	53.58	Nov 5 1985
INSTANTANEOUS LOW FLOW			539	Oct 3	164	(c)
ANNUAL RUNOFF (CFSM)	.87		2.07		1.08	
ANNUAL RUNOFF (INCHES)	11.76		28.17		14.73	
10 PERCENT EXCEEDS	4740		14100		7640	
50 PERCENT EXCEEDS	1930		3710		1800	
90 PERCENT EXCEEDS	698		961		440	

a Sept. 10, 12, 13, 1966.

b From rating curve extended above 85,000 ft³/s on basis of slope-area measurement of peak flow at site 5.0 mi upstream at Okonoko, WV.

c Sept. 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 mi².

PERIOD OF RECORD.--October 1932 to current year. Gage-height records collected at same site since June 1925 are contained in reports of National Weather Service.

REVISED RECORDS.--WSP 781: 1933(M). WSP 801: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 383.68 ft above sea level. Oct. 1, 1932, to Jan. 5, 1935, Mar. 18, 1936, to Jan. 20, 1937, nonrecording gage, on former highway bridge just upstream at same datum.

REMARKS.--Records good except those for estimated daily discharges (ice effect), which are fair. Slight regulation at low flow from power plants upstream. Low flow affected slightly by Stony River Reservoir prior to July 1981, since December 1950 by Savage River Reservoir (see station 01597500), and since July 1981 by Jennings Randolph Lake. National Weather Service gage-height telemeter at station. U.S. Army Corps of Engineers satellite telemeter at station. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known prior to 1932, about 40 ft in May 1889, discharge, about 220,000 ft³/s.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 23,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 19	0445	24,700	13.65	May 18	1645	32,400	15.83
Jan. 20	1515	*152,000	*36.26	May 30	0830	27,300	14.42
Jan. 25	0930	25,600	13.91	Aug. 1	1400	32,800	15.94
Jan. 28	1345	34,700	16.42	Aug. 13	2400	45,400	19.05
Mar. 20	1945	51,200	20.31	Sept. 8	0200	148,000	35.81
May 7	0130	34,200	16.29	Sept. 18	1000	23,700	13.34
May 10	0145	24,000	13.43				

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	609	1040	4410	2350	9600	15400	10700	3210	12400	1910	29200	1980
2	601	1040	4060	2500	7870	11700	18800	3690	9160	1770	18800	1790
3	589	1040	4110	7340	6670	9340	17300	4400	7400	1700	11600	1660
4	599	1000	3910	12700	5760	7910	13100	4330	6290	1710	8560	1600
5	685	954	3680	9350	5050	7000	10600	5160	5730	1810	6310	1720
6	791	926	3430	6930	4320	7190	8750	20300	5150	2090	5330	6680
7	1160	882	3220	5510	e4200	9290	7440	28100	4310	1760	4510	100000
8	1170	865	2940	e4200	e4200	18400	6540	17900	3780	1570	3930	112000
9	1060	847	2660	e3000	e4300	16000	5930	19500	3690	1510	4320	31200
10	992	838	2430	e2800	8370	11300	5660	22400	3960	1540	7510	21000
11	866	857	e2000	e2600	9760	9320	5240	17300	6570	1440	6410	14600
12	732	1380	e1750	e2500	11500	8220	4790	14900	16700	1310	4860	10600
13	676	3280	e1750	e2500	9740	7440	4430	12600	11500	1210	22300	10400
14	692	3200	e1850	e2600	8250	6250	4230	10500	7650	1140	34300	12600
15	694	4100	1870	e2800	7480	5810	4070	8220	5720	1100	17700	9000
16	764	4710	2230	e3000	6590	6290	3840	7840	4660	1090	12500	6920
17	799	3970	5900	e3200	5610	6580	3970	14100	4070	1090	10400	11600
18	762	3450	6160	e4000	4810	6640	4060	27300	4180	1080	8490	22100
19	677	3350	5580	e48000	4380	7380	3910	18800	5230	1490	6570	15800
20	728	3960	7790	138000	4070	36200	3990	12200	5360	5890	5380	10900
21	4830	5000	7690	63500	4340	35300	4180	9380	5350	10200	4640	8020
22	8100	4780	6310	23300	5230	20400	3920	7820	4730	5560	3910	6590
23	4240	4760	5200	18900	6520	14300	3560	8280	3920	6190	3530	5720
24	2710	4350	4520	18100	8070	10600	3340	6520	3360	7770	3140	5140
25	1980	4410	3930	23800	9680	8920	3270	5480	3770	4820	2940	4650
26	1570	4230	3490	18700	9590	7930	3140	4850	4330	3690	2650	4050
27	1350	3800	3200	18200	9190	7620	3070	4440	3430	3070	2410	3650
28	1260	3490	3020	32400	14200	7460	2940	7830	2740	2310	2330	3430
29	1250	4110	2720	22500	19600	8020	2760	20700	2340	2020	2760	3540
30	1160	4640	2460	15500	---	10300	2800	25900	2090	2180	2630	4030
31	1080	---	2210	11900	---	10400	---	18400	---	10300	2210	---
TOTAL	45176	85259	116480	532680	218950	354910	180330	392350	169570	92320	262130	452970
MEAN	1457	2842	3757	17180	7550	11450	6011	12660	5652	2978	8456	15100
MAX	8100	5000	7790	138000	19600	36200	18800	28100	16700	10300	34300	112000
MIN	589	838	1750	2350	4070	5810	2760	3210	2090	1080	2210	1600
CFSM	.36	.70	.92	4.22	1.85	2.81	1.48	3.11	1.39	.73	2.08	3.71
IN.	.41	.78	1.06	4.87	2.00	3.24	1.65	3.58	1.55	.84	2.39	4.14

e Estimated

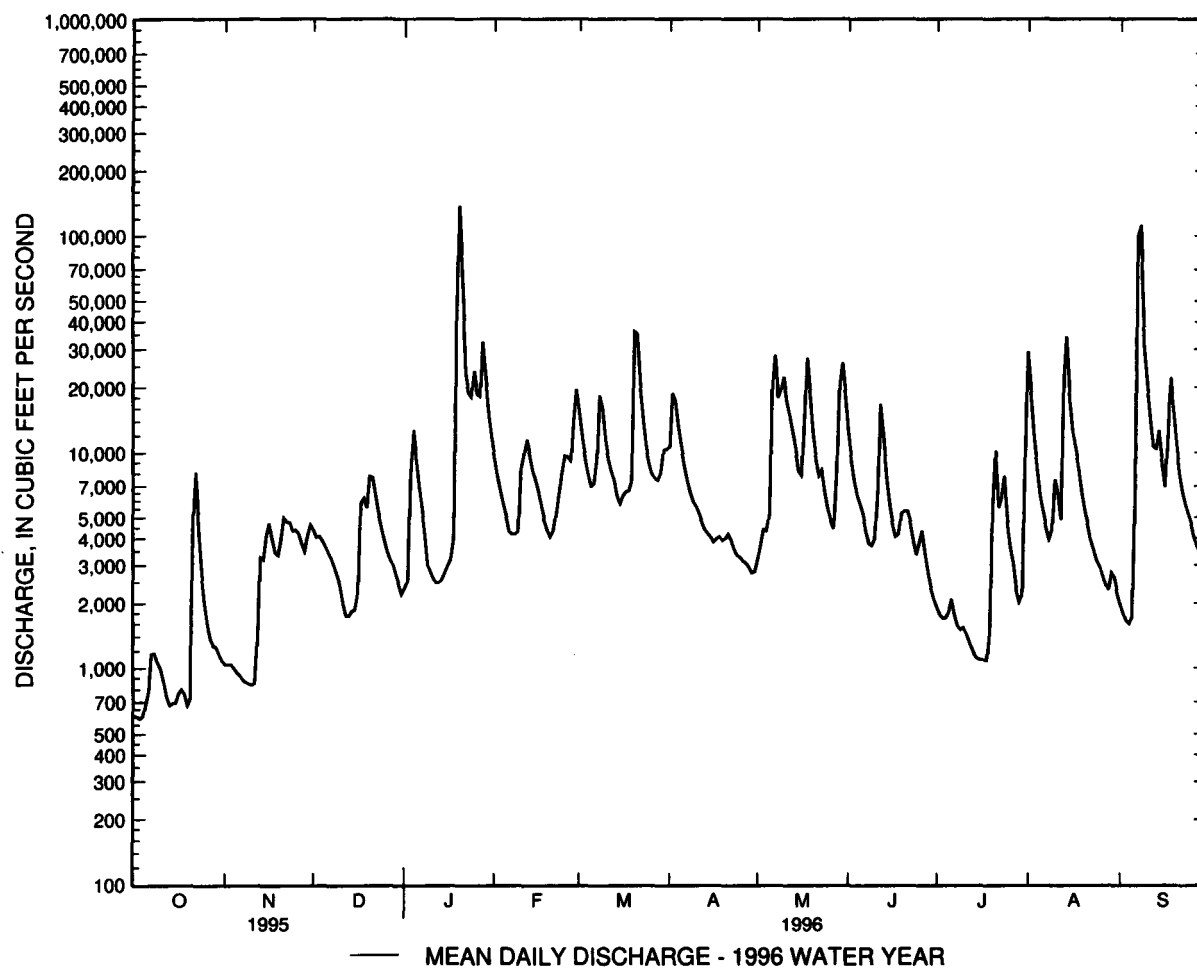
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1933 - 1996, BY WATER YEAR (WY)

MEAN	2027	2425	3981	5193	6528	9408	7703	5612	3106	1605	1621	1462
MAX	13270	20090	15160	17180	16720	32280	19170	13260	13390	6677	9479	15100
(WY)	1977	1986	1973	1996	1971	1936	1993	1988	1972	1949	1955	1996
MIN	309	399	463	751	1041	2311	2286	1344	622	357	342	329
(WY)	1942	1966	1966	1956	1934	1990	1995	1941	1969	1966	1944	1946

01613000 POTOMAC RIVER AT HANCOCK, MD--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1933 - 1996	
ANNUAL TOTAL	1182996		2903125			
ANNUAL MEAN	3241		7932		4211	
HIGHEST ANNUAL MEAN					7932	
LOWEST ANNUAL MEAN					1770	
HIGHEST DAILY MEAN	28400	Jan 16	138000	Jan 20	261000	Mar 18 1936
LOWEST DAILY MEAN	530	Sep 16	589	Oct 3	184	Oct 3 1932
ANNUAL SEVEN-DAY MINIMUM	613	Sep 28	719	Oct 1	215	Sep 7 1966
INSTANTANEOUS PEAK FLOW			152000	Jan 20	(a) 340000	Mar 18 1936
INSTANTANEOUS PEAK STAGE			36.26	Jan 20	47.60	Mar 18 1936
INSTANTANEOUS LOW FLOW			580	Oct 3	180	Oct 4 1932
ANNUAL RUNOFF (CFSM)	.80		1.95		1.03	
ANNUAL RUNOFF (INCHES)	10.80		26.52		14.05	
10 PERCENT EXCEEDS	6000		17800		9590	
50 PERCENT EXCEEDS	2410		4640		2180	
90 PERCENT EXCEEDS	749		1160		536	

a From rating curve extended above 120,000 ft³/s on basis of slope-area measurement of peak flow.



POTOMAC RIVER BASIN

01614500 CONOCOCHIEGUE 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 mi².

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WSP 756: Drainage area. WSP 1432: 1929(M), 1930, 1931-32(M), 1935(M).

GAGE.--Water-stage recorder. Datum of gage is 391.85 ft above sea level. Prior to Dec. 6, 1932, nonrecording gage at highway bridge 0.7 mi downstream at datum 2.93 ft lower. Dec. 6, 1932, to Oct. 7, 1933, nonrecording gage 150 ft downstream from former site at datum 4.92 ft lower than present datum.

REMARKS.--Water-discharge records good except those for estimated daily discharges (ice effect), which are fair. Low flow partly regulated by small powerplants near Mercersburg, Pennsylvania. National Weather Service gage-height telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known prior to 1928, about 16.5 ft, present datum, sometime in 1889, from information by local residents, discharge, about 22,000 ft³/s.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,300 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 20	0430	15,300	14.49	June 21	0630	8,580	10.72
Jan. 25	0200	4,650	7.82	July 19	2230	4,540	7.72
Jan. 28	1115	10,000	11.60	Sept. 7	0915	7,970	10.32
Apr. 2	0415	4,910	8.05	Sept. 14	1130	6,670	9.42
June 12	2015	5,130	8.24	Sept. 17	1600	4,760	7.92
June 19	1545	*16,700	*15.23				

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	89	236	642	371	1680	1330	1810	851	741	1110	1170	249
2	89	223	631	565	1440	1210	4340	748	660	874	818	240
3	89	225	594	1500	1270	1110	2650	680	605	887	764	234
4	93	214	564	1210	e1050	949	2020	624	582	902	1560	238
5	112	196	530	859	e950	897	1690	632	569	723	863	497
6	249	185	501	669	e900	1330	1460	1140	528	626	681	1130
7	241	185	470	540	e880	2100	1300	1010	479	565	594	7260
8	155	201	436	249	e840	2560	1160	1250	466	806	541	4900
9	117	193	421	e500	998	1740	1130	2740	450	1060	512	1830
10	109	184	391	e470	1340	1400	1110	2250	588	618	476	1690
11	104	184	e290	e450	1550	1260	990	2000	593	523	436	1310
12	102	1690	e360	e440	1430	1160	903	2560	3710	475	426	1040
13	99	1290	e350	e430	1090	1090	837	1830	1940	483	664	4070
14	105	907	345	e430	989	1010	785	1490	1120	505	592	5980
15	159	2370	338	e420	928	1090	756	1290	936	457	511	3100
16	179	1950	671	e410	848	1210	1350	1350	766	461	610	2010
17	137	1260	1300	e400	749	1050	1310	1250	659	412	609	4460
18	123	1020	945	395	712	1010	1080	1160	844	387	497	3340
19	113	944	1000	4570	648	1010	979	1010	11800	2100	425	2190
20	110	956	1010	14600	696	3630	931	886	6670	3010	387	e1600
21	1800	931	812	7200	2550	3020	855	805	6440	1250	363	e1200
22	1760	877	691	2960	2220	2170	787	757	2960	949	370	e1100
23	718	788	621	2130	2040	1740	742	690	1930	901	352	e1000
24	493	803	567	2720	2070	1460	721	627	1530	724	327	e950
25	386	749	525	4070	2030	1300	664	585	2300	627	306	e900
26	323	673	487	2500	1740	1170	633	546	1490	562	297	e850
27	286	628	438	5500	1590	1040	626	592	1170	504	286	e800
28	375	595	417	9260	1590	1020	579	756	998	461	324	e750
29	360	639	398	3990	1570	1830	565	1080	882	450	319	e900
30	290	669	365	2630	---	1970	657	1190	883	725	287	e750
31	256	---	360	2100	---	1620	---	880	---	1310	263	---
TOTAL	9621	21965	17470	74538	38388	46486	35420	35259	55289	25447	16630	56568
MEAN	310	732	564	2404	1324	1500	1181	1137	1843	821	536	1886
MAX	1800	2370	1300	14600	2550	3630	4340	2740	11800	3010	1560	7260
MIN	89	184	290	249	648	897	565	546	450	387	263	234
CFSM	.63	1.48	1.14	4.87	2.68	3.04	2.39	2.30	3.73	1.66	1.09	3.82
IN.	.72	1.65	1.32	5.61	2.89	3.50	2.67	2.66	4.16	1.92	1.25	4.26

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 1996, BY WATER YEAR (WY)

	326	438	617	679	837	1190	1070	743	516	333	235	265
MEAN	326	438	617	679	837	1190	1070	743	516	333	235	265
MAX	2177	1453	1904	2404	2446	3725	2991	1736	3278	1358	921	1886
(WY)	1977	1933	1973	1996	1984	1994	1993	1989	1972	1928	1942	1996
MIN	42.3	45.4	61.2	88.8	151	274	304	218	120	62.2	48.0	54.6
(WY)	1931	1931	1931	1931	1931	1990	1995	1941	1965	1966	1966	1930

01614500 CONOCOCHEAGUE CREEK AT FAIRVIEW, MD--Continued

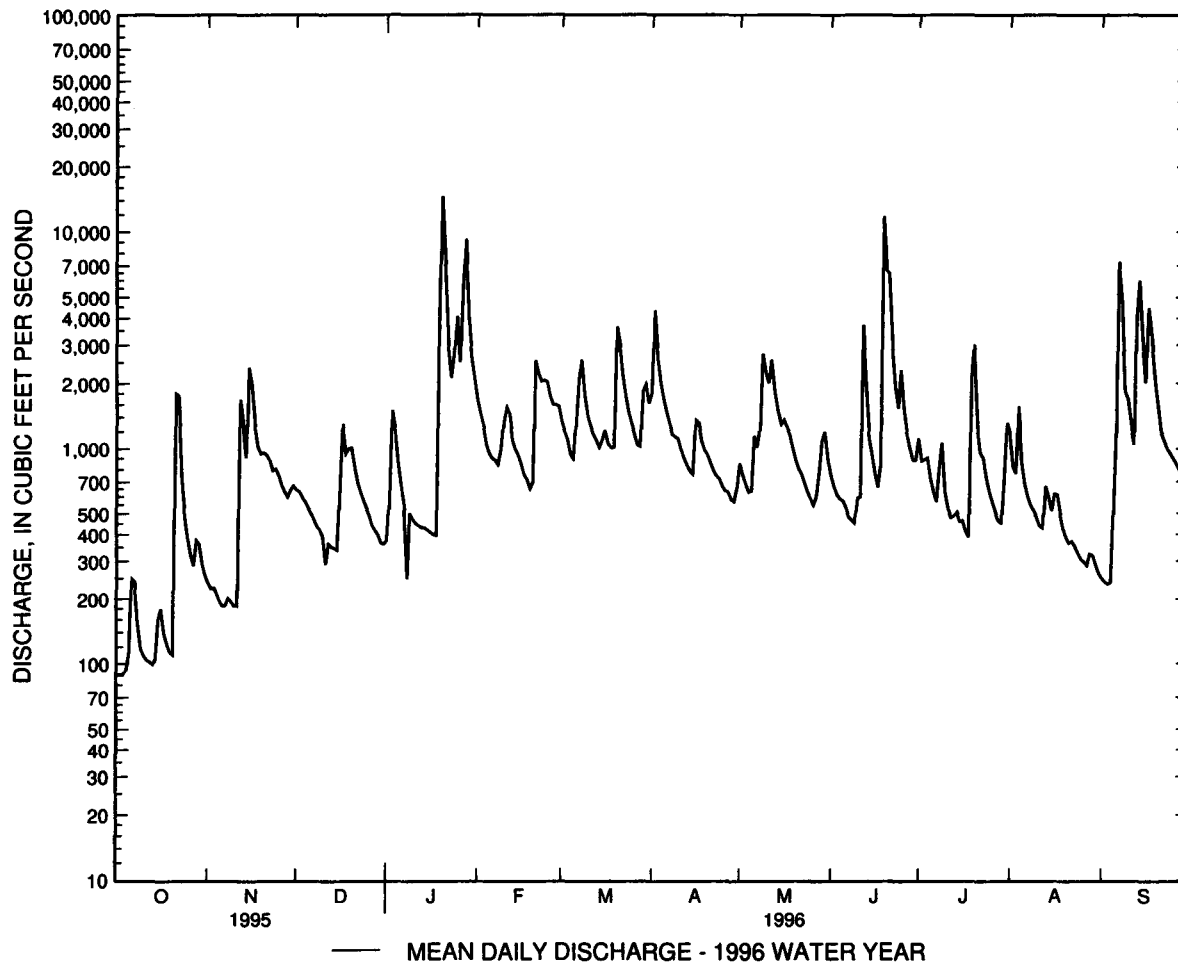
SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1928 - 1996	
ANNUAL TOTAL	171472		433081			
ANNUAL MEAN	470		1183		602	
HIGHEST ANNUAL MEAN					1183	
LOWEST ANNUAL MEAN					301	
HIGHEST DAILY MEAN	3960	Jan 16	14600	Jan 20	26700	Jun 23 1972
LOWEST DAILY MEAN	89	(a)	89	(a)	25	Nov 28 1930
ANNUAL SEVEN-DAY MINIMUM	93	Sep 28	113	Oct 8	28	Sep 7 1966
INSTANTANEOUS PEAK FLOW			16700	Jun 19	(b) 32400	Jun 23 1972
INSTANTANEOUS PEAK STAGE			15.23	Jun 19	(c) 24.50	Jun 23 1972
INSTANTANEOUS LOW FLOW			84	Oct 3	21	(d)
ANNUAL RUNOFF (CFSM)	.95		2.40		1.22	
ANNUAL RUNOFF (INCHES)	12.91		32.61		16.56	
10 PERCENT EXCEEDS	924		2200		1310	
50 PERCENT EXCEEDS	340		805		334	
90 PERCENT EXCEEDS	110		254		102	

a Oct. 1-3.

b From rating curve extended above 15,000 ft³/s on basis of contracted-opening and flow-over-road measurement of peak flow.

c From floodmark.

d Aug. 8, Sept. 12, 1966.



POTOMAC RIVER BASIN

01614500 CONOCOCHEAGUE CREEK AT FAIRVIEW, MD--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1967-83, 1992 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: November 1966 to September 1980.

SUSPENDED SEDIMENT DISCHARGE: October 1966 to September 1980.

REMARKS.--Water temperatures were measured in field at time of sampling.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum daily, 30.0°C, July 17, 1969; minimum daily, 0.0°C on many days during winter periods.

SEDIMENT CONCENTRATION: Maximum daily mean, 1,050 mg/L, Oct. 25, 1971; minimum daily mean, 1 mg/L, on many days.

SEDIMENT LOAD: Maximum daily, 73,000 tons, June 23, 1972; minimum daily, 0.17 ton, Nov. 24, 26, 27, 1966.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	TEMPER- ATURE AIR (DEG C) (00020)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (MG/L) (00301)	NITRO- GEN, DIS- SOLVED TOTAL (MG/L) AS N (00600)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L) AS NO3 (71851)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L) AS N (00613)
OCT 1995												
03...	1400	87	485	8.5	19.0	23.0	750	12.8	140	4.8	--	<0.010
21...	1041	1990	--	--	--	--	--	--	--	6.0	12	0.050
21...	1452	3140	289	7.5	--	--	--	--	--	5.9	14	0.030
21...	1823	3020	250	7.5	--	--	--	--	--	5.5	16	0.040
21...	2227	2560	245	7.6	--	--	--	--	--	6.1	18	0.040
22...	0249	2540	267	7.5	--	--	--	--	--	5.4	17	0.040
22...	0717	2380	249	7.5	--	--	--	--	--	5.5	18	0.040
NOV												
06...	1430	194	428	8.1	7.5	9.0	760	12.9	108	4.7	--	<0.010
12...	0807	1990	313	7.5	--	--	--	--	--	6.5	11	0.020
12...	1332	2050	253	7.4	--	--	--	--	--	6.6	12	0.020
12...	1847	2180	246	7.4	--	--	--	--	--	4.9	12	0.020
12...	2354	2080	232	7.4	--	--	--	--	--	5.0	13	0.020
DEC												
12...	1430	452	375	8.2	0.0	-2.0	762	15.7	108	4.7	19	0.010
DATE		NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L) AS N (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L) AS N (00608)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L) AS N (00625)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L) AS N (00623)	PHOS- PHORUS TOTAL (MG/L) AS P (00665)	PHOS- PHORUS DIS- SOLVED (MG/L) AS P (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L) AS P (00671)	CARBON, ORGANIC TOTAL (MG/L) AS C (00680)	SEDI- MENT, DIS- SOLVED SUS- PENDED (MG/L) (80154)	SEDI- MENT, DIS- SOLVED SUS- PENDED (T/DAY) (80155)	
OCT 1995												
03...		4.50	<0.015	0.30	0.30	0.290	0.290	0.270	4.1	2	0.40	
21...		2.70	<0.015	3.3	0.50	2.00	0.070	0.080	--	--	--	
21...		3.20	0.040	2.7	0.70	1.70	0.110	0.110	--	--	--	
21...		3.60	0.030	1.9	0.60	1.20	0.100	0.100	--	--	--	
21...		4.00	0.030	2.1	0.60	0.890	0.090	0.080	--	--	--	
22...		3.90	0.040	1.5	0.50	0.610	0.050	0.060	--	--	--	
22...		4.20	0.040	1.3	0.50	0.570	0.030	0.050	--	--	--	
NOV												
06...		4.40	<0.015	0.30	0.20	0.120	0.110	0.120	3.4	1	0.63	
12...		2.60	0.070	3.9	0.60	1.70	0.170	0.130	--	--	--	
12...		2.70	0.030	3.9	0.60	1.10	0.170	0.130	--	--	--	
12...		2.80	0.040	2.1	0.60	0.560	0.120	0.090	--	--	--	
12...		2.90	0.030	2.1	0.50	0.500	0.100	0.060	--	--	--	
DEC												
12...		4.40	<0.015	0.30	<0.20	0.070	0.030	0.040	2.1	14	18	

01614500 CONOCOCHEAGUE CREEK AT FAIRVIEW, MD

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996 -- Continued

DATE	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	SEDI- MENT, SUS- PENDED (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY) (80155)
JAN 1996										
16...	4.60	0.040	0.60	0.30	0.080	0.060	0.060	3.8	8	9.3
19...	2.70	0.110	3.6	0.50	1.20	0.070	0.060	--	--	--
19...	2.80	0.190	5.4	0.50	1.40	0.070	0.070	--	--	--
19...	2.60	0.230	2.8	0.50	0.750	0.080	0.080	--	--	--
19...	2.50	0.230	2.0	0.60	0.510	0.110	0.090	--	--	--
20...	3.00	0.120	1.3	0.40	0.320	0.060	0.050	--	--	--
21...	3.20	0.050	0.70	0.30	0.180	0.050	0.050	--	--	--
21...	--	--	--	--	--	--	--	--	72	1490
21...	3.40	0.050	0.50	0.30	0.160	0.040	0.050	--	--	--
21...	--	--	--	--	--	--	--	--	77	1330
21...	3.50	0.040	0.50	0.30	0.150	0.050	0.050	--	--	--
21...	--	--	--	--	--	--	--	--	69	1000
21...	3.70	0.040	0.40	0.30	0.110	0.050	0.050	--	--	--
21...	--	--	--	--	--	--	--	--	65	770
21...	4.00	0.040	0.50	0.20	0.130	0.040	0.050	--	--	--
22...	--	--	--	--	--	--	--	--	81	784
22...	4.10	0.040	0.50	0.30	0.120	0.040	0.040	--	--	--
22...	--	--	--	--	--	--	--	--	81	675
22...	4.20	0.030	0.50	0.20	0.110	0.050	0.040	--	--	--
22...	--	--	--	--	--	--	--	--	74	529
22...	4.30	0.060	0.50	0.20	0.110	0.020	0.030	--	--	--
23...	--	--	--	--	--	--	--	--	71	456
23...	4.40	0.040	<0.20	0.20	0.050	0.030	0.040	--	--	--
23...	--	--	--	--	--	--	--	--	57	328
23...	4.50	0.260	0.60	0.50	0.110	0.070	0.070	--	--	--
23...	--	--	--	--	--	--	--	--	51	269
24...	4.50	0.250	0.60	0.40	0.110	0.070	0.060	--	--	--
24...	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	115	897
24...	3.90	0.160	1.0	0.50	0.230	0.070	0.070	--	--	--
24...	3.60	0.160	1.5	0.50	0.340	0.080	0.070	--	--	--
24...	--	--	--	--	--	--	--	--	136	1660
25...	3.50	0.150	1.0	0.40	0.220	0.070	0.070	--	--	--
25...	--	--	--	--	--	--	--	--	122	1510
25...	3.60	0.110	0.80	0.40	0.170	0.060	0.050	--	--	--
25...	--	--	--	--	--	--	--	--	112	1320
25...	3.80	0.070	0.80	0.30	0.180	0.050	0.040	--	--	--
25...	--	--	--	--	--	--	--	--	85	914
25...	3.70	0.060	0.50	0.30	0.110	0.040	0.040	--	--	--
25...	--	--	--	--	--	--	--	--	67	621
25...	3.90	0.040	0.50	0.20	0.100	0.030	0.030	--	--	--
26...	--	--	--	--	--	--	--	--	52	405
26...	4.10	0.030	0.40	0.20	0.100	0.050	0.030	--	--	--
26...	--	--	--	--	--	--	--	--	43	279
26...	4.30	<0.015	0.40	<0.20	0.080	0.030	0.020	--	--	--
26...	--	--	--	--	--	--	--	--	38	226
27...	4.40	0.020	0.40	<0.20	0.080	0.030	0.030	--	--	--
27...	--	--	--	--	--	--	--	--	284	2340
27...	3.60	0.100	1.2	0.30	0.290	0.070	0.080	--	--	--
27...	--	--	--	--	--	--	--	--	293	4450
27...	3.20	0.120	1.5	0.40	0.400	0.100	0.100	--	--	--
27...	--	--	--	--	--	--	--	--	295	5710
27...	2.90	0.130	1.5	0.30	0.430	0.120	0.110	--	--	--
27...	--	--	--	--	--	--	--	--	240	5340
27...	2.70	0.130	1.3	0.30	0.370	0.120	0.080	--	--	--
28...	--	--	--	--	--	--	--	--	235	5700
28...	3.20	0.040	0.50	0.20	0.140	0.030	0.040	--	--	--
28...	--	--	--	--	--	--	--	--	78	1700
28...	4.00	0.020	0.40	<0.20	0.080	0.030	0.030	--	--	--
28...	--	--	--	--	--	--	--	--	86	1540
29...	3.50	0.030	0.30	<0.20	0.070	0.040	0.030	--	--	--
29...	--	--	--	--	--	--	--	--	85	1140
29...	3.80	0.030	0.30	<0.20	0.100	0.040	0.040	--	--	--
29...	--	--	--	--	--	--	--	--	59	664
29...	3.90	0.020	0.50	<0.20	0.100	0.040	0.040	--	--	--
29...	--	--	--	--	--	--	--	--	53	511
29...	3.30	0.050	0.50	0.20	0.110	0.040	0.040	--	--	--
29...	--	--	--	--	--	--	--	--	41	351
30...	4.00	<0.015	0.30	0.30	0.070	0.030	0.030	--	--	--
30...	--	--	--	--	--	--	--	--	41	322

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

		DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	TEMPER- ATURE AIR (DEG C) (00020)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS NO3) (71851)
JAN 1996											
30...	0805	2750	--	--	--	--	--	--	--	4.4	18
30...	1214	2600	--	--	--	--	--	--	--	--	--
30...	1637	2470	--	--	--	--	--	--	--	4.4	18
30...	2113	2380	--	--	--	--	--	--	--	--	--
31...	0159	2290	--	--	--	--	--	--	--	4.5	19
31...	0656	2200	--	--	--	--	--	--	--	--	--
31...	1206	2100	--	--	--	--	--	--	--	4.5	19
31...	1732	2000	--	--	--	--	--	--	--	--	--
31...	2314	1900	--	--	--	--	--	--	--	4.5	--
FEB											
13...	1400	1030	317	7.5	2.5	-1.5	753	12.7	94	5.0	21
21...	0224	1990	--	--	--	--	--	--	--	6.1	17
21...	0645	2900	278	--	--	--	--	--	--	--	--
21...	1038	2850	--	--	--	--	--	--	--	5.4	14
21...	1441	2640	247	--	--	--	--	--	--	--	--
21...	1858	2570	--	--	--	--	--	--	--	4.6	14
21...	2322	2480	263	--	--	--	--	--	--	--	--
22...	0357	2380	--	--	--	--	--	--	--	4.2	14
22...	0844	2250	250	--	--	--	--	--	--	--	--
22...	1345	2190	--	--	--	--	--	--	--	3.8	14
22...	1856	2100	249	--	--	--	--	--	--	--	--
23...	0014	2110	--	--	--	--	--	--	--	4.1	15
23...	0528	2110	251	--	--	--	--	--	--	--	--
23...	1049	2040	--	--	--	--	--	--	--	4.2	15
23...	1619	2000	250	--	--	--	--	--	--	--	--
23...	2155	1990	--	--	--	--	--	--	--	3.4	13
24...	0329	2120	--	--	--	--	--	--	--	3.8	14
24...	0859	2030	251	--	--	--	--	--	--	--	--
24...	1422	2100	--	--	--	--	--	--	--	3.9	15
24...	1934	2140	245	--	--	--	--	--	--	--	--
25...	0044	2160	--	--	--	--	--	--	--	4.0	14
25...	0552	2150	238	--	--	--	--	--	--	--	--
25...	1110	2040	--	--	--	--	--	--	--	3.3	13
25...	1643	1960	239	--	--	--	--	--	--	--	--
25...	2232	1870	--	--	--	--	--	--	--	3.3	13
MAR											
07...	1436	1990	--	--	--	--	--	--	--	7.1	12
07...	1912	2870	255	--	--	--	--	--	--	--	--
07...	2247	3210	--	--	--	--	--	--	--	5.8	14
08...	0219	3070	236	--	--	--	--	--	--	--	--
08...	0604	2840	--	--	--	--	--	--	--	4.9	15
08...	1008	2620	244	--	--	--	--	--	--	--	--
08...	1434	2390	--	--	--	--	--	--	--	4.6	17
08...	1925	2200	253	--	--	--	--	--	--	--	--
09...	0041	2030	--	--	--	--	--	--	--	4.4	--
19...	1215	946	317	7.9	8.0	8.5	740	11.3	98	4.3	17
20...	0109	1990	--	--	--	--	--	--	--	4.1	14
20...	0506	3570	247	--	--	--	--	--	--	--	--
20...	0759	3990	--	--	--	--	--	--	--	4.2	11
20...	1048	3890	215	--	--	--	--	--	--	--	--
20...	1341	3840	--	--	--	--	--	--	--	3.7	12
20...	1632	3950	223	--	--	--	--	--	--	--	--
20...	1919	4010	--	--	--	--	--	--	--	3.9	13
20...	2207	3900	218	--	--	--	--	--	--	--	--
21...	0103	3680	--	--	--	--	--	--	--	3.7	13
21...	0410	3440	215	--	--	--	--	--	--	--	--
21...	0731	3210	--	--	--	--	--	--	--	3.6	13
21...	1106	3010	223	--	--	--	--	--	--	--	--
21...	1454	2830	--	--	--	--	--	--	--	3.7	14
21...	1856	2670	231	--	--	--	--	--	--	--	--
21...	2314	2520	--	--	--	--	--	--	--	3.9	15
22...	0347	2370	239	--	--	--	--	--	--	--	--
22...	0838	2220	--	--	--	--	--	--	--	3.9	15
22...	1346	2110	248	--	--	--	--	--	--	--	--

POTOMAC RIVER BASIN

01614500 CONOCOCHEAGUE CREEK AT FAIRVIEW, MD--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	SEDI- MENT, SUS- PENDED (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY) (80155)
JAN 1996										
30...	0.010	4.10	0.020	0.30	0.20	0.070	0.030	0.030	--	--
30...	--	--	--	--	--	--	--	--	37	256
30...	0.010	4.10	0.020	0.30	0.40	0.060	0.030	0.030	--	--
30...	--	--	--	--	--	--	--	--	40	258
31...	0.010	4.20	0.020	0.30	0.20	0.070	0.030	0.030	--	--
31...	--	--	--	--	--	--	--	--	28	166
31...	0.010	4.20	0.030	0.30	0.50	0.050	0.020	0.030	--	--
31...	--	--	--	--	--	--	--	--	46	246
31...	<0.010	4.30	0.020	0.20	0.20	0.070	0.020	0.030	--	--
FEB										
13...	0.020	4.70	<0.015	0.30	0.30	0.060	0.040	0.030	11	30
21...	0.040	3.80	0.070	2.3	0.40	0.480	0.050	0.040	--	--
21...	--	--	--	--	--	--	--	--	334	2620
21...	0.040	3.20	0.350	2.2	1.3	0.370	0.170	0.130	--	--
21...	--	--	--	--	--	--	--	--	273	1940
21...	0.030	3.30	0.120	1.3	0.50	0.280	0.060	0.050	--	--
21...	--	--	--	--	--	--	--	--	139	932
22...	0.030	3.30	0.050	0.90	0.30	0.170	0.040	0.030	--	--
22...	--	--	--	--	--	--	--	--	110	669
22...	0.030	3.10	0.050	0.70	<0.20	0.120	0.040	0.030	--	--
22...	--	--	--	--	--	--	--	--	128	725
23...	0.020	3.30	0.030	0.80	<0.20	0.110	0.030	0.030	--	--
23...	--	--	--	--	--	--	--	--	78	444
23...	0.020	3.30	0.020	0.90	0.20	0.150	0.030	0.030	--	--
23...	--	--	--	--	--	--	--	--	70	378
23...	0.020	3.00	0.030	0.40	<0.20	0.080	0.060	0.030	--	--
24...	0.020	3.20	0.020	0.60	<0.20	0.110	0.030	0.030	--	--
24...	--	--	--	--	--	--	--	--	69	380
24...	0.020	3.30	0.030	0.60	0.20	0.130	0.030	0.030	--	--
24...	--	--	--	--	--	--	--	--	90	519
25...	0.020	3.10	0.030	0.90	<0.20	0.190	0.020	0.030	--	--
25...	--	--	--	--	--	--	--	--	80	463
25...	0.020	3.00	0.020	0.30	<0.20	0.030	0.030	0.020	--	--
25...	--	--	--	--	--	--	--	--	78	411
25...	0.020	3.00	0.020	0.30	<0.20	0.040	0.020	0.020	--	--
MAR										
07...	0.050	2.70	0.100	4.4	0.40	1.20	0.050	0.030	--	--
07...	--	--	--	--	--	--	--	--	410	3180
07...	0.020	3.20	0.120	2.6	0.50	0.590	0.050	0.050	--	--
08...	--	--	--	--	--	--	--	--	378	3130
08...	0.010	3.40	0.060	1.5	0.40	0.350	0.040	0.040	--	--
08...	--	--	--	--	--	--	--	--	194	1370
08...	0.010	3.80	0.050	0.80	<0.20	0.190	0.040	0.030	--	--
08...	--	--	--	--	--	--	--	--	136	808
09...	<0.010	3.80	0.030	0.60	<0.20	0.130	0.030	0.030	--	--
19...	0.020	3.80	0.130	0.50	0.30	0.090	0.050	0.040	15	38
20...	0.060	3.30	0.070	0.80	0.40	0.150	0.060	0.060	--	--
20...	--	--	--	--	--	--	--	--	982	9470
20...	0.030	2.60	0.100	1.6	0.60	0.450	0.070	0.070	--	--
20...	--	--	--	--	--	--	--	--	533	5600
20...	0.020	2.80	0.050	0.90	0.70	0.140	0.080	0.050	--	--
20...	--	--	--	--	--	--	--	--	308	3290
20...	0.020	2.90	<0.015	1.0	0.60	0.220	0.050	0.040	--	--
20...	--	--	--	--	--	--	--	--	261	2740
21...	0.020	2.90	0.050	0.80	0.40	0.160	0.050	0.040	--	--
21...	--	--	--	--	--	--	--	--	183	1700
21...	0.020	3.00	0.050	0.60	0.40	0.110	0.040	0.040	--	--
21...	--	--	--	--	--	--	--	--	208	1690
21...	0.020	3.20	0.070	0.50	0.30	0.100	0.050	0.050	--	--
21...	--	--	--	--	--	--	--	--	199	1440
21...	0.020	3.30	0.040	0.60	0.30	0.130	0.060	0.040	--	--
22...	--	--	--	--	--	--	--	--	126	807
22...	0.020	3.40	0.040	0.50	0.30	0.090	0.020	0.020	--	--
22...	--	--	--	--	--	--	--	--	101	573

POTOMAC RIVER BASIN

01614500 CONOCOCHEAGUE CREEK AT FAIRVIEW, MD--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	TEMPER- ATURE AIR (DEG C) (00020)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (MG/L) (00301)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)
APR 1996												
01...	1907	1990	--	--	--	--	--	--	--	--	--	--
01...	2305	3710	--	--	--	--	--	--	--	--	--	--
02...	0142	4630	228	--	--	--	--	--	--	--	--	--
02...	0401	4880	--	--	--	--	--	--	--	--	--	--
02...	0618	4820	214	--	--	--	--	--	--	--	--	--
02...	0839	4670	--	--	--	--	--	--	--	--	--	--
02...	1103	4550	221	--	--	--	--	--	--	--	--	--
02...	1331	4440	--	--	--	--	--	--	--	--	--	--
02...	1606	4200	231	--	--	--	--	--	--	--	--	--
02...	1858	3830	--	--	--	--	--	--	--	--	--	--
02...	2200	3510	238	--	--	--	--	--	--	--	--	--
03...	0120	3190	--	--	--	--	--	--	--	--	--	--
03...	0459	2910	243	--	--	--	--	--	--	--	--	--
03...	0857	2710	--	--	--	--	--	--	--	--	--	--
03...	1311	2550	253	--	--	--	--	--	--	--	--	--
03...	1739	2420	--	--	--	--	--	--	--	--	--	--
03...	2223	2290	264	--	--	--	--	--	--	--	--	--
04...	0322	2170	--	--	--	--	--	--	--	--	--	--
04...	0837	2070	272	--	--	--	--	--	--	--	--	--
04...	1406	1980	--	--	--	--	--	--	--	--	--	--
24...	1400	712	320	8.7	15.5	17.0	755	15.5	157	--	--	--
MAY												
21...	1330	799	334	7.7	21.5	30.5	745	8.2	95	--	--	--
JUN												
12...	1130	4000	--	--	--	--	--	--	--	--	--	--
19...	1045	12000	147	7.0	20.0	23.5	--	6.5	--	59	18	3.4
19...	1238	14500	147	7.0	20.0	23.5	--	6.5	--	--	--	--
19...	1323	15500	--	--	--	--	--	--	--	--	--	--
19...	1405	16200	--	--	--	--	--	--	--	--	--	--
19...	1445	16500	--	--	--	--	--	--	--	--	--	--
19...	1524	16700	--	--	--	--	--	--	--	--	--	--
19...	1602	16700	--	--	--	--	--	--	--	--	--	--
19...	1642	16500	--	--	--	--	--	--	--	--	--	--
19...	1721	16200	--	--	--	--	--	--	--	--	--	--
19...	1802	15800	--	--	--	--	--	--	--	--	--	--
19...	1845	15400	--	--	--	--	--	--	--	--	--	--
19...	1931	14800	--	--	--	--	--	--	--	--	--	--
19...	2019	14100	--	--	--	--	--	--	--	--	--	--
19...	2111	13300	--	--	--	--	--	--	--	--	--	--
19...	2208	12500	--	--	--	--	--	--	--	--	--	--
19...	2313	11600	--	--	--	--	--	--	--	--	--	--
20...	0027	10600	--	--	--	--	--	--	--	--	--	--
20...	0154	9640	--	--	--	--	--	--	--	--	--	--
20...	0336	8770	--	--	--	--	--	--	--	--	--	--
20...	0537	8060	--	--	--	--	--	--	--	--	--	--
20...	0757	7420	--	--	--	--	--	--	--	--	--	--
20...	1042	6750	--	--	--	--	--	--	--	--	--	--
20...	1412	5810	--	--	--	--	--	--	--	--	--	--
20...	1556	5340	--	--	--	--	--	--	--	--	--	--
21...	1100	7300	204	7.0	20.0	28.0	751	6.4	72	--	--	--
JUL												
16...	1430	481	410	8.4	23.0	28.0	758	11.9	140	--	--	--
AUG												
20...	1030	405	413	7.9	20.0	25.5	763	9.3	102	--	--	--
SEP												
12...	1245	1030	314	7.5	19.5	24.0	751	8.6	95	--	--	--

POTOMAC RIVER BASIN

01614500 CONOCOCHIEGUE CREEK AT FAIRVIEW, MD--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	NITRO- GEN, NITRATE TOTAL (MG/L AS N) (00600)	NITRO- GEN, DIS- SOLVED (MG/L AS NO3) (71851)	NITRO- GEN, DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)
APR 1996											
01...	--	--	--	--	--	--	--	6.5	14	0.050	3.10
01...	--	--	--	--	--	--	--	3.6	13	0.050	3.00
02...	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	5.9	14	0.020	3.20
02...	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	4.8	15	0.020	3.40
02...	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	4.9	16	0.020	3.70
02...	--	--	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	4.5	16	0.020	3.60
03...	--	--	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	4.7	16	0.020	3.70
03...	--	--	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	4.7	17	0.020	3.80
03...	--	--	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	4.3	17	0.020	3.90
04...	--	--	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	4.5	17	0.020	3.80
24...	--	--	--	--	--	--	--	3.7	15	0.020	3.40
MAY											
21...	--	--	--	--	--	--	--	4.4	17	0.040	3.80
JUN											
12...	--	--	--	--	--	--	--	8.8	13	0.050	3.00
19...	2.3	4.8	8.9	3.6	<0.10	4.6	91	5.5	11	0.040	2.50
19...	--	--	--	--	--	--	--	5.7	9.1	0.040	2.10
19...	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	5.4	10	0.040	2.40
19...	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	5.1	10	0.040	2.30
19...	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	4.4	10	0.040	2.30
19...	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	3.6	11	0.040	2.60
19...	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	4.3	12	0.040	2.70
19...	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	4.5	13	0.040	2.90
19...	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	4.4	14	0.040	3.30
20...	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	4.2	14	0.040	3.30
20...	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	4.4	16	0.040	3.60
20...	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	4.3	16	0.040	3.60
20...	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	4.5	16	0.030	3.70
21...	--	--	--	--	--	--	--	3.6	12	0.040	2.80
JUL											
16...	--	--	--	--	--	--	--	4.5	19	0.020	4.30
AUG											
20...	--	--	--	--	--	--	--	5.2	21	0.020	4.80
SEP											
12...	--	--	--	--	--	--	--	3.5	14	0.020	3.20

POTOMAC RIVER BASIN

01614500 CONOCOCHIEGUE CREEK AT FAIRVIEW, MD--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, AM- MONIA + ORGANIC DIS- TOTAL (MG/L AS N) (00623)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	ETHAL- FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	TER- BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)
APR 1996												
01...	0.050	3.4	0.30	1.30	0.050	0.040	--	--	--	--	--	--
01...	0.110	0.60	0.40	0.090	0.040	0.040	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--	--
02...	0.090	2.7	0.40	0.700	0.050	0.060	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--	--
02...	0.050	1.4	0.40	0.430	0.040	0.040	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--	--
02...	0.040	1.2	0.30	0.330	0.030	0.020	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--	--
03...	0.030	0.90	0.30	0.210	0.020	0.020	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--	--	--	--
03...	0.020	1.0	0.30	0.220	0.020	0.020	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--	--	--	--
03...	<0.015	0.90	0.20	0.190	0.020	0.020	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--	--	--	--
04...	<0.015	0.40	<0.20	0.080	0.020	0.020	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--	--	--	--
04...	0.020	0.70	<0.20	0.140	0.010	0.020	--	--	--	--	--	--
24...	0.020	0.30	0.20	0.050	0.040	0.030	--	--	3.7	--	--	--
MAY												
21...	<0.015	0.60	0.20	0.120	0.060	0.040	--	--	4.2	--	--	--
JUN												
12...	<0.015	5.8	0.70	1.80	0.110	0.050	--	--	--	--	--	--
19...	0.160	3.0	0.60	0.850	0.120	0.130	99	1	20	<0.004	<0.002	E0.110
19...	0.120	3.6	0.60	0.950	0.080	0.070	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--	--
19...	0.120	3.0	3.2	1.00	1.00	0.100	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--	--
19...	0.120	2.8	2.9	0.870	0.900	0.090	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--	--
19...	0.130	2.1	0.50	0.620	0.080	0.090	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--	--
19...	0.120	1.0	0.60	0.250	0.080	0.080	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--	--
19...	0.100	1.6	1.7	0.470	0.420	0.090	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--	--
19...	0.100	1.6	0.50	0.390	0.080	0.080	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--	--
19...	0.100	1.1	0.50	0.270	0.070	0.080	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--
20...	0.090	0.90	1.1	0.220	0.230	0.080	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--
20...	0.070	0.80	0.90	0.210	0.210	0.070	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--
20...	0.070	0.70	0.80	0.210	0.210	0.050	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--
20...	0.050	0.80	0.80	0.170	0.180	0.050	--	--	--	--	--	--
21...	0.100	0.80	0.40	0.240	0.120	0.110	--	--	--	<0.004	<0.002	E0.012
JUL												
16...	0.030	0.20	<0.20	0.050	0.050	0.060	--	--	2.6	--	--	--
AUG												
20...	0.030	0.40	<0.20	0.080	0.050	0.070	--	--	2.7	--	--	--
SEP												
12...	--	--	--	--	--	--	--	--	--	--	--	--

E Estimated value.

POTOMAC RIVER BASIN

01614500 CONOCOCHIEGUE CREEK AT FAIRVIEW, MD--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TRI- FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)	2,6-DI- ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)	ACETO- CHLOR, WATER FLTRD REC (UG/L) (49260)	ALA- CHLOR, WATER, DISS, REC, (UG/L) (46342)	ATRA- ZINE, WATER, DISS, REC (UG/L) (39632)	BEN- FLUR- ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	BUTYL- ATE, WATER, DISS, REC (UG/L) (04028)	CAR- BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBO- FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	CHLOR- PYRIFOS DIS- SOLVED (UG/L) (38933)	CYANA- ZINE, WATER, DISS, REC (UG/L) (04041)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)
APR 1996												
01...	--	--	--	--	--	--	--	--	--	--	--	--
01...	--	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--	--
MAY												
21...	--	--	--	--	--	--	--	--	--	--	--	--
JUN												
12...	--	--	--	--	--	--	--	--	--	--	--	--
19...	<0.002	<0.003	0.029	0.066	7.50	<0.002	<0.002	E0.061	E0.130	0.014	0.380	E0.003
19...	--	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--
21...	<0.002	<0.003	0.021	0.016	3.90	<0.002	<0.002	E0.010	E0.031	0.011	0.180	E0.001
JUL												
16...	--	--	--	--	--	--	--	--	--	--	--	--
AUG												
20...	--	--	--	--	--	--	--	--	--	--	--	--
SEP												
12...	--	--	--	--	--	--	--	--	--	--	--	--

E Estimated value.

POTOMAC RIVER BASIN

01614500 CONOCOCHIEAGUE CREEK AT FAIRVIEW, MD--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	P, P' DDE DISSOLV (UG/L) (34653)	DEETHYL ATRA- ZINE, WATER, DISS, REC (UG/L) (04040)	DI- AZINON, DIS- SOLVED (UG/L) (39572)	DI- ELDRIN DIS- SOLVED (UG/L) (39381)	DISUL- FOTON WATER FLTRD 0.7 U (UG/L) (82677)	EPTC WATER FLTRD 0.7 U (UG/L) (82668)	ETHO- PROP WATER FLTRD 0.7 U (UG/L) (82672)	FONOFOS WATER DISS REC (UG/L) (04095)	LINDANE DIS- SOLVED (UG/L) (39341)	LIN- URON WATER FLTRD 0.7 U (UG/L) (82666)	MALA- THION, DIS- SOLVED (UG/L) (39532)	METHYL AZIN- PHOS WAT FLT 0.7 U (UG/L) (82686)
APR 1996												
01...	--	--	--	--	--	--	--	--	--	--	--	--
01...	--	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--	--
MAY												
21...	--	--	--	--	--	--	--	--	--	--	--	--
JUN												
12...	--	--	--	--	--	--	--	--	--	--	--	--
19...	<0.006	E0.140	0.010	0.011	<0.017	<0.002	<0.003	<0.003	0.007	0.014	<0.005	E0.130
19...	--	--	--	--	--	--	--	--	--	--	--	--
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20...	--	--	--	--	--	--	--	--	--	--	--	--
21...	<0.006	E0.110	E0.002	<0.005	<0.017	<0.002	<0.003	<0.003	0.004	0.006	<0.005	E0.013
JUL												
16...	--	--	--	--	--	--	--	--	--	--	--	--
AUG												
20...	--	--	--	--	--	--	--	--	--	--	--	--
SEP												
12...	--	--	--	--	--	--	--	--	--	--	--	--

E Estimated value.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

[illegible]

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,900 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Oct. 22	0245	4,000	11.25	July 23	0100	1,960	8.39
Jan. 3	0915	1,960	8.40	Aug. 1	0100	4,800	11.78
Jan. 20	0300	*23,400	*18.76	Aug. 3	1400	4,540	11.62
Jan. 27	2400	3,510	10.86	Aug. 13	2200	5,030	11.92
Mar. 20	1700	5,090	11.96	Sept. 7	1100	11,700	15.06
Apr. 2	1200	3,690	11.01	Sept. 13	2200	2,270	9.19
May 17	1700	2,140	8.85				

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	51	106	195	184	635	441	841	348	407	230	2660	258
2	50	109	210	353	575	415	2800	312	347	216	852	248
3	e49	102	196	1700	535	389	1260	296	317	223	2830	242
4	e48	96	185	855	496	347	933	286	301	217	987	264
5	e100	93	167	500	449	342	785	361	326	202	675	331
6	e250	90	156	380	440	366	682	839	288	191	553	1010
7	e140	89	149	298	423	583	635	549	266	182	481	8720
8	e80	94	142	216	423	949	578	411	254	187	427	1370
9	e66	87	145	389	647	602	559	621	263	255	392	823
10	e70	83	145	366	731	475	550	607	999	219	374	1160
11	e60	93	121	313	689	434	503	469	684	199	340	788
12	e56	521	147	277	626	414	467	482	508	183	377	630
13	e60	336	124	268	502	397	438	387	494	202	3430	1610
14	e70	256	125	244	471	378	421	333	405	206	1870	1410
15	e90	879	130	244	454	395	406	307	344	205	766	785
16	e75	904	541	267	425	438	601	427	306	206	690	668
17	e60	473	739	283	392	401	550	1070	309	182	726	1500
18	e56	362	395	318	376	439	458	901	303	182	595	1160
19	55	316	754	5280	357	513	424	615	539	584	485	781
20	55	281	984	e15000	368	3880	400	504	451	731	429	627
21	1730	249	528	e1500	555	1790	377	452	620	407	404	548
22	1580	225	382	e1000	549	981	358	490	426	614	437	576
23	329	202	316	e800	578	776	348	418	337	1160	375	538
24	228	239	284	e1300	563	659	338	367	304	456	531	455
25	182	237	258	e1600	477	599	325	343	746	323	419	430
26	154	212	239	905	429	552	319	326	401	274	353	394
27	139	200	222	1970	444	496	315	412	297	239	326	373
28	134	188	207	2060	580	528	293	745	267	217	313	365
29	123	180	197	1010	522	1180	290	875	247	279	296	582
30	114	188	185	830	---	960	303	987	243	966	281	468
31	105	---	181	752	---	738	---	535	---	3450	268	---
TOTAL	6359	7490	8749	41462	14711	21857	17557	16075	11999	13387	23942	29114
MEAN	205	250	282	1337	507	705	585	519	400	432	772	970
MAX	1730	904	984	15000	731	3880	2800	1070	999	3450	3430	8720
MIN	48	83	121	184	357	342	290	286	243	182	268	242
CFSM	.75	.92	1.04	4.92	1.86	2.59	2.15	1.91	1.47	1.59	2.84	3.57
IN.	.87	1.02	1.20	5.67	2.01	2.99	2.40	2.20	1.64	1.83	3.27	3.99

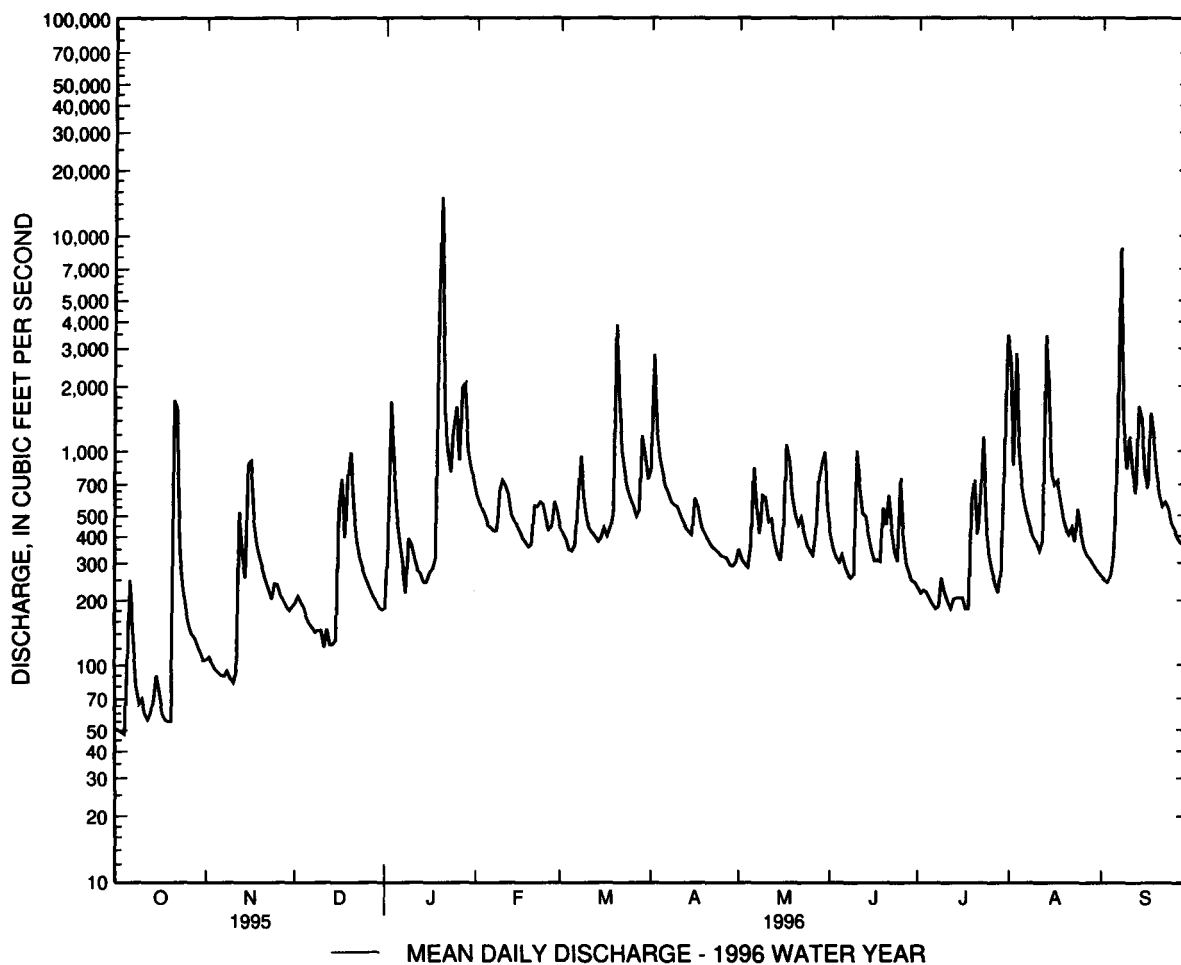
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1947 - 1996, BY WATER YEAR (WY)

MEAN	143	162	237	284	340	443	383	281	214	142	140	131
MAX	788	504	821	1337	1022	1461	1199	1091	1190	456	772	970
(WY)	1977	1971	1973	1996	1984	1993	1984	1988	1972	1972	1996	1996
MIN	30.5	35.1	33.7	39.6	76.6	119	97.8	86.0	65.4	49.4	36.6	35.2
(WY)	1948	1966	1966	1966	1954	1959	1954	1969	1969	1966	1966	1947

01616500 OPEQUON CREEK NEAR MARTINSBURG, WV--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1947 - 1996	
ANNUAL TOTAL	70639		212702			
ANNUAL MEAN	194		581		242	
HIGHEST ANNUAL MEAN					581	
LOWEST ANNUAL MEAN					85.7	
HIGHEST DAILY MEAN	2270	Jan 16	(e) 15000	Jan 20	(e) 15000	Jan 20 1996
LOWEST DAILY MEAN	44	Sep 15	(e) 48	Oct 4	26	Oct 25 1947
ANNUAL SEVEN-DAY MINIMUM	45	Sep 10	66	Oct 14	27	Sep 7 1966
INSTANTANEOUS PEAK FLOW			(a) 23400	Jan 20	(a) 23400	Jan 20 1996
INSTANTANEOUS PEAK STAGE			18.76	Jan 20	18.76	Jan 20 1996
INSTANTANEOUS LOW FLOW			47	Oct 3	25	Oct 25 1947
ANNUAL RUNOFF (CFSM)	.71		2.14		.89	
ANNUAL RUNOFF (INCHES)	9.66		29.09		12.06	
10 PERCENT EXCEEDS	334		982		469	
50 PERCENT EXCEEDS	145		392		140	
90 PERCENT EXCEEDS	56		133		56	

e Estimated.

a From rating curve extended above 7,100 ft³/s.

POTOMAC RIVER BASIN

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 mi².

PERIOD OF RECORD.--October 1963 to current year.

GAGE.--Water-stage recorder. Datum of gage is 354.72 ft above sea level.

REMARKS.--Records good except those for estimated daily discharges (ice effect and backwater from leaves), which are fair. 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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 19	1700	*219	*3.20	July 19	1800	218	3.19
Jan. 24	1930	93	2.26	Aug. 13	0245	75	2.09
Jan. 27	1645	96	2.29	Sept. 6	1815	75	2.09

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	e1.7	6.0	6.9	34	18	32	19	19	21	28	19
2	1.0	e1.7	4.3	10	31	19	42	18	18	19	24	18
3	1.0	e1.6	2.8	18	28	19	33	16	17	19	35	18
4	1.1	e1.6	2.9	12	27	18	30	16	17	19	24	20
5	e1.1	e1.5	2.7	9.3	26	19	29	17	19	18	22	23
6	.99	e1.5	3.5	8.6	24	22	27	25	19	17	21	38
7	.86	e1.6	3.4	e8.0	24	29	26	19	18	16	21	38
8	.86	e1.6	3.2	e6.0	25	28	25	21	17	16	20	23
9	.86	e1.6	e3.2	e7.0	31	24	27	30	17	16	21	21
10	.87	e1.5	e3.2	e7.6	31	22	26	23	19	15	20	20
11	.86	e5.0	e3.2	e7.4	29	22	24	23	18	14	19	19
12	.86	9.6	e3.1	e7.3	26	22	23	25	18	13	23	19
13	.86	7.4	e3.1	e7.2	23	22	22	20	18	14	55	35
14	1.1	7.8	3.1	e7.1	24	21	22	19	17	14	30	25
15	1.3	16	3.1	7.0	23	21	23	19	16	14	27	22
16	.90	10	10	7.0	23	21	30	23	16	14	29	25
17	.90	7.9	9.7	7.0	22	20	23	22	16	14	29	38
18	.95	7.5	8.4	7.1	21	19	22	22	18	13	24	28
19	1.1	7.3	14	87	21	22	21	19	40	90	23	25
20	1.2	7.0	12	77	23	42	21	17	30	58	22	23
21	15	5.3	9.3	47	31	31	20	17	32	28	22	23
22	4.6	4.5	8.7	34	27	27	19	18	26	29	22	25
23	2.5	4.1	8.5	32	27	26	18	16	24	29	22	24
24	e2.3	5.4	8.3	59	25	24	17	16	22	23	21	22
25	e2.1	6.7	6.9	53	22	24	17	16	31	22	18	21
26	e2.0	6.4	5.3	40	23	23	18	16	24	21	20	21
27	e1.9	6.3	5.5	73	24	22	18	17	22	20	22	21
28	e2.0	6.1	5.4	58	22	27	17	21	21	19	22	22
29	e1.8	6.0	5.3	46	18	40	17	22	20	19	22	26
30	e1.6	6.1	5.8	42	---	30	18	23	19	31	21	21
31	e1.6	---	6.7	39	---	26	---	20	---	35	20	---
TOTAL	57.17	158.3	180.6	837.5	735	750	707	615	628	710	749	723
MEAN	1.84	5.28	5.83	27.0	25.3	24.2	23.6	19.8	20.9	22.9	24.2	24.1
MAX	15	16	14	87	34	42	42	30	40	90	55	38
MIN	.86	1.5	2.7	6.0	18	18	17	16	16	13	18	18
CFSM	.10	.28	.31	1.43	1.34	1.28	1.25	1.05	1.11	1.21	1.28	1.28
IN.	.11	.31	.36	1.65	1.45	1.48	1.39	1.21	1.24	1.40	1.47	1.42

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1996, BY WATER YEAR (WY)

	7.71	7.54	10.6	12.6	15.0	19.0	19.5	16.3	13.7	10.1	7.81	6.85
MEAN	7.71	7.54	10.6	12.6	15.0	19.0	19.5	16.3	13.7	10.1	7.81	6.85
MAX	39.5	27.0	29.7	30.1	32.2	48.6	49.8	36.2	48.2	32.4	24.2	31.8
(WY)	1977	1976	1973	1979	1973	1994	1984	1972	1972	1972	1996	1975
MIN	.83	1.71	1.60	2.24	4.14	5.08	4.45	3.65	2.74	2.13	1.51	1.05
(WY)	1987	1992	1989	1981	1989	1990	1969	1969	1969	1991	1995	1995

01617800 MARSH RUN AT GRIMES, MD--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1964 - 1996	
ANNUAL TOTAL	2274.61		6850.57			
ANNUAL MEAN	6.23		18.7		12.4	
HIGHEST ANNUAL MEAN					23.9	
LOWEST ANNUAL MEAN					4.31	
HIGHEST DAILY MEAN	30	Jan 20	90	Jul 19	223	Jun 23 1972
LOWEST DAILY MEAN	.86	(a)	.86	(b)	.00	Oct 1 1977
ANNUAL SEVEN-DAY MINIMUM	.86	Oct 7	.86	Oct 7	.60	Oct 21 1986
INSTANTANEOUS PEAK FLOW			219	Jan 19	(c) 459	Feb 12 1985
INSTANTANEOUS PEAK STAGE			3.20	Jan 19	4.45	Feb 12 1985
INSTANTANEOUS LOW FLOW			.86	(d)	(f) .00	Oct 1 1977
ANNUAL RUNOFF (CFSM)	.33		.99		.65	
ANNUAL RUNOFF (INCHES)	4.48		13.48		8.90	
10 PERCENT EXCEEDS	13		31		24	
50 PERCENT EXCEEDS	5.3		19		9.1	
90 PERCENT EXCEEDS	1.0		2.1		3.0	

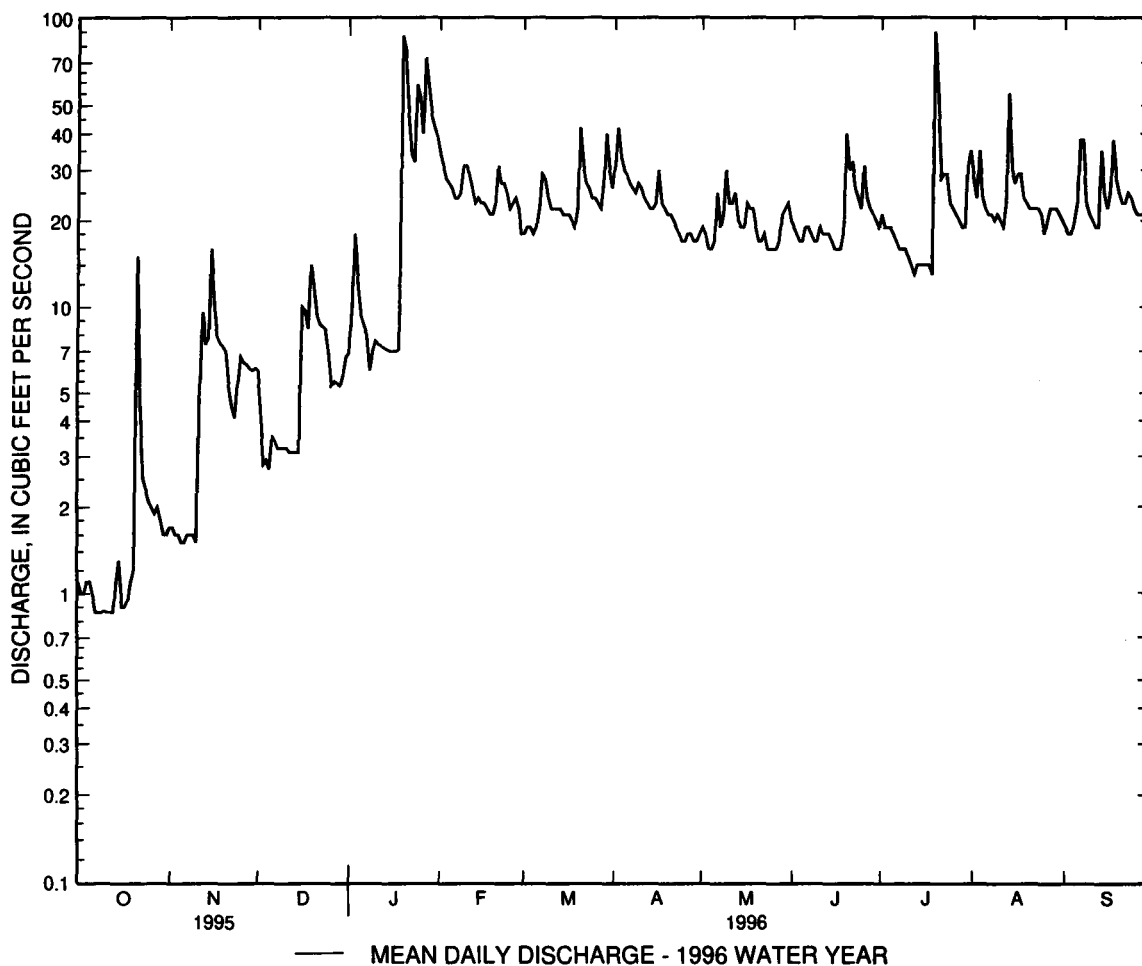
a Sept. 7, 8, Oct. 7-9, 11-13.

b Oct. 7-9, 11-13.

c From rating curve extended above 220 ft³/s.

d Oct. 6-9, 11-13.

f Result of regulation caused by construction work upstream from station.



POTOMAC RIVER BASIN

01619320 ALBERT POWELL FISH HATCHERY SPRING AT BEAVER CREEK, MD

LOCATION.--Lat 39°35'22", long 77°38'19", Washington County, Hydrologic Unit 02070004, on left bank at spring outlet, 0.2 mi upstream from Beaver Creek, and 0.4 mi north of the town of Beaver Creek.

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

GAGE.--Water-stage recorder and steel weir plate. Datum of gage is 505 ft above sea level, from topographic map.

REMARKS.--Records good. Several measurements of water temperature were made during the year.

PEAK DISCHARGE FOR CURRENT YEAR.--Peak discharge, unknown, Jan. 19, gage height, 2.45 ft (affected by backwater from Beaver Creek).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.0	5.7	7.5	7.5	12	10	11	10	10	12	10	10
2	6.0	5.7	7.5	7.5	12	10	11	10	10	12	11	10
3	5.9	5.7	7.5	8.1	12	10	11	10	10	11	12	10
4	5.7	5.7	7.4	8.2	11	10	11	10	10	11	11	10
5	5.5	5.7	7.2	8.1	11	10	11	10	9.7	11	11	10
6	5.5	5.7	7.2	8.0	11	10	11	10	9.7	11	11	12
7	5.5	5.7	7.2	8.0	11	10	11	10	9.7	11	11	15
8	5.5	5.8	7.2	8.2	11	11	11	10	9.7	11	10	13
9	5.5	5.7	7.2	8.2	11	10	11	10	9.7	10	10	12
10	5.6	6.0	7.0	8.2	11	10	11	10	9.7	10	10	12
11	5.7	6.1	7.0	8.2	11	10	11	10	9.7	10	10	12
12	5.5	6.5	7.0	8.2	11	10	11	10	9.7	10	11	12
13	5.5	6.4	7.0	8.2	10	10	11	10	9.7	10	12	12
14	5.5	6.3	7.0	8.2	10	11	11	10	9.6	10	12	12
15	5.7	6.7	7.0	8.1	10	10	11	10	9.5	10	12	12
16	5.6	6.7	7.3	8.0	10	10	11	10	9.5	10	12	12
17	5.5	6.7	7.5	8.0	10	10	11	10	9.2	10	11	12
18	5.5	6.7	7.5	8.4	10	10	11	10	9.3	10	11	12
19	5.5	6.8	7.6	e25	10	10	10	10	16	11	11	12
20	5.5	7.1	7.9	17	10	12	10	10	14	12	11	12
21	6.9	7.2	7.8	14	10	12	10	10	15	11	11	12
22	6.2	7.2	7.7	14	10	12	10	10	14	11	11	12
23	6.0	7.2	7.7	14	10	11	10	10	13	11	11	12
24	5.8	7.2	7.7	14	11	11	10	10	13	11	10	12
25	5.7	7.2	7.7	14	10	11	10	10	13	10	10	12
26	5.7	7.2	7.7	13	10	11	10	10	13	10	10	12
27	5.7	7.2	7.7	13	10	11	10	10	13	10	10	11
28	5.7	7.4	7.5	13	10	11	10	10	12	10	10	11
29	5.7	7.5	7.5	13	10	11	10	10	12	10	10	11
30	5.7	7.5	7.5	13	---	11	10	10	12	11	10	11
31	5.7	---	7.5	12	---	11	---	10	---	11	10	---
TOTAL	177.0	196.2	229.7	334.3	306	327	318	310	334.4	329	333	350
MEAN	5.71	6.54	7.41	10.8	10.6	10.5	10.6	10.0	11.1	10.6	10.7	11.7
MAX	6.9	7.5	7.9	25	12	12	11	10	16	12	12	15
MIN	5.5	5.7	7.0	7.5	10	10	10	10	9.2	10	10	10

e Estimated

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

	6.64	6.40	7.56	8.25	8.30	9.27	9.29	9.23	8.76	8.00	7.45	7.20
MAX	7.67	7.18	11.5	10.8	10.8	14.1	13.4	11.9	11.1	10.6	10.7	11.7
(WY)	1995	1995	1993	1996	1994	1994	1993	1993	1996	1996	1996	1996
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 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1987 - 1996	
ANNUAL TOTAL	2691.6		3544.6			
ANNUAL MEAN	7.37		9.68		7.85	
HIGHEST ANNUAL MEAN					9.68	
LOWEST ANNUAL MEAN					6.51	
HIGHEST DAILY MEAN	9.7	Jan 21	25	Jan 19	25	Jan 19 1996
LOWEST DAILY MEAN	5.5	(a)	5.5	(a)	5.0	(b)
ANNUAL SEVEN-DAY MINIMUM	5.5	Oct 4	5.5	Oct 4	5.1	Dec 13 1988
INSTANTANEOUS PEAK FLOW			UNKNOWN		(c) 20	Apr 22 1992
INSTANTANEOUS PEAK STAGE			(d) 2.45		(d) 2.45	Jan 19 1996
INSTANTANEOUS LOW FLOW			5.5	(f)	4.9	(b)
10 PERCENT EXCEEDS	8.4		12		11	
50 PERCENT EXCEEDS	7.5		10		7.5	
90 PERCENT EXCEEDS	6.0		6.0		5.8	

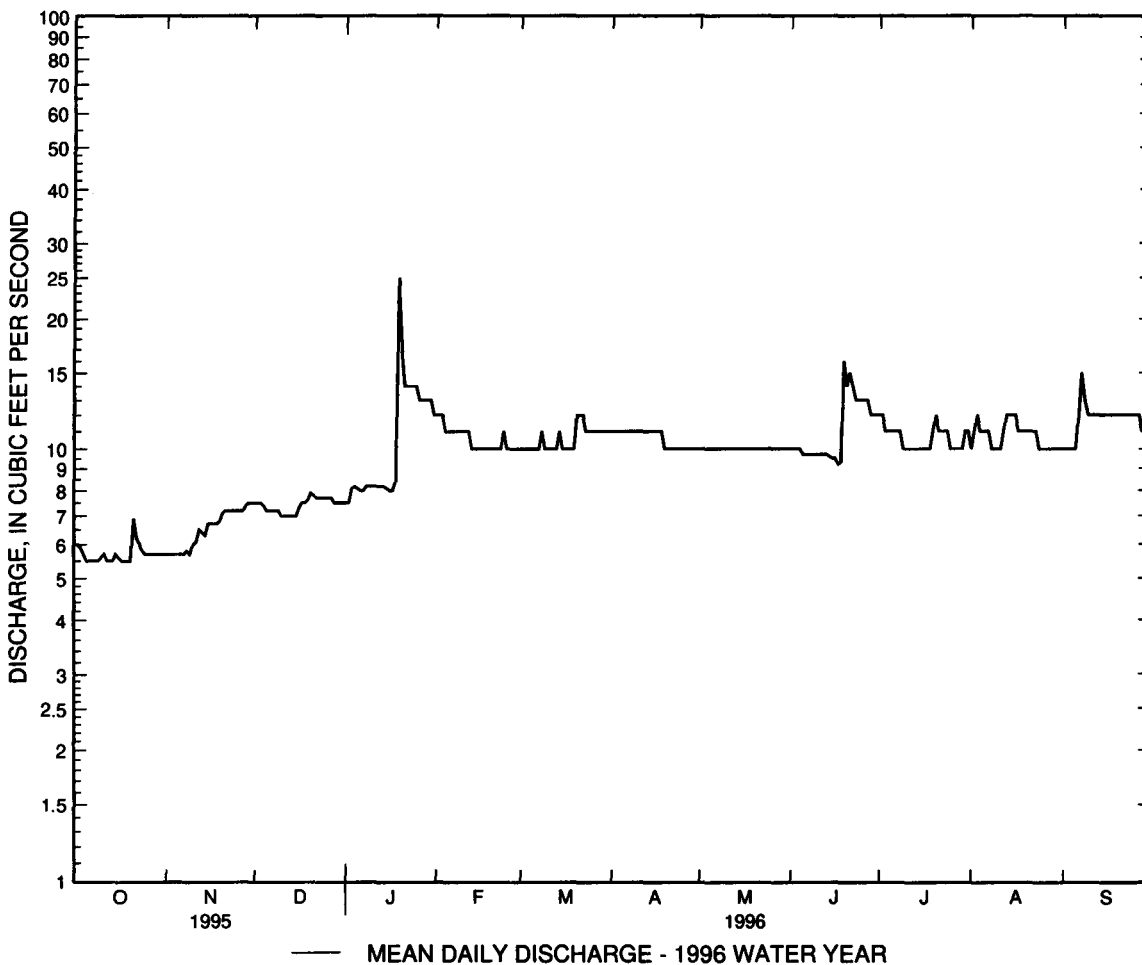
a Oct. 5-9, 12-14, 17-20.

b Dec. 18, 19, 1988.

c May have been greater during period of backwater from Beaver Creek on Jan. 19, 1996.

d Affected by backwater from Beaver Creek.

f Oct. 4-10, 12-14, 16-20.



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 mi².

PERIOD OF RECORD.--June 1897 to September 1905, August 1928 to current year. Monthly discharge only for some periods, published in WSP 1302.

REVISED RECORDS.--WSP 192: 1897-1905. WSP 726: Drainage area. WSP 1432: 1929-31(M), 1933, 1935(M), 1937(M), 1949(M), 1952(M).

GAGE.--Water-stage recorder. Concrete control since Mar. 29, 1934. Datum of gage is 311.05 ft above sea level. June 24, 1897, to Aug. 25, 1905, nonrecording gage a few hundred feet downstream from Middle Bridge, 1.2 mi upstream at datum 12 ft higher. Aug. 21, 1928, to July 13, 1933, nonrecording gage at Burnside Bridge, 0.1 mi upstream at present datum.

REMARKS.--Records good except those for estimated daily discharges (ice effect), which are fair. Some diurnal fluctuation caused by powerplant upstream from station. Since 1928 records include pumpage from the Potomac River for municipal supply of Hagerstown. This water later enters Antietam Creek upstream from station as sewage. National Weather Service gage-height telemeter at station. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 19	1500	*8,960	*13.71	July 19	1800	3,180	7.69
Jan. 25	0445	2,000	6.04	July 30	1930	2,170	6.30
Jan. 28	0300	2,030	6.08	Sept. 7	1500	5,030	9.92
Mar. 20	1345	1,530	5.28	Sept. 13	2330	1,870	5.84
June 19	1515	4,970	9.85	Sept. 17	1245	1,550	5.31
June 21	1300	2,930	7.37				

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

MEAN DAILY VALUES												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	84	115	224	205	835	493	801	527	427	725	752	348
2	83	114	218	247	e780	483	1120	460	406	635	603	335
3	84	111	213	437	e720	473	977	439	392	617	874	326
4	85	104	206	394	e650	443	906	433	398	555	641	332
5	96	100	199	328	e600	437	829	438	439	509	566	463
6	154	101	195	296	e580	519	770	684	387	482	522	1120
7	122	105	191	270	e570	605	727	584	365	462	544	3790
8	95	111	183	e180	571	700	688	564	357	451	487	1360
9	87	109	181	e250	629	615	675	836	353	770	473	1010
10	87	103	178	e240	623	570	672	855	426	522	480	806
11	87	106	e175	e235	596	551	633	780	377	463	436	721
12	85	262	e170	e230	574	537	598	989	539	437	445	656
13	84	225	e165	e230	513	521	568	781	484	476	1020	1280
14	104	184	174	e230	500	504	543	707	402	490	723	1300
15	154	283	172	e230	492	510	521	662	507	438	604	890
16	133	283	256	e230	481	544	707	686	419	446	609	826
17	102	231	335	234	458	494	670	652	379	403	598	1340
18	96	214	274	255	442	484	585	612	475	390	527	1100
19	96	223	319	4480	425	514	560	556	3280	1290	496	941
20	94	245	347	5390	426	1240	544	515	1580	1350	471	840
21	502	250	300	1850	622	1060	523	497	2160	730	453	774
22	387	245	277	1300	620	890	504	500	1250	663	445	771
23	184	237	265	1080	595	794	495	464	964	652	424	765
24	148	245	253	1290	595	722	481	441	869	574	406	672
25	135	245	243	1670	591	682	458	424	969	519	394	632
26	128	225	235	1090	570	648	452	409	761	495	383	586
27	121	217	227	1400	568	605	459	432	684	467	399	559
28	127	212	219	1720	556	614	435	518	638	442	543	553
29	122	231	214	1210	523	888	418	529	596	445	407	670
30	115	235	208	1060	---	868	441	558	645	905	382	565
31	113	---	204	959	---	797	---	462	---	928	364	---
TOTAL	4094	5671	7020	29220	16705	19805	18760	17994	21928	18731	16471	26331
MEAN	132	189	226	943	576	639	625	580	731	604	531	878
MAX	502	283	347	5390	835	1240	1120	989	3280	1350	1020	3790
MIN	83	100	165	180	425	437	418	409	353	390	364	326
(†)	-16.5	-16.3	-15.9	-14.2	-14.9	-15.0	-15.5	-15.9	-16.7	-16.4	-16.8	-16.6
MEAN*	116	173	210	929	561	624	610	564	714	588	514	861
CFSM*	0.41	0.62	0.75	3.31	2.00	2.22	2.17	2.01	2.54	2.09	1.83	3.06
IN*	0.47	0.69	0.86	3.82	2.16	2.56	2.42	2.32	2.83	2.41	2.11	3.41

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 1996, BY WATER YEAR (WY)

	MEAN	171	187	251	298	353	462	468	375	292	216	176	174
MAX	916	589	776	943	938	1299	1201	779	1278	604	531	1090	
(WY)	1977	1976	1951	1996	1984	1994	1993	1952	1972	1996	1996	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

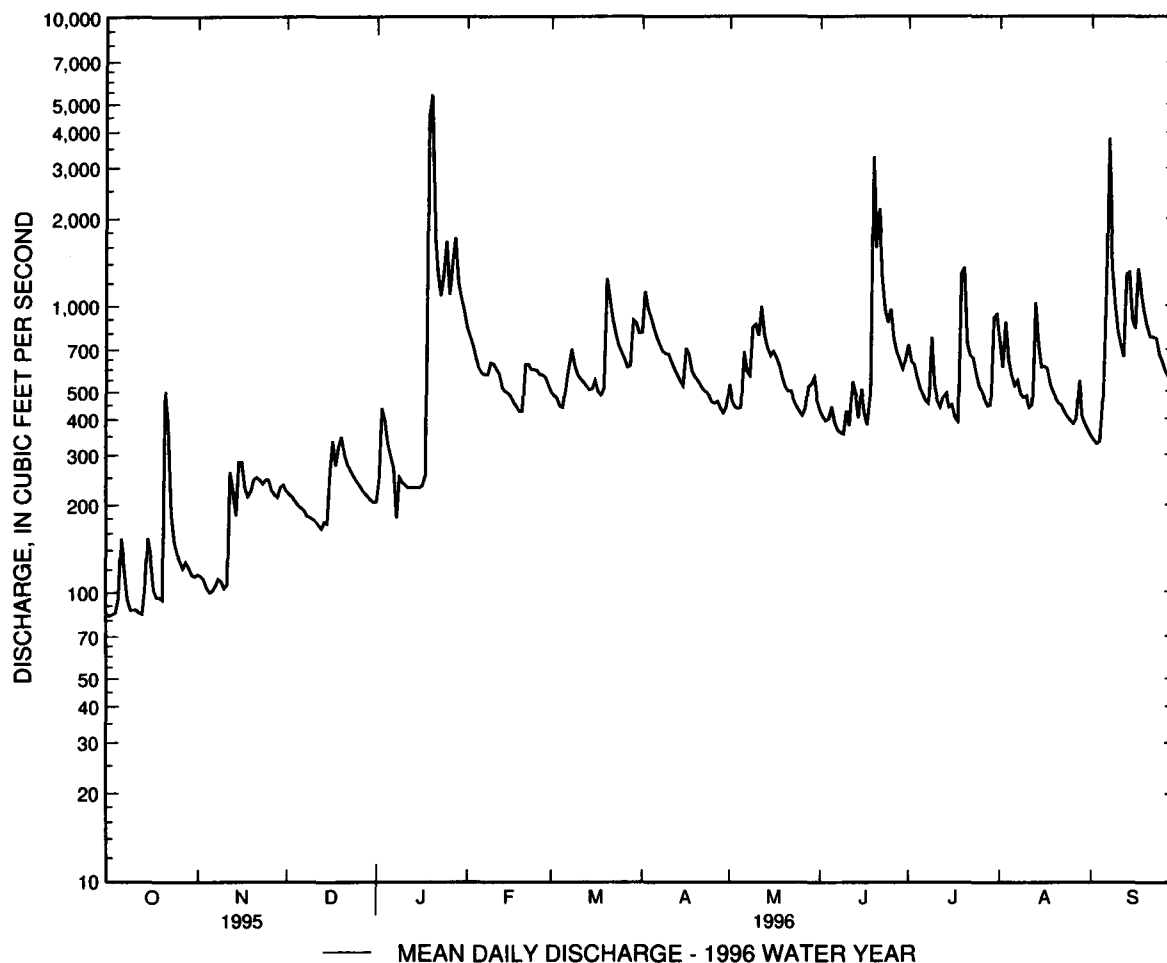
SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR			FOR 1996 WATER YEAR			WATER YEARS 1931 - 1996	
ANNUAL TOTAL	77447			202730				
ANNUAL MEAN	212			554			285	
ANNUAL MEAN*	196			538			276	
HIGHEST ANNUAL MEAN							554	1996
LOWEST ANNUAL MEAN							124	1966
HIGHEST DAILY MEAN	835	Jan 21		5390	Jan 20		8970	Sep 26 1975
LOWEST DAILY MEAN	81	Sep 16		83	Oct 2		37	Jan 30 1966
ANNUAL SEVEN-DAY MINIMUM	83	Sep 10		90	Oct 8		49	Jan 26 1966
INSTANTANEOUS PEAK FLOW				8960	Jan 19		(a) 12600	Jul 20 1956
INSTANTANEOUS PEAK STAGE				13.71	Jan 19		16.73	Jul 20 1956
INSTANTANEOUS LOW FLOW				80	(b)		(c) 9.4	Nov 22 1957
ANNUAL RUNOFF (CFSM)	.76			1.97			1.01	
ANNUAL RUNOFF (CFSM)*	.70			1.91			0.98	
ANNUAL RUNOFF (INCHES)	10.25			26.84			13.77	
ANNUAL RUNOFF (INCHES)*	9.49			26.00			13.34	
10 PERCENT EXCEEDS	326			932			549	
50 PERCENT EXCEEDS	206			483			206	
90 PERCENT EXCEEDS	92			144			98	

* Adjusted for inflow since January 1930.

a From rating curve extended above 7,300 ft³/s on basis of contracted-opening measurement of peak flow.

b Oct. 1,2.

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 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1895 to March 1909, August 1928 to current year.

REVISED RECORDS.--WSP 951: 1936(M). WSP 1432: Drainage area at former site, 1895-99, 1901-02, 1905, 1907-08, 1932(M), 1935(M).

GAGE.--Water-stage recorder. Datum of gage is 293.00 ft above sea level. Apr. 15, 1895, to Mar. 31, 1909, nonrecording gage at site 0.8 mi downstream at datum 0.32 ft higher.

REMARKS.--Water-discharge records good except those for estimated daily discharges, which are poor. Regulation by hydroelectric plants, particularly that of Potomac Light and Power Company, 0.5 mi upstream from station. National Weather Service gage-height telemeter and U.S. Army Corps of Engineers satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of 1870 reached practically same stage as flood of Mar. 18, 1936, 26.36 ft, discharge, 151,000 ft³/s.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 15,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 21	1815	15,200	8.28	Apr. 3	0200	16,900	8.71
Oct. 22	1700	26,600	10.95	Aug. 14	0445	20,400	9.59
Jan. 20	2130	121,000	23.61	Sept. 8	0545	*156,000	*26.84
Jan. 28	2000	29,600	11.55	Sept. 12	1615	17,200	8.81
Mar. 21	1200	16,500	8.61				

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MEAN DAILY VALUES											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	865	1780	2680	2180	8440	5460	8210	2290	4570	2210	4600	2250
2	770	1700	3000	2300	7090	5140	13500	2280	3940	2040	3780	2050
3	753	1610	2950	5310	6180	4830	15400	2530	3440	1950	3390	1900
4	708	1470	2870	7050	5530	4480	11500	2490	3090	1850	2960	1920
5	805	1420	2720	6410	4830	4140	9140	3010	3010	1840	3180	2490
6	815	1340	2580	5240	4320	3850	7480	6020	2840	1840	2650	11800
7	1510	1350	2440	4580	4080	3830	6380	8920	2520	1750	2430	98500
8	2040	1340	2300	3010	4560	4570	5610	6860	2390	1640	2090	133000
9	1790	1270	2220	2710	4730	4810	5160	6200	2320	1570	2220	32300
10	1320	1230	2150	e3600	e5780	4570	4750	6460	3970	1580	2080	17200
11	1090	1260	2040	e3700	7020	4150	4410	5620	6100	1720	4070	13400
12	968	2090	1900	3660	e6420	3930	4110	5610	7250	1820	3160	14900
13	856	5010	1870	3260	5960	3800	3870	5030	6810	1620	8640	13800
14	886	7200	1790	3290	5440	3680	3660	4410	5620	1550	17500	11200
15	906	5800	e1700	3370	4980	3580	3420	3900	4710	1430	10300	8750
16	907	5420	e2000	3770	4730	3510	3440	3770	3970	1420	6800	6910
17	908	4490	2870	4130	4430	3450	3480	4060	3440	1430	5720	7180
18	902	3840	2860	5290	4110	3400	3440	4940	3600	1470	4870	8660
19	844	3420	e3430	28900	3890	3480	3260	10200	2800	1780	4080	7800
20	838	3320	e5000	95900	3750	8790	3060	7600	4780	1900	3490	6340
21	6050	3470	e7200	72800	3790	14500	2950	5660	10100	1880	3030	5420
22	19200	3460	e6000	21500	4010	12100	2860	4720	7960	2050	2710	4940
23	12800	3330	e4900	15200	4410	8830	2740	4020	5400	2100	2510	4640
24	6710	3250	e4240	12000	4530	7050	e2640	3510	4280	1960	2700	4400
25	4650	3210	e3760	11500	4570	5910	e2500	3060	8070	1950	2500	3960
26	3540	e3000	e3330	10300	4500	5170	2420	2740	4670	1690	2230	3590
27	2860	e2600	3080	9920	4440	4660	2380	2740	3640	1540	2170	3350
28	2470	e2300	2770	21800	4610	4400	2290	3040	2970	1390	2210	3230
29	2190	e2350	2560	21300	5160	5270	2230	5030	2540	1400	4200	3530
30	2040	e2410	2380	13400	---	8000	e2260	e6240	2350	1670	3230	4040
31	1840	---	2230	10300	---	8650	---	e5290	---	2410	2640	---
TOTAL	84831	85740	93820	417680	146290	171990	148550	148250	133150	54450	128140	443450
MEAN	2736	2858	3026	13470	5044	5548	4952	4782	4438	1756	4134	14780
MAX	19200	7200	7200	95900	8440	14500	15400	10200	10100	2410	17500	133000
MIN	708	1230	1700	2180	3750	3400	2230	2280	2320	1390	2080	1900
CFSM	.90	.94	1.00	4.43	1.66	1.83	1.63	1.57	1.46	.58	1.36	4.86
IN.	1.04	1.05	1.15	5.11	1.79	2.10	1.82	1.81	1.63	.67	1.57	5.43

e Estimated

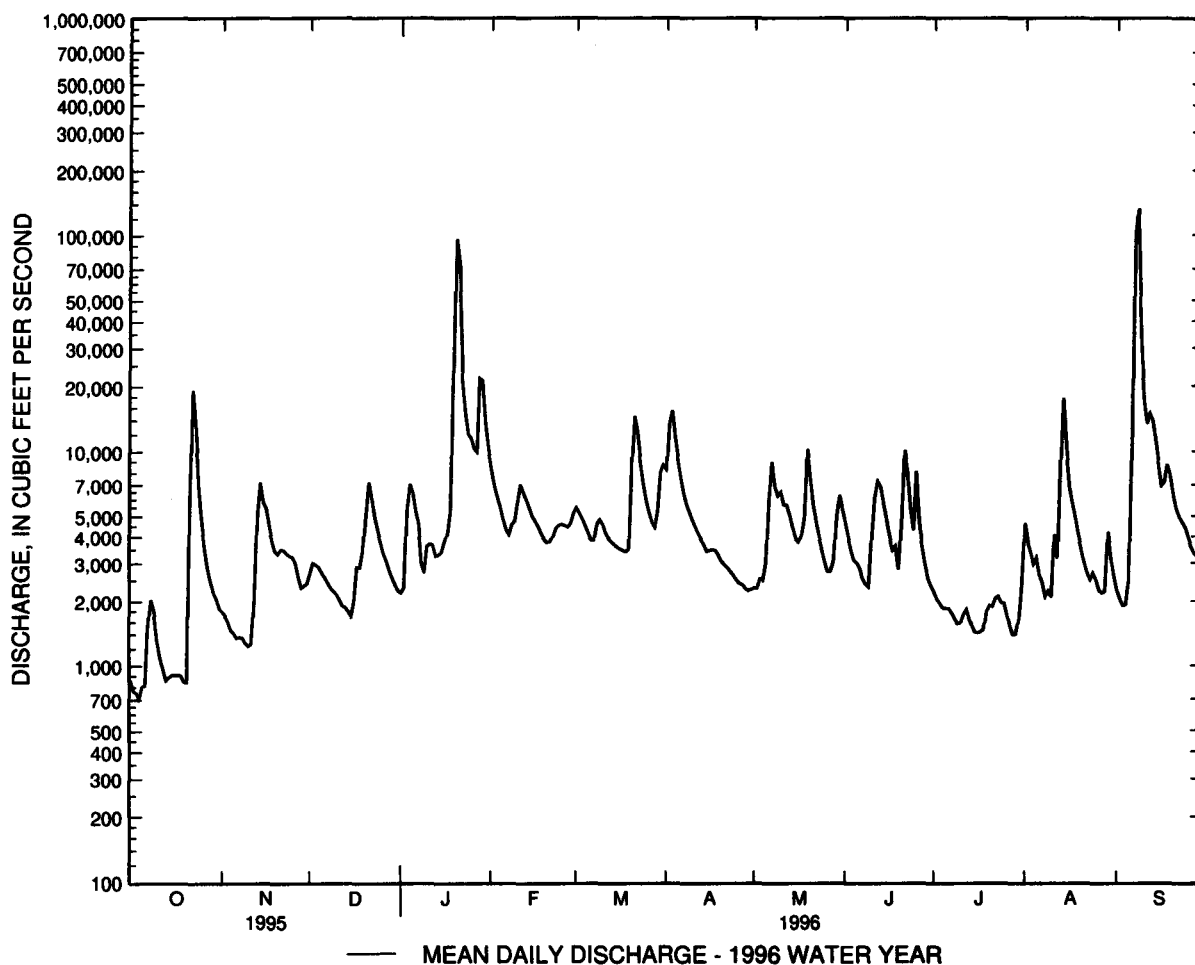
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1895 - 1909, 1928 - 1996, BY WATER YEAR (WY)

MEAN	1945	1824	2458	3208	3818	5008	4405	3374	2402	1463	1664	1473
MAX	16250	13350	8164	13470	13100	17540	12840	8700	10380	4809	10390	14780
(WY)	1943	1986	1973	1996	1897	1936	1901	1901	1972	1972	1955	1996
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 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1895 - 1909 1928 - 1996	
ANNUAL TOTAL	991946		2056341		2748	
ANNUAL MEAN	2718		5618		5618	
HIGHEST ANNUAL MEAN					1111	
LOWEST ANNUAL MEAN					1996	
HIGHEST DAILY MEAN	28600	Jan 17	133000	Sep 8	192000	Oct 16 1942
LOWEST DAILY MEAN	520	Sep 16	708	Oct 4	194	Jul 24 1930
ANNUAL SEVEN-DAY MINIMUM	661	Sep 10	884	Oct 14	240	Sep 7 1966
INSTANTANEOUS PEAK FLOW			156000	Sep 8	230000	Oct 16 1942
INSTANTANEOUS PEAK STAGE			26.84	Sep 8	(a) 32.40	Oct 16 1942
INSTANTANEOUS LOW FLOW			335	Oct 6	59	Oct 4 1930
ANNUAL RUNOFF (CFSM)	.89		1.85		.90	
ANNUAL RUNOFF (INCHES)	12.14		25.16		12.28	
10 PERCENT EXCEEDS	4850		8800		5540	
50 PERCENT EXCEEDS	1900		3560		1610	
90 PERCENT EXCEEDS	860		1600		610	

a From floodmarks.



POTOMAC RIVER BASIN

01636500 SHENANDOAH RIVER AT MILLVILLE, WV--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1960-63, 1965, 1969-71, 1979 to current year.

INSTRUMENTATION.--Water-quality monitor October 1980 to September 1983.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1980 to September 1983.

WATER TEMPERATURES: October 1980 to September 1983.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE (water years 1981-82): Maximum, 778 microsiemens, Dec. 29, 1980; minimum, 212 microsiemens, Jan. 17, 1982.

WATER TEMPERATURE: Maximum, 30.0°C, July 20, 21, 1981; minimum, 0.0°C on many days during winter periods.

WATER QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

		DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	TEMPER- ATURE AIR (DEG C) (00020)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	
JAN 22...	1530	19500	152	7.3	3.0	--	762	13.0	96	77	23	
SEP 07...	1700	124000	129	7.1	20.5	--	751	7.2	81	58	18	
08...	1315	138000	139	7.1	20.0	30.0	751	7.1	80	58	19	
09...	1020	25600	173	7.0	20.0	26.0	752	7.5	84	78	24	
10...	1045	17100	206	7.3	21.0	26.0	755	8.1	92	90	27	
		MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- LITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	BICAR- BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS NO3) (71851)
JAN 22...	4.7	2.6	2.4	60	71	8.4	4.6	0.10	6.5	98	--	
SEP 07...	3.1	1.7	3.6	44	54	6.5	2.5	<0.10	5.4	85	3.3	
08...	2.6	1.5	4.0	50	61	6.5	2.1	<0.10	4.8	87	2.9	
09...	4.3	2.0	3.3	62	76	9.1	3.0	<0.10	7.0	119	4.0	
10...	5.6	2.5	2.9	72	88	11	3.9	<0.10	7.4	121	6.1	
		NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN,AM MONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	
JAN 22...	<0.010	1.50	0.050	0.70	0.30	0.220	0.080	0.060	140	5		
SEP 07...	0.020	0.760	0.070	3.3	0.60	1.50	0.090	0.080	210	4		
08...	0.030	0.690	0.120	3.8	0.60	1.40	0.080	0.090	100	2		
09...	0.020	0.920	0.040	1.3	0.50	0.420	0.050	0.060	91	3		
10...	0.020	1.40	0.050	0.60	0.30	0.160	0.040	0.060	4	1		
		CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS- PENDEED TOTAL (MG/L AS C) (00689)	ETHAL- FLUR- ALIN WAT FLT 0.7 U (UG/L) (82663)	PHORATE WATER FLTRD 0.7 U (UG/L) (82664)	TER- BACIL WATER FLTRD 0.7 U (UG/L) (82665)	TRI- FLUR- ALIN WAT FLT 0.7 U (UG/L) (82661)	2,6-DI- ETHYL ANILINE WAT FLT 0.7 U (UG/L) (82660)	ACETO- CHLOR, WATER FLTRD (UG/L) (49260)	ALA- CHLOR, WATER, DISS, REC (UG/L) (46342)	ALPHA BHC DIS- SOLVED (UG/L) (34253)	ATRA- ZINE, WATER, DISS, REC (UG/L) (39632)
JAN 22...	2.9	>3.9	--	--	--	--	--	--	--	--	--	
SEP 07...	7.5	>10	<0.004	<0.002	<0.007	<0.002	<0.003	<0.002	<0.002	<0.002	0.033	
08...	6.9	>6.6	<0.004	<0.002	<0.007	<0.002	<0.003	<0.002	<0.002	<0.002	0.039	
09...	4.6	4.5	<0.004	<0.002	<0.007	<0.002	<0.003	<0.002	<0.002	<0.002	0.027	
10...	3.5	2.1	<0.004	<0.002	<0.007	<0.002	<0.003	<0.002	<0.002	<0.002	0.027	

POTOMAC RIVER BASIN

01636500 SHENANDOAH RIVER AT MILLVILLE, WV--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

	BEN- FLUR- ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	BUTYL- ATE, WATER, FLTRD DISS, REC (UG/L) (04028)	CAR- BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBO- FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	CHLOR- PYRIFOS DIS- SOLVED (UG/L) (38933)	CYANA- ZINE, WATER, FLTRD DISS, REC (UG/L) (04041)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	P, P' DDE DISSOLV (UG/L) (34653)	DEETHYL ATRA- ZINE, WATER, FLTRD DISS, REC (UG/L) (04040)	DI- AZINON, DIS- SOLVED (UG/L) (39572)	DI- ELDRIN DIS- SOLVED (UG/L) (39381)
JAN 22...	--	--	--	--	--	--	--	--	--	--	--
SEP											
07...	<0.002	<0.002	E0.027	<0.003	<0.004	<0.004	<0.002	<0.006	E0.010	<0.002	<0.001
08...	<0.002	<0.002	E0.036	<0.003	<0.004	<0.004	<0.002	<0.006	E0.012	0.096	<0.001
09...	<0.002	<0.002	<0.010	<0.003	<0.004	<0.004	<0.002	<0.006	E0.014	0.338	<0.001
10...	<0.002	<0.002	<0.003	<0.003	<0.004	<0.004	<0.002	<0.006	E0.014	E0.004	<0.001

E Estimated value.

POTOMAC RIVER BASIN

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 mi².

PERIOD OF RECORD.--August 1947 to current year.

REVISED RECORDS.--WSP 1432: 1947-48. WDR MD-DE-77-1: 1960(M), 1965(M), 1970(M), 1972(P), 1975(P).

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 385 ft above sea level, from topographic map.

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

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,200 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 19	0245	1,210	4.53	July 30	1900	4,990	8.85
Jan. 19	1515	*8,560	*11.73	July 31	0715	2,000	5.65
June 19	UNKNOWN	(a) 6,660	10.27	Aug. 27	1600	1,300	4.67
July 19	1615	4,730	8.61	Sept. 6	2145	5,100	8.95
July 30	0315	2,930	6.76				

(a) From floodmark.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.7	12	58	45	167	116	275	103	e70	211	379	55
2	1.6	13	63	96	146	111	392	79	e65	144	270	50
3	1.6	15	54	203	e115	102	299	72	e60	130	512	46
4	2.1	14	51	122	e110	87	259	73	e70	99	319	76
5	8.1	12	47	96	e95	90	221	80	e100	84	231	107
6	26	11	46	83	e110	141	189	162	e70	71	187	1710
7	13	13	43	48	e100	195	168	96	e65	63	159	803
8	5.6	21	38	50	e95	198	147	114	e60	68	133	344
9	3.7	20	39	e50	167	e150	145	293	e55	75	123	275
10	3.3	15	31	e49	148	e140	138	232	e300	54	116	197
11	3.0	27	29	e48	140	e130	123	233	e700	47	93	162
12	2.6	122	41	e47	123	125	109	267	e200	43	121	140
13	2.4	58	41	e46	95	116	99	186	e100	89	507	520
14	7.5	91	42	e46	94	107	91	160	e90	65	215	250
15	24	149	41	e46	88	122	92	145	e80	109	169	189
16	15	95	167	e48	82	113	215	193	e75	89	185	238
17	7.4	77	140	54	71	96	134	e150	e85	54	149	394
18	5.3	70	103	60	83	92	115	e130	e1200	50	118	268
19	4.2	73	147	3940	64	222	109	e100	e2500	1340	103	209
20	4.1	91	129	945	84	584	104	e90	e700	387	96	173
21	215	87	103	462	317	395	96	e80	e450	224	87	149
22	56	82	90	332	204	308	89	e85	e300	201	80	196
23	27	68	81	263	200	247	87	e75	e260	177	69	181
24	19	85	72	478	203	204	79	e70	e230	130	63	130
25	15	72	64	380	174	179	73	e65	e200	107	59	117
26	13	62	57	250	163	157	72	e65	e170	101	54	101
27	13	57	49	687	159	134	72	e80	e145	83	273	94
28	16	61	53	416	153	166	63	e100	122	71	125	112
29	16	75	45	306	129	293	60	e150	106	75	85	170
30	14	62	41	255	---	275	88	e110	174	1020	69	104
31	12	---	43	217	---	236	---	e80	---	697	60	---
TOTAL	558.2	1710	2048	10168	3879	5631	4203	3918	8802	6158	5209	7560
MEAN	18.0	57.0	66.1	328	134	182	140	126	293	199	168	252
MAX	215	149	167	3940	317	584	392	293	2500	1340	512	1710
MIN	1.6	11	29	45	64	87	60	65	55	43	54	46
CFSM	.27	.85	.99	4.90	2.00	2.72	2.09	1.89	4.39	2.97	2.51	3.77
IN.	.31	.95	1.14	5.65	2.16	3.13	2.34	2.18	4.89	3.42	2.90	4.20

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1947 - 1996, BY WATER YEAR (WY)

MEAN	33.9	47.9	84.1	102	121	153	141	100	61.3	35.1	23.4	27.9
MAX	399	162	318	328	357	407	360	391	439	214	208	284
(WY)	1977	1986	1993	1996	1984	1994	1993	1988	1972	1949	1955	1975
MIN	2.62	3.61	3.80	4.25	28.7	46.3	40.1	29.2	13.5	4.86	2.04	1.68
(WY)	1964	1966	1966	1966	1954	1969	1995	1963	1954	1966	1966	1965

POTOMAC RIVER BASIN

01637500 CATOCTIN CREEK NEAR MIDDLETOWN, MD--Continued

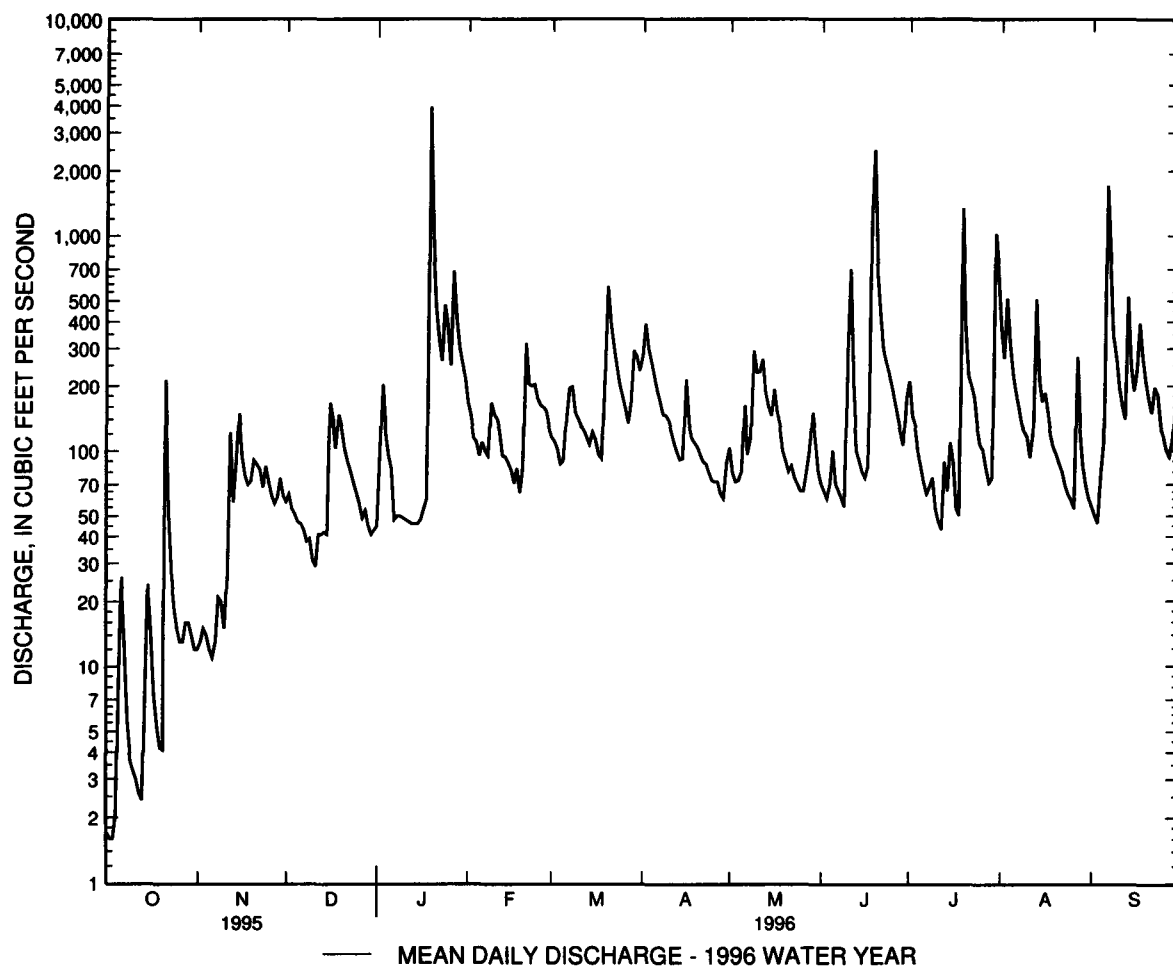
SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1947 - 1996	
ANNUAL TOTAL	15773.28		59844.2			
ANNUAL MEAN	43.2		164		77.4	
HIGHEST ANNUAL MEAN					164	
LOWEST ANNUAL MEAN					29.7	
HIGHEST DAILY MEAN	300	Jan 20	3940	Jan 19	4880	Oct 9 1976
LOWEST DAILY MEAN	.53	Sep 6	1.6	(a)	.00	(b)
ANNUAL SEVEN-DAY MINIMUM	.64	Sep 5	4.0	Oct 8	.00	Aug 27 1966
INSTANTANEOUS PEAK FLOW			8560	Jan 19	(c) 12000	Oct 9 1976
INSTANTANEOUS PEAK STAGE			11.73	Jan 19	14.13	Oct 9 1976
INSTANTANEOUS LOW FLOW			1.6	(d)	.00	(b)
ANNUAL RUNOFF (CFSM)	.65		2.44		1.16	
ANNUAL RUNOFF (INCHES)	8.77		33.28		15.72	
10 PERCENT EXCEEDS	94		293		175	
50 PERCENT EXCEEDS	37		97		39	
90 PERCENT EXCEEDS	1.9		23		5.8	

a Oct. 2, 3.

b Aug. 27 to Sept. 12, 1966.

c From rating curve extended above 2,600 ft³/s on basis of slope-area measurement of peak flow.

d Oct. 1-4.



POTOMAC RIVER BASIN

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 mi².

PERIOD OF RECORD.--February 1895 to current year.

REVISED RECORDS.--WSP 192: 1895-1905. WSP 1432: 1899, 1901-2, 1904-5, 1912, 1914(M), 1915, 1917(M), 1918, 1919(M), 1920, 1921-23(M), 1924, 1925-28(M), 1930(M).

GAGE.--Water-stage recorder. Datum of gage is 200.63 ft above sea level. Prior to Oct. 28, 1929, nonrecording gage at same site. Prior to Sept. 2, 1902, at datum about 0.45 ft higher.

REMARKS.--Records good except those for estimated daily discharges (ice effect), which are fair. Low flow affected slightly from 1913 to July 1981 by Stony River Reservoir; since December 1950 by Savage River Reservoir (see station 01597500); and since July 1981 by Jennings Randolph Lake. Low flow affected extensively at times by run-of-the-river hydroelectric plants. National Weather Service gage-height telemeter at station. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 2, 1889, reached a stage of 40.2 ft, from floodmarks, discharge, about 460,000 ft³/s from rating curve extended as explained in footnotes.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 35,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 22	1300	43,800	9.93	May 30	2400	41,800	9.62
Jan. 21	0300	*310,000	*36.34	June 13	0430	37,700	8.95
Jan. 25	2030	54,300	11.50	June 20	1330	35,200	8.55
Jan. 28	2300	92,200	16.53	Aug. 2	0500	41,700	9.60
Mar. 21	1200	92,800	16.60	Aug. 14	1430	72,900	14.07
Apr. 3	0430	57,800	12.00	Sept. 8	1530	309,000	36.26
May 7	1830	48,100	10.58	Sept. 14	1130	44,200	9.99
May 10	1600	42,100	9.66	Sept. 18	2200	45,300	10.16
May 19	0830	48,800	10.69				

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1750	3750	9480	6030	27700	30600	26200	7640	27000	7260	29200	6000
2	1640	3560	9550	6530	22800	25400	38900	8210	20100	6910	38700	5420
3	1580	3250	9150	12100	19500	21100	53200	8710	16000	6370	27800	5040
4	1490	3230	9110	26000	16300	17900	38900	9430	13400	6020	23700	4960
5	1760	3030	8740	25400	e13700	15600	30300	9560	12100	5880	18000	5680
6	1840	2840	8170	19600	e11900	14600	24900	16200	11100	5600	13100	11300
7	2960	3140	7700	15600	e11000	16300	20900	41600	9980	5570	11100	124000
8	3560	2840	7250	10800	11900	25000	18300	38100	8820	5280	9400	288000
9	4070	2730	6930	7350	13000	33600	16600	32100	8060	5290	8600	163000
10	3210	2840	6340	e7700	15100	26600	15400	40600	9760	5570	8460	55600
11	2700	2770	e5900	e8600	22900	20900	14400	36500	14100	4890	13300	41000
12	2240	3890	4820	e9500	23800	18200	13200	31900	21000	5000	12000	33300
13	1930	10200	4620	e9000	23700	16500	12200	27700	34400	4850	17900	31800
14	1940	15400	4770	e9000	20000	15200	11300	23100	22800	4580	60600	42100
15	2050	14300	4790	9560	17800	13700	10700	19300	16700	4250	47500	34000
16	2060	18200	5880	9360	16300	13300	11400	16900	13100	4200	30700	24200
17	2130	15900	9660	9630	14600	13900	11800	17900	10800	4050	24900	24500
18	2070	12300	15600	12500	12800	13800	11500	30500	10400	3930	20900	39100
19	2030	10600	14800	49000	11500	14400	10900	44500	17300	7480	16500	40400
20	1960	10300	17400	225000	10800	32600	10400	30200	32900	12900	12900	29500
21	6280	11300	20700	269000	12000	85300	10200	22300	29200	15700	10800	22600
22	32700	12200	18800	93600	15500	56900	10100	18100	26700	15800	9600	18900
23	22500	11600	15100	48900	16900	38100	9590	15400	17800	12000	8560	16400
24	13900	11000	12600	41000	18300	28600	8950	14800	13500	12600	8020	14600
25	9390	10800	11100	48700	19700	23000	8420	12200	16000	12600	7670	13000
26	7090	10300	9760	47400	20700	19800	8130	10600	14600	9140	6910	11800
27	5820	9610	9010	40200	19800	17600	7930	9960	11900	7380	6940	10700
28	4950	8800	8010	72300	19700	16800	7630	10500	9810	6390	6560	9910
29	4570	8470	7490	76100	28000	19000	7350	19700	8270	5660	7760	10500
30	4260	8780	7010	46700	---	24500	7330	37700	7550	7290	7390	11700
31	4090	---	6410	34700	---	27500	---	38000	---	12800	6860	---
TOTAL	160520	247930	296650	1306860	507700	756300	487030	699910	485150	233240	532330	1149010
MEAN	5178	8264	9569	42160	17510	24400	16230	22580	16170	7524	17170	38300
MAX	32700	18200	20700	269000	28000	85300	53200	44500	34400	15800	60600	288000
MIN	1490	2730	4620	6030	10800	13300	7330	7640	7550	3930	6560	4960
CFSM	.54	.86	.99	4.37	1.81	2.53	1.68	2.34	1.68	.78	1.78	3.97
IN.	.62	.96	1.14	5.04	1.96	2.92	1.88	2.70	1.87	.90	2.05	4.43

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1895 - 1996, BY WATER YEAR (WY)

	1895	1896	1897	1898	1899	1900	1901	1902	1903	1904	1905	1906
MEAN	5010	5522	8488	11500	14270	19700	16570	12390	8015	4566	4335	3808
MAX	37030	39000	32610	42160	42640	68360	43840	41970	40400	16000	23580	38300
(WY)	1943	1986	1973	1996	1897	1936	1993	1924	1972	1949	1955	1996
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

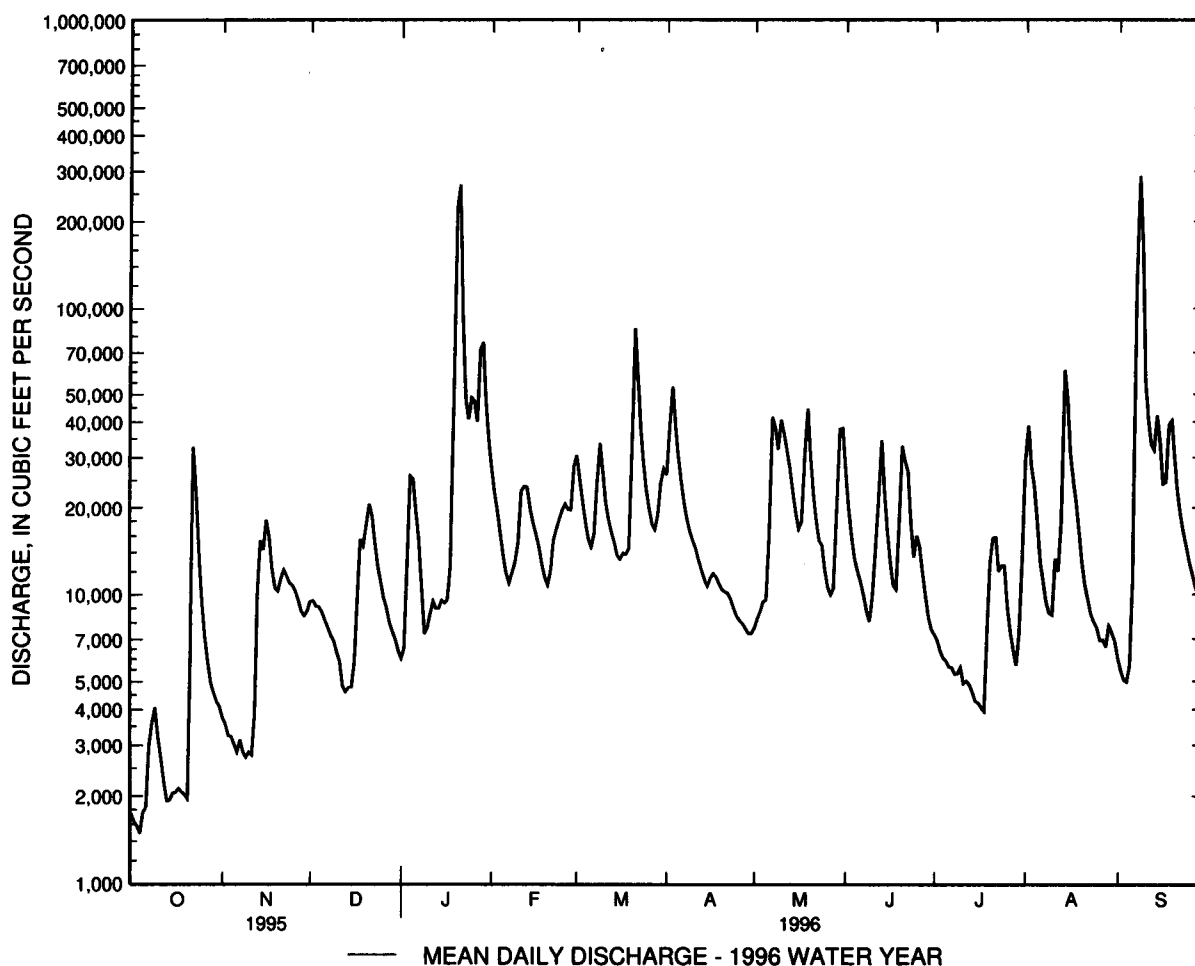
POTOMAC RIVER BASIN

01638500 POTOMAC RIVER AT POINT OF ROCKS, MD--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1895 - 1996	
ANNUAL TOTAL	2770070		6862630			
ANNUAL MEAN	7589		18750		9501	
HIGHEST ANNUAL MEAN					18750	
LOWEST ANNUAL MEAN					4366	
HIGHEST DAILY MEAN	76600	Jan 17	288000	Sep 8	434000	Mar 19 1936
LOWEST DAILY MEAN	1370	Sep 16	1490	Oct 4	540	Sep 10 1914
ANNUAL SEVEN-DAY MINIMUM	1560	Sep 10	1860	Oct 1	593	Sep 6 1966
INSTANTANEOUS PEAK FLOW			310000	Jan 21	(a) 480000	Mar 19 1936
INSTANTANEOUS PEAK STAGE			36.34	Jan 21	41.03	Mar 19 1936
INSTANTANEOUS LOW FLOW			1230	Oct 4	530	(b)
ANNUAL RUNOFF (CFSM)	.79		1.94		.98	
ANNUAL RUNOFF (INCHES)	10.68		26.45		13.38	
10 PERCENT EXCEEDS	14400		35200		20600	
50 PERCENT EXCEEDS	5540		12100		5380	
90 PERCENT EXCEEDS	1930		4230		1680	

a From rating curve extended above 300,000 ft³/s, on the basis of adjustment of figure of peak flow at station near Washington for inflow and storage, and slope-area measurement of peak flow.

b September 11, 12, 1966.



POTOMAC RIVER BASIN

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 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1942 to current year.

REVISID RECORDS. - -WSP 1382: 1944 (M) .

GAGE.--Water-stage recorder. Concrete control since Sept. 15, 1947. Datum of gage is 340.83 ft above sea level (levels by U.S. Army Corps of Engineers). Prior to May 3, 1946, nonrecording gage and crest-stage gages at site 0.3 mi downstream at datum 0.98 ft lower.

REMARKS.--Water-discharge records good except those for estimated daily discharges (ice effect), which are fair. Occasional regulation at low flow from unknown source upstream from station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Aug. 24, 1933, reached a stage of about 25 ft, present site and datum, from floodmarks, discharge, about 23,000 ft³/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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 19	2115	16,300	19.24	June 19	0745	*24,400	*25.42
Jan. 24	2245	5,690	11.02	June 21	0245	5,600	11.36
Jan. 27	1900	9,110	14.07	July 19	2300	5,990	11.77
Apr. 2	0245	5,670	11.00	Sept. 7	0500	11,900	16.99
June 12	0645	5,590	10.92				

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.0	40	107	87	329	224	634	333	98	149	530	34
2	7.6	43	133	533	284	203	2580	156	84	122	233	31
3	7.2	51	101	2040	179	187	576	132	75	422	235	29
4	6.8	49	90	608	e155	140	398	131	75	148	186	28
5	9.0	41	84	295	e145	141	320	150	101	103	116	41
6	123	35	85	162	e137	381	258	1090	77	84	95	1360
7	63	32	83	e70	e130	899	223	330	63	73	155	5470
8	28	55	73	e65	e150	739	190	557	57	123	88	492
9	17	74	69	189	262	334	195	1920	53	164	78	284
10	13	51	e60	272	694	260	327	678	75	78	143	329
11	11	45	e50	200	881	228	225	628	180	61	80	187
12	9.6	1650	e48	169	738	213	170	982	2620	54	67	141
13	8.7	381	52	167	266	197	143	374	375	620	2340	312
14	10	598	54	157	215	186	125	271	182	250	454	263
15	90	3250	61	141	203	306	116	216	631	336	225	152
16	79	943	602	126	182	394	1890	235	160	165	189	158
17	35	438	888	121	150	220	510	234	105	100	293	2390
18	22	327	351	123	e130	193	295	229	104	79	128	801
19	18	274	750	7210	e120	204	233	166	13700	1680	92	354
20	14	231	532	6930	212	1640	201	124	2690	1400	79	235
21	1580	201	294	1610	2510	583	171	103	2910	245	69	178
22	427	176	224	843	1340	375	147	94	556	155	81	208
23	148	153	227	603	1090	278	126	83	330	147	70	222
24	91	198	145	2080	1200	221	113	74	790	110	56	147
25	70	181	121	2570	699	190	99	69	866	88	49	124
26	55	142	e95	771	481	174	95	62	275	84	45	101
27	46	101	e90	5260	395	144	103	76	179	78	40	92
28	67	95	e85	2500	376	176	90	168	141	64	75	92
29	92	93	78	734	293	2180	84	340	118	58	54	403
30	56	107	103	519	---	808	167	313	144	1300	45	172
31	42	---	82	480	---	429	---	135	---	1210	39	---
TOTAL	3254.9	10055	5817	37635	13946	12847	10804	10453	27814	9750	6429	14830
MEAN	105	335	188	1214	481	414	360	337	927	315	207	494
MAX	1580	3250	888	7210	2510	2180	2580	1920	13700	1680	2340	5470
MIN	6.8	32	48	65	120	140	84	62	53	54	39	28
CFSM	.61	1.94	1.08	7.02	2.78	2.40	2.08	1.95	5.36	1.82	1.20	2.86
IN.	.70	2.16	1.25	8.09	3.00	2.76	2.32	2.25	5.98	2.10	1.38	3.19

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1942 - 1996, BY WATER YEAR (WY)

MEAN	90.7	179	267	300	379	456	302	213	137	84.8	61.4	85.8
MAX	906	513	697	1214	1029	1606	1029	964	1065	598	613	1027
(WY)	1977	1986	1984	1996	1961	1994	1983	1989	1972	1949	1942	1975
MIN	3.24	10.4	13.7	13.8	51.0	94.7	58.1	41.2	10.5	2.68	2.40	2.34
(WY)	1964	1954	1966	1981	1980	1949	1995	1969	1966	1966	1944	1943

01639000 MONOCACY RIVER AT BRIDGEPORT, MD--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1942 - 1996	
ANNUAL TOTAL	62654.0		163634.9		211	
ANNUAL MEAN	172		447		447	
HIGHEST ANNUAL MEAN					76.8	
LOWEST ANNUAL MEAN					1996	
HIGHEST DAILY MEAN	6640	Jan 20	13700	Jun 19	16700	Jun 22 1972
LOWEST DAILY MEAN	3.6	(a)	6.8	Oct 4	.00	(b)
ANNUAL SEVEN-DAY MINIMUM	4.0	Sep 2	14	Oct 8	.04	Jul 22 1966
INSTANTANEOUS PEAK FLOW			(c) 24400	Jun 19	(c) 24400	Jun 19 1996
INSTANTANEOUS PEAK STAGE			25.42	Jun 19	25.42	Jun 19 1996
INSTANTANEOUS LOW FLOW			6.6	(d)	.00	(f)
ANNUAL RUNOFF (CFSM)	.99		2.58		1.22	
ANNUAL RUNOFF (INCHES)	13.47		35.19		16.61	
10 PERCENT EXCEEDS	358		891		447	
50 PERCENT EXCEEDS	60		161		65	
90 PERCENT EXCEEDS	11		50		8.3	

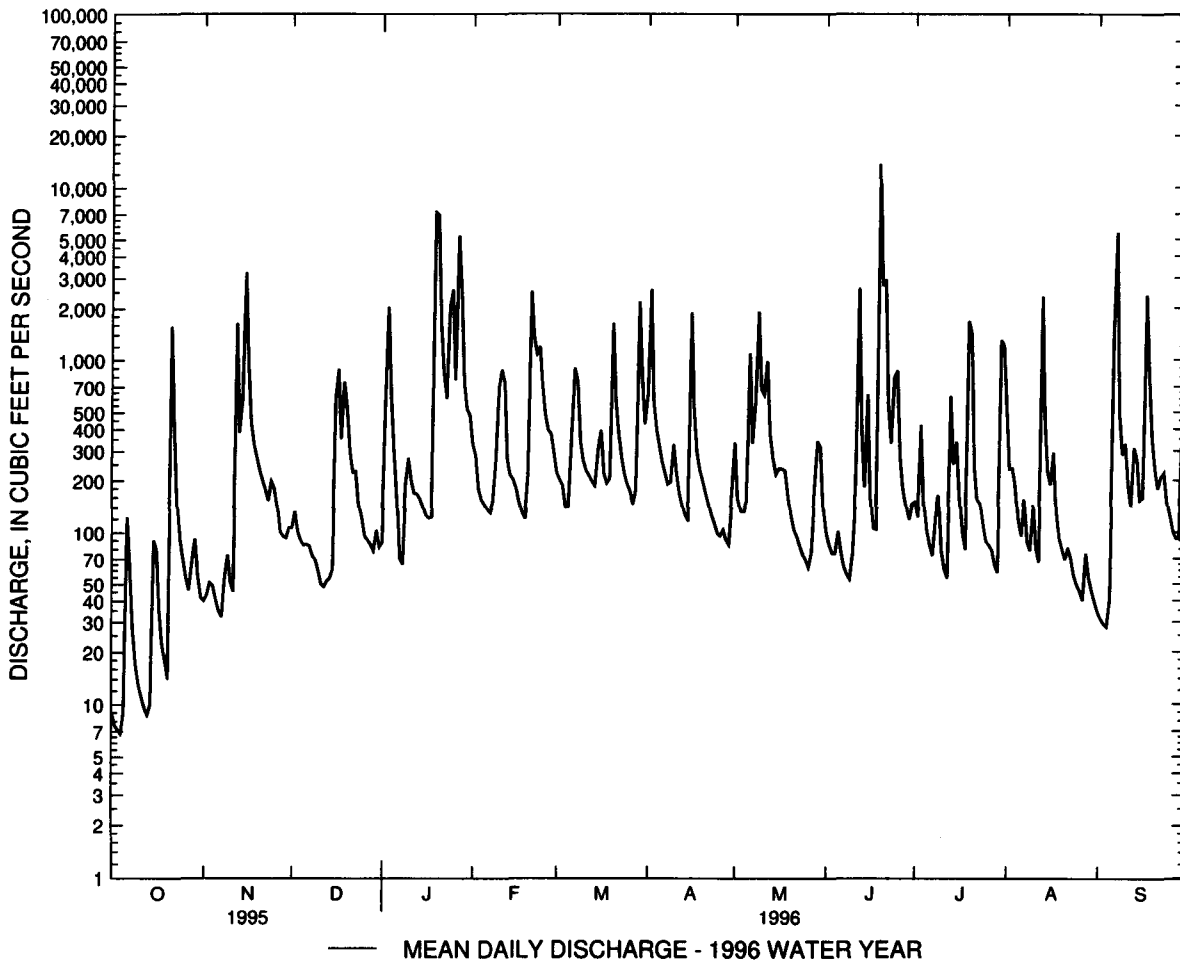
a Sept. 6, 7.

b July 25-28, 1966.

c From rating curve extended above 14,000 ft³/s on basis of slope-conveyance study.

d Oct. 4, 5.

f July 24-29, 1966



POTOMAC RIVER BASIN

01639000 MONOCACY RIVER AT BRIDGEPORT, MD--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1948-51, 1969-72, 1974-79, 1982-83, 1990 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: October 1989 to September 1993.

SUSPENDED-SEDIMENT DISCHARGE: October 1989 to September 1993.

INSTRUMENTATION.--Pumping sampler for nutrients and sediment since Nov. 29, 1989.

REMARKS.--Prior to October 1993, water temperatures were measured daily in field by local observer at time of sampling.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SEDIMENT CONCENTRATION: Maximum daily mean, 565 mg/L, Oct. 20, 1989, July 25, 1992; minimum daily mean, 1 mg/L, on many days.

SEDIMENT LOAD: Maximum daily, 7,230 tons, Jan. 30, 1990; minimum daily, 0.03 ton, July 28, 29, 1993.

EXTREMES FOR CURRENT YEAR.--

SEDIMENT CONCENTRATION: Maximum daily mean, 440 mg/L, Nov. 3; minimum daily mean, 1 mg/L, Nov. 8, Jan. 20.

SEDIMENT LOAD: Maximum daily, 6,290 tons, Nov. 23; minimum daily, 0.03 ton, July 28, 29.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE,	SPE-	PH	TEMPER- ATURE WATER (DEG C) (00010)	TEMPER- ATURE AIR (DEG C) (00020)	BARO-	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN,	HARD-	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)
		INST.	CIFIC	WATER			METRIC		DIS-	NESS	
		CUBIC	CON-	WHOLE			PRES-		(PER-	TOTAL	
		FEET	DUCT-	FIELD			SURE		CENT	(MG/L	
PER	ANCE	(STAND- ARD UNITS) (00400)	ATURE	OF	AS	(CACO3) (00900)	HG)	(MG/L)	SATUR- ATION) (00301)	AS	
SECOND	(US/CM)										
(00061)	(00095)						(00025)	(00300)	(00301)	(00900)	
JUN 1996											
19...	1835	9190	126	6.7	21.0	24.0	750	7.6	87	44	12
20...	1445	1470	181	7.0	21.0	--	749	8.1	93	63	17
21...	1115	2330	145	6.8	21.0	29.0	750	7.7	88	51	14
DATE	MAGNE-	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS-	ALKA-	BICAR-	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO-	FLUO-	SILICA,	SOLIDS,	NITRO- GEN, TOTAL (MG/L AS N) (00600)
	SIUM,		SIUM,	LINITY	BONATE		RIDE,	RIDE,	DIS-	AT 180	
	DIS-		DIS-	WAT DIS	WATER		DIS-	DIS-	SOLVED	DEG. C	
	SOLVED		SOLVED	TOT IT	FIELD		FIELD	SOLVED	SOLVED	DIS-	
	(MG/L	(MG/L	(MG/L	MG/L AS	MG/L AS	(MG/L	(MG/L	(MG/L	AS	SOLVED	(MG/L
	AS MG)	AS NA)	AS K)	CACO3	HCO3	AS SO4)	AS CL)	AS F)	SIO2)	(MG/L)	AS N)
	(00925)	(00930)	(00935)	(39086)	(00453)	(00945)	(00940)	(00950)	(00955)	(70300)	(00600)
JUN 1996											
19...	3.4	6.2	4.1	32	39	11	9.5	0.10	7.0	100	3.5
20...	5.1	5.5	5.4	50	61	14	8.2	0.10	11	120	3.0
21...	4.0	4.0	4.5	40	49	11	6.1	0.20	8.6	100	3.3
DATE	NITRO-	NITRO-	NITRO-	NITRO-	NITRO-	NITRO-	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00665)	PHOS-	PHOS-	IRON,	NITRO- GEN, TOTAL (MG/L AS N) (00600)
	GEN,	GEN,	GEN,	GEN,	GEN,AM-	GEN,AM-		PHORUS	PHORUS	DIS-	
	NITRATE	NITRITE	NO2+NO3	AMMONIA	MONIA +	MONIA +		DIS-	DIS-	SOLVED	
	DIS-	DIS-	DIS-	DIS-	ORGANIC	ORGANIC		PHORUS	PHORUS	SOLVED	
	(MG/L	(MG/L	(MG/L	(MG/L	(MG/L	(MG/L	(MG/L	(MG/L	(MG/L	(UG/L	
	AS NO3)	AS N)	AS N)	AS N)	AS N)	AS N)	AS P)	AS P)	AS P)	AS FE)	
	(71851)	(00613)	(00631)	(00608)	(00625)	(00623)	(00665)	(00666)	(00671)	(01046)	
JUN 1996											
19...	8.7	0.030	2.00	0.450	1.5	0.90	0.270	0.170	0.180	150	
20...	3.5	0.030	0.820	1.10	2.2	1.7	0.350	0.240	0.030	200	
21...	5.2	0.030	1.20	0.670	2.1	2.1	0.360	0.380	0.200	130	
DATE	MANGA-	CARBON,	CARBON,	ETHAL-	PHORATE	TER-	TRI-	2,6-DI-	ACETO-	ALA-	ATRA-
	NESE,	ORGANIC	ORGANIC	FLUR-	WATER	BACIL	FLUR-	ETHYL	CHLOR-	CHLOR,	ZINE,
	DIS-	DIS-	PENDE	ALIN	WATER	WATER	ALIN	ANILINE	WATER	WATER,	WATER,
	SOLVED	SOLVED	TOTAL	WAT FLT	FLTRD	FLTRD	WAT FLT	WAT FLT	FLTRD	DISS,	DISS,
	(UG/L	(MG/L	(MG/L	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	REC	REC,	REC
	AS MN)	AS C)	AS C)	GF, REC	GF, REC	GF, REC	GF, REC	GF, REC	(UG/L)	(UG/L)	(UG/L)
	(01056)	(00681)	(00689)	(82663)	(82664)	(82665)	(82661)	(82660)	(49260)	(46342)	(39632)
JUN 1996											
19...	13	--	3.7	<0.004	<0.002	E0.011	<0.002	<0.003	0.019	0.100	4.30
20...	19	8.4	3.1	<0.004	<0.002	E0.009	<0.002	<0.003	0.010	0.059	4.20
21...	12	9.0	4.0	<0.004	<0.002	E0.008	<0.002	<0.003	0.016	0.110	3.70

01639000 - MONOCACY RIVER AT BRIDGEPORT, MD--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	BEN- FLUR- ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	BUTYL- ATE, WATER, DISS, REC (UG/L) (04028)	CAR- BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBO- FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	CHLOR- PYRIFOS DIS- SOLVED (UG/L) (38933)	CYANA- ZINE, WATER, DISS, REC (UG/L) (04041)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	P, P' DDE DISSOLV (UG/L) (34653)	DEETHYL ATRA- ZINE, WATER, DISS, REC (UG/L) (04040)	DI- AZINON, DIS- SOLVED (UG/L) (39572)	DI- ELDRIN DIS- SOLVED (UG/L) (39381)
JUN 1996											
19...	<0.002	<0.002	E0.072	E0.170	0.007	0.120	E0.004	<0.006	E0.094	0.008	<0.001
20...	<0.002	<0.002	E0.028	E0.130	0.004	0.130	E0.001	<0.006	E0.098	0.006	<0.001
21...	<0.002	<0.002	E0.028	E0.073	0.005	0.083	E0.003	<0.006	E0.078	E0.002	<0.001

DATE	DISUL- FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	ETHO- PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	FONOFOS WATER DISS REC (UG/L) (04095)	LINDANE DIS- SOLVED (UG/L) (39341)	LIN- URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	MALA- THION, DIS- SOLVED (UG/L) (39532)	METHYL AZIN- PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	METHYL PARA- THION WAT FLT 0.7 U GF, REC (UG/L) (82667)	METO- LACHLOR WATER DISSOLV (UG/L) (39415)	METRI- BUZIN WATER DISSOLV (UG/L) (82630)
JUN 1996											
19...	<0.017	<0.002	<0.003	<0.003	<0.004	0.150	<0.005	E0.025	0.013	4.30	0.026
20...	<0.017	<0.002	<0.003	<0.003	<0.004	0.120	<0.005	E0.008	<0.006	3.60	0.019
21...	<0.017	<0.002	<0.003	<0.003	<0.004	0.150	<0.005	E0.029	0.015	3.60	0.026

DATE	MOL- INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	NAPROP- AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)	PEB- ULATE WATER FLTRD 0.7 U GF, REC (UG/L) (82669)	PARA- THION, DIS- SOLVED (UG/L) (39542)	PENDI- METH- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)	PER- METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	PRO- METON, WATER, DISS, REC (UG/L) (04037)	PRON- AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	PROP- CHLOR, WATER, DISS, REC (UG/L) (04024)	PRO- PARGITE FLTRD 0.7 U GF, REC (UG/L) (82685)
JUN 1996										
19...	<0.004	<0.003	<0.004	<0.004	0.021	<0.005	0.068	<0.003	<0.007	<0.013
20...	<0.011	<0.003	<0.004	<0.004	0.017	<0.005	0.050	<0.003	<0.007	<0.013
21...	<0.004	<0.003	<0.004	<0.004	0.014	<0.005	0.033	<0.003	<0.007	<0.013

DATE	PRO- PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	SI- MAZINE, WATER, DISS, REC (UG/L) (04035)	TEBU- THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TER- BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	THIO- BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)	TRIAL- LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	ALPHA BHC DIS- SOLVED (UG/L) (34253)	SEDI- MENT, CHARGE, SUS- PENDE (MG/L) (80154)	SEDI- MENT, CHARGE, SUS- PENDE (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
JUN 1996										
19...	<0.004	0.470	<0.010	<0.013	<0.002	<0.001	<0.002	98	2430	94
20...	<0.004	0.300	<0.010	<0.013	<0.002	<0.001	<0.002	39	155	92
21...	<0.004	0.360	<0.010	<0.013	<0.002	<0.001	<0.002	86	541	96

E Estimated

POTOMAC RIVER BASIN

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 mi².

PERIOD OF RECORD.--May 1990 to current year.

GAGE.--Water-stage recorder. Datum of gage is 383.22 ft above sea level.

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

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

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 19	0830	1,880	6.79	July 8	2100	2,380	7.50
Jan. 19	1715	*7,520	^a *11.41	July 13	1015	1,980	6.94
Jan. 24	1700	1,190	5.45	Sept. 6	2045	3,300	8.62
Jan. 27	1215	1,060	5.13				

^aFrom floodmark

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.96	9.8	26	19	58	28	211	38	14	31	76	10
2	.96	12	33	125	47	e26	250	20	12	58	48	9.4
3	.79	17	23	249	e36	e23	91	20	10	61	88	8.6
4	.97	14	21	93	e31	19	69	22	11	27	43	8.9
5	7.3	11	18	e40	e29	21	57	28	38	20	32	38
6	16	9.8	19	e26	e28	51	48	126	14	15	26	703
7	5.2	12	18	e19	e27	219	43	40	11	14	24	441
8	2.4	32	16	e15	e30	103	36	64	10	491	20	63
9	1.6	19	15	e18	110	e50	51	216	10	251	21	48
10	1.2	13	e14	e26	89	e49	71	80	14	44	28	40
11	1.2	20	e13	e60	e78	e44	46	185	28	28	17	33
12	1.2	141	e12	e40	60	e40	35	132	97	24	24	29
13	1.2	49	e13	e30	41	37	30	63	28	678	380	52
14	11	209	e14	e28	35	35	27	48	18	96	74	30
15	23	333	18	e27	e33	60	31	40	18	60	47	22
16	e14	114	160	e22	e30	49	243	43	12	48	65	56
17	e10	76	91	e21	e28	34	77	39	10	34	69	223
18	e9.0	63	55	e22	e26	31	55	36	9.9	28	36	79
19	e9.0	57	149	e2770	24	63	46	28	343	308	27	47
20	e8.0	49	82	427	65	143	40	23	203	106	24	36
21	188	42	61	e96	290	74	34	19	274	50	21	29
22	40	35	51	e92	133	54	28	21	63	45	20	69
23	17	29	41	87	109	43	28	16	43	43	17	40
24	12	43	32	502	95	35	32	14	266	35	15	28
25	11	30	28	193	60	32	24	13	138	32	13	26
26	9.7	26	e25	e100	50	28	21	12	47	36	12	21
27	9.3	24	e21	625	46	24	23	17	35	27	21	19
28	25	23	e19	159	45	69	18	29	28	22	24	25
29	17	22	e18	97	33	273	16	37	24	21	13	57
30	11	26	22	85	---	107	35	30	31	238	12	27
31	9.9	---	19	78	---	73	---	18	---	173	11	---
TOTAL	474.88	1560.6	1147	6191	1766	1937	1816	1517	1859.9	3144	1348	2317.9
MEAN	15.3	52.0	37.0	200	60.9	62.5	60.5	48.9	62.0	101	43.5	77.3
MAX	188	333	160	2770	290	273	250	216	343	678	380	703
MIN	.79	9.8	12	15	24	19	16	12	9.9	14	11	8.6
CFSM	.49	1.66	1.18	6.38	1.95	2.00	1.93	1.56	1.98	3.24	1.39	2.47
IN.	.56	1.85	1.36	7.36	2.10	2.30	2.16	1.80	2.21	3.74	1.60	2.75

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 1996, BY WATER YEAR (WY)

	1990	1991	1992	1993	1994	1995	1996
MEAN	17.2	42.4	67.2	83.5	44.6	116	60.7
MAX	57.8	63.3	117	200	93.0	237	183
(WY)	1991	1993	1994	1996	1994	1993	1993
MIN	3.27	7.84	37.0	18.8	27.1	31.1	10.7
(WY)	1992	1992	1996	1992	1991	1995	1995

01639140 PINEY CREEK NEAR TANEYTOWN, MD--Continued

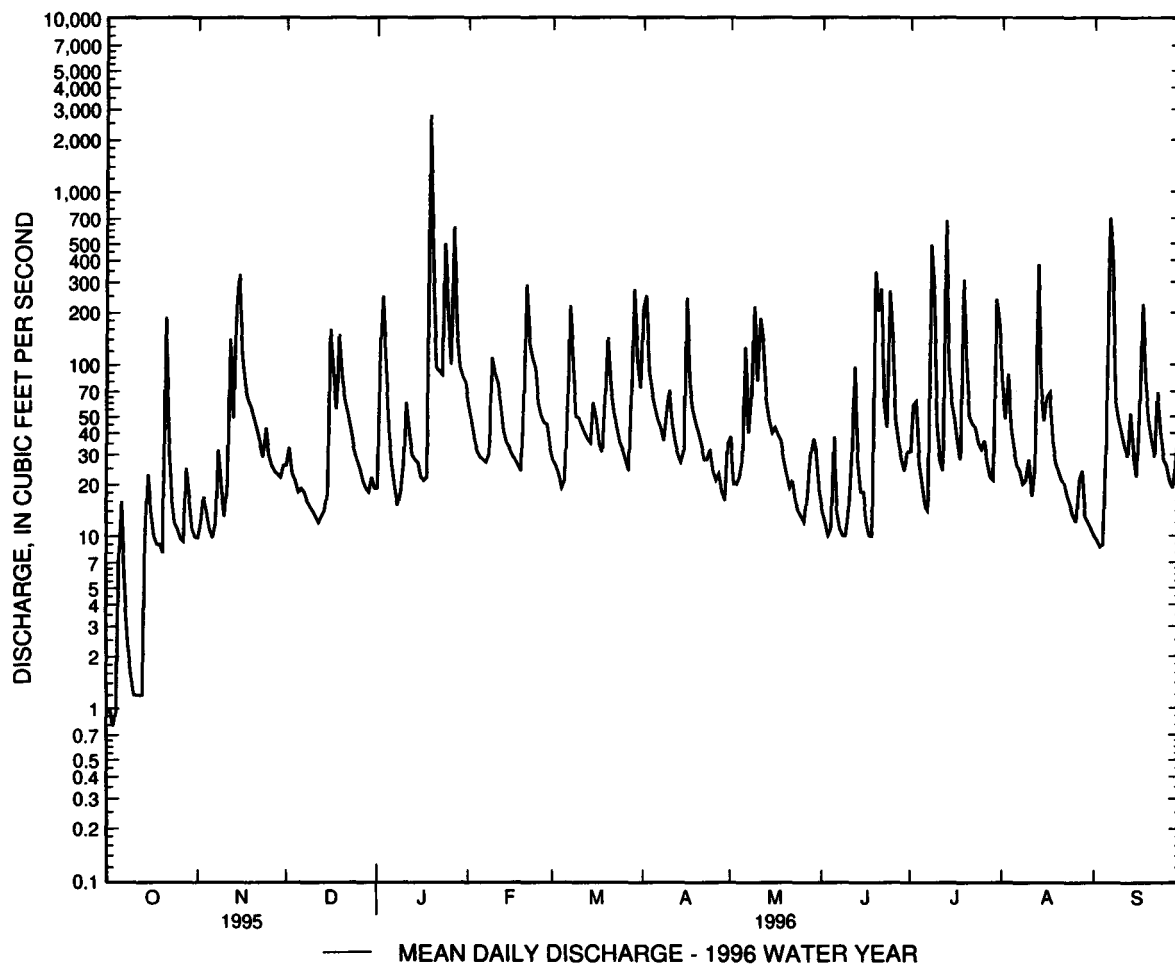
SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1990 - 1996
ANNUAL TOTAL	10058.29	25079.28	
ANNUAL MEAN	27.6	68.5	44.3
HIGHEST ANNUAL MEAN			68.5
LOWEST ANNUAL MEAN			24.3
HIGHEST DAILY MEAN	952 Jan 20	2770 Jan 19	2770 Jan 19 1996
LOWEST DAILY MEAN	.29 Sep 2	.79 Oct 3	.00 (a)
ANNUAL SEVEN-DAY MINIMUM	.37 Sep 1	2.0 Oct 7	.03 Aug 2 1991
INSTANTANEOUS PEAK FLOW		7520 Jan 19	7520 Jan 19 1996
INSTANTANEOUS PEAK STAGE		(b) 11.41 Jan 19	(b) 11.41 Jan 19 1996
INSTANTANEOUS LOW FLOW		.62 (c)	.00 (d)
ANNUAL RUNOFF (CFSM)	.88	2.19	1.42
ANNUAL RUNOFF (INCHES)	11.95	29.81	19.24
10 PERCENT EXCEEDS	55	139	87
50 PERCENT EXCEEDS	12	31	16
90 PERCENT EXCEEDS	1.3	11	2.2

a Aug. 4, 5, Sept. 2, 3, 1991.

b From floodmark.

c Oct. 3, 4.

d Aug. 3-9, 17, Sept. 1-4, 1991



POTOMAC RIVER BASIN

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 mi².

PERIOD OF RECORD.--October 1947 to current year. Prior to December 1947, monthly discharge only, published in WSP 1302.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 336.88 ft above sea level.

REMARKS.--Records good except those for estimated daily discharges (ice effect), 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 hve been collected at this location.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,600 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 14	2330	1,700	5.31	July 13	0930	3,340	8.40
Jan. 19	1500	*10,100	*13.65	July 19	1700	2,140	6.19
Jan. 24	1800	2,100	6.10	July 30	0900	1,890	5.69
Jan. 27	1530	2,370	6.64	Aug. 13	0400	1,700	5.31
June 19	0400	2,150	6.20	Sep. 6	2200	4,950	10.47
July 8	2100	3,140	8.06				

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	46	90	85	197	130	394	161	98	124	234	71
2	23	55	96	293	e160	e128	566	121	92	207	165	69
3	22	53	82	746	e130	124	255	119	88	407	266	67
4	23	46	79	227	e115	107	222	119	91	134	154	68
5	139	41	73	e150	e110	115	201	125	184	111	132	324
6	103	40	74	e100	e110	162	180	278	100	97	119	1090
7	47	43	71	e70	e105	546	171	148	88	89	112	1560
8	36	72	66	e65	146	331	157	188	83	504	104	232
9	32	53	e60	e120	272	200	201	615	86	382	111	172
10	30	46	e55	e175	243	173	236	253	90	123	116	144
11	28	48	e53	e150	225	165	175	542	112	100	97	132
12	27	319	e50	e120	188	158	154	531	114	91	107	124
13	26	137	e53	e115	136	149	144	253	89	1210	888	155
14	33	519	e56	e110	137	142	135	207	84	274	220	130
15	80	1010	69	e100	e130	173	137	183	83	195	159	110
16	45	325	338	e92	e120	159	683	190	73	163	151	143
17	34	203	227	e86	e115	133	258	176	69	129	168	535
18	31	168	139	e90	e110	128	208	164	71	119	126	232
19	30	152	318	4960	e95	194	189	147	1050	851	111	167
20	29	134	208	1540	212	381	177	132	551	385	103	141
21	655	122	141	422	801	210	162	124	466	170	100	127
22	152	110	138	296	341	175	149	129	172	157	100	237
23	83	101	119	267	290	155	146	112	134	153	91	158
24	63	130	102	1070	259	141	158	106	384	130	87	130
25	54	103	96	580	200	135	131	100	437	118	83	124
26	49	94	e87	286	180	128	127	96	153	124	79	111
27	47	90	e80	1450	171	117	130	124	127	110	91	109
28	83	85	e76	620	168	201	116	155	114	97	106	111
29	65	88	e74	325	141	683	114	164	105	98	84	165
30	50	91	89	283	---	303	141	140	130	781	78	119
31	46	---	82	253	---	228	---	108	---	424	74	---
TOTAL	2189	4524	3341	15246	5607	6274	6217	6010	5518	8057	4616	7057
MEAN	70.6	151	108	492	193	202	207	194	184	260	149	235
MAX	655	1010	338	4960	801	683	683	615	1050	1210	888	1560
MIN	22	40	50	65	95	107	114	96	69	89	74	67
CFSM	.69	1.48	1.06	4.82	1.90	1.98	2.03	1.90	1.80	2.55	1.46	2.31
IN.	.80	1.65	1.22	5.56	2.04	2.29	2.27	2.19	2.01	2.94	1.68	2.57

e Estimated

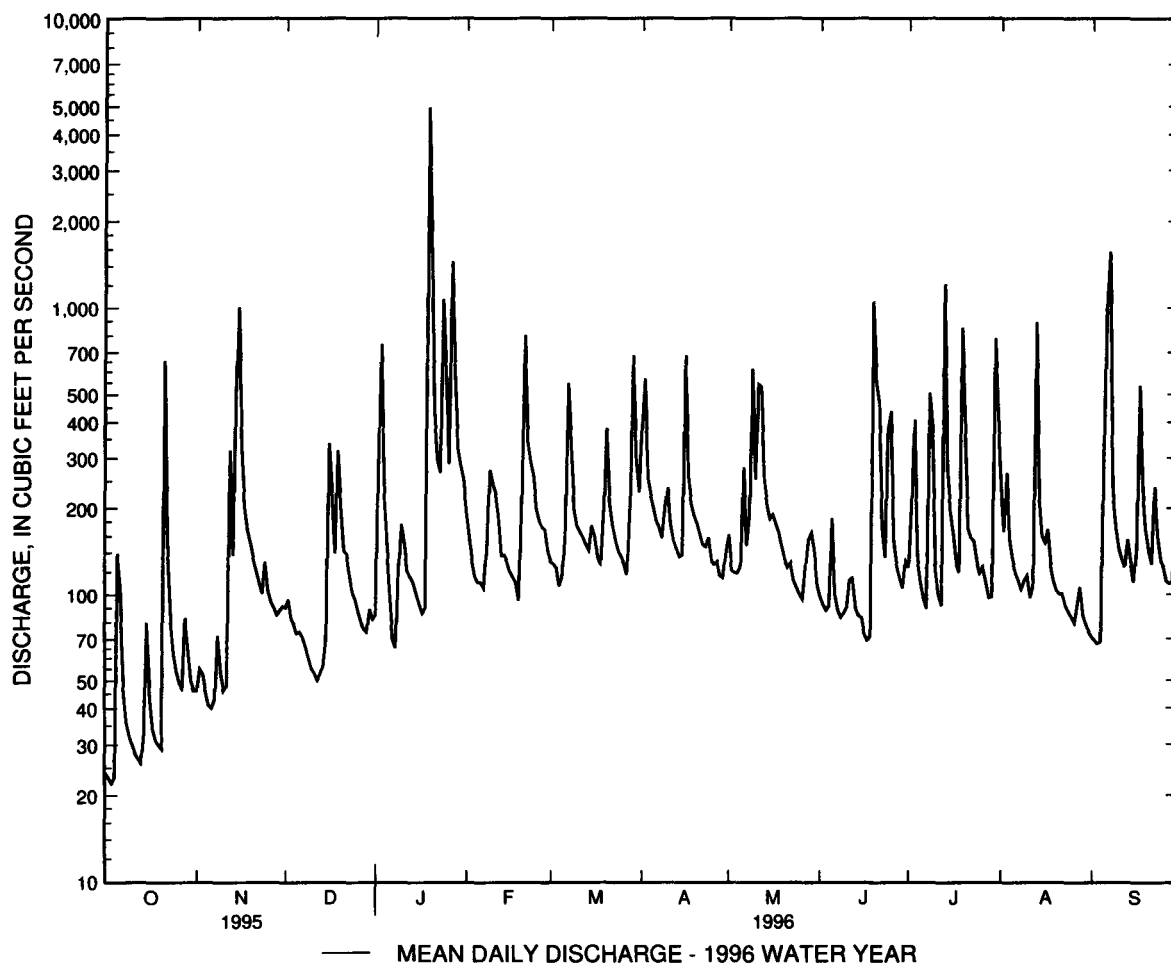
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1948 - 1996, BY WATER YEAR (WY)

MEAN	59.2	85.5	122	151	176	195	166	122	100	74.0	55.7	66.6
MAX	390	289	356	492	387	613	514	383	891	295	212	729
(WY)	1980	1948	1973	1996	1979	1994	1993	1989	1972	1949	1955	1975
MIN	14.9	16.7	18.9	22.5	58.1	71.4	61.3	38.6	19.8	10.4	4.39	13.0
(WY)	1964	1966	1966	1966	1954	1981	1965	1965	1966	1966	1966	1963

01639500 BIG PIPE CREEK AT BRUCEVILLE, MD--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1948 - 1996	
ANNUAL TOTAL	31676		74656			
ANNUAL MEAN	86.8		204		114	
HIGHEST ANNUAL MEAN					227	
LOWEST ANNUAL MEAN					50.8	
HIGHEST DAILY MEAN	1680	Jan 20	4960	Jan 19	14400	Jun 22 1972
LOWEST DAILY MEAN	11	Sep 3	22	Oct 3	1.0	Sep 12 1966
ANNUAL SEVEN-DAY MINIMUM	12	Sep 2	30	Oct 8	1.4	Sep 7 1966
INSTANTANEOUS PEAK FLOW			10100	Jan 19	(a) 28000	Sep 26 1975
INSTANTANEOUS PEAK STAGE			13.65	Jan 19	18.98	Sep 26 1975
INSTANTANEOUS LOW FLOW			15	Oct 2	1.0	Sep 12 1966
ANNUAL RUNOFF (CFSM)	.85		2.00		1.12	
ANNUAL RUNOFF (INCHES)	11.55		27.23		15.19	
10 PERCENT EXCEEDS	150		383		214	
50 PERCENT EXCEEDS	62		130		67	
90 PERCENT EXCEEDS	23		56		24	

a From rating curve extended above 3,900 ft³/s on the basis of contracted-opening measurement at gage height of 17.86 ft.



POTOMAC RIVER BASIN

01643000 MONOCACY RIVER AT JUG BRIDGE NEAR FREDERICK, MD

LOCATION.--Lat 39°24'13", long 77°21'58", Frederick County, Hydrologic Unit 02070009, on right bank 500 ft downstream from Interstate 70 highway bridge, 0.4 mi downstream from Linganore Creek, 2.0 mi east of Frederick, and 16.9 mi upstream from mouth.

DRAINAGE AREA.--817 mi².

PERIOD OF RECORD.--October 1929 to current year. Monthly discharge only for October, November 1929, published in WSP 1302.

REVISED RECORDS.--WSP 711: 1930.

GAGE.--Water-stage recorder. Nonrecording gage at site 0.2 mile downstream. Datum of gage is 231.92 ft above sea level.

REMARKS.--Records good except those for estimated daily discharges (ice effect), which are fair. Occasional regulation at low and medium flows since September 1972 by Linganore Reservoir, total capacity, 883,200,000 gal, 2.8 mi upstream from station. National Weather Service gage-height telemeter at station. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in June 1889 reached a stage of 30 ft, from floodmarks, discharge, 56,000 ft³/s.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 8,800 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 15	1430	8,850	10.85	June 21	1230	11,100	12.33
Jan. 20	1230	*37,400	*23.67	July 13	2000	9,680	11.42
Jan. 25	0800	12,100	12.94	July 20	0730	11,600	12.66
Jan. 28	0800	18,400	16.32	July 31	0130	10,700	12.11
Apr. 2	1300	9,700	11.43	Aug. 13	1730	10,300	11.84
June 20	0300	34,100	22.54	Sept. 7	2030	21,600	17.74

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	97	230	567	507	1900	1270	2020	1300	885	2390	3950	413
2	93	232	604	869	e1550	1180	7310	1010	771	1730	1970	391
3	91	245	594	5570	e1300	1130	3130	846	699	1960	2200	367
4	94	238	517	3170	e1100	991	2260	832	681	1350	1710	401
5	144	222	478	1440	e1000	925	1910	860	968	957	1320	578
6	368	204	456	1020	946	1200	1650	2190	808	775	1120	3430
7	366	210	456	735	1040	2220	1480	1820	631	672	1200	18100
8	227	240	426	395	1170	3730	1350	1530	563	714	967	5670
9	156	288	410	e800	1530	1810	1350	4590	527	3890	860	1830
10	132	285	401	e1000	2440	e1350	1730	3630	641	1100	991	1480
11	119	284	273	e950	2470	e1300	1500	2390	759	735	834	1300
12	112	2550	318	e900	2590	1260	1250	4620	2960	624	737	1080
13	105	1890	380	816	1400	1200	1130	2320	1870	4780	7280	1390
14	150	1310	348	741	1230	1130	1040	1730	918	3440	3310	1690
15	196	7210	361	707	1230	1160	979	1470	1440	1770	1680	1110
16	280	4200	1320	673	1160	1510	4210	1520	986	1530	1450	1030
17	246	1760	3180	643	1000	1190	2960	1520	822	1090	1490	5640
18	169	1300	1540	679	925	1060	1750	1380	1510	884	1180	3430
19	143	1100	2000	10600	863	1160	1470	1210	16100	4660	949	1910
20	131	983	2680	33200	1030	4590	1350	1030	23800	8440	806	1430
21	1720	887	1410	10800	6420	2840	1240	913	8930	2090	725	1220
22	2920	805	1050	3310	4550	2010	1120	900	3200	1520	699	1500
23	735	708	954	2520	3530	1620	1060	800	2010	1520	659	1580
24	443	738	881	3570	3300	1390	1060	711	1600	1240	596	1180
25	331	816	738	9510	2810	1260	914	659	4100	1030	553	1020
26	277	668	655	3430	2050	1180	850	617	1750	999	506	885
27	250	601	516	7280	1820	1060	839	728	1260	867	571	797
28	291	549	568	14300	1680	1140	793	1190	1070	731	671	835
29	355	564	523	3700	1510	4660	730	1450	925	710	585	1510
30	324	572	467	2670	---	3780	819	1840	1210	4450	492	1240
31	254	---	525	2420	---	2200	---	1140	---	7410	442	---
TOTAL	11319	31889	25596	128925	55544	54506	51254	48746	84394	66058	42503	64437
MEAN	365	1063	826	4159	1915	1758	1708	1572	2813	2131	1371	2148
MAX	2920	7210	3180	33200	6420	4660	7310	4620	23800	8440	7280	18100
MIN	91	204	273	395	863	925	730	617	527	624	442	367
CFSM	.45	1.30	1.01	5.09	2.34	2.15	2.09	1.92	3.44	2.61	1.68	2.63
IN.	.52	1.45	1.17	5.87	2.53	2.48	2.33	2.22	3.84	3.01	1.94	2.93

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1930 - 1996, BY WATER YEAR (WY)

	500	717	1024	1215	1461	1817	1540	1025	730	471	420	495
MEAN	500	717	1024	1215	1461	1817	1540	1025	730	471	420	495
MAX	3943	2504	3007	4159	4062	5851	4533	3773	6826	2571	3233	5165
(WY)	1977	1933	1973	1996	1984	1993	1983	1989	1972	1949	1933	1975
MIN	46.8	65.1	108	123	175	589	432	296	158	64.5	36.4	59.9
(WY)	1931	1931	1966	1981	1931	1981	1995	1963	1966	1966	1966	1963

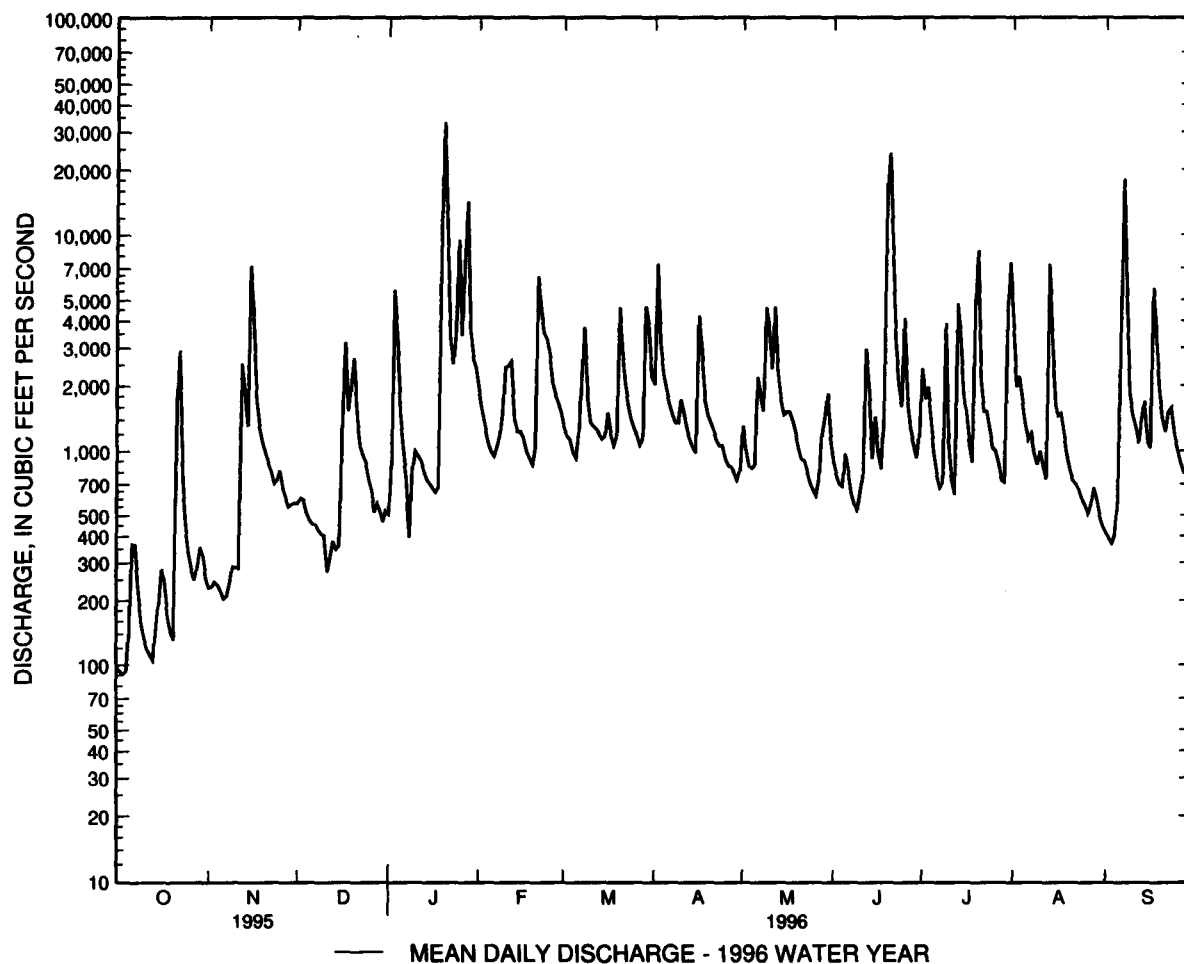
01643000 MONOCACY RIVER AT JUG BRIDGE NEAR FREDERICK, MD--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1930 - 1996	
ANNUAL TOTAL	251516		665171			
ANNUAL MEAN	689		1817		948	
HIGHEST ANNUAL MEAN					1834	
LOWEST ANNUAL MEAN					345	
HIGHEST DAILY MEAN	11600	Jan 21	33200	Jan 20	74000	Jun 23 1972
LOWEST DAILY MEAN	67	Sep 4	91	Oct 3	19	(a)
ANNUAL SEVEN-DAY MINIMUM	69	Sep 2	139	Oct 9	19	Sep 7 1966
INSTANTANEOUS PEAK FLOW			37400	Jan 20	81600	Jun 23 1972
INSTANTANEOUS PEAK STAGE			23.67	Jan 20	(b) 35.90	Jun 23 1972
INSTANTANEOUS LOW FLOW			88	Oct 3	17	(c)
ANNUAL RUNOFF (CFSM)	.84		2.22		1.16	
ANNUAL RUNOFF (INCHES)	11.45		30.29		15.77	
10 PERCENT EXCEEDS	1400		3590		1990	
50 PERCENT EXCEEDS	429		1100		477	
90 PERCENT EXCEEDS	110		329		124	

a Sept. 7-13, 1966.

b From floodmark.

c Sept. 11 and 13, 1966.



POTOMAC RIVER BASIN

01643020 MONOCACY RIVER AT REICH'S FORD BRIDGE NEAR FREDERICK, MD

LOCATION.--Lat 39°23'16", long 77°22'40", Frederick County, Hydrologic Unit 02070009, at Reich's Ford Bridge, 1.1 mi downstream from U.S. Highway 40, 1.2 mi downstream from gaging station, 2 mi southeast of Frederick, and 15.0 mi upstream from mouth.

PERIOD OF RECORD.--Water years 1961 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: October 1960 to March 1993.

SUSPENDED-SEDIMENT DISCHARGE: October 1960 to March 1993.

REMARKS.--Water temperatures are measured daily in field by local observer at time of sampling. Water-discharge records for Monocacy River at Jug bridge near Frederick (station 01643000) are used for computation of sediment loads. Prior to 1970, published as Monocacy River at Jug Bridge near Frederick (station 01643000).

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE (water years 1961-72, 1975, 1977, 1980-87, 1989): Maximum daily, 32.0°C, July 21, 1980; minimum daily, 0.0°C on many days during winter periods.

SEDIMENT CONCENTRATION (water years 1961-1992): Maximum daily mean, 2,000 mg/L, July 10, 1970; minimum daily mean, 1 mg/L on many days in water years 1961-67, 1970, 1972, 1982, 1985, 1989.

SEDIMENT LOAD (water years 1961-1992): Maximum daily, 134,000 tons, June 22, 1972; minimum daily, 0.25 ton, Oct. 14, 1988.

EXTREMES FOR CURRENT PERIOD.--

SEDIMENT CONCENTRATION: Maximum daily mean, 504 mg/L, Nov. 23; minimum daily mean, 1 mg/L, Oct. 21-23, Feb. 7-11.

SEDIMENT LOAD: Maximum daily, 16,500 tons, Nov. 23; minimum daily, 0.58 ton, Oct. 23.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	TEMPER- ATURE AIR (DEG C) (00020)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED SATUR- ATION) (00301)	HARD- NESS TOTAL (MG/L AS CAO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)
JUN 1996											
19...	1445	20300	142	6.6	20.0	28.0	760	6.5	72	38	11
20...	1145	26100	112	6.6	21.0	26.0	--	6.4	--	45	13
21...	1430	11000	157	7.0	22.0	35.0	753	5.6	65	56	16

DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	BICAR- BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SiO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	NITRO- GEN, TOTAL (MG/L AS N) (00600)
JUN 1996											
19...	2.5	3.0	4.3	30	37	7.5	5.8	0.10	4.3	79	4.0
20...	3.1	3.5	4.4	32	39	9.5	6.2	0.10	6.9	88	3.2
21...	3.9	4.4	4.5	39	48	11	8.1	0.10	7.8	102	3.5

DATE	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS NO3) (71851)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTH, DIS- SOLVED (MG/L AS P) (00671)	IRON, DIS- SOLVED (UG/L AS FE) (01046)
JUN 1996										
19...	7.3	0.050	1.70	0.020	2.3	0.50	0.810	0.090	0.070	81
20...	8.2	0.040	1.90	0.230	1.3	0.70	0.320	0.180	0.160	290
21...	7.7	0.050	1.80	0.320	1.7	1.0	0.480	0.200	0.200	110

DATE	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C) (00689)	ETHAL- FLUR- ALIN WAT FLT GF, REC (UG/L) (82663)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	TER- BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	TRI- FLUR- ALIN WAT FLT GF, REC (UG/L) (82661)	2,6-DI- ETHYL ANILINE WAT FLT GF, REC (UG/L) (82660)	ACETO- CHLOR, WATER FLTRD REC (UG/L) (49260)	ALA- CHLOR, WATER, DISS, REC (UG/L) (46342)	ATRA- ZINE, WATER, DISS, REC (UG/L) (39632)
JUN 1996											
19...	17	8.2	>5.0	<0.004	<0.002	E0.009	<0.002	<0.003	0.010	0.310	7.90
20...	12	7.6	3.3	<0.004	<0.002	E0.008	<0.002	<0.003	0.014	0.170	6.00
21...	4	7.8	>5.1	<0.004	<0.002	E0.005	<0.002	<0.003	E0.003	0.097	6.60

E Estimated value.

POTOMAC RIVER BASIN

01643020 MONOCACY RIVER AT REICH'S FORD BRIDGE NEAR FREDERICK, MD--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	BEN- FLUR- ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	BUTYL- ATE, WATER, FLTRD DISS, REC (UG/L) (04028)	CAR- BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBO- FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	CHLOR- PYRIFOS DIS- SOLVED (UG/L) (38933)	CYANA- ZINE, WATER, REC (UG/L) (04041)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	P,P' DDE DISSOLV (UG/L) (34653)	DEETHYL ATRA- ZINE, WATER, REC (UG/L) (04040)	DI- AZINON, DIS- SOLVED (UG/L) (39572)	DI- ELDRIN DIS- SOLVED (UG/L) (39381)	
	JUN 1996											
	19...	<0.002	<0.002	E0.025	E0.160	0.006	0.240	E0.004	<0.006	E0.094	0.010	<0.001
	20...	<0.002	<0.002	E0.040	E0.120	0.005	0.170	E0.003	<0.006	E0.093	0.014	<0.001
	21...	<0.002	<0.002	E0.010	E0.089	0.005	0.210	0.005	<0.006	E0.120	0.006	<0.001
DATE	DISUL- FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	ETHO- PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	FONOFOS WATER DISS REC (UG/L) (04095)	LINDANE DIS- SOLVED (UG/L) (39341)	LIN- URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	MALA- THION, DIS- SOLVED (UG/L) (39532)	METHYL AZIN- PHOS WAT FLT GF, REC (UG/L) (82686)	METHYL PARA- THION WAT FLT GF, REC (UG/L) (82667)	METO- LACHLOR WATER DISSOLV (UG/L) (39415)	METRI- BUZIN SENCOR WATER DISSOLV (UG/L) (82630)	
	JUN 1996											
	19...	<0.017	E0.003	<0.003	<0.003	0.006	0.061	<0.005	E0.015	E0.005	4.90	0.032
	20...	<0.017	0.010	<0.003	<0.003	<0.004	0.150	<0.005	E0.023	0.007	4.70	0.032
	21...	<0.017	E0.002	<0.003	<0.003	<0.004	0.100	<0.005	E0.008	0.007	4.30	0.033
DATE	MOL- INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	NAPROP- AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)	PEB- ULATE WATER FLTRD 0.7 U GF, REC (UG/L) (82669)	PARA- THION, DIS- SOLVED (UG/L) (39542)	PENDI- METH- ALIN WAT FLT GF, REC (UG/L) (82683)	PER- METHRIN CIS WAT FLT GF, REC (UG/L) (82687)	PRO- METON, WATER, DISS, REC (UG/L) (04037)	PRON- AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	PROP- CHLOR, WATER, DISS, REC (UG/L) (04024)	PRO- PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)		
	JUN 1996											
	19...	<0.004	<0.003	<0.004	<0.004	0.036	<0.005	0.048	<0.003	<0.007	<0.013	
	20...	<0.004	<0.003	<0.004	<0.004	0.033	<0.005	0.036	<0.003	<0.007	<0.013	
	21...	<0.004	<0.003	<0.004	<0.004	0.034	<0.005	0.026	<0.003	<0.007	<0.013	
DATE	PRO- PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	SI- MAZINE, WATER, DISS, REC (UG/L) (04035)	TEBU- THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TER- BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	THIO- BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)	TRIAL- LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	ALPHA BHC DIS- SOLVED (UG/L) (34253)	SEDI- MENT, CHARGE, SUS- PENDE (MG/L) (80154)	SEDI- MENT, CHARGE, SUS- PENDE (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)		
	JUN 1996											
	19...	<0.004	1.10	<0.010	<0.013	<0.002	<0.001	<0.002	619	33900	98	
	20...	<0.004	0.800	<0.010	<0.013	<0.002	<0.001	<0.002	140	9870	99	
	21...	<0.004	0.900	<0.010	<0.013	<0.002	<0.001	<0.002	252	7480	85	

E Estimated value.

POTOMAC RIVER BASIN

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 mi².

PERIOD OF RECORD.--July 1948 to September 1958. Annual maximum, water years 1960-66. August 1966 to current year.

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 240 ft above sea level, from topographic maps.

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

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,200 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 21	0615	1,490	5.64	June 19	0745	5,330	9.37
Jan. 19	UNKNOWN	*7,470	*11.32	June 20	0230	1,690	5.08
Jan. 27	1600	1,310	4.56	July 19	1730	1,960	5.42
Mar. 19	2145	1,240	4.47	Aug. 13	0400	1,890	5.33
June 10	2400	2,540	6.20	Sept. 6	1845	2,910	6.67
June 18	0245	4,440	8.44				

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	38	59	59	117	88	198	95	71	179	136	49
2	10	45	64	185	110	89	359	82	66	91	91	47
3	10	41	57	294	e104	83	180	76	64	86	84	47
4	11	34	55	122	e100	75	154	75	83	75	73	59
5	49	31	52	96	e95	79	137	100	105	68	66	67
6	31	29	52	e80	e100	93	122	196	67	64	63	1100
7	18	37	49	e78	e96	191	115	99	61	61	60	447
8	14	52	46	e72	e92	147	105	109	58	63	58	124
9	12	37	51	e78	e150	108	133	252	58	62	77	98
10	12	34	49	e76	142	e95	147	145	327	59	73	94
11	12	83	61	e76	130	e90	124	189	536	54	57	83
12	11	266	43	e74	111	e90	108	217	167	55	86	78
13	11	85	43	e74	92	89	101	134	109	327	733	108
14	31	391	45	e72	93	85	96	116	91	93	160	82
15	38	446	47	e72	90	98	109	104	90	87	112	69
16	20	167	263	e70	87	93	416	166	74	72	96	94
17	15	114	122	e70	85	84	171	128	90	61	86	250
18	14	95	91	e90	81	81	140	128	1100	66	75	123
19	14	83	204	e3500	74	273	127	103	2050	637	67	95
20	14	75	138	e1000	177	306	118	92	649	197	64	83
21	524	70	101	e300	331	164	107	83	277	103	61	78
22	72	64	89	e175	169	132	100	89	197	98	61	243
23	46	61	79	152	195	113	97	76	153	89	57	111
24	37	73	75	294	152	101	96	71	135	76	56	93
25	31	61	70	216	126	97	87	68	126	69	54	86
26	28	58	66	143	118	93	85	67	102	68	53	78
27	30	56	e65	680	115	84	81	79	93	60	83	76
28	91	54	e60	277	107	163	76	96	87	57	63	94
29	49	62	e55	185	93	295	76	143	83	60	54	146
30	38	60	e55	160	---	167	108	112	139	124	52	87
31	35	---	56	143	---	140	---	81	---	436	50	---
TOTAL	1338	2802	2362	8963	3532	3886	4073	3571	7308	3697	2961	4289
MEAN	43.2	93.4	76.2	289	122	125	136	115	244	119	95.5	143
MAX	524	446	263	3500	331	306	416	252	2050	637	733	1100
MIN	10	29	43	59	74	75	76	67	58	54	50	47
CFSM	.69	1.49	1.21	4.60	1.94	2.00	2.16	1.83	3.88	1.90	1.52	2.28
IN.	.79	1.66	1.40	5.31	2.09	2.30	2.41	2.12	4.33	2.19	1.75	2.54

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1948 - 1996, BY WATER YEAR (WY)

	MEAN	37.6	48.0	76.2	89.9	99.2	115	107	87.0	69.3	44.3	36.4	40.6
MAX	245	119	228	289	229	369	286	302	498	178	148	211	
(WY)	1980	1972	1993	1996	1979	1993	1993	1988	1972	1987	1955	1971	
MIN	8.21	12.5	17.3	15.5	38.9	37.6	44.6	25.8	15.3	9.59	5.70	7.38	
(WY)	1987	1982	1981	1981	1954	1981	1985	1969	1986	1986	1966	1986	

01643500 BENNETT CREEK AT PARK MILLS, MD--Continued

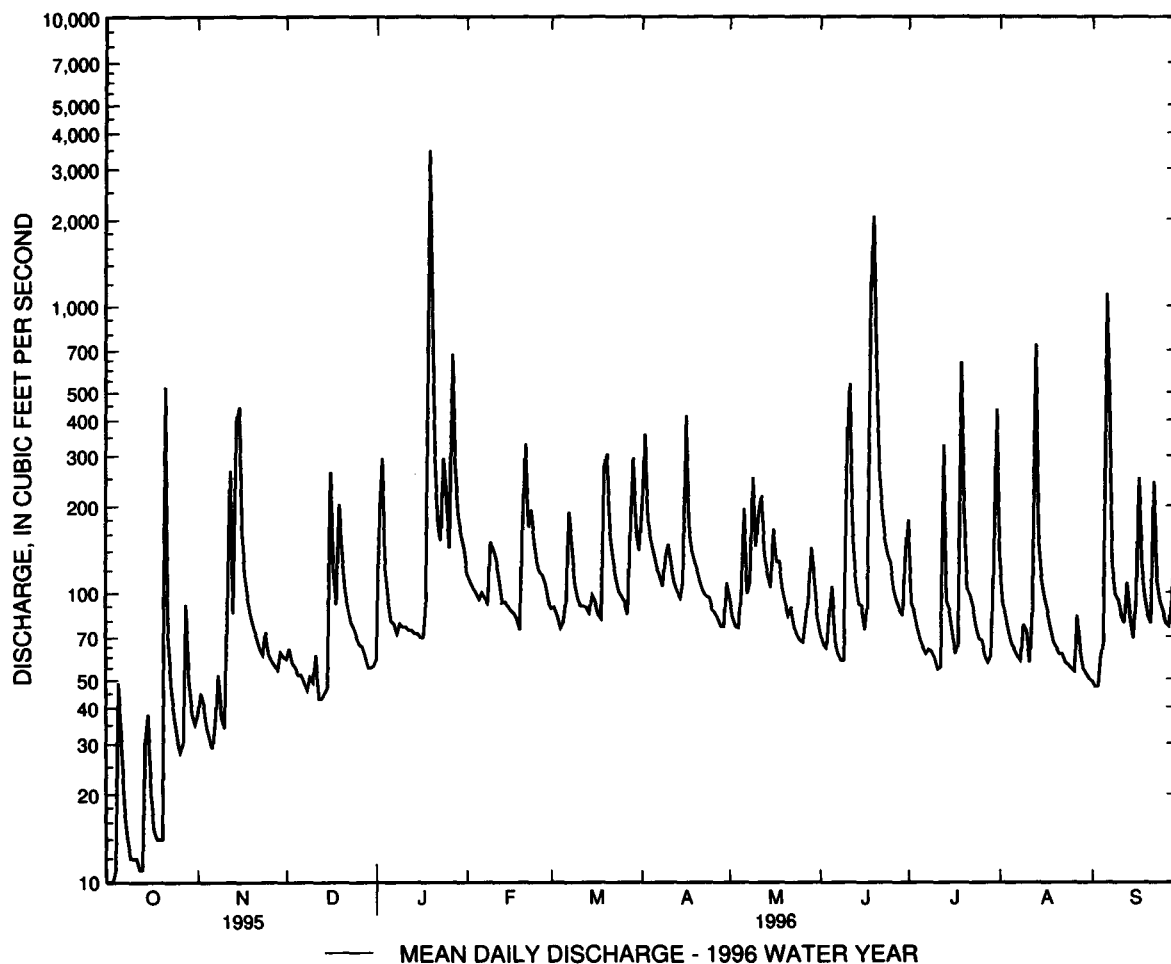
SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1948 - 1996	
ANNUAL TOTAL	19834.4		48782		70.7	
ANNUAL MEAN	54.3		133		141	
HIGHEST ANNUAL MEAN					32.0	
LOWEST ANNUAL MEAN					5500	
HIGHEST DAILY MEAN	524	Oct 21	3500	Jan 19		Jun 22 1972
LOWEST DAILY MEAN	4.9	Sep 8	10	(a)	.40	Sep 8 1966
ANNUAL SEVEN-DAY MINIMUM	5.5	Sep 3	13	Oct 7	.91	Sep 3 1966
INSTANTANEOUS PEAK FLOW			7470	Jan 19	(b) 32200	Jun 21 1972
INSTANTANEOUS PEAK STAGE			11.32	Jan 19	(c) 22.10	Jun 21 1972
INSTANTANEOUS LOW FLOW			10	(d)	.30	Sep 8 1966
ANNUAL RUNOFF (CFSM)	.87		2.12		1.13	
ANNUAL RUNOFF (INCHES)	11.75		28.90		15.30	
10 PERCENT EXCEEDS	91		200		132	
50 PERCENT EXCEEDS	43		87		43	
90 PERCENT EXCEEDS	11		45		14	

a Oct. 1-3.

b From rating curve extended above 2,700 ft³/s on basis of contracted-opening measurements at gage heights of 11.15, 14.33, and 22.1 ft.

c From floodmark.

d Oct. 3, 4.



POTOMAC RIVER BASIN

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 mi².

PERIOD OF RECORD.--September 1930 to current year.

REVISED RECORDS.--WSP 726: Drainage area. WSP 1232: 1930. WSP 1272: 1933. WSP 1432: 1934-35(M), 1941(M). WDR MD-DE-74-1: 1970(M).

GAGE.--Water-stage recorder. Concrete control since Mar. 3, 1934. Datum of gage is 214.02 ft above sea level. Sept. 26 to Nov. 9, 1930, chain gage, and Nov. 10, 1930 to Apr. 6, 1934, water-stage recorder, at highway bridge 60 ft upstream at same datum.

REMARKS.--Water-discharge records good except those for estimated daily discharges (missing record, ice effect), which are fair. Small diversion at times for irrigation upstream from station. National Weather Service gage-height telemeter at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,300 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 21	1200	1,430	5.89	June 19	0845	4,180	8.63
Jan. 19	2200	9,290	10.41	July 19	1745	3,190	8.04
Jan. 27	1645	1,330	5.64	Aug. 13	0400	2,390	7.38
Mar. 19	2115	1,680	6.43	Sept. 7	0415	6,370	9.48
June 18	0245	*11,000	*11.01	Sept. 11	1930	1,600	6.29

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	74	93	86	151	119	335	147	139	221	303	80
2	24	95	92	284	144	121	666	120	134	156	196	77
3	24	80	84	461	147	117	301	117	105	142	166	76
4	34	69	90	184	e135	102	236	119	98	137	122	111
5	90	61	72	141	e120	105	207	193	103	94	90	136
6	67	58	71	117	e135	140	186	346	88	89	89	1010
7	37	e71	67	90	e120	283	181	175	85	87	84	2460
8	30	e99	65	e106	121	257	172	199	82	88	81	189
9	28	e69	74	e104	189	171	217	340	85	87	113	101
10	27	e60	75	e104	212	146	229	218	179	85	149	142
11	28	e140	63	e104	178	141	177	319	205	77	97	611
12	28	e410	63	102	160	140	164	495	188	91	108	196
13	29	e170	62	105	133	137	159	227	143	541	1470	294
14	100	e500	65	100	129	133	151	192	101	191	286	199
15	110	e680	69	101	128	148	180	177	144	152	183	142
16	52	e280	284	101	128	145	601	293	84	142	164	140
17	41	e166	179	100	119	134	251	200	88	91	168	341
18	33	e137	128	129	111	130	205	175	4190	98	149	180
19	31	e131	304	5310	106	402	188	158	3050	842	98	148
20	30	e104	233	2100	186	619	174	143	1430	441	94	140
21	850	e94	151	453	486	262	166	122	365	205	92	133
22	168	e85	121	315	246	198	162	136	241	192	92	345
23	97	e79	106	244	311	168	165	110	209	157	89	149
24	81	e94	99	333	244	150	170	105	201	98	86	121
25	69	e81	93	337	196	143	149	103	183	92	84	110
26	57	e75	89	195	157	139	139	105	147	92	82	104
27	e56	e71	90	769	150	131	127	136	138	85	184	115
28	e197	e69	93	444	148	233	119	178	118	83	156	145
29	e92	e110	83	243	134	403	107	263	98	87	115	191
30	71	102	80	193	---	225	148	211	148	227	108	128
31	63	---	81	176	---	183	---	155	---	753	92	---
TOTAL	2668	4314	3319	13631	4924	5925	6432	5977	12569	5923	5390	8314
MEAN	86.1	144	107	440	170	191	214	193	419	191	174	277
MAX	850	680	304	5310	486	619	666	495	4190	842	1470	2460
MIN	24	58	62	86	106	102	107	103	82	77	81	76
CFSM	.85	1.42	1.06	4.35	1.68	1.89	2.12	1.91	4.15	1.89	1.72	2.74
IN.	.98	1.59	1.22	5.02	1.81	2.18	2.37	2.20	4.63	2.18	1.99	3.06

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1930 - 1996, BY WATER YEAR (WY)

MEAN	66.2	82.7	107	129	146	159	148	127	106	77.2	68.4	77.3
MAX	479	290	287	440	484	511	457	510	747	273	248	566
(WY)	1980	1994	1973	1996	1979	1993	1993	1989	1972	1956	1971	1971
MIN	7.10	12.6	20.6	30.2	26.7	44.3	55.9	30.3	35.3	13.4	8.35	10.1
(WY)	1931	1932	1932	1966	1931	1931	1969	1931	1986	1955	1932	1931

01645000 SENECA CREEK AT DAWSONVILLE, MD--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1930 - 1996	
ANNUAL TOTAL	33584		79386		108	
ANNUAL MEAN	92.0		217		251	
HIGHEST ANNUAL MEAN					32.8	
LOWEST ANNUAL MEAN					9900	
HIGHEST DAILY MEAN	936	Aug 6	5310	Jan 19	Jun 22 1972	
LOWEST DAILY MEAN	14	Sep 11	24	(a)	(b)	
ANNUAL SEVEN-DAY MINIMUM	16	Sep 10	30	Oct 7	Sep 27 1930	
INSTANTANEOUS PEAK FLOW			11000	Jun 18	(c) 26100	
INSTANTANEOUS PEAK STAGE			11.01	Jun 18	(d) 16.40	
INSTANTANEOUS LOW FLOW			1.8	(f)	1.7	
ANNUAL RUNOFF (CFSM)	.91		2.15		1.06	
ANNUAL RUNOFF (INCHES)	12.37		29.24		14.47	
10 PERCENT EXCEEDS	143		323		188	
50 PERCENT EXCEEDS	73		136		68	
90 PERCENT EXCEEDS	24		71		26	

a Oct. 1-3.

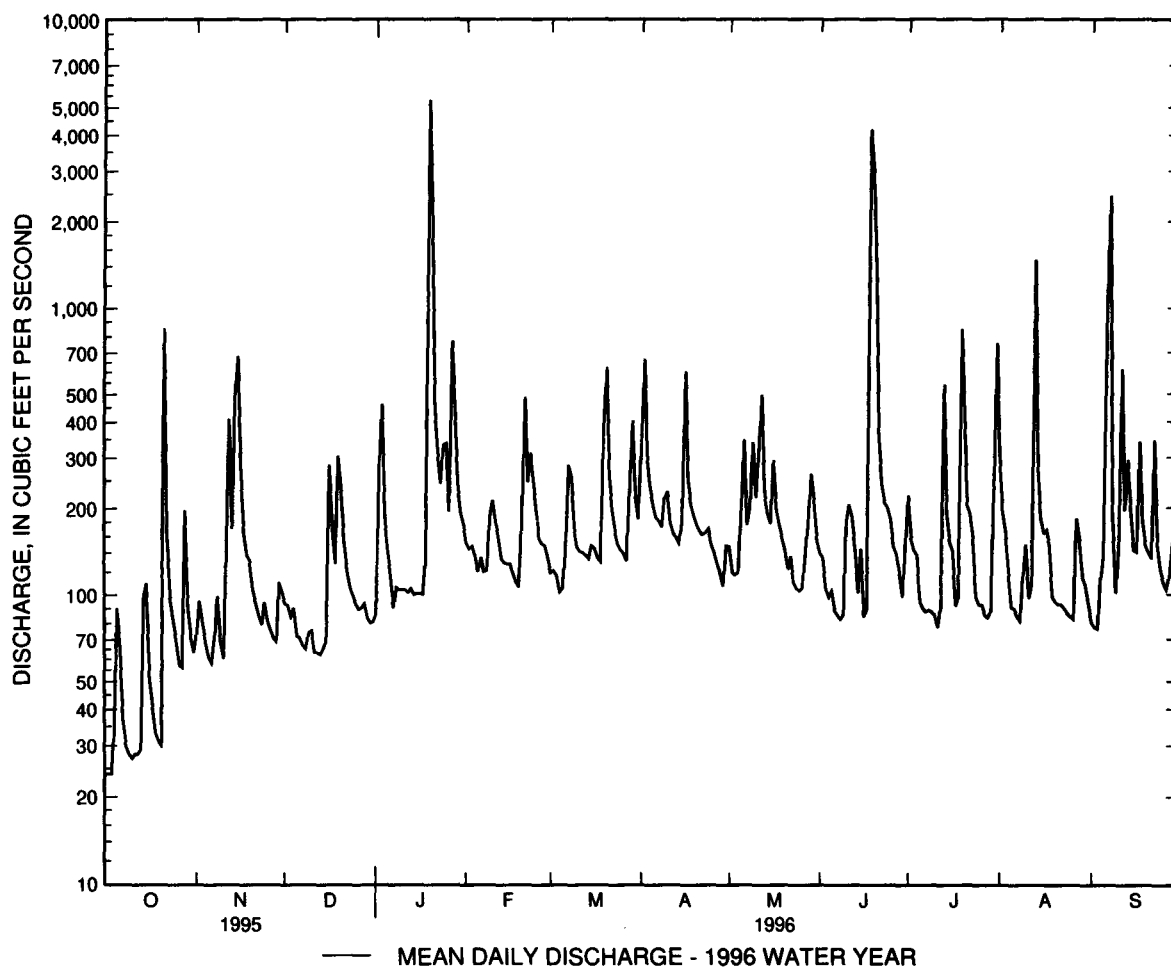
b Sept. 29, 1930, Sept. 12, 1966.

c From rating curve extended above 3,000 ft³/s on basis of contracted-opening and flow over-road measurement at gage height 12.17 ft at gage; and contracted-opening and flow-over-road measurement at gage height 16.32 ft at site 5.0 mi downstream, adjusted for flow from intervening area.

d From high-water mark in gage house.

f Oct. 3, 4.

g Sept. 28, 29, 1930.



POTOMAC RIVER BASIN

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 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1930 to current year.

REVISED RECORDS.--WSP 726: Drainage area. WDR MD-DE-75-1: 1973-74(M).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 37.95 ft above sea level. Prior to June 7, 1930, nonrecording gage, and June 7, 1930, to Jan. 22, 1965, water-stage recorder at site 1 mi upstream on right bank at same datum.

REMARKS.--Water-discharge records good. Diversions at Great Falls through aqueducts, and since June 1959, from gage pool at Little Falls Dam, for municipal supply of Washington, D.C.; since October 1958, at Rockville Filtration Plant, for municipal supply of city of Rockville; since April 1961, at Potomac Filtration Plant for water supply of Washington Suburban Sanitary District; since October 1961, at Fairfax Water Treatment Plant for water supply of city of Fairfax (from Goose Creek); since April 1964, at Violets Lock to Chesapeake and Ohio Canal; and since October 1985, at Fairfax County Water Authority Treatment Plant for water supply of the county. Low flow affected slightly prior to July 1981 by Stony River Reservoir, since December 1950, by Savage River Reservoir (see station 01597500), and since July 1981, by Jennings Randolph Lake. National Weather Service gage-height telemeter at station. Satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 2, 1889, was of approximately the same magnitude as that of March 19, 1936.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 45,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 22	2400	52,800	6.84	May 31	0800	50,200	6.71
Jan. 21	1230	*347,000	*19.29	June 13	1245	47,700	6.58
Jan. 26	0030	70,800	7.69	June 20	2115	73,600	7.81
Jan. 29	0345	115,000	9.39	Aug. 2	1115	52,600	6.83
Mar. 21	1800	110,000	9.20	Aug. 14	2145	85,400	8.30
Apr. 3	1145	72,900	7.78	Sept. 8	2315	314,000	17.84
May 8	0300	59,300	7.16	Sept. 11	1015	59,900	7.19
May 12	0030	49,200	6.66	Sept. 14	2030	50,400	6.72
May 19	1815	56,800	7.04	Sept. 19	0700	53,000	6.85

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1540	4420	10600	7350	37200	36500	34200	11100	37000	11100	30800	7630
2	1370	4150	11100	8070	30200	32400	47800	11500	26600	10900	50000	6710
3	1420	3890	11000	15700	25600	27200	69400	11700	20800	9400	38900	6060
4	1290	3480	10500	28900	21700	22600	54500	12200	17300	9200	30000	7630
5	1690	3380	10300	33900	17800	19700	41500	13700	15300	8040	24500	8110
6	1870	3190	9590	26300	17700	17800	33400	18100	14100	7340	18300	12200
7	1830	3080	8910	20900	14500	19000	28100	39300	12700	6790	14700	97800
8	2470	3490	8450	14800	14500	27600	24000	53600	11500	6690	12900	262000
9	3110	3200	7900	9780	16200	40000	21800	42000	10300	6900	11200	250000
10	3530	2970	7370	8450	19300	36000	21000	50700	9970	9750	11100	86000
11	2930	3380	6490	11400	24700	27400	19500	50200	23800	6800	11900	55000
12	2460	8290	6030	10800	30300	23400	17600	45600	24900	5990	16000	40500
13	2130	9850	5150	12500	29700	20800	16100	39500	41400	9020	30600	38200
14	2460	18900	5070	11400	25900	19200	15000	31200	33000	13400	59900	44000
15	2640	27300	5190	13700	22600	17700	14000	26100	22600	8430	67100	44300
16	2260	27600	6380	13400	20600	16800	18400	22900	18400	6780	40300	31200
17	2200	24100	10600	11600	18700	16900	20700	23100	14400	6140	30500	31100
18	2210	17800	17100	12800	16500	17100	16900	30000	19600	5500	25300	42300
19	2130	14300	19900	53700	14700	17700	15300	49600	23100	8540	21200	50600
20	2010	12700	22600	206000	13900	29100	14500	42700	66700	26900	16900	38700
21	7520	12600	23800	326000	19800	91500	13900	29500	48700	22300	14200	29000
22	28900	13600	24000	177000	24600	81800	13600	23700	41700	21100	12300	24900
23	41700	13800	19700	69100	24900	51900	13200	19800	25900	16700	11200	21600
24	21200	13200	16300	52300	25300	38200	12800	17900	19900	14500	12400	18700
25	13100	12800	14300	60800	25800	29800	11700	16200	21900	16200	10000	16600
26	9500	12300	12300	65200	25800	25400	11200	13800	23000	13700	8890	14700
27	7430	11600	10700	56100	25300	22200	11000	12700	16400	10400	8080	13400
28	7210	10900	9140	83100	24200	20800	10500	13100	13500	8650	8570	12300
29	5670	10400	8940	105000	28000	26200	10300	16400	11400	7570	8020	13500
30	4910	10200	8500	66200	---	31900	10500	40200	10300	7430	9100	14000
31	4610	---	7840	47200	---	35000	---	48300	---	20600	8510	---
TOTAL	195300	320870	355750	1639450	656000	939600	662400	876400	696170	342760	673370	1338740
MEAN	6300	10700	11480	52890	22620	30310	22080	28270	23210	11060	21720	44620
MAX	41700	27600	24000	326000	37200	91500	69400	53600	66700	26900	67100	262000
MIN	1290	2970	5070	7350	13900	16800	10300	11100	9970	5500	8020	6060
(†)	613	572	572	596	583	576	578	601	632	651	640	623
MEAN#	6913	11272	22052	53486	23203	30886	22658	28871	23842	11711	22360	45243
CFM#	.60	.98	1.91	4.63	2.01	2.67	1.96	2.50	2.06	1.01	1.93	3.91
IN#	.69	1.09	2.20	5.34	2.17	3.08	2.19	2.88	2.30	1.16	2.22	4.36

† 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.

POTOMAC RIVER BASIN

01646500 POTOMAC RIVER NEAR WASHINGTON, DC--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1930 - 1958, BY WATER YEAR (WY) (UNREGULATED)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	6120	6496	9843	13570	16660	21060	19120	13610	7960	5135	5804	4419
MAX	44100	21040	30900	37190	36790	76510	36430	27780	19090	21040	28210	19940
(WY)	1943	1933	1951	1937	1939	1936	1933	1932	1951	1949	1955	1945
MIN	583	700	1536	2527	2982	6505	7202	3953	2867	1284	569	679
(WY)	1931	1931	1944	1956	1934	1931	1947	1930	1930	1930	1930	1930

SUMMARY STATISTICS

WATER YEARS 1930 - 1958

ANNUAL MEAN	10790
HIGHEST ANNUAL MEAN	16100
LOWEST ANNUAL MEAN	4525
HIGHEST DAILY MEAN	426000
LOWEST DAILY MEAN	448
ANNUAL SEVEN-DAY MINIMUM	499
INSTANTANEOUS PEAK FLOW	484000
INSTANTANEOUS PEAK STAGE	(a) 28.10
INSTANTANEOUS LOW FLOW	430
ANNUAL RUNOFF (CFSM)	.93
ANNUAL RUNOFF (INCHES)	12.68
10 PERCENT EXCEEDS	23600
50 PERCENT EXCEEDS	6440
90 PERCENT EXCEEDS	1810

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1959 - 1996, BY WATER YEAR (WY) (REGULATED, UNADJUSTED)

MEAN	5934	7405	11200	14070	17050	25030	21050	15580	9492	4913	4249	4913
MAX	36790	42030	35690	52890	39460	67370	57850	40410	46630	17160	21720	44620
(WY)	1977	1986	1973	1996	1984	1994	1993	1989	1972	1972	1996	1996
MIN	908	1097	1038	1682	5703	7403	5810	3921	2216	695	538	791
(WY)	1964	1966	1966	1981	1963	1990	1995	1969	1969	1966	1966	1964

SUMMARY STATISTICS

FOR 1995 CALENDAR YEAR

FOR 1996 WATER YEAR

WATER YEARS 1959 - 1996

ANNUAL TOTAL	3381971	8696810	
ANNUAL MEAN	9266	23760	11710
ANNUAL MEAN*	9888	24370	11970
HIGHEST ANNUAL MEAN			23760
HIGHEST ANNUAL MEAN*			24370
LOWEST ANNUAL MEAN			4900
LOWEST ANNUAL MEAN*			5306
HIGHEST DAILY MEAN	85100	Jan 17	326000
LOWEST DAILY MEAN	952	Sep 7	1290
LOWEST DAILY MEAN*	1700	Sep 3	1910
ANNUAL SEVEN-DAY MINIMUM	1030	Sep 5	1570
INSTANTANEOUS PEAK FLOW			347000
INSTANTANEOUS PEAK STAGE			19.29
INSTANTANEOUS LOW FLOW			1210
ANNUAL RUNOFF (CFSM)	.80	2.06	1.01
ANNUAL RUNOFF (CFSM)*	.86	2.11	1.04
ANNUAL RUNOFF (INCHES)	10.88	27.99	13.77
ANNUAL RUNOFF (INCHES)*	11.61	28.71	14.34
10 PERCENT EXCEEDS	18100	44700	26500
50 PERCENT EXCEEDS	6770	16200	6480
90 PERCENT EXCEEDS	1690	5410	1620

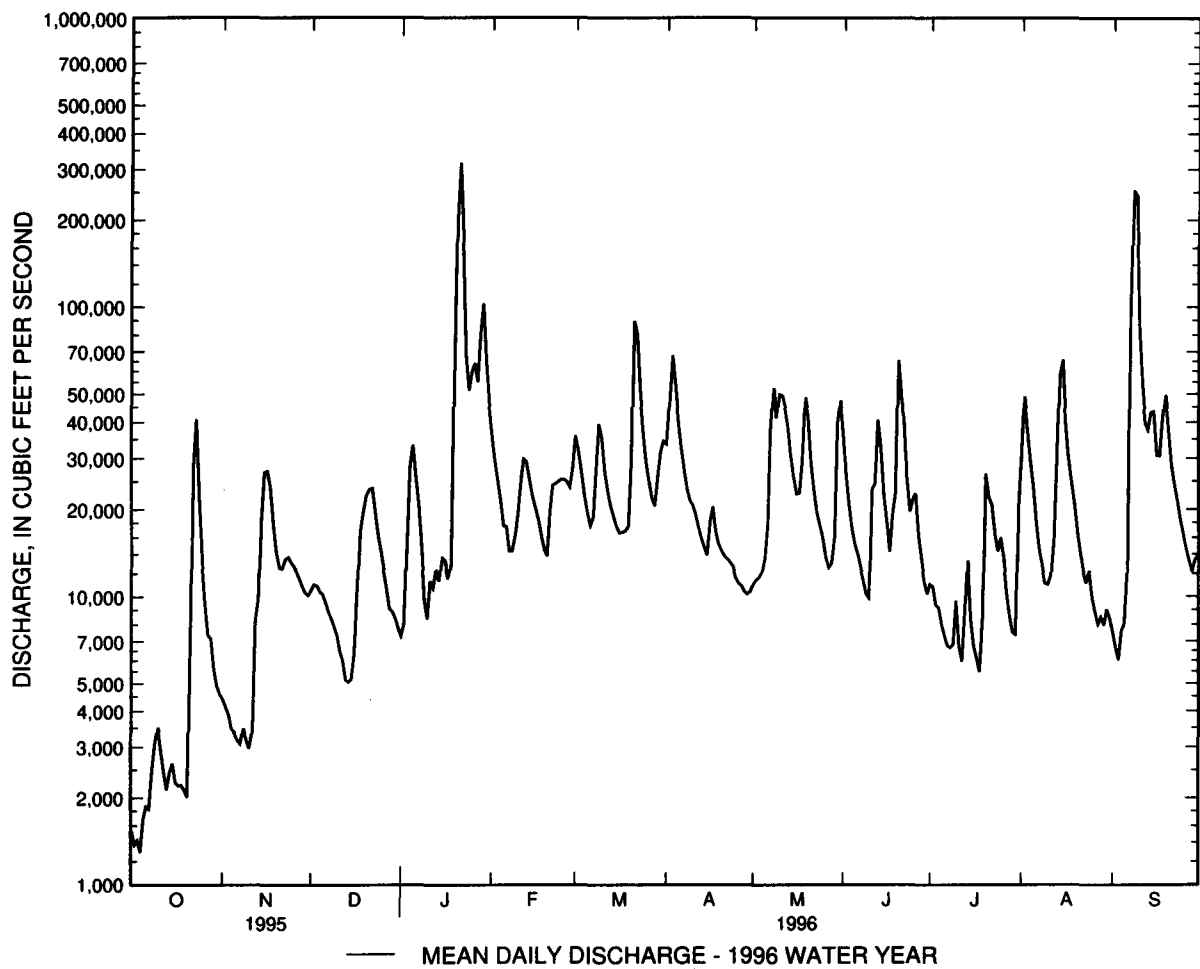
a At previous site, 1 mi upstream at same datum.

* Adjusted for diversion.

b Minimum daily discharge observed at gaging station, does not include diversion of 489 ft³/s.c Includes diversion of 449 ft³/s for municipal use.

POTOMAC RIVER BASIN

01646500 POTOMAC RIVER NEAR WASHINGTON, DC--Continued



POTOMAC RIVER BASIN

01646500 POTOMAC RIVER NEAR WASHINGTON, DC--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1989 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1988 to current year.

WATER TEMPERATURE: October 1988 to current year.

INSTRUMENTATION.--Water-quality monitor October 1988 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD--

SPECIFIC CONDUCTANCE: Maximum, 747 microsiemens, Jan. 11, 1991; minimum, 68 microsiemens, Oct. 23, 1990.

WATER TEMPERATURE (water years 1989-93, 1995-96): Maximum, 33.5°C, July 11, 1993; minimum, 0.0°C, on many day during winter periods.

EXTREMES FOR CURRENT PERIOD.--

SPECIFIC CONDUCTANCE: Maximum, 737 microsiemens, Jan. 19; minimum, 91 microsiemens, Sept. 11.

WATER TEMPERATURE: Maximum, 28.9°C, July 9; minimum, 0.0°C, Dec. 12-14.

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	400	392	397	274	258	265	273	269	271	301	296	298
2	392	384	389	276	273	274	274	269	272	478	301	356
3	385	380	383	284	272	277	274	271	273	389	270	325
4	382	377	380	291	284	288	280	272	275	290	270	280
5	377	352	369	297	291	295	281	270	277	299	234	278
6	352	313	327	305	297	302	270	266	268	237	229	232
7	340	330	337	309	305	307	270	266	268	241	236	237
8	339	332	334	310	297	302	267	264	266	251	240	246
9	339	333	336	310	302	308	347	264	279	260	250	255
10	334	330	332	315	309	313	364	297	317	265	258	262
11	339	332	336	323	312	318	320	297	306	277	263	272
12	336	328	331	312	140	226	336	320	330	290	275	280
13	328	316	321	273	243	257	334	320	328	303	290	297
14	317	257	308	271	205	247	322	313	318	331	303	320
15	259	238	250	270	239	261	327	314	320	365	320	346
16	272	257	265	275	265	270	589	318	398	409	365	395
17	275	269	272	275	265	269	378	307	324	443	390	401
18	277	272	275	277	266	273	319	304	308	564	443	470
19	275	272	274	266	257	261	348	319	330	737	196	379
20	272	265	269	259	257	258	331	282	302	199	141	174
21	265	107	198	266	258	261	313	307	309	141	100	105
22	221	162	195	268	265	267	308	288	299	137	108	122
23	228	200	210	270	267	268	292	283	286	153	137	144
24	216	187	201	267	262	265	292	281	287	177	152	161
25	228	214	221	263	259	261	281	278	279	180	173	176
26	232	221	227	260	257	259	283	279	281	183	172	179
27	236	231	234	257	255	256	284	278	281	188	172	179
28	241	236	237	255	254	255	287	281	284	195	172	181
29	246	239	243	255	249	252	288	283	285	193	169	177
30	249	242	246	270	253	261	292	282	287	187	172	181
31	258	249	254	---	---	---	296	291	293	196	186	190
MONTH	400	107	289	323	140	273	589	264	297	737	100	255

POTOMAC RIVER BASIN

01646500 POTOMAC RIVER NEAR WASHINGTON, DC--Continued

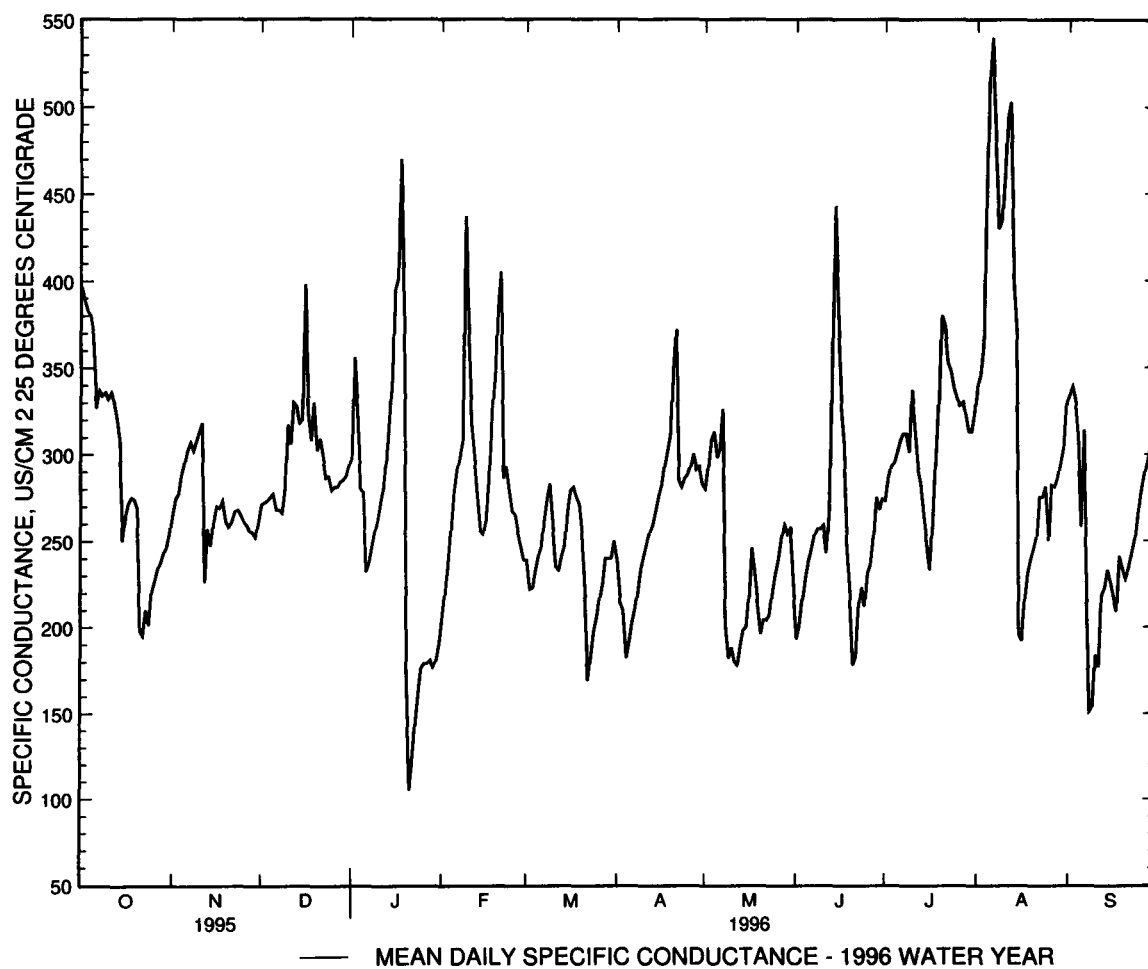
SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	212	196	204	245	228	239	244	209	238	284	271	280
2	228	212	219	228	218	222	219	206	214	298	283	292
3	245	228	236	227	219	223	217	183	210	314	298	308
4	268	245	256	237	227	233	188	178	182	317	311	313
5	287	268	277	242	237	241	196	188	191	312	291	298
6	296	284	290	257	240	246	208	196	202	340	288	303
7	302	294	298	297	249	262	213	207	210	378	251	326
8	358	297	308	303	263	274	228	213	221	251	175	202
9	526	358	437	287	277	283	240	228	234	189	176	182
10	483	332	374	277	248	258	243	239	241	190	183	188
11	332	313	318	248	230	235	252	243	248	190	165	180
12	316	277	299	238	230	233	257	251	255	186	171	178
13	283	266	277	245	235	241	262	257	259	197	184	189
14	266	252	256	250	244	247	277	260	267	204	194	198
15	255	253	254	287	250	267	282	266	275	218	196	200
16	292	254	262	289	274	279	297	270	282	235	202	218
17	301	282	287	282	278	281	301	284	293	257	233	246
18	352	301	326	279	270	275	307	294	302	244	221	231
19	353	339	346	282	245	271	326	306	312	226	190	213
20	549	344	384	259	246	253	386	326	351	205	192	196
21	573	296	405	253	159	220	407	303	372	214	198	204
22	296	276	286	180	158	169	303	279	285	210	200	204
23	305	284	293	191	180	183	286	279	281	216	200	207
24	290	269	279	201	191	197	293	282	286	227	215	221
25	270	264	267	210	201	205	291	284	288	236	226	231
26	268	259	265	220	210	216	299	286	293	244	235	239
27	260	249	255	230	220	225	304	291	300	262	244	251
28	249	242	247	260	230	240	295	288	291	263	256	259
29	243	236	239	249	236	240	307	283	293	262	240	254
30	---	---	---	245	236	240	288	264	283	270	240	258
31	---	---	---	254	244	250	---	---	---	247	198	224
MONTH	573	196	291	303	158	240	407	178	265	378	165	235
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	198	190	193	280	266	273	358	289	340	344	325	334
2	209	195	201	296	276	286	375	301	346	341	335	339
3	221	209	216	298	286	293	405	340	362	342	320	331
4	235	221	228	303	288	295	510	405	457	336	246	310
5	241	235	238	312	288	301	542	481	517	285	238	258
6	249	241	245	313	304	308	580	494	540	348	285	314
7	256	249	253	314	308	312	534	428	478	341	177	219
8	259	254	257	318	299	312	450	414	430	213	136	151
9	273	248	257	320	296	301	449	412	434	167	141	154
10	272	251	259	341	320	337	480	448	460	195	167	184
11	270	217	243	340	293	315	501	480	494	210	91	177
12	298	227	267	298	289	292	527	423	503	227	210	219
13	431	298	361	297	263	283	427	381	404	229	204	223
14	502	394	443	267	262	265	449	238	371	245	227	233
15	428	343	380	264	238	249	238	184	196	246	207	226
16	347	317	328	238	225	233	203	177	192	230	208	217
17	329	296	305	286	235	261	227	203	216	231	141	209
18	302	222	248	311	286	299	233	227	231	250	231	241
19	237	189	221	353	311	332	245	232	239	252	221	234
20	209	148	178	400	353	380	247	244	245	231	225	228
21	200	158	183	389	360	374	257	247	252	239	231	234
22	218	200	211	362	348	353	551	255	275	247	239	242
23	228	218	223	353	343	348	280	272	275	257	243	250
24	230	172	212	350	332	338	286	266	281	272	257	265
25	246	200	231	339	328	332	283	214	250	282	272	277
26	267	220	236	329	326	328	292	273	282	291	282	287
27	266	225	251	331	329	330	287	275	281	300	290	295
28	281	257	275	331	310	323	292	280	286	307	299	303
29	276	265	268	316	309	313	300	290	295	306	263	292
30	286	265	274	319	309	313	321	296	304	308	300	303
31	---	---	---	345	312	324	342	321	330	---	---	---
MONTH	502	148	256	400	225	310	580	177	341	348	91	252

POTOMAC RIVER BASIN

01646500 POTOMAC RIVER NEAR WASHINGTON, DC--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996



POTOMAC RIVER BASIN

01646500 POTOMAC RIVER NEAR WASHINGTON, DC--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	20.3	19.3	19.8	13.4	12.9	13.1	5.8	4.6	5.2	2.1	1.4	1.7
2	20.9	19.1	19.9	14.8	13.4	13.9	6.3	5.4	5.7	3.0	2.0	2.4
3	22.0	19.9	20.9	15.5	14.7	15.0	6.3	5.3	5.8	3.0	2.6	2.8
4	21.7	21.0	21.3	15.2	13.1	13.9	7.3	6.0	6.6	2.6	1.7	1.9
5	21.9	21.2	21.6	13.1	11.1	11.8	6.3	5.9	6.1	2.1	1.4	1.7
6	23.6	21.4	22.4	11.6	10.3	10.7	6.0	5.5	5.8	1.9	1.3	1.5
7	23.0	22.4	22.7	10.8	9.5	9.9	5.5	4.7	5.2	1.3	.1	.3
8	22.8	21.8	22.3	9.9	8.9	9.4	4.9	4.0	4.5	.1	.1	.1
9	21.9	20.5	21.2	9.0	7.9	8.3	4.4	3.6	4.0	.1	.1	.1
10	21.4	19.4	20.7	8.2	7.2	7.6	3.7	1.7	2.6	.1	.1	.1
11	21.5	19.7	20.7	9.0	7.6	8.1	1.8	.1	.7	.1	.1	.1
12	21.1	20.0	20.5	9.1	7.1	7.9	.2	.0	.1	.1	.1	.1
13	21.5	20.1	20.7	7.3	6.6	6.8	.3	.0	.1	.1	.1	.1
14	21.1	20.5	20.8	6.8	5.8	6.3	.7	.0	.3	.1	.1	.1
15	20.5	19.2	19.7	5.8	4.8	5.4	2.2	.4	1.1	.1	.1	.1
16	19.3	17.8	18.4	4.8	4.3	4.5	3.6	1.8	2.5	.1	.1	.1
17	17.8	16.3	16.9	5.0	4.2	4.6	3.3	2.4	2.8	.1	.1	.1
18	16.9	15.5	16.1	5.2	4.7	4.9	2.6	2.0	2.3	.1	.1	.1
19	16.6	15.6	16.0	5.8	5.1	5.4	2.5	1.7	2.1	2.2	.1	1.2
20	17.1	16.0	16.4	5.8	5.3	5.6	1.7	1.2	1.4	.9	.1	.4
21	17.1	13.9	15.6	6.6	5.7	6.1	1.4	1.0	1.2	1.8	.9	1.3
22	15.1	14.4	14.8	6.1	5.2	5.7	1.1	.6	.9	1.8	1.5	1.6
23	14.7	13.6	14.0	5.4	4.9	5.1	1.3	.6	1.0	2.2	1.6	1.9
24	14.7	13.3	13.9	5.3	5.0	5.2	1.5	1.0	1.3	3.1	2.1	2.6
25	14.7	14.0	14.5	5.3	4.7	5.0	1.4	1.2	1.3	3.2	2.7	3.0
26	14.8	13.7	14.1	5.1	4.6	4.9	1.3	.4	1.0	3.0	2.5	2.8
27	14.5	13.5	14.0	5.4	4.7	5.0	.5	.1	.3	4.2	3.0	3.6
28	15.3	14.4	14.8	6.6	5.2	6.1	.8	.1	.3	3.6	2.8	3.2
29	14.5	13.7	14.1	6.3	5.3	6.0	1.0	.1	.3	3.0	2.8	2.9
30	13.7	12.4	12.9	5.5	4.6	5.1	1.0	.1	.5	3.4	2.9	3.1
31	13.2	12.3	12.8	---	---	---	1.5	.3	.9	3.4	2.8	3.2
MONTH	23.6	12.3	17.9	15.5	4.2	7.6	7.3	.0	2.4	4.2	.1	1.4
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	2.8	2.3	2.4	7.3	5.8	6.4	8.9	7.9	8.3	18.5	16.9	17.6
2	2.3	1.6	2.0	6.6	5.8	6.1	9.1	8.2	8.7	18.8	17.5	18.1
3	1.6	.7	.9	6.1	5.2	5.5	9.6	8.5	9.0	18.5	17.9	18.1
4	.8	.2	.3	5.2	3.8	4.5	10.6	8.9	9.7	18.8	17.7	18.1
5	.2	.2	.2	5.6	4.2	4.8	11.2	10.1	10.5	19.7	18.0	18.7
6	.2	.2	.2	5.9	5.6	5.8	10.7	9.8	10.1	19.0	17.9	18.5
7	.2	.2	.2	5.9	5.3	5.7	10.3	9.4	9.8	18.6	16.7	17.6
8	.2	.2	.2	5.3	3.8	4.4	10.5	8.9	9.7	16.7	15.1	15.8
9	1.5	.2	.7	3.8	2.8	3.2	10.5	8.6	9.4	15.1	14.3	14.7
10	2.2	1.4	1.8	3.7	2.4	3.0	8.6	8.0	8.3	14.7	14.0	14.3
11	3.4	1.9	2.6	3.9	2.3	3.1	9.9	7.8	8.7	17.0	13.8	15.2
12	3.2	2.1	2.6	4.5	2.7	3.6	11.9	9.5	10.4	16.1	14.8	15.5
13	2.1	.9	1.5	5.2	3.4	4.3	13.4	11.6	12.5	16.1	14.8	15.4
14	2.9	1.3	2.0	6.5	4.6	5.4	14.5	13.2	13.8	16.2	14.4	15.3
15	3.4	2.5	2.8	7.5	6.4	6.8	14.3	12.8	13.5	15.6	14.2	14.6
16	3.4	2.2	2.7	8.5	7.0	7.7	12.9	12.0	12.4	14.7	13.5	14.0
17	2.2	1.4	1.6	8.5	7.7	8.0	12.5	11.4	12.0	14.6	13.9	14.2
18	2.1	1.3	1.7	8.8	7.8	8.3	13.4	11.1	12.1	16.9	14.4	15.5
19	2.6	1.8	2.1	8.8	8.3	8.5	14.4	13.2	13.7	17.2	15.6	16.5
20	3.4	2.6	2.8	8.7	7.8	8.1	15.8	14.3	15.0	19.8	17.0	18.4
21	4.7	3.4	4.0	7.8	6.6	7.3	16.9	15.8	16.4	22.0	19.4	20.6
22	4.8	4.4	4.5	6.6	5.9	6.3	18.7	16.8	17.7	22.8	20.9	21.9
23	5.6	4.6	4.9	6.5	5.7	6.0	19.7	18.4	19.0	23.4	21.3	22.4
24	6.9	5.6	6.2	7.1	5.6	6.3	18.8	16.8	17.9	23.4	22.7	23.0
25	7.9	6.4	7.1	8.1	6.1	7.0	17.9	16.8	17.1	23.0	20.5	21.7
26	7.9	7.2	7.5	9.1	7.6	8.3	17.2	16.6	16.9	20.5	18.9	19.7
27	8.6	7.5	7.9	9.1	7.8	8.5	17.7	16.0	16.7	18.9	17.4	18.1
28	9.0	8.5	8.7	9.0	7.0	7.9	17.7	15.8	16.6	17.4	16.4	16.7
29	8.9	7.2	7.7	7.2	6.7	6.9	18.7	16.7	17.7	16.5	15.5	16.0
30	---	---	---	7.4	6.5	6.9	19.1	17.7	18.5	16.4	15.2	15.7
31	---	---	---	8.5	6.9	7.6	---	---	---	16.0	14.8	15.4
MONTH	9.0	.2	3.1	9.1	2.3	6.2	19.7	7.8	13.1	23.4	13.5	17.3

POTOMAC RIVER BASIN

01646500 POTOMAC RIVER NEAR WASHINGTON, DC--Continued

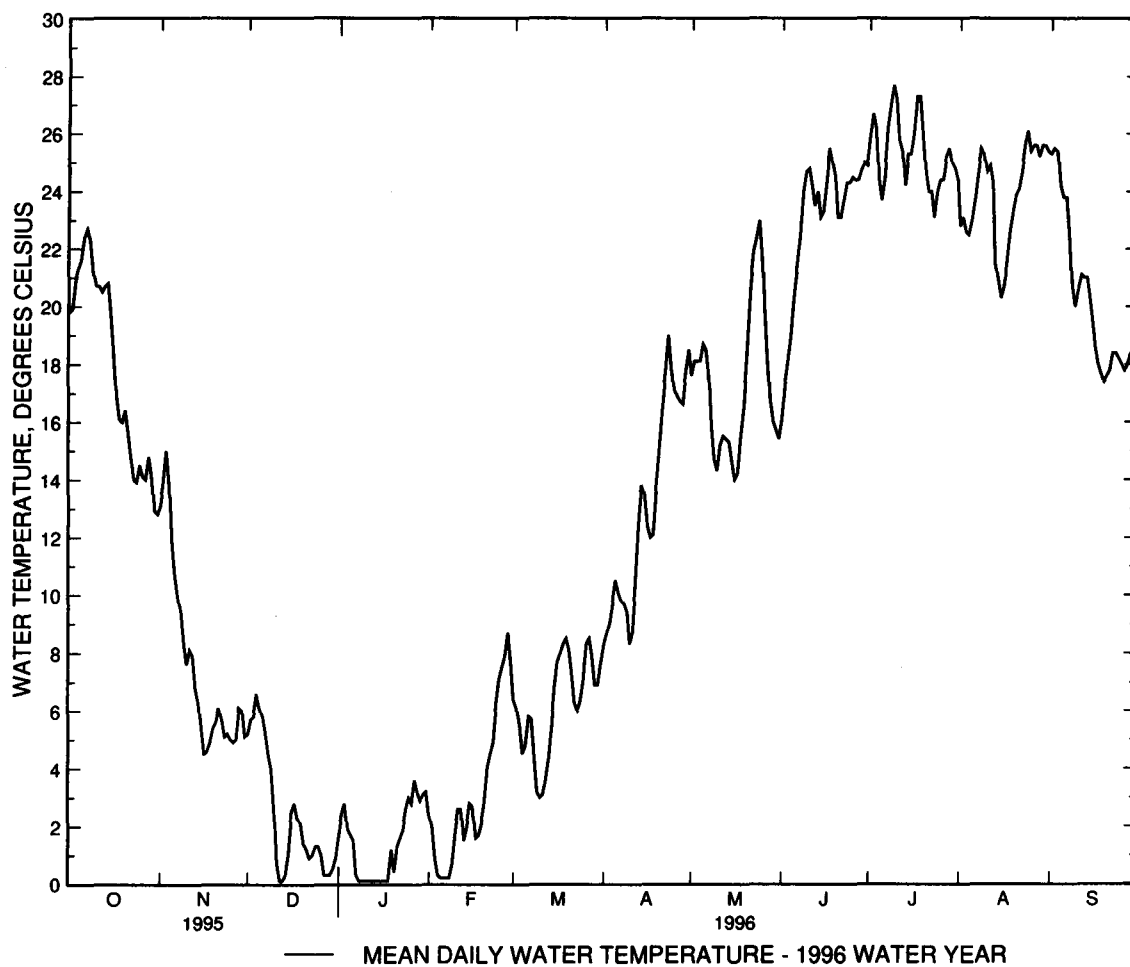
WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	17.3	15.0	16.1	26.9	25.0	25.9	23.6	22.2	22.8	26.5	24.6	25.3
2	18.6	16.1	17.3	27.5	26.0	26.7	23.6	22.7	23.1	26.7	24.4	25.5
3	18.7	17.5	18.1	26.7	25.0	26.2	22.8	22.3	22.6	25.8	24.9	25.4
4	19.8	18.2	19.0	25.0	23.4	24.4	23.3	21.8	22.5	25.1	23.1	24.2
5	21.2	19.6	20.4	24.9	22.9	23.7	24.2	22.0	23.0	24.7	23.1	23.8
6	22.1	20.7	21.4	26.0	23.3	24.5	24.2	23.4	23.7	24.3	22.8	23.8
7	23.2	21.7	22.4	27.7	24.6	26.2	25.3	24.0	24.6	23.1	21.6	22.5
8	24.8	23.2	24.0	28.0	26.2	27.0	26.1	25.1	25.5	21.6	20.2	20.7
9	25.3	23.9	24.7	28.9	26.6	27.7	25.8	24.3	25.3	20.2	19.8	20.0
10	25.8	23.9	24.8	27.9	26.0	27.2	25.4	24.1	24.7	21.1	20.1	20.6
11	25.0	23.4	24.2	26.4	25.1	25.8	25.8	24.2	24.9	21.6	20.8	21.1
12	24.1	22.9	23.5	25.7	24.8	25.4	25.3	22.6	24.3	21.3	20.8	21.0
13	24.4	23.5	24.0	25.1	22.5	24.2	22.6	21.0	21.5	21.4	20.5	21.0
14	23.8	22.5	23.1	26.1	24.5	25.3	21.7	20.3	20.9	20.8	19.9	20.3
15	24.5	22.2	23.3	25.8	25.0	25.3	20.8	19.9	20.3	19.9	19.1	19.5
16	25.4	23.4	24.3	27.4	24.9	26.0	21.4	20.1	20.7	19.1	18.2	18.6
17	26.1	24.8	25.5	28.4	26.1	27.3	22.5	20.7	21.5	18.2	17.8	18.0
18	26.1	23.8	25.0	27.7	26.6	27.3	23.6	21.6	22.6	18.0	17.3	17.7
19	25.5	23.9	24.5	26.6	24.7	26.0	24.3	22.5	23.3	17.8	17.0	17.4
20	24.2	22.4	23.1	25.5	24.0	24.7	24.3	23.3	23.9	18.3	16.9	17.6
21	23.9	22.4	23.1	25.0	23.1	24.0	24.5	23.7	24.1	18.5	17.2	17.8
22	24.6	22.7	23.7	25.0	23.3	24.0	25.5	24.2	24.7	19.1	17.7	18.4
23	25.2	23.4	24.3	23.5	22.7	23.1	26.3	25.1	25.6	18.9	18.0	18.4
24	25.1	23.8	24.3	24.7	23.4	24.0	26.5	25.6	26.1	18.7	18.0	18.2
25	25.2	23.7	24.5	24.9	23.4	24.4	26.4	24.5	25.4	18.5	17.5	18.0
26	25.1	23.4	24.4	25.3	23.6	24.4	26.6	25.2	25.6	18.2	17.6	17.8
27	25.0	23.6	24.4	25.9	24.5	25.2	26.2	25.0	25.6	18.4	17.8	18.0
28	25.3	24.3	24.8	26.2	24.9	25.5	25.9	24.8	25.2	18.6	18.0	18.4
29	25.4	24.4	25.0	25.2	24.6	25.0	26.6	24.8	25.6	18.5	17.7	18.0
30	26.0	24.2	24.9	25.6	24.1	24.8	26.7	24.9	25.6	18.3	17.5	17.9
31	---	---	---	25.1	22.8	24.4	26.3	24.8	25.4	---	---	---
MONTH	26.1	15.0	23.1	28.9	22.5	25.3	26.7	19.9	23.9	26.7	16.9	20.

POTOMAC RIVER BASIN

01646500 POTOMAC RIVER NEAR WASHINGTON, DC--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996



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POTOMAC RIVER BASIN

01646580 POTOMAC RIVER AT CHAIN BRIDGE AT WASHINGTON, DC

LOCATION.--Lat 38°55'46", long 77°07'02", Arlington County, Va., Hydrologic Unit 02070010, under right downstream side of bridge on Virginia State Highway 123, and at river mile 115.9.
DRAINAGE AREA.--11,570 mi².

PERIOD OF RECORD.--Water years 1973 to current year. Prior to October 1977, published as "at Great Falls."

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: June 1978 to September 1981.
pH: June 1978 to September 1981.
WATER TEMPERATURE: June 1978 to September 1981.
DISSOLVED OXYGEN: June 1978 to September 1981.
SUSPENDED SEDIMENT DISCHARGE: October 1978 to September 1981.

INSTRUMENTATION.--Water-quality monitor June 1978 to September 1981.

REMARKS--Extreme high flows are sampled from the George Mason Memorial Bridge (14th Street) located 6 mi downstream from Chain Bridge. On May 3 and Nov. 17, 1994 samples were collected and analyzed using ultraclean methodologies. Data on trace metals for these dates are available from the University of Delaware. Data on organics for these dates are available from George Mason University.

EXTREMES FOR PERIOD OF DAILY RECORD--

SPECIFIC CONDUCTANCE (water years 1979, 1981): Maximum, 598 microsiemens, Sept. 12, 1981; minimum, 116 microsiemens, Jan. 25, 1979.
pH (water years 1979, 1981): Maximum, 9.3 units, Mar. 29, 1981; minimum, 6.7 units, June 2, 1981.
WATER TEMPERATURE (water years 1979, 1981): Maximum, 31.0°C, July 23-24, 1978; minimum, 0.0°C on many days during winter periods.
DISSOLVED OXYGEN (water years 1979, 1981): Maximum, 16.4 mg/L, on many days in 1979; minimum, 5.6 mg/L, June 2, 1981.
SEDIMENT CONCENTRATION: Maximum daily mean, 812 mg/L, Sept. 6, 1979; minimum daily mean, 1 mg/L on many days during winter periods.
SEDIMENT LOAD: Maximum daily, 281,000 tons, Feb. 27, 1979; minimum daily, 3.2 tons, Jan. 5, 1981.

WATER QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

		DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	PH SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	TEMPER- ATURE AIR (DEG C) (00020)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	
JAN												
23...	1245	67300	200	7.6	2.0	3.0	763	14.3	104	72	22	
JUN												
20...	1245	71100	175	7.7	23.5	27.5	761	7.9	93	70	21	
21...	1330	40500	188	7.8	24.0	27.0	757	7.6	91	73	22	
22...	1200	42500	213	8.1	24.0	31.0	756	7.2	86	86	25	
24...	1130	18700	259	7.3	24.5	29.0	759	7.9	95	90	27	
AUG												
14...	1430	70400	240	7.3	21.5	25.0	764	8.7	98	--	--	
SEP												
07...	1300	100000	189	7.9	23.0	30.0	754	8.0	94	--	--	
08...	1400	275000	136	7.7	22.5	25.0	755	8.4	98	56	18	
09...	1345	246000	155	7.7	20.0	29.0	756	9.3	103	64	21	
10...	1315	75700	185	7.8	22.0	27.0	759	8.8	101	76	24	
DATE		MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- LINITY WAT DIS TOT IT FIELD (MG/L AS CACO3) (39086)	BICAR- BONATE WATER DIS IT FIELD (MG/L AS HCO3) (00453)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	NITRO- GEN, TOTAL (MG/L AS N) (00600)
JAN												
23...	4.2	4.3	2.4	49	59	15	7.3	0.10	6.8	110	2.7	
JUN												
20...	4.3	4.5	3.0	46	56	13	7.1	0.10	5.6	110	3.1	
21...	4.4	4.3	3.6	55	67	14	7.4	0.10	6.8	116	3.2	
22...	5.6	5.0	3.1	69	84	14	8.1	0.10	7.5	128	3.0	
24...	5.6	5.1	3.5	72	87	15	8.8	0.10	7.7	138	2.8	
AUG												
14...	--	--	--	--	--	--	--	--	--	--	--	--
SEP												
07...	--	--	--	--	--	--	--	--	--	5.6	--	3.4
08...	2.7	1.9	3.3	44	53	9.4	2.5	<0.10	4.7	91	1.4	
09...	2.8	1.9	3.0	50	61	12	2.6	<0.10	5.4	97	1.6	
10...	4.0	3.0	2.7	56	68	16	4.1	<0.10	7.0	115	1.4	

POTOMAC RIVER BASIN

01646580 POTOMAC RIVER AT CHAIN BRIDGE AT WASHINGTON, DC--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	NITRO- GEN NITRATE DIS- SOLVED (MG/L) AS NO3) (71851)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L) AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L) AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L) AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L) AS N) (00625)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L) AS N) (00623)	PHOS- PHORUS TOTAL (MG/L) AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L) AS P) (00666)	PHOS- PHORUS ORTHOS, DIS- SOLVED (MG/L) AS P) (00671)	IRON, DIS- SOLVED (UG/L) AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L) AS MN) (01056)
JAN 23...	7.9	0.010	1.80	0.070	0.90	0.30	0.250	0.040	0.040	140	8
JUN 20...	6.1	0.030	1.40	0.080	1.7	0.40	0.600	0.060	0.070	74	3
21...	7.7	0.050	1.80	0.120	1.4	0.50	0.380	0.080	0.090	150	8
22...	8.7	0.040	2.00	0.110	1.0	0.50	0.240	0.060	0.020	86	3
24...	9.1	0.050	2.10	0.060	0.70	0.20	0.210	0.080	0.090	43	3
AUG 14...	--	--	--	--	--	--	--	--	--	--	--
SEP 07...	5.2	0.020	1.20	0.070	2.2	0.50	0.918	0.060	0.080	--	--
08...	2.7	0.020	0.640	0.080	0.80	0.40	0.210	0.060	0.070	36	1
09...	3.4	0.020	0.780	0.070	0.80	0.40	0.190	0.050	0.050	13	<1
10...	4.3	0.020	1.00	0.040	0.40	0.30	0.100	0.040	0.040	11	1
DATE	CARBON, ORGANIC DIS- SOLVED (MG/L) AS C) (00681)	CARBON, ORGANIC TOTAL (MG/L) AS C) (00680)	CARBON, SUS- PENDE TOTAL (MG/L) AS C) (00689)	ETHAL- FLUR- ALIN WAT FLT GF, REC (UG/L) (82663)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	TER- BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	TRI- FLUR- ALIN WAT FLT GF, REC (UG/L) (82661)	2,6-DI- ETHYL ANILINE WAT FLT GF, REC (UG/L) (82660)	ACETO- CHLOR, WATER FLTRD REC (UG/L) (49260)	ALA- CHLOR, WATER, DISS, REC, (UG/L) (46342)	ALPHA BHC DIS- SOLVED (UG/L) (34253)
JAN 23...	3.3	--	1.2	--	--	--	--	--	--	--	--
JUN 20...	6.0	--	>5.0	<0.004	<0.002	E0.004	<0.002	<0.003	0.006	0.094	<0.002
21...	5.2	--	5.0	<0.004	<0.002	E0.020	<0.002	<0.003	0.015	0.070	<0.002
22...	4.2	--	>4.0	<0.004	<0.002	E0.006	<0.002	<0.003	0.006	0.026	<0.002
24...	4.2	--	2.4	<0.004	<0.002	E0.003	<0.002	<0.003	0.020	0.015	<0.002
AUG 14...	--	--	--	<0.004	<0.002	<0.007	<0.002	<0.003	<0.002	<0.002	<0.002
SEP 07...	--	24	--	--	--	--	--	--	--	--	--
08...	7.6	33	>6.8	<0.004	<0.002	<0.007	<0.002	<0.003	<0.002	<0.002	<0.002
09...	5.6	20	>5.0	<0.004	<0.002	<0.007	<0.002	<0.003	<0.002	<0.002	<0.002
10...	4.4	9.8	3.5	<0.004	<0.002	<0.007	<0.002	<0.003	<0.002	E0.003	<0.002
DATE	ATRA- ZINE, WATER, DISS, REC (UG/L) (39632)	BEN- FLUR- ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	BUTYL- ATE, WATER, DISS, REC (UG/L) (04028)	CAR- BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBO- FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	CHLOR- PYRIFOS DIS- SOLVED (UG/L) (38933)	CYANA- ZINE, WATER, DISS, REC (UG/L) (04041)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	P,P' DDE DISSOLV (UG/L) (34653)	DEETHYL ATRA- ZINE, WATER, DISS, REC (UG/L) (04040)	DI- AZINON, DIS- SOLVED (UG/L) (39572)
JAN 23...	--	--	--	--	--	--	--	--	--	--	--
JUN 20...	3.10	<0.002	<0.002	E0.019	E0.110	0.005	0.140	0.016	<0.006	E0.044	0.020
21...	4.10	<0.002	<0.002	E0.027	E0.071	0.007	0.180	0.005	<0.006	E0.076	0.009
22...	2.50	<0.002	<0.002	E0.006	E0.025	E0.004	0.089	E0.003	<0.006	E0.048	<0.002
24...	1.90	<0.002	<0.002	E0.007	E0.013	0.006	0.082	E0.003	<0.006	E0.042	<0.002
AUG 14...	0.140	<0.002	<0.002	E0.024	<0.003	<0.004	<0.004	<0.002	<0.006	E0.025	<0.002
SEP 07...	--	--	--	--	--	--	--	--	--	--	--
08...	0.037	<0.002	<0.002	E0.018	<0.003	<0.004	<0.004	<0.002	<0.006	E0.009	<0.002
09...	0.032	<0.002	<0.002	E0.036	<0.003	<0.004	<0.004	<0.002	<0.006	E0.011	0.010
10...	0.034	<0.002	<0.002	E0.019	<0.003	<0.004	<0.004	<0.002	<0.006	E0.019	0.064

E Estimated value.

POTOMAC RIVER BASIN

01646580 POTOMAC RIVER AT CHAIN BRIDGE AT WASHINGTON, DC--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	DI- ELDRIN DIS- SOLVED (UG/L) (39381)	FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	FONOPOS WATER DISS REC (UG/L) (04095)	LINDANE DIS- SOLVED (UG/L) (39341)	LIN- URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	MALA- THION, DIS- SOLVED (UG/L) (39532)	METHYL AZIN- PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	METHYL PARA- THION WAT FLT 0.7 U GF, REC (UG/L) (82667)	METO- LACHLOR WATER DISSOLV (UG/L) (39415)
JAN 23...	--	--	--	--	--	--	--	--	--	--	--
JUN 20...	<0.001	<0.017	E0.002	<0.003	<0.003	<0.004	0.056	<0.005	<0.006	<0.006	2.40
21...	<0.001	<0.017	E0.002	<0.003	<0.003	<0.004	0.042	<0.005	E0.019	0.009	2.70
22...	<0.001	<0.017	<0.002	<0.003	<0.003	<0.004	0.015	<0.005	<0.001	<0.006	1.50
24...	<0.001	<0.017	<0.002	<0.003	<0.003	<0.004	0.005	<0.005	<0.001	<0.006	1.10
AUG 14...	<0.001	<0.017	<0.002	<0.003	<0.003	<0.004	<0.002	<0.005	<0.001	<0.006	0.092
SEP 07...	--	--	--	--	--	--	--	--	--	--	--
08...	<0.001	<0.017	<0.002	<0.003	<0.003	<0.004	<0.002	<0.005	<0.001	<0.006	0.053
09...	<0.001	<0.017	<0.002	<0.003	<0.003	<0.004	<0.002	<0.005	<0.001	<0.006	0.035
10...	<0.001	<0.017	<0.002	<0.003	E0.004	<0.004	<0.002	<0.005	<0.001	<0.006	0.031

DATE	METRI- BUZIN SENCOR WATER DISSOLV (UG/L) (82630)	MOL- INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	NAPROP- AMI WATER FLTRD 0.7 U GF, REC (UG/L) (82684)	PEB- ULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)	PARA- THION, DIS- SOLVED (UG/L) (39542)	PENDI- METH- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)	PER- METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	PRO- METON, WATER, DISS, REC (UG/L) (04037)	PRON- AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	PROP- CHLOR, WATER, DISS, REC (UG/L) (04024)
JAN 23...	--	--	--	--	--	--	--	--	--	--
JUN 20...	0.011	<0.004	<0.003	<0.004	<0.004	0.022	<0.005	0.019	<0.003	<0.007
21...	0.017	<0.004	<0.003	<0.004	<0.004	0.038	<0.005	0.027	<0.003	<0.007
22...	0.006	<0.004	<0.003	<0.004	<0.004	0.014	<0.005	E0.017	<0.003	<0.007
24...	0.007	<0.004	<0.003	<0.004	<0.004	0.018	<0.005	0.055	<0.003	<0.007
AUG 14...	<0.004	<0.004	<0.003	<0.004	<0.004	<0.004	<0.005	0.022	<0.003	<0.007
SEP 07...	--	--	--	--	--	--	--	--	--	--
08...	<0.004	<0.004	<0.003	<0.004	<0.004	<0.004	<0.005	E0.010	<0.003	<0.007
09...	<0.004	<0.004	<0.003	<0.004	<0.004	<0.004	<0.005	E0.007	<0.003	<0.007
10...	<0.004	<0.004	<0.003	<0.004	<0.004	<0.004	<0.005	E0.009	<0.003	<0.007

DATE	PRO- PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	PRO- PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	SI- MAZINE, WATER, DISS, REC (UG/L) (04035)	TEBU- THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TER- BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	THIO- BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)	TRIAL- LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	SEDI- MENT, DIS- SUS- MENT, CHARGE, SUS- PENDE (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN 0.062 MM (70331)
JAN 23...	--	--	--	--	--	--	--	175 31800	--
JUN 20...	<0.013	<0.004	0.500	E0.004	<0.013	<0.002	<0.001	549 105000	92
21...	<0.013	<0.004	0.590	E0.009	<0.013	<0.002	<0.001	215 23500	89
22...	<0.013	<0.004	0.350	E0.003	<0.013	<0.002	<0.001	170 19500	89
24...	<0.013	<0.004	<0.005	E0.005	<0.013	<0.002	<0.001	105 5300	98
AUG 14...	<0.013	<0.004	0.034	<0.010	<0.013	<0.002	<0.001	-- --	--
SEP 07...	--	--	--	--	--	--	--	620 167000	83
08...	<0.013	<0.004	0.040	E0.008	<0.013	<0.002	<0.001	932 692000	92
09...	<0.013	<0.004	0.019	<0.010	<0.013	<0.002	<0.001	769 511000	97
10...	<0.013	<0.004	0.018	E0.010	<0.013	<0.002	<0.001	230 46900	95

E Estimated value.

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POTOMAC RIVER BASIN

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 mi².

PERIOD OF RECORD.--October 1929 to current year.

REVISED RECORDS.--WSP 1432: 1933(M).

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Datum of gage is 148.87 ft above sea level.

REMARKS.--Records good except those for estimated daily discharges (ice effect), which are fair. Flow affected by two upstream reservoirs which control flow from about 25 mi², Needwood Lake on Rock Creek since Sept. 1966 and Bernard Frank Lake on North Branch Rock Creek since February 1968. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,200 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 21	0745	1,320	6.06	Aug. 13	0300	1,360	6.18
Nov. 12	0030	1,300	5.99	Sept. 4	1830	1,230	5.79
Jan. 19	1745	2,160	8.20	Sept. 7	0115	*2,570	*9.02
Mar. 19	2145	1,280	5.95	Sept. 11	1345	1,900	7.58
June 18	0545	1,250	5.85	Sept. 17	0315	1,310	6.04
June 24	1900	1,380	6.26				

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	52	40	31	72	46	220	85	54	e82	e90	24
2	11	68	35	215	62	58	e310	60	45	e70	e57	22
3	9.9	37	32	230	56	48	e108	56	42	e60	e50	22
4	10	30	30	105	e54	42	e94	65	43	e52	43	328
5	150	23	28	74	51	42	e86	212	39	44	38	105
6	45	20	27	54	45	69	76	280	37	38	72	893
7	16	57	26	30	45	137	71	95	35	35	38	e500
8	12	48	25	46	64	106	64	161	34	54	31	e120
9	11	27	40	e58	123	72	107	176	135	48	76	e68
10	10	23	34	e56	101	57	116	98	93	35	74	e50
11	10	166	25	50	83	53	77	243	54	30	39	e850
12	9.4	381	25	47	73	51	66	201	151	62	126	e200
13	8.6	103	24	52	58	49	62	101	96	505	e570	e240
14	180	465	27	57	52	47	55	78	52	135	e147	e100
15	120	334	29	61	52	73	125	66	72	94	118	e60
16	38	e120	190	59	54	62	e350	143	47	68	154	e200
17	23	e80	81	71	53	52	e101	80	40	49	84	549
18	17	e65	62	131	49	47	e88	68	566	87	49	166
19	14	e50	203	1600	47	368	78	60	347	315	40	e96
20	13	e44	120	394	109	e230	69	54	e250	138	35	e70
21	531	39	76	244	232	e94	61	64	e170	72	32	e54
22	106	33	55	215	109	e74	58	96	e125	55	32	151
23	64	32	45	191	134	e68	62	49	e110	49	31	77
24	39	52	40	256	88	e64	69	46	361	42	28	60
25	27	32	36	213	71	60	52	42	167	151	26	52
26	21	29	34	159	62	56	57	43	88	140	25	47
27	68	28	35	371	60	51	53	63	70	41	40	46
28	160	27	30	190	58	204	47	122	53	36	43	82
29	49	133	29	143	50	283	47	183	43	51	40	160
30	33	51	29	121	---	126	165	98	110	42	32	56
31	25	---	28	93	---	94	---	67	---	143	27	---
TOTAL	1841.9	2649	1540	5617	2167	2883	2994	3255	3529	2823	2287	5448
MEAN	59.4	88.3	49.7	181	74.7	93.0	99.8	105	118	91.1	73.8	182
MAX	531	465	203	1600	232	368	350	280	566	505	570	893
MIN	8.6	20	24	30	45	42	47	42	34	30	25	22
CFSM	.96	1.42	.80	2.91	1.20	1.50	1.60	1.69	1.89	1.46	1.19	2.92
IN.	1.10	1.58	.92	3.36	1.30	1.72	1.79	1.95	2.11	1.69	1.37	3.26

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1930 - 1996, BY WATER YEAR (WY)

MEAN	40.4	52.0	61.2	72.8	82.5	90.4	85.1	74.4	59.9	49.7	48.2	46.1
MAX	196	165	184	201	210	221	215	232	456	192	174	348
(WY)	1980	1953	1973	1978	1979	1993	1973	1989	1972	1945	1955	1979
MIN	2.63	4.57	8.75	11.8	11.9	23.4	29.2	24.3	18.3	7.09	1.72	2.04
(WY)	1931	1932	1931	1931	1931	1931	1969	1955	1986	1930	1930	1930

01648000 ROCK CREEK AT SHERRILL DRIVE, WASHINGTON, DC--Continued

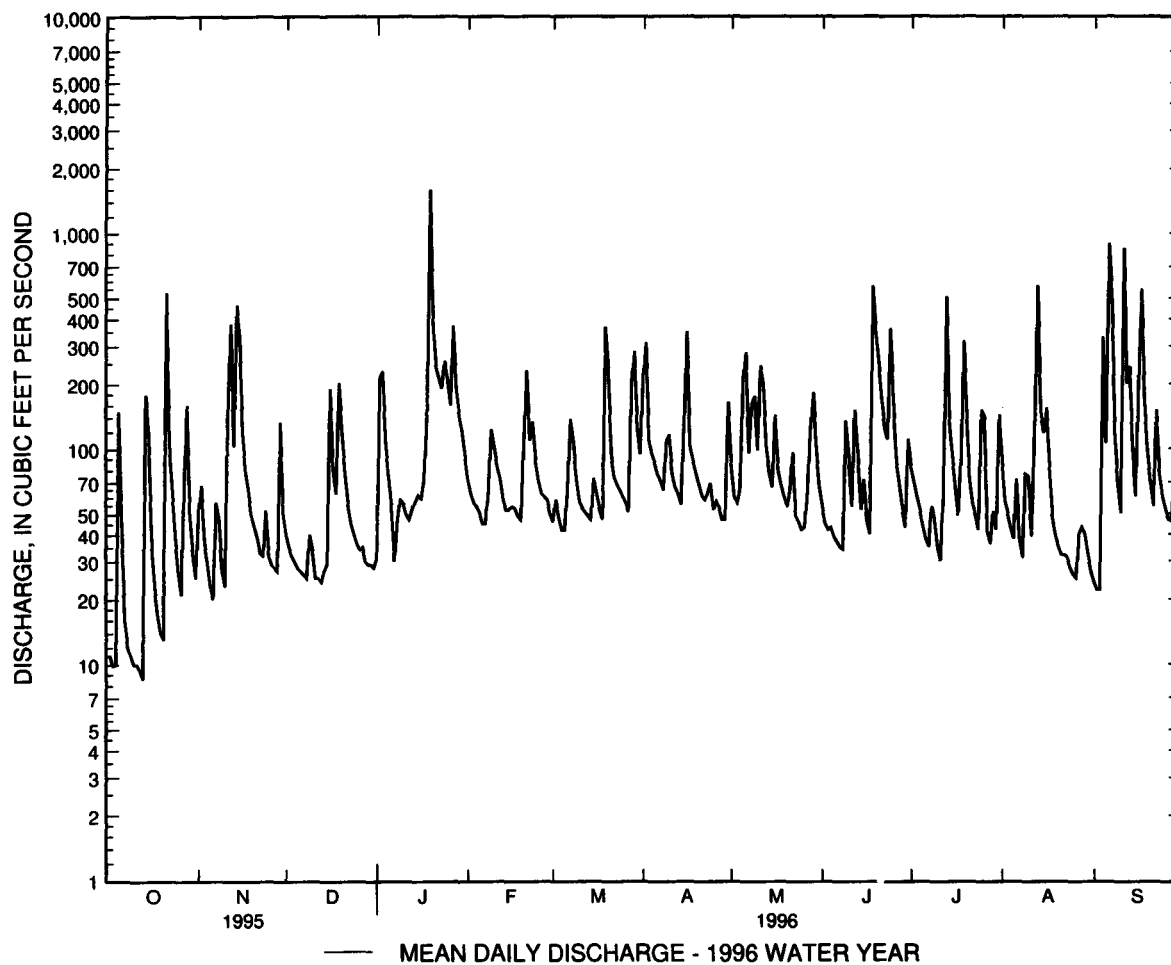
SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1930 - 1996	
ANNUAL TOTAL	20632.3		37033.9			
ANNUAL MEAN	56.5		101		63.4	
HIGHEST ANNUAL MEAN					142	
LOWEST ANNUAL MEAN					16.1	
HIGHEST DAILY MEAN	690	Aug 6	1600	Jan 19	5000	Jun 22 1972
LOWEST DAILY MEAN	5.1	Sep 4	8.6	Oct 13	.50	(a)
ANNUAL SEVEN-DAY MINIMUM	5.8	Sep 1	11	Oct 7	.50	Oct 1 1930
INSTANTANEOUS PEAK FLOW			2570	Sep 7	(b) 12500	Jun 22 1972
INSTANTANEOUS PEAK STAGE			9.02	Sep 7	(c) 16.20	Jun 22 1972
INSTANTANEOUS LOW FLOW			8.6	(d)	.50	(a)
ANNUAL RUNOFF (CFSM)	.91		1.63		1.02	
ANNUAL RUNOFF (INCHES)	12.34		22.15		13.86	
10 PERCENT EXCEEDS	120		206		122	
50 PERCENT EXCEEDS	34		60		37	
90 PERCENT EXCEEDS	11		28		13	

a Oct. 1-7, 1930.

b From rating curve extended above 5,640 ft³/s on basis of contracted-opening measurements at gage heights of 13.19 ft and 16.2 ft.

c From floodmark.

d Oct. 13, 14.



POTOMAC RIVER BASIN

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 mi².

PERIOD OF RECORD.--August 1938 to current year.

REVISED RECORDS.--WDR MD-DE-75-1: 1972(M).

GAGE.--Water-stage recorders, crest-stage gage, and concrete control. Datum of gage is 12.68 ft above sea level (Washington Suburban Sanitary Commission bench mark). Prior to June 12, 1942, nonrecording gage; June 12, 1942 to Mar. 22, 1966, and Apr. 12, 1967 to Sept. 3, 1969, water-stage recorder, all at bridge at datum 14.00 ft above mean sea level. Mar. 23, 1966 to Apr. 11, 1967, nonrecording gage 600 ft downstream from bridge at datum 9.25 ft above mean sea level.

REMARKS.--Records good except those for estimated daily discharge (ice effect), which are fair. Some regulation at low flow by sand and gravel plants upstream from station. 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 ft³/s, from rating curve extended above 3,000 ft³/s on basis of velocity-area study.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 5	2100	2,540	5.61	June 19	2100	2,150	5.20
Oct. 14	1800	2,190	5.24	June 24	1730	2,320	5.38
Oct. 21	0700	4,010	6.96	Aug. 13	0145	2,400	5.46
Nov. 11	2230	2,480	5.55	Sept. 6	2030	3,500	6.51
Jan. 19	1215	*7,540	*9.28	Sept. 11	0830	2,640	5.70
Mar. 19	1845	2,190	5.25	Sept. 17	0245	2,240	5.30
June 18	0215	4,730	7.57				

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	61	73	48	74	60	339	86	46	174	69	17
2	14	76	56	367	74	75	448	53	41	64	42	16
3	16	49	48	453	e77	70	131	54	38	53	36	18
4	15	38	45	130	e77	58	97	76	39	37	33	113
5	521	30	42	80	e77	58	80	289	38	32	29	60
6	287	28	44	62	e75	110	76	371	33	30	29	949
7	46	74	43	61	e75	238	81	114	32	30	28	250
8	25	67	40	e66	144	194	68	242	31	69	27	71
9	19	37	61	e80	320	99	126	284	50	49	41	44
10	17	31	53	e77	208	75	133	115	39	39	53	35
11	16	347	e40	e73	130	73	81	279	33	33	30	825
12	16	721	40	e70	98	71	69	238	50	61	168	144
13	15	140	38	e78	73	67	62	84	50	942	817	194
14	704	958	40	e82	69	61	58	63	33	149	111	68
15	426	626	45	e82	69	96	134	56	32	75	51	43
16	75	146	324	e84	72	77	529	154	27	53	55	140
17	47	91	130	126	e72	63	132	82	30	41	41	707
18	39	70	82	228	72	59	85	69	1380	76	31	114
19	36	59	333	3670	67	576	73	55	677	164	26	64
20	32	51	196	635	245	469	63	46	444	76	24	47
21	1390	49	94	177	442	127	58	133	177	43	23	38
22	167	46	70	122	164	87	57	105	80	41	22	173
23	54	51	61	105	177	71	65	51	56	40	21	59
24	37	77	58	246	114	61	63	42	329	34	21	40
25	30	51	55	219	84	59	49	39	159	149	20	37
26	23	46	52	110	76	55	50	40	57	186	18	33
27	72	44	47	489	75	50	50	70	40	57	84	34
28	356	45	44	256	74	315	45	124	35	37	40	95
29	77	353	44	123	64	601	47	229	34	62	24	164
30	39	122	42	101	--	173	160	111	236	45	20	52
31	31	---	43	90	---	106	---	57	---	177	18	---
TOTAL	4656	4584	2383	8590	3438	4354	3509	3811	4346	3118	2052	4644
MEAN	150	153	76.9	277	119	140	117	123	145	101	66.2	155
MAX	1390	958	333	3670	442	601	529	371	1380	942	817	949
MIN	14	28	38	48	64	50	45	39	27	30	18	16
CFSM	2.06	2.10	1.06	3.81	1.63	1.93	1.61	1.69	1.99	1.38	.91	2.13
IN.	2.38	2.34	1.22	4.39	1.76	2.22	1.79	1.95	2.22	1.59	1.05	2.37

e Estimated

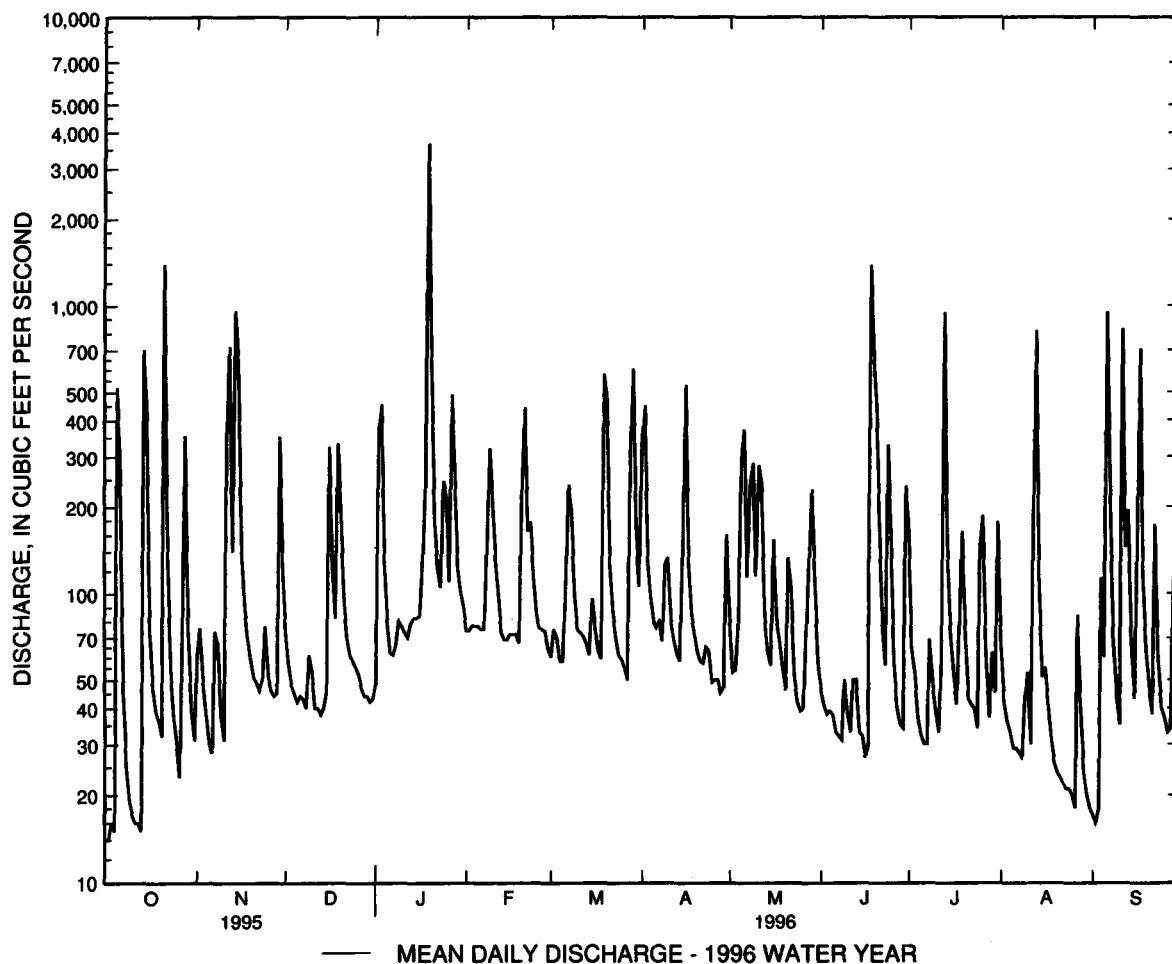
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 1996, BY WATER YEAR (WY)

MEAN	54.0	73.5	92.2	104	113	131	111	94.7	69.1	61.8	65.1	59.4
MAX	234	205	248	325	265	339	322	329	353	335	243	449
(WY)	1943	1973	1984	1979	1972	1994	1983	1989	1972	1945	1955	1975
MIN	9.37	15.9	19.8	25.6	39.3	37.0	32.4	23.9	20.3	9.14	7.94	8.32
(WY)	1942	1942	1966	1955	1947	1981	1985	1941	1965	1966	1962	1941

01649500 NORTHEAST BRANCH ANACOSTIA RIVER AT RIVERDALE, MD--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1938 - 1996	
ANNUAL TOTAL	29853.1		49485			
ANNUAL MEAN	81.8		135		85.7	
HIGHEST ANNUAL MEAN					150	
LOWEST ANNUAL MEAN					49.3	
HIGHEST DAILY MEAN	1390	Oct 21	3670	Jan 19	6830	Sep 26 1975
LOWEST DAILY MEAN	6.1	Sep 12	14	(a)	1.4	Sep 12 1966
ANNUAL SEVEN-DAY MINIMUM	6.7	Sep 9	21	Aug 20	1.7	Sep 7 1966
INSTANTANEOUS PEAK FLOW			7540	Jan 19	(b) 12000	Jun 22 1972
INSTANTANEOUS PEAK STAGE			9.28	Jan 19	12.93	Oct 16 1942
INSTANTANEOUS LOW FLOW			14	(a)	UNKNOWN	
ANNUAL RUNOFF (CFSM)	1.12		1.86		1.18	
ANNUAL RUNOFF (INCHES)	15.25		25.29		15.99	
10 PERCENT EXCEEDS	146		297		166	
50 PERCENT EXCEEDS	38		67		44	
90 PERCENT EXCEEDS	12		30		16	

a Oct. 1, 2.

b From rating curve extended above 3,800 ft³/s on basis of the average of contracted-opening and slope-area measurements at gage height 9.52 ft.

POTOMAC RIVER BASIN

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 mi².

PERIOD OF RECORD.--July 1938 to current year. Monthly discharge only for July 1938 published in WSP 1302.

REVISED RECORDS.--WSP 971: 1942(M).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 17.10 ft above sea level (Washington Suburban Sanitary Commission bench mark). Prior to Oct. 22, 1938, nonrecording gage; Oct. 22, 1938 to Sept. 17, 1951, water-stage recorder; Sept. 17, 1951 to Aug. 29, 1952, nonrecording gage and crest-stage gage.

REMARKS.--Records good except those for estimated daily discharges (ice effect, orifice line leak, equipment failure), which are fair. Prior to June 1961, low flow regulated by storage at Burnt Mills Dam, 7.0 mi upstream from station. Inflow pumped from Patuxent River to augment water supply for Washington Suburban Sanitary District, August 1939 to August 1960. Small diversion since 1962 for irrigation of golf courses upstream from station. 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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 14	1700	1,730	3.75	June 24	1745	2,610	4.48
Oct. 21	0515	2,710	4.55	Sept. 6	1815	*6,650	*6.94
Jan. 19	1130	5,800	6.48	Sept. 11	0800	5,580	6.36
June 18	0215	2,040	4.02				

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.1	43	29	26	46	38	192	68	32	86	42	13
2	5.4	57	25	238	46	46	250	41	29	74	25	12
3	5.5	32	22	208	63	41	72	44	27	38	21	14
4	5.4	22	22	58	e42	33	57	67	34	27	19	262
5	154	19	20	36	e27	35	50	187	31	24	19	80
6	53	19	21	31	e36	66	48	209	27	22	26	1170
7	13	57	21	24	43	122	48	74	27	19	19	471
8	8.2	46	19	35	87	88	44	136	27	86	16	53
9	7.0	22	35	e50	142	e50	84	162	70	30	35	33
10	7.0	19	26	e48	108	37	78	68	41	26	34	28
11	8.3	224	15	45	72	40	49	174	30	18	19	658
12	7.6	366	16	47	64	40	44	165	74	42	125	69
13	9.4	66	16	55	48	40	44	57	88	467	415	192
14	278	518	20	48	47	39	44	46	37	62	52	43
15	88	300	24	63	49	62	109	44	58	36	29	29
16	16	75	192	56	54	53	326	115	45	27	55	101
17	8.9	40	58	71	55	41	74	53	27	22	30	460
18	7.1	33	41	124	51	39	52	44	499	58	21	61
19	7.2	30	190	1860	47	391	46	42	188	176	19	38
20	9.6	27	89	205	131	231	44	38	92	73	17	30
21	732	26	44	81	277	70	44	81	118	41	16	26
22	57	23	31	60	83	48	44	63	39	35	14	93
23	21	28	30	55	101	43	50	35	29	27	13	32
24	15	46	29	142	62	40	50	31	272	23	13	26
25	12	25	28	120	48	41	43	30	81	70	13	26
26	13	22	26	57	44	41	44	31	34	103	12	25
27	47	22	22	315	45	37	41	54	26	25	35	25
28	153	23	24	117	46	190	36	88	23	19	34	71
29	31	153	23	64	41	253	36	151	22	41	18	e100
30	22	43	23	58	---	80	135	66	110	29	14	e45
31	19	---	23	55	---	55	---	37	---	100	14	---
TOTAL	1825.7	2426	1204	4452	2005	2430	2278	2501	2237	1926	1234	4286
MEAN	58.9	80.9	38.8	144	69.1	78.4	75.9	80.7	74.6	62.1	39.8	143
MAX	732	518	192	1860	277	391	326	209	499	467	415	1170
MIN	5.1	19	15	24	27	33	36	30	22	18	12	12
CFSM	1.19	1.64	.79	2.91	1.40	1.59	1.54	1.63	1.51	1.26	.81	2.89
IN.	1.37	1.83	.91	3.35	1.51	1.83	1.72	1.88	1.68	1.45	.93	3.23

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 1996, BY WATER YEAR (WY)

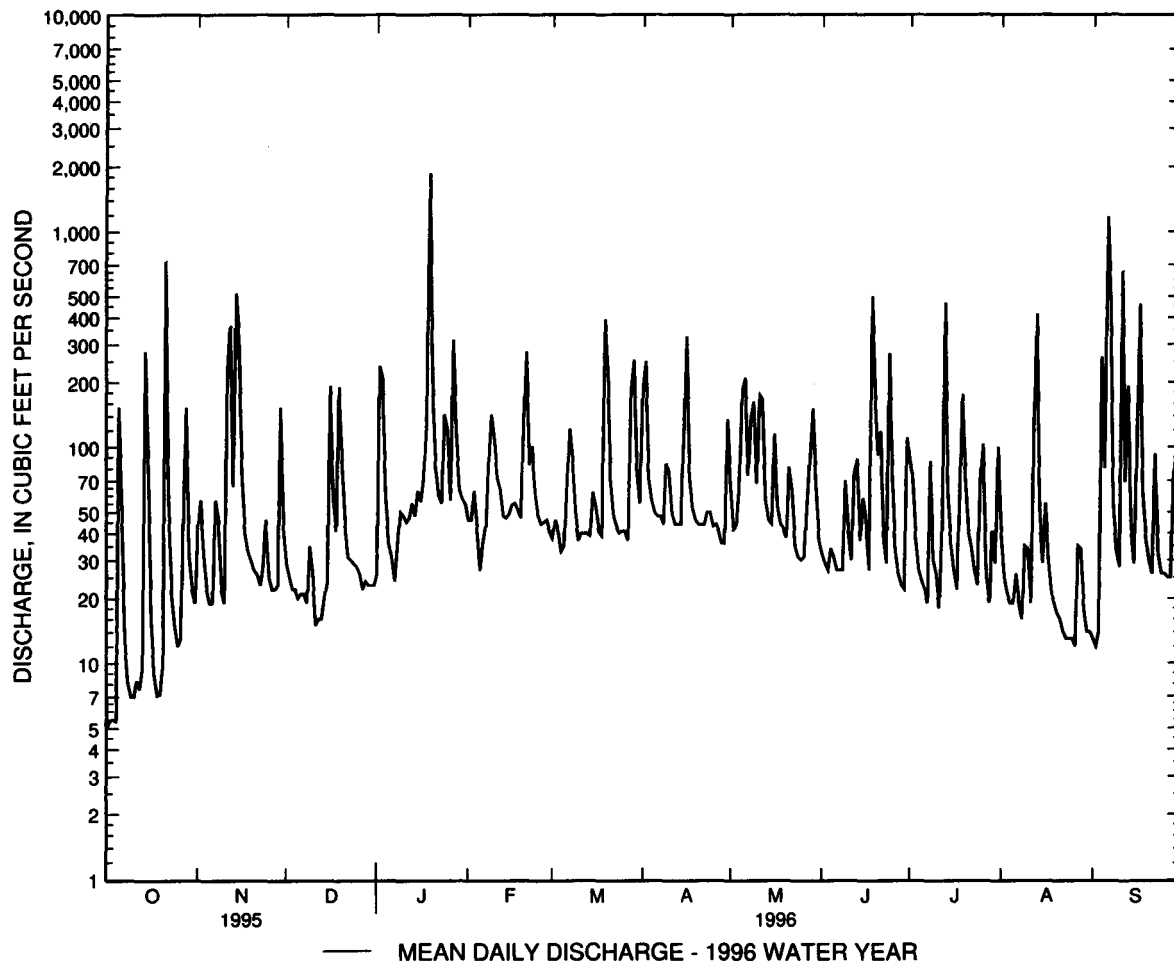
	MEAN	28.7	41.1	48.8	55.0	63.1	70.6	61.9	55.4	42.4	35.1	37.9	38.3
MAX	129	128	136	173	183	176	167	198	237	159	193	327	
(WY)	1980	1994	1984	1979	1979	1994	1952	1989	1972	1945	1955	1975	
MIN	2.44	4.30	11.4	8.04	13.6	23.5	15.3	9.91	10.1	4.07	3.61	2.58	
(WY)	1942	1942	1966	1955	1947	1981	1950	1941	1940	1944	1943	1941	

01651000 NORTHWEST BRANCH ANACOSTIA RIVER NEAR HYATTSVILLE, MD--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1938 - 1996	
ANNUAL TOTAL	16358.6		28804.7			
ANNUAL MEAN	(a) 44.8		(a) 78.7		(a) 48.2	
HIGHEST ANNUAL MEAN					96.9	
LOWEST ANNUAL MEAN					20.8	
HIGHEST DAILY MEAN	732	Oct 21	1860	Jan 19	5050	Sep 26 1975
LOWEST DAILY MEAN	1.7	Sep 8	5.1	Oct 1	.40	(b)
ANNUAL SEVEN-DAY MINIMUM	2.2	Sep 2	8.6	Oct 7	.60	Sep 7 1966
INSTANTANEOUS PEAK FLOW			6650	Sep 6	(c) 18000	Jun 22 1972
INSTANTANEOUS PEAK STAGE			6.94	Sep 6	14.47	Jun 22 1972
INSTANTANEOUS LOW FLOW			5.0	Oct 1	.20	Sep 11 1966
ANNUAL RUNOFF (CFSM)	.91		1.59		.98	
ANNUAL RUNOFF (INCHES)	12.32		21.69		13.26	
10 PERCENT EXCEEDS	87		168		91	
50 PERCENT EXCEEDS	23		43		24	
90 PERCENT EXCEEDS	5.1		18		6.6	

a Unadjusted.

b Sept. 8, 11, 1966.

c From rating curve extended above 4,000 ft³/s on the basis of the average of slope-area and step-backwater measurements of peak flow.

POTOMAC RIVER BASIN

01651800 WATTS BRANCH AT WASHINGTON, D.C.

LOCATION.--Lat 38°54'04", long 76°56'33", District of Columbia, Hydrologic Unit 02070010, on right bank 5 ft downstream from footbridge, 200 ft upstream from Minnesota Ave., and 1.0 mi upstream from mouth.

DRAINAGE AREA.-- 3.28 mi².

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

GAGE.--Water-stage recorder, crest-stage gage, and cobblestone control. Datum of gage is 16.52 ft above sea level.

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

PEAK DISCHARGES FOR CURRENT PERIOD.--Peak discharges greater than base discharge of 350 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 5	0915	538	4.76	Mar. 19	1615	447	4.41
Oct. 14	1130	796	5.63	Apr. 15	2330	590	4.95
Oct. 21	0415	452	4.43	June 20	1200	530	4.73
Oct. 27	1900	351	4.00	June 24	1700	376	4.11
Nov. 11	2030	421	4.30	Sept. 6	1815	825	5.72
Jan. 19	1115	*1,150	*6.58				

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.61	5.2	2.7	2.1	3.6	2.4	24	2.6	1.9	2.3	1.5	.89
2	.63	4.6	2.3	24	3.8	3.5	12	2.2	1.7	1.7	1.3	.81
3	.53	2.9	2.1	9.1	3.4	2.4	5.2	2.4	1.7	3.1	1.3	1.2
4	.59	2.0	2.1	3.3	3.4	2.3	4.3	17	6.7	1.6	1.4	12
5	46	1.6	2.6	2.7	3.4	2.4	3.8	21	2.4	1.6	1.3	1.7
6	3.2	1.6	2.4	2.2	3.4	8.9	4.0	10	1.7	2.0	1.4	35
7	1.1	5.3	2.2	e2.1	3.7	13	3.6	6.4	1.7	1.6	1.4	2.9
8	.86	1.9	2.2	e2.1	17	6.6	3.3	9.8	2.1	1.5	1.0	1.6
9	.80	1.4	4.8	e2.1	13	3.2	8.0	15	6.8	12	1.8	1.4
10	.78	1.4	2.0	e2.1	6.6	2.9	4.3	4.4	2.0	1.9	1.0	1.3
11	.76	30	1.8	e2.1	6.0	2.8	3.4	18	1.8	1.4	.89	20
12	.68	12	1.8	e2.0	4.2	2.7	3.1	5.8	1.9	7.5	12	2.1
13	.68	3.3	1.7	e2.0	3.6	2.5	3.1	3.6	1.6	36	15	3.0
14	78	45	1.8	3.5	3.7	2.4	3.0	3.2	2.0	2.1	1.5	1.2
15	6.8	10	1.8	6.7	3.4	4.3	29	3.1	2.1	2.0	1.1	.97
16	1.8	3.9	16	5.0	3.9	2.3	26	9.3	1.4	1.9	14	7.4
17	1.1	2.8	2.8	9.6	4.8	2.5	5.2	3.4	1.9	1.4	2.3	16
18	1.1	2.5	4.4	23	3.8	2.2	4.1	3.1	19	5.4	1.4	1.9
19	2.2	2.3	22	107	3.7	32	3.8	3.1	7.7	17	1.1	1.5
20	1.2	2.0	6.3	9.5	13	6.5	3.5	2.9	29	3.2	1.0	1.3
21	74	2.0	3.2	6.4	8.9	3.8	3.3	14	4.7	2.2	1.6	1.4
22	2.5	1.8	2.8	5.9	5.9	3.2	3.2	4.1	2.1	2.3	1.5	20
23	1.4	4.1	2.5	4.5	5.6	2.9	4.1	2.7	1.5	2.0	1.1	1.8
24	1.8	3.7	2.4	12	3.7	3.0	2.9	2.2	18	1.9	1.0	1.5
25	1.0	2.0	2.1	5.5	3.5	2.9	5.0	2.2	3.4	1.3	1.0	1.4
26	.92	2.0	1.9	4.4	3.2	2.8	2.8	2.4	2.1	14	.86	1.1
27	21	1.9	1.9	21	3.0	2.7	3.0	6.7	1.8	1.5	18	1.1
28	23	4.5	2.1	5.9	2.8	25	2.4	6.7	1.7	1.3	2.1	13
29	2.8	21	1.9	4.7	2.4	19	3.2	10	1.5	1.7	1.2	4.1
30	1.9	3.5	1.8	4.4	---	5.6	10	2.9	5.2	2.6	.97	2.0
31	1.7	---	3.0	4.1	---	4.4	---	2.2	---	2.7	.89	---
TOTAL	281.44	188.2	111.4	301.0	150.4	183.1	196.6	202.4	139.1	140.7	93.91	161.57
MEAN	9.08	6.27	3.59	9.71	5.19	5.91	6.55	6.53	4.64	4.54	3.03	5.39
MAX	78	45	22	107	17	32	29	21	29	36	18	35
MIN	.53	1.4	1.7	2.0	2.4	2.2	2.4	2.2	1.4	1.3	.86	.81
CFSM	2.77	1.91	1.10	2.96	1.58	1.80	2.00	1.99	1.41	1.38	.92	1.64
IN.	3.19	2.13	1.26	3.41	1.71	2.08	2.23	2.30	1.58	1.60	1.07	1.83

e Estimated

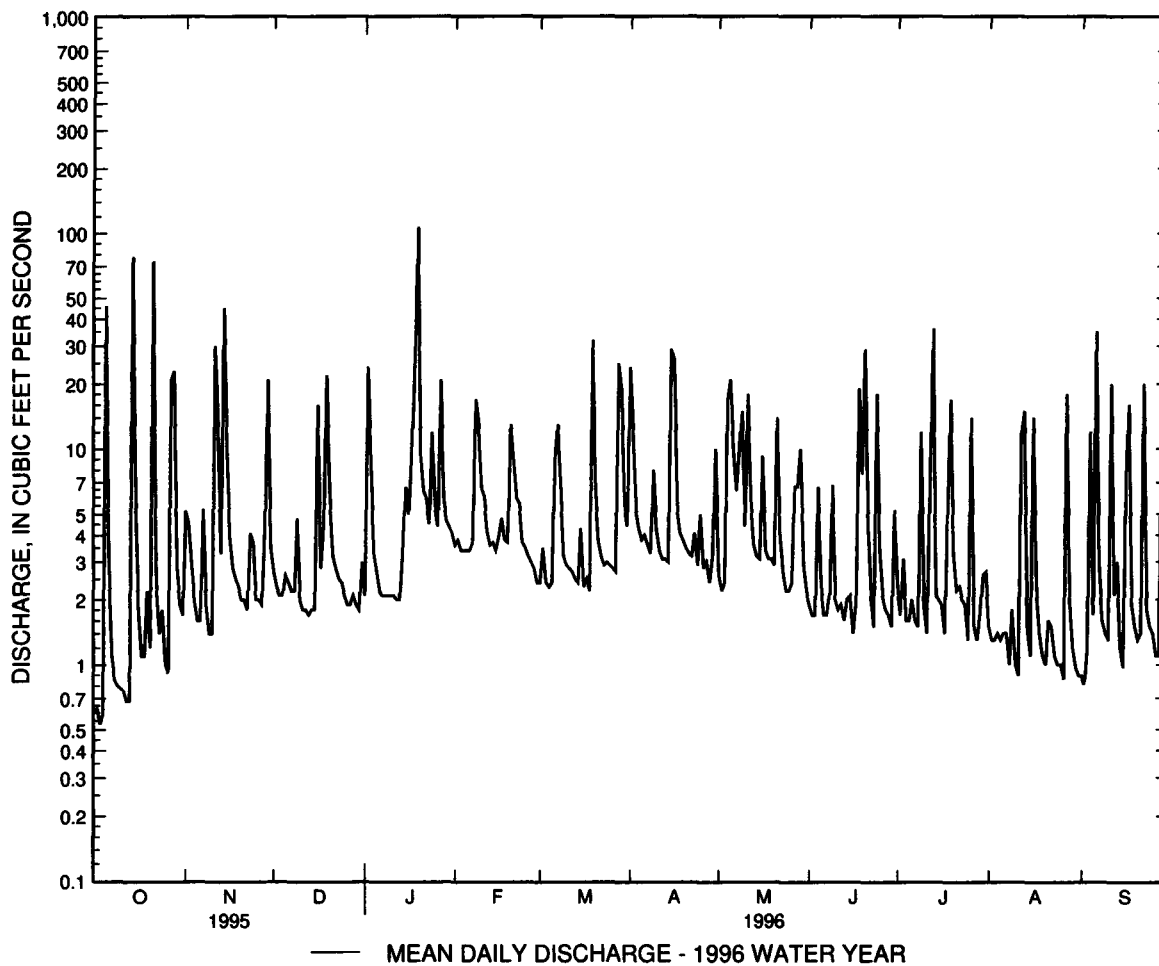
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 1996, BY WATER YEAR (WY)

	1992	1993	1994	1995	1996
MEAN	3.57	4.11	3.75	7.19	5.16
MAX	9.08	6.27	4.70	9.71	8.48
(WY)	1996	1996	1994	1996	1994
MIN	1.43	1.73	2.44	5.36	2.80
(WY)	1993	1995	1995	1995	1995

01651800 WATTS BRANCH AT WASHINGTON, D.C.--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1992 - 1996
ANNUAL TOTAL	1442.93	2149.82	
ANNUAL MEAN	3.95	5.87	4.70
HIGHEST ANNUAL MEAN			5.87 1996
LOWEST ANNUAL MEAN			2.84 1995
HIGHEST DAILY MEAN	87 Mar 8	107 Jan 19	109 Mar 17 1993
LOWEST DAILY MEAN	.45 Sep 7	.53 Oct 3	.37 Jul 23 1993
ANNUAL SEVEN-DAY MINIMUM	.54 Sep 6	.81 Oct 7	.45 Jul 30 1993
INSTANTANEOUS PEAK FLOW		1150 Jan 19	1510 Sep 26 1994
INSTANTANEOUS PEAK STAGE		6.58 Jan 19	7.36 Sep 26 1994
INSTANTANEOUS LOW FLOW		.41 Oct 3	.36 (a)
ANNUAL RUNOFF (CFSM)	1.21	1.79	1.43
ANNUAL RUNOFF (INCHES)	16.36	24.38	19.48
10 PERCENT EXCEEDS	7.6	14	10
50 PERCENT EXCEEDS	1.8	2.8	2.0
90 PERCENT EXCEEDS	.72	1.3	.81

a July 22-26, 28-31, Aug. 1, 2, 1993.



POTOMAC RIVER BASIN

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 mi².

PERIOD OF RECORD.--October 1965 to current year.

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 10 ft above sea level, from topographic map.

REMARKS.--Records good except those for estimated daily discharges (backwater, missing record, 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 450 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 21	1100	769	6.71	Jan. 19	2100	1,330	7.83
Oct. 28	0900	460	5.63	Sept. 11	1900	*1,430	*7.97

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.2	26	47	40	64	47	121	68	42	21	116	5.0
2	.71	e35	37	93	e60	55	216	44	35	12	38	4.3
3	e.28	e25	32	218	e60	55	104	41	32	17	21	4.0
4	e.26	e22	31	78	e60	44	84	42	32	12	14	4.8
5	e4.4	e18	28	53	59	48	74	248	30	7.5	11	15
6	e21	e17	27	43	59	77	67	222	26	6.3	9.8	44
7	11	e27	28	e42	61	139	66	84	23	5.5	8.2	64
8	3.9	e40	26	e41	88	134	59	148	23	5.0	7.2	16
9	2.1	e32	38	e40	241	79	73	210	26	6.5	7.2	10
10	1.6	e23	40	e39	172	61	104	110	40	16	12	7.9
11	e1.4	e26	26	e39	143	60	67	99	26	6.7	7.3	450
12	e1.3	e200	24	e40	99	58	59	158	22	12	8.0	192
13	e1.3	e100	24	e45	76	53	54	74	19	275	190	47
14	e10	e150	25	52	73	50	50	61	18	59	46	28
15	257	e250	27	62	64	52	53	55	15	26	24	18
16	27	e110	105	80	63	47	315	87	13	21	17	19
17	11	e70	73	83	63	48	113	70	11	13	18	65
18	7.0	e50	46	161	58	46	79	61	13	12	12	30
19	5.7	e45	226	918	57	130	72	51	14	109	10	18
20	4.3	e40	216	613	102	271	65	44	21	137	8.2	13
21	501	e37	83	167	193	91	60	47	48	30	7.4	11
22	176	e35	61	121	102	68	56	159	16	21	7.1	91
23	32	e33	52	103	99	58	54	53	10	20	6.4	35
24	20	e31	48	153	82	52	54	42	23	15	5.8	19
25	15	e31	44	146	64	50	49	38	75	12	5.0	15
26	12	e30	41	91	59	48	47	37	19	59	4.3	12
27	24	e27	37	191	62	44	44	45	11	22	45	12
28	325	26	34	178	61	112	40	87	8.6	12	41	13
29	66	169	33	102	51	329	40	112	7.5	11	12	77
30	31	81	32	88	---	138	58	89	12	14	7.9	25
31	24	---	33	78	---	93	---	50	---	18	6.2	---
TOTAL	1598.45	1806	1624	4198	2495	2637	2397	2736	711.1	1013.5	733.0	1365.0
MEAN	51.6	60.2	52.4	135	86.0	85.1	79.9	88.3	23.7	32.7	23.6	45.5
MAX	501	250	226	918	241	329	315	248	75	275	190	450
MIN	.26	17	24	39	51	44	40	37	7.5	5.0	4.3	4.0
CFSM	1.31	1.52	1.33	3.43	2.18	2.15	2.02	2.23	.60	.83	.60	1.15
IN.	1.51	1.70	1.53	3.95	2.35	2.48	2.26	2.58	.67	.95	.69	1.29

e Estimated

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

MEAN	28.3	32.7	50.6	64.0	68.6	81.7	67.1	49.6	31.5	19.4	20.1	28.3
MAX	177	95.8	153	217	188	268	218	189	173	92.7	88.8	256
(WY)	1980	1973	1973	1978	1972	1994	1983	1989	1972	1975	1971	1975
MIN	1.31	1.27	5.26	5.96	23.6	17.5	18.1	11.1	1.42	.14	.006	.000
(WY)	1987	1992	1966	1981	1977	1981	1985	1986	1986	1966	1966	1977

01653600 PISCATAWAY CREEK AT PISCATAWAY, MD--Continued

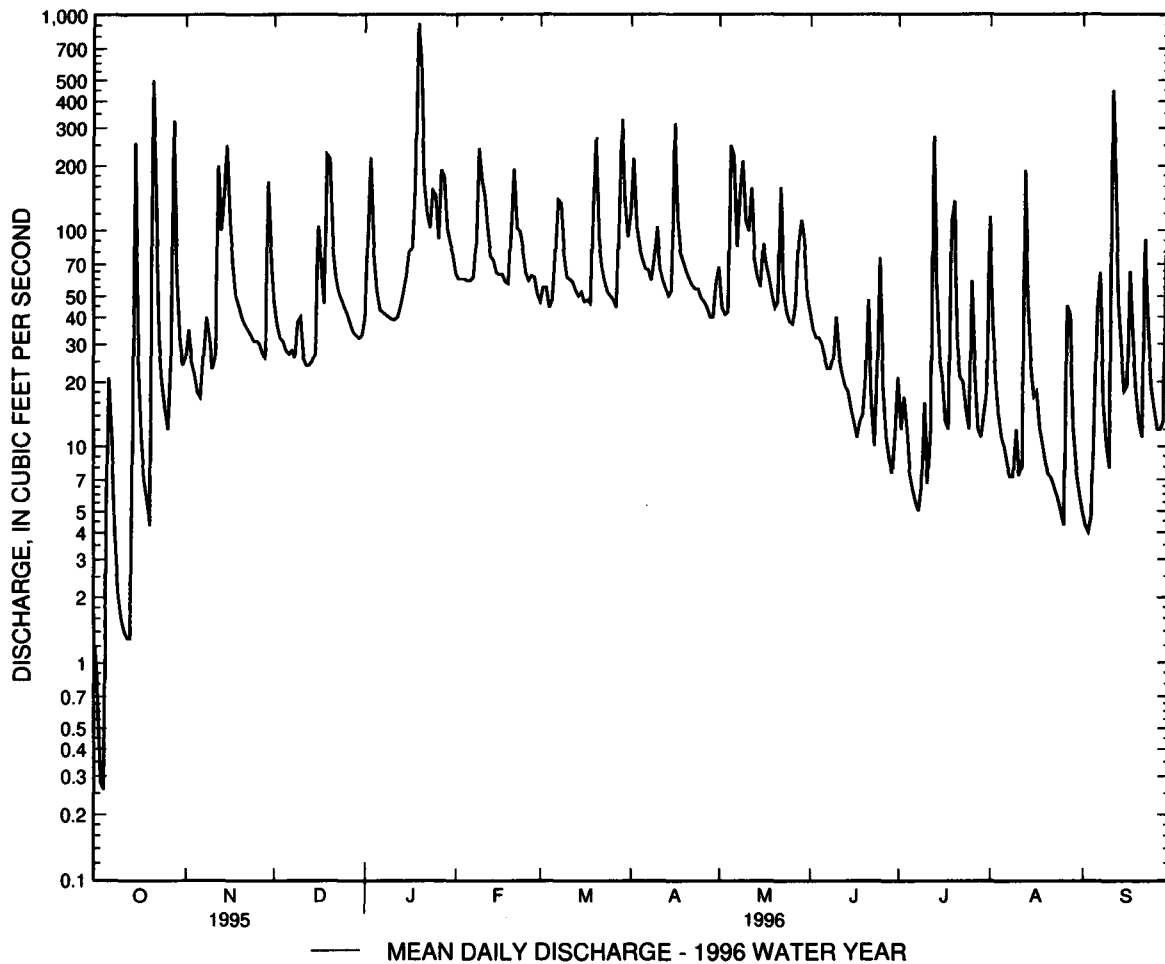
SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1966 - 1996	
ANNUAL TOTAL	12720.62		23314.05			
ANNUAL MEAN	34.9		63.7		45.1	
HIGHEST ANNUAL MEAN					85.9	
LOWEST ANNUAL MEAN					13.4	
HIGHEST DAILY MEAN	677	Mar 9	918	Jan 19	4500	Sep 6 1979
LOWEST DAILY MEAN	.00	(a)	.26	Oct 4	.00	(b)
ANNUAL SEVEN-DAY MINIMUM	.00	Aug 20	3.1	Oct 8	.00	Jul 9 1966
INSTANTANEOUS PEAK FLOW			1430	Sep 11	(c) 8540	Sep 6 1979
INSTANTANEOUS PEAK STAGE			7.97	Sep 11	11.21	Sep 6 1979
INSTANTANEOUS LOW FLOW			.28	Oct 3	.00	(d)
ANNUAL RUNOFF (CFSM)	.88		1.61		1.14	
ANNUAL RUNOFF (INCHES)	11.98		21.96		15.50	
10 PERCENT EXCEEDS	71		144		89	
50 PERCENT EXCEEDS	20		43		24	
90 PERCENT EXCEEDS	.56		7.9		1.6	

a Aug. 20 to Sept. 16.

b Many days.

c From rating curve extended above 1,700 ft³/s on basis of contracted-opening measurement of peak flow at bridge 100 ft upstream.

d No flow at times in 1966, 1970, 1977, 1980-83, 1985-89, 1991-1995.



POTOMAC RIVER BASIN

01660920 ZEKIAH SWAMP RUN NEAR NEWTOWN, MD

LOCATION.--Lat 38°29'26", long 76°55'37", Charles County, Hydrologic Unit 02070011, on left-center downstream side of bridge on Maryland Route 6, 1.0 mi southeast of Newtown, and 1.7 mi downstream from Kerrick Swamp.

DRAINAGE AREA.--79.9 mi².

PERIOD OF RECORD.--June 1983 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 34.88 ft above sea level.

REMARKS.--Records good except those for estimated daily discharges (missing/doubtful record, ice effect), which are fair. Low flow affected by ground-water diversions from municipal well fields at Waldorf and St. Charles, and occasional farm irrigation upstream from station during summer months. Several measurements of water temperature were made during the year.

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

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 20	UNKNOWN	*2,170	*4.77	No other peak greater than base discharge			

DISCHARGE IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	47	122	76	e140	104	223	115	83	18	76	18
2	.00	61	89	103	e130	104	338	103	62	19	65	13
3	e.00	68	72	271	e128	116	306	79	50	20	44	9.6
4	e.00	74	65	285	e125	102	202	70	47	17	32	9.4
5	e5.0	67	62	164	e122	94	160	174	57	12	23	11
6	e75	52	57	e95	e120	111	138	239	47	8.0	17	40
7	e40	49	55	e85	e140	178	128	161	37	5.6	12	98
8	e20	76	57	e82	198	254	122	153	31	7.8	9.4	66
9	e10	76	68	e80	349	200	128	206	31	19	44	51
10	e8.0	55	e110	e78	524	141	185	225	65	12	149	32
11	e6.0	48	e115	e77	434	122	168	166	62	6.5	65	35
12	e5.0	197	e60	e76	312	115	134	225	50	7.3	39	77
13	e4.0	299	e54	e90	e215	108	120	264	38	374	365	104
14	e20	273	e56	e110	169	102	113	145	40	435	415	63
15	e275	503	58	119	148	99	102	104	59	147	154	39
16	e450	473	88	127	136	96	202	138	36	84	74	28
17	e100	252	147	197	144	99	268	179	23	50	74	54
18	e30	131	121	280	146	104	168	140	20	36	53	75
19	e13	101	190	1130	149	115	125	120	68	117	41	49
20	9.9	86	386	e1500	166	344	112	94	102	399	31	31
21	325	77	343	e600	308	313	105	73	118	228	26	22
22	473	70	191	e390	291	170	99	104	71	80	23	44
23	215	65	125	e300	215	126	91	121	37	65	21	67
24	56	63	101	237	181	108	84	80	31	50	17	46
25	29	67	89	309	145	101	77	57	172	37	13	31
26	20	64	81	276	123	97	74	51	99	35	10	23
27	18	57	73	242	121	90	76	66	43	30	15	18
28	297	55	77	314	127	123	72	154	25	22	69	17
29	432	102	72	269	120	392	68	224	18	18	87	50
30	174	159	71	193	---	434	75	191	17	33	41	66
31	64	---	67	164	---	278	---	128	---	66	25	---
TOTAL	3173.90	3767	3322	8319	5626	4940	4263	4349	1639	2458.2	2129.4	1287.0
MEAN	102	126	107	268	194	159	142	140	54.6	79.3	68.7	42.9
MAX	473	503	386	1500	524	434	338	264	172	435	415	104
MIN	.00	47	54	76	120	90	68	51	17	5.6	9.4	9.4
CFSM	1.28	1.57	1.34	3.36	2.43	1.99	1.78	1.76	.68	.99	.86	.54
IN.	1.48	1.75	1.55	3.87	2.62	2.30	1.98	2.02	.76	1.14	.99	.60

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 1996, BY WATER YEAR (WY)

	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
MEAN	43.1	75.3	101	135	137	184	135	111	63.8	33.6	32.2	32.5		
MAX	163	139	226	268	261	491	277	334	311	93.5	113	127		
(WY)	1990	1986	1984	1996	1994	1994	1993	1989	1989	1989	1990	1992		
MIN	7.93	7.35	38.1	49.1	57.6	57.0	30.5	25.5	2.07	4.47	.39	.000		
(WY)	1992	1992	1995	1985	1992	1985	1985	1986	1986	1987	1995	1995		

01660920 ZEKIAH SWAMP RUN NEAR NEWTOWN, MD--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1983 - 1996	
ANNUAL TOTAL	23051.39		45273.50			
ANNUAL MEAN	63.2		124		90.5	
HIGHEST ANNUAL MEAN					137	
LOWEST ANNUAL MEAN					43.5	
HIGHEST DAILY MEAN	503	Nov 15	(e) 1500	Jan 20	2570	Mar 29 1994
LOWEST DAILY MEAN	.00	(a)	.00	(b)	.00	(c)
ANNUAL SEVEN-DAY MINIMUM	.00	Aug 19	9.5	Jul 6	.00	Jul 20 1987
INSTANTANEOUS PEAK FLOW			2170	Jan 20	3380	Mar 29 1994
INSTANTANEOUS PEAK STAGE			4.77	Jan 20	5.26	Mar 29 1994
INSTANTANEOUS LOW FLOW			.00	(d)	.00	(f)
ANNUAL RUNOFF (CFSM)	.79		1.55		1.13	
ANNUAL RUNOFF (INCHES)	10.73		21.08		15.38	
10 PERCENT EXCEEDS	141		279		200	
50 PERCENT EXCEEDS	45		85		50	
90 PERCENT EXCEEDS	.00		18		2.0	

e Estimated.

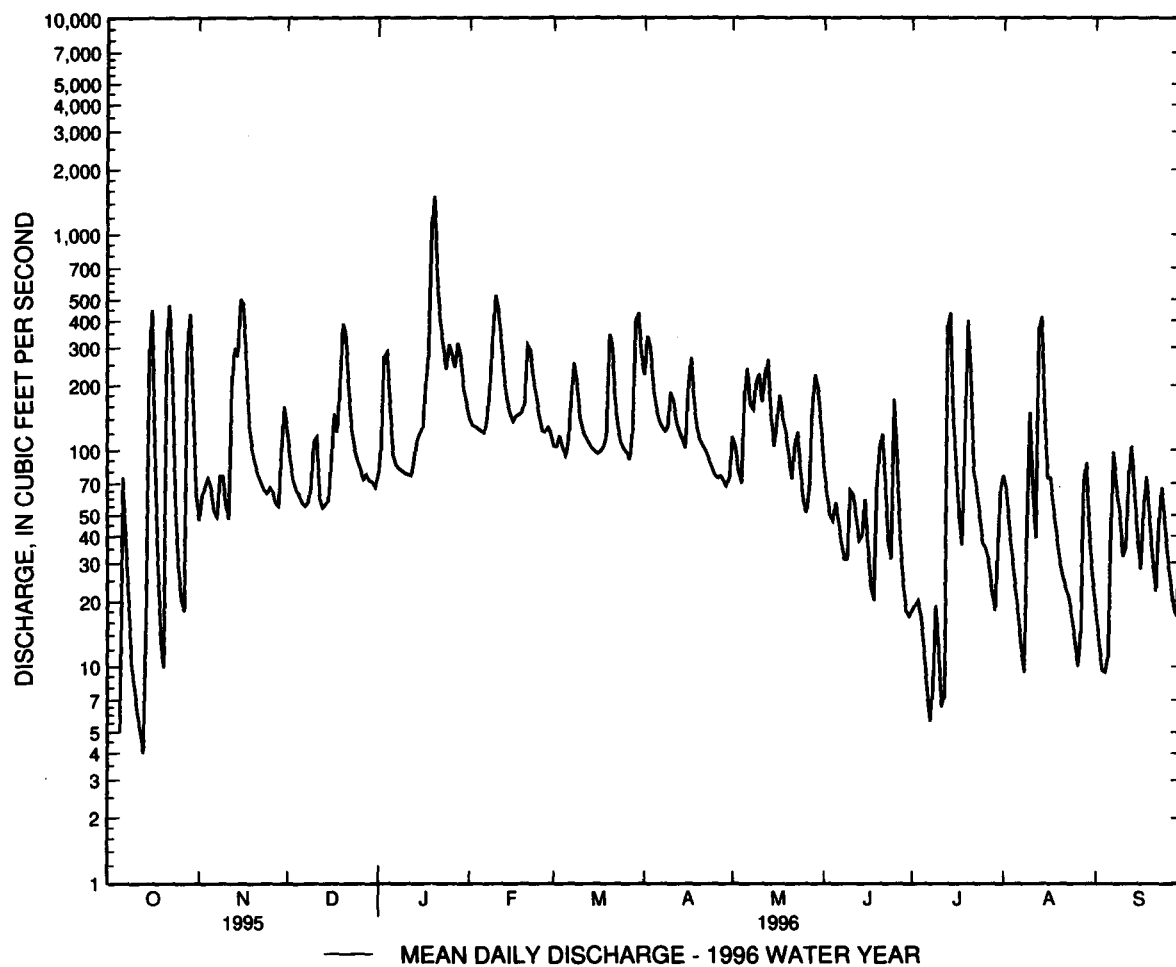
a Aug. 19-31, Sept. 1-30.

b Oct. 1-4.

c Many days.

d Oct. 1-5.

f No flow at times in 1983, 1985-89, 1991, 1993, 1995-96.



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 mi².

PERIOD OF RECORD.--October 1968 to current year.

REVISED RECORDS. - -WDR MD-DE-79-1: 1974 (P) .

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Elevation of gage is 8 ft above sea level, from topographic map.

REMARKS.--Records good except those for estimated daily discharges (missing record and backwater from beaverdam), which are fair. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 220 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 19	1730	*569	*4.99	July 13	1200	500	4.86

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e.30	7.2	10	15	19	19	86	25	12	9.8	25	e7.4
2	e.30	7.8	8.6	26	e18	22	84	17	10	9.1	17	e6.5
3	e.30	7.6	7.8	53	e18	23	42	17	10	12	12	e6.2
4	.67	7.3	7.7	27	e17	18	35	18	14	12	10	e6.2
5	21	5.9	7.4	17	e17	19	31	65	41	8.0	9.0	e8.0
6	21	5.5	7.4	13	e17	26	28	34	19	5.7	7.9	e15
7	7.7	8.9	7.7	e12	e20	42	28	25	12	5.0	7.2	e33
8	3.7	15	8.3	e11	e28	44	27	35	8.9	18	6.6	e25
9	2.1	10	16	e11	e70	28	35	38	27	39	7.7	e20
10	1.5	7.3	16	e11	e50	23	44	30	55	22	11	e15
11	1.2	8.5	10	e11	e42	23	32	33	33	11	8.5	e12
12	1.1	62	8.2	e12	e38	23	28	45	17	24	12	e20
13	.99	27	8.1	e15	e30	22	27	22	12	321	98	e30
14	2.3	45	8.5	e17	e28	20	25	17	9.5	64	32	e21
15	32	74	8.9	20	e25	20	23	16	8.2	25	17	e14
16	15	29	27	22	e25	21	49	62	7.0	26	20	e12
17	4.9	17	27	26	e24	28	34	40	6.4	19	34	e30
18	2.8	13	16	66	e23	25	25	30	7.7	13	19	e23
19	2.0	12	58	347	e22	44	23	22	13	40	14	e15
20	1.7	11	58	145	e40	61	23	17	13	59	11	e12
21	31	10	25	43	55	32	22	13	14	18	9.3	e11
22	23	9.1	17	32	35	25	21	12	8.6	13	13	e25
23	8.5	8.6	14	29	55	22	20	10	6.2	14	11	e23
24	5.2	8.5	14	38	35	19	18	9.5	29	11	8.7	e16
25	3.6	8.5	13	37	27	20	16	9.6	74	19	7.6	e11
26	2.8	8.5	11	25	25	20	17	11	16	42	7.1	e9.7
27	6.7	8.1	11	40	29	17	17	18	8.3	17	7.4	e9.0
28	125	8.0	9.9	44	27	53	15	43	6.6	11	11	e30
29	33	12	9.7	28	22	103	15	33	5.8	10	10	e50
30	11	12	9.6	25	---	49	20	26	7.7	19	7.7	e25
31	8.0	---	11	24	---	35	---	16	---	19	7.6	---
TOTAL	380.36	474.3	471.8	1242	881	946	910	809.1	511.9	935.6	479.3	541.0
MEAN	12.3	15.8	15.2	40.1	30.4	30.5	30.3	26.1	17.1	30.2	15.5	18.0
MAX	125	74	58	347	70	103	86	65	74	321	98	50
MIN	.30	5.5	7.4	11	17	17	15	9.5	5.8	5.0	6.6	6.2
CFSM	.66	.85	.82	2.17	1.64	1.65	1.64	1.41	.92	1.63	.84	.97
IN.	.76	.95	.95	2.50	1.77	1.90	1.83	1.63	1.03	1.88	.96	1.00

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1969 - 1996, BY WATER YEAR (WY)

MEAN	9.99	14.8	20.3	26.7	28.9	33.8	26.5	22.2	16.2	11.9	11.2	12.1
MAX	46.8	45.3	40.3	77.4	85.8	115	54.7	57.9	116	56.4	45.0	75.2
(WY)	1980	1980	1973	1978	1979	1994	1983	1978	1972	1975	1985	1979
MIN	.73	3.23	5.01	5.30	11.9	10.1	9.05	4.39	1.32	.50	.036	.000
(WY)	1989	1982	1989	1981	1991	1981	1985	1991	1988	1988	1988	1988

01661050 ST. CLEMENT CREEK NEAR CLEMENTS, MD--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1969 - 1996	
ANNUAL TOTAL	4407.88		8582.36			
ANNUAL MEAN	12.1		23.4		19.5	
HIGHEST ANNUAL MEAN					34.5	
LOWEST ANNUAL MEAN					9.19	
HIGHEST DAILY MEAN	130	Mar 9	347	Jan 19	1580	Jun 22 1972
LOWEST DAILY MEAN	.00	(a)	.30	(b)	.00	(c)
ANNUAL SEVEN-DAY MINIMUM	.00	Aug 18	1.8	Oct 8	.00	Aug 31 1980
INSTANTANEOUS PEAK FLOW			569	Jan 19	(d) 4500	Sep 6 1979
INSTANTANEOUS PEAK STAGE			4.99	Jan 19	(f) 6.96	Sep 6 1979
INSTANTANEOUS LOW FLOW			.25	Oct 3	.00	(g)
ANNUAL RUNOFF (CFSM)	.65		1.27		1.05	
ANNUAL RUNOFF (INCHES)	8.86		17.26		14.33	
10 PERCENT EXCEEDS	25		43		37	
50 PERCENT EXCEEDS	9.6		17		11	
90 PERCENT EXCEEDS	.30		7.3		1.3	

a Aug. 18 to Sept. 16.

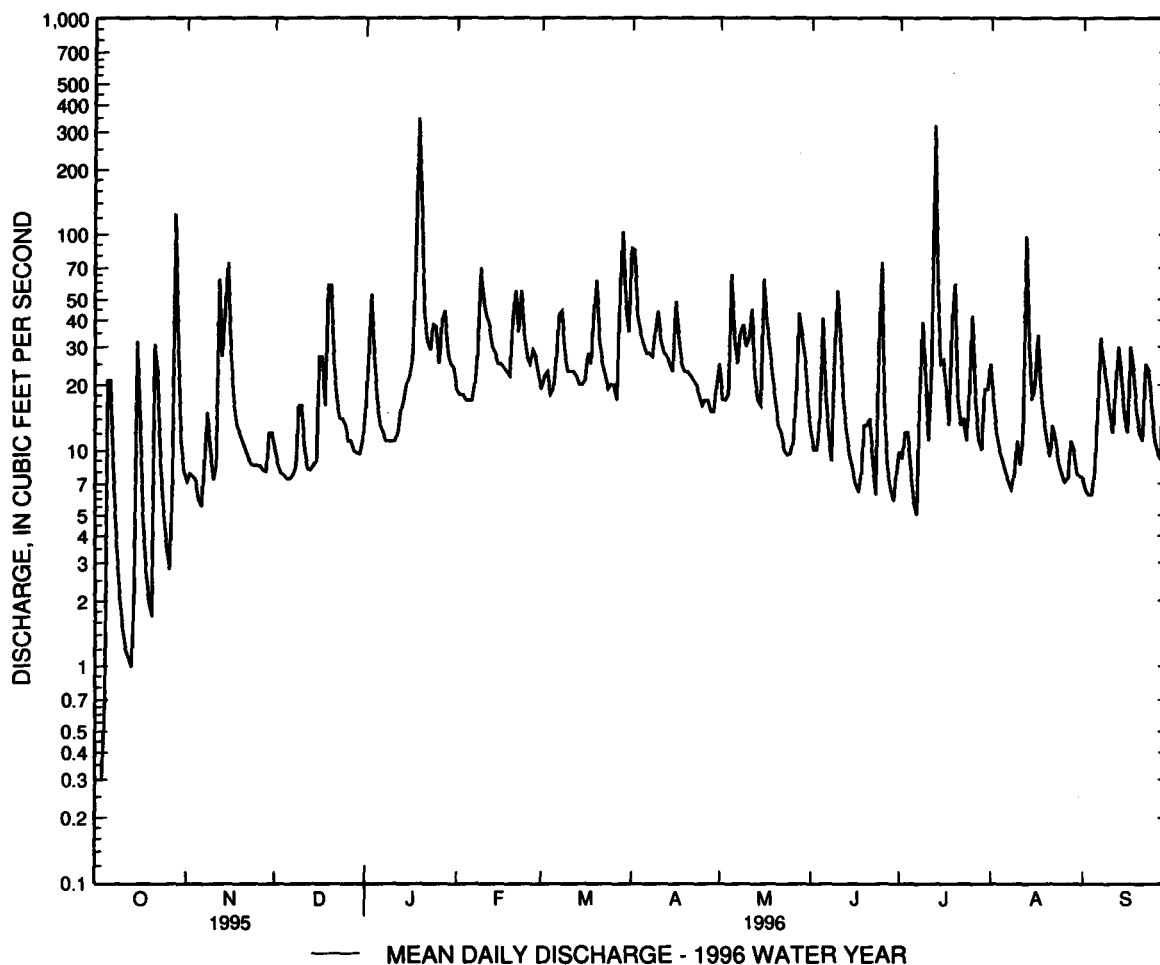
b Oct. 1-3.

c Many days

d From rating curve extended above 480 ft³/s on basis of contracted-opening and flow-over-road measurement of peak flow.

f Backwater from tide; maximum gage height unaffected by backwater, 6.55 ft, June 22, 1972.

g No flow at times in 1977, 1980, 1981, 1983, 1985-89, 1991, 1993, 1995.



POTOMAC RIVER BASIN

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 mi².

PERIOD OF RECORD.--June 1946 to current year.

REVISED RECORDS.--WSP 1702: 1946, 1948-49, 1955, 1957-58. WDR MD-DE-83-1: 1981-82(M).

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 10 ft above sea level, from topographic map.

REMARKS.--Records good except those for estimated daily discharges (missing record), which are fair. Occasional regulation by reservoir on Western Branch of St. Marys River, 2.0 mi upstream since 1975, total capacity, 3,200 acre feet. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 400 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 19	1630	608	5.79	July 13	0830	*1,230	*8.61
Apr. 1	2200	734	6.58	July 16	0200	651	6.07

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.7	6.2	6.5	9.8	12	13	289	21	15	9.9	19	5.1
2	1.6	6.8	6.5	16	e11	14	310	15	13	10	15	4.7
3	1.6	6.6	5.9	47	e11	14	128	14	11	12	13	4.6
4	2.0	7.1	6.4	27	e11	12	73	20	13	12	12	4.7
5	41	5.9	5.6	19	e11	12	50	137	51	8.1	10	6.0
6	16	4.8	5.5	16	e11	15	40	58	21	6.6	8.7	6.7
7	6.8	9.4	7.3	e13	12	27	36	42	15	6.1	7.6	9.1
8	4.0	18	8.8	e11	27	33	29	53	13	5.8	7.0	106
9	2.8	9.2	18	e10	120	22	41	55	12	16	6.6	80
10	2.3	6.7	16	e10	72	18	47	44	14	11	7.6	25
11	2.2	7.1	11	e10	57	17	35	39	14	7.2	6.5	31
12	1.9	60	9.2	e10	41	17	27	52	12	41	7.6	22
13	1.8	22	8.1	e11	24	16	24	32	10	709	75	26
14	3.1	72	7.7	e12	19	16	22	25	12	208	34	16
15	37	100	7.5	e15	16	16	20	20	9.6	176	21	12
16	13	33	21	e19	15	16	41	81	12	349	20	11
17	6.7	20	21	27	15	18	30	58	11	117	33	25
18	4.9	15	15	77	15	17	24	64	8.7	60	20	16
19	4.1	13	41	452	15	36	23	51	9.4	57	15	12
20	3.6	10	61	246	22	50	18	36	68	61	12	9.3
21	21	9.1	32	105	62	30	18	27	20	39	10	8.1
22	14	8.0	22	59	34	24	17	23	14	30	8.8	14
23	8.3	7.0	17	44	57	20	16	18	9.6	26	8.3	12
24	6.1	6.9	15	107	32	17	15	15	14	21	7.6	9.8
25	4.9	6.5	12	155	22	16	14	13	54	18	6.9	8.7
26	4.1	6.5	11	137	18	15	14	12	25	26	6.5	7.4
27	3.8	6.5	9.5	135	20	14	14	15	13	22	6.4	6.9
28	35	6.2	8.6	129	17	41	12	37	9.6	16	7.4	13
29	16	7.1	8.0	103	14	109	12	30	7.6	14	6.5	47
30	9.0	7.1	7.6	59	---	64	17	25	8.6	18	6.2	22
31	6.6	---	7.9	14	---	45	---	18	---	17	5.7	---
TOTAL	286.9	503.7	439.6	2104.8	813	794	1456	1150	520.1	2129.7	430.9	581.1
MEAN	9.25	16.8	14.2	67.9	28.0	25.6	48.5	37.1	17.3	68.7	13.9	19.4
MAX	41	100	61	452	120	109	310	137	68	709	75	106
MIN	1.6	4.8	5.5	9.8	11	12	12	12	7.6	5.8	5.7	4.6
CFSM	.39	.70	.59	2.83	1.17	1.07	2.02	1.55	.72	2.86	.58	.81
IN.	.44	.78	.68	3.26	1.26	1.23	2.26	1.78	.81	3.30	.67	.90

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1946 - 1996, BY WATER YEAR (WY)

	MEAN	18.3	27.7	34.2	34.9	44.7	32.4	25.7	15.1	14.7	17.5	13.4
MAX	39.9	84.4	68.7	125	114	166	95.9	97.4	68.4	68.7	118	112
(WY)	1980	1957	1949	1978	1979	1994	1983	1990	1972	1996	1955	1979
MIN	2.58	4.29	5.27	6.45	9.31	8.52	6.82	5.36	2.68	1.48	1.29	2.02
(WY)	1969	1982	1966	1955	1968	1981	1985	1985	1986	1985	1995	1988

01661500 ST. MARYS RIVER AT GREAT MILLS, MD--Continued

SUMMARY STATISTICS

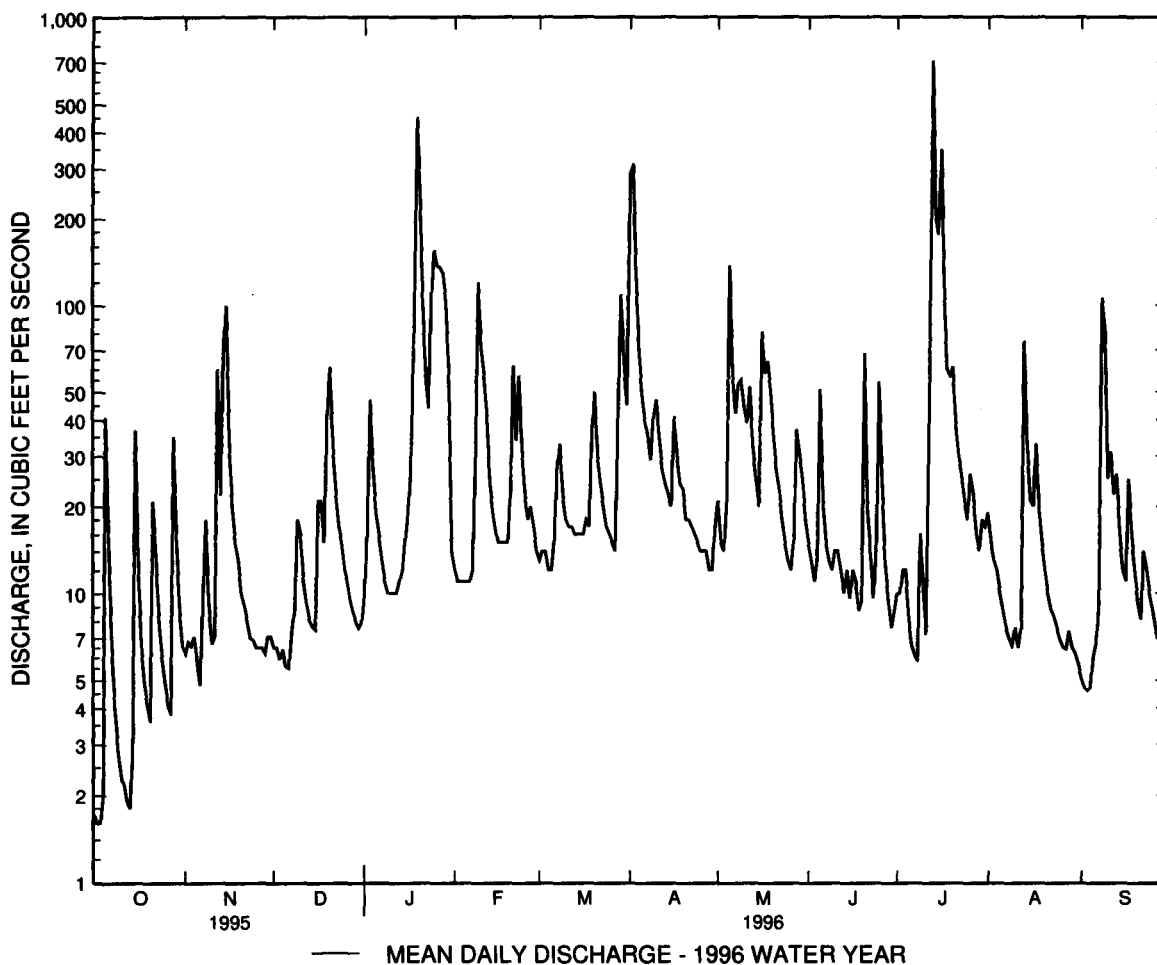
FOR 1995 CALENDAR YEAR

FOR 1996 WATER YEAR

WATER YEARS 1946 - 1996

ANNUAL TOTAL	4223.41	11209.8		
ANNUAL MEAN	11.6	30.6	24.1	
HIGHEST ANNUAL MEAN			49.1	1958
LOWEST ANNUAL MEAN			11.1	1966
HIGHEST DAILY MEAN	259 Mar 9	709 Jul 13	2260 Aug 13	1955
LOWEST DAILY MEAN	.57 Sep 16	1.6 Oct 2	.30 Sep 7	1966
ANNUAL SEVEN-DAY MINIMUM	.65 Sep 10	2.6 Oct 8	.39 Sep 3	1966
INSTANTANEOUS PEAK FLOW		1230 Jul 13	(a) 7950 Aug 20	1969
INSTANTANEOUS PEAK STAGE		8.61 Jul 13	13.34 Aug 20	1969
INSTANTANEOUS LOW FLOW		1.5 Oct 3	.20 Sep 7	1966
ANNUAL RUNOFF (CFSM)	.48	1.28	1.00	
ANNUAL RUNOFF (INCHES)	6.55	17.38	13.65	
10 PERCENT EXCEEDS	21	60	47	
50 PERCENT EXCEEDS	7.3	15	12	
90 PERCENT EXCEEDS	1.6	6.5	3.2	

a From rating curve extended above 1,500 ft³/s on basis of contracted-opening measurement at gage height 12.08 ft.



MONONGAHELA RIVER BASIN

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 mi².

PERIOD OF RECORD---August 1941 to current year.

REVISED RECORDS---WSP 1113: 1947(M).

GAGE---Water-stage recorder and concrete control. Datum of gage is 2,353.61 ft above sea level. Prior to Aug. 1, 1946, nonrecording gage at bridge 200 ft upstream at same datum.

REMARKS---Records good except those for estimated daily discharges (ice effect), which are fair. Town of Oakland diverted an average of 0.4 ft³/s for water supply. The diversion is returned upstream from station as sewage. U.S. Army Corps of Engineers satellite telemeter at station. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

EXTREMES OUTSIDE PERIOD OF RECORD---Flood in March 1936 reached a stage of 15.3 ft, from floodmarks.

PEAK DISCHARGES FOR CURRENT YEAR---Peak discharges greater than base discharge of 2,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 19	1515	*14,100	*13.06	May 9	1030	2,890	6.16
Jan. 24	1800	3,240	6.49	May 29	1630	2,970	6.24
Feb. 9	0630	2,720	6.00	July 19	2345	6,900	9.27
Feb. 27	1915	2,530	5.81	July 31	1700	4,180	7.29
Mar. 7	1700	2,110	5.38	Aug. 13	0445	2,350	5.63
May 6	0645	2,180	5.45	Sept. 7	0515	2,880	6.15

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
MEAN DAILY VALUES

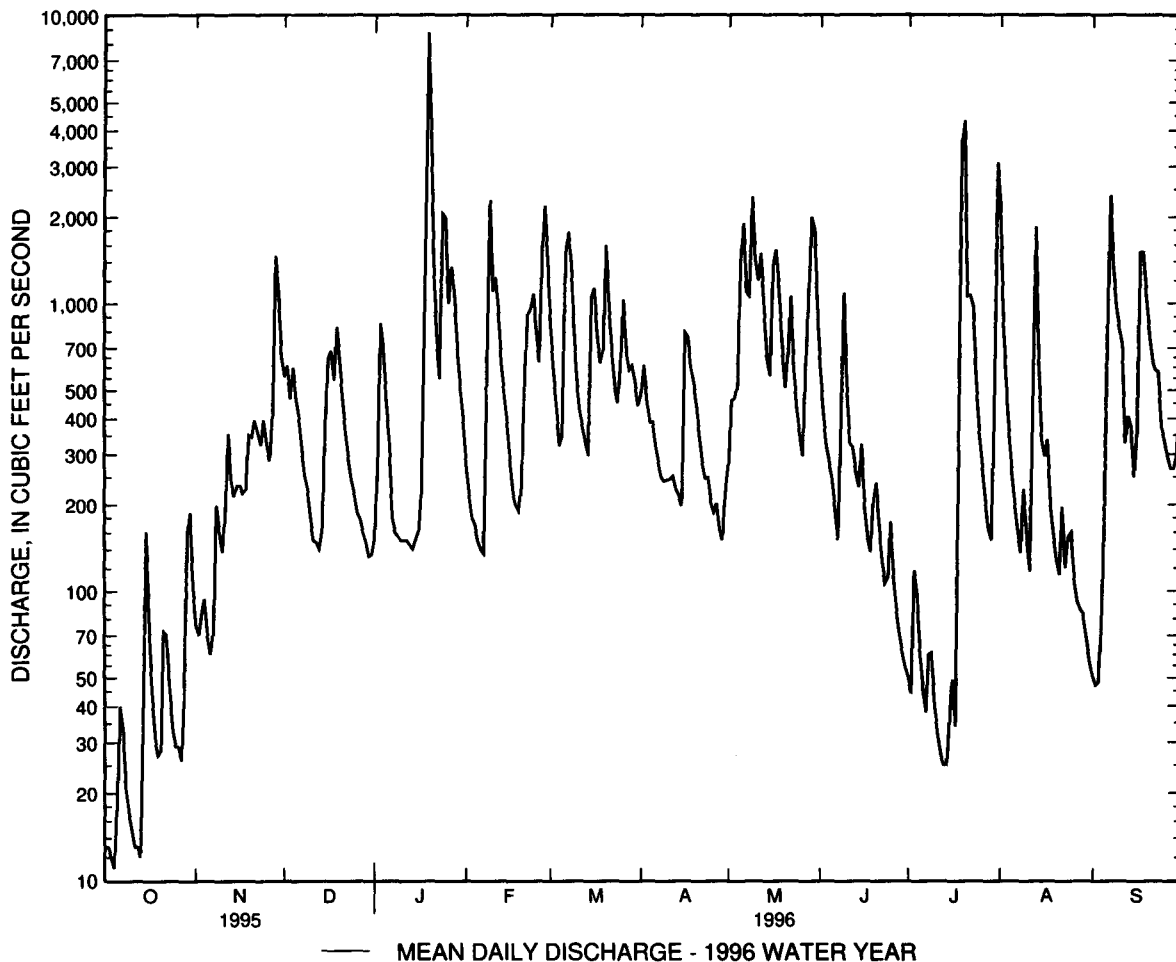
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	76	556	151	e280	824	483	278	604	50	2150	51
2	13	70	605	262	e220	579	607	461	422	44	903	47
3	12	83	467	851	e180	435	463	467	322	118	552	48
4	11	94	597	677	e170	321	388	515	281	98	371	71
5	19	70	467	449	e150	348	389	1400	247	62	265	157
6	40	60	398	e330	e140	1460	322	1900	191	46	203	741
7	33	72	310	e180	e135	1770	282	1100	151	38	163	2380
8	21	199	251	e160	620	1400	249	1060	386	60	136	1340
9	17	162	225	e155	2290	826	241	2350	1090	61	226	970
10	15	137	e180	e150	1100	e550	244	1430	526	40	157	819
11	13	184	e150	e150	1230	427	245	1200	328	32	117	726
12	13	354	148	e150	912	375	251	1490	318	27	430	327
13	12	240	140	e145	613	333	226	968	261	25	1850	407
14	41	214	160	e140	485	297	215	655	230	25	649	373
15	161	233	377	e150	384	1050	198	560	325	36	339	249
16	79	233	637	e160	291	1130	791	1360	198	49	294	351
17	44	219	685	e220	e220	759	761	1540	154	34	337	1510
18	31	226	542	e1000	e200	619	600	1100	137	216	201	1510
19	27	350	827	8740	e190	693	531	730	208	3630	158	1070
20	28	344	629	4140	234	1590	442	509	238	4310	129	807
21	72	394	449	1370	560	983	345	656	171	1060	114	643
22	70	358	348	782	914	682	282	1060	128	1070	196	590
23	46	323	283	548	963	517	247	594	106	975	120	579
24	33	395	240	2050	1080	451	249	435	111	539	154	372
25	29	324	216	1990	792	611	204	353	174	360	160	337
26	29	285	187	1000	622	1030	188	296	113	276	109	296
27	26	409	177	1340	1550	689	202	574	86	206	92	267
28	44	1460	161	1090	2190	587	162	1050	70	164	86	267
29	157	1090	149	711	1320	607	150	2000	61	150	83	294
30	187	658	132	517	---	531	230	1800	54	410	69	416
31	104	---	134	401	---	441	---	955	---	3090	58	---
TOTAL	1440	9316	10827	30159	20035	22915	10187	30846	7691	17301	10871	18015
MEAN	46.5	311	349	973	691	739	340	995	256	558	351	600
MAX	187	1460	827	8740	2290	1770	791	2350	1090	4310	2150	2380
MIN	11	60	132	140	135	297	150	278	54	25	58	47
CFSM	.35	2.32	2.61	7.26	5.16	5.52	2.53	7.43	1.91	4.16	2.62	4.48
IN.	.40	2.59	3.01	8.37	5.56	6.36	2.83	8.56	2.14	4.80	3.02	5.00
e Estimated												

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1941 - 1996, BY WATER YEAR (WY)

MEAN	113	239	409	434	498	607	451	337	201	164	134	89.3
MAX	608	1152	1027	973	1100	1477	879	995	730	629	586	600
(WY)	1955	1986	1973	1996	1986	1963	1973	1996	1981	1978	1956	1996
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 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1941 - 1996	
ANNUAL TOTAL	83226.0		189603			
ANNUAL MEAN	228		518		306	
HIGHEST ANNUAL MEAN					518	
LOWEST ANNUAL MEAN					193	
HIGHEST DAILY MEAN	1530	Feb 16	8740	Jan 19	8740	Jan 19 1996
LOWEST DAILY MEAN	9.5	Sep 11	11	Oct 4	2.5	Oct 4 1953
ANNUAL SEVEN-DAY MINIMUM	11	Sep 7	18	Oct 7	2.7	Oct 2 1953
INSTANTANEOUS PEAK FLOW			(a) 14100	Jan 19	(a) 14100	Jan 19 1996
INSTANTANEOUS PEAK STAGE			13.06	Jan 19	13.06	Jan 19 1996
INSTANTANEOUS LOW FLOW			8.7	Oct 4	UNKNOWN	
ANNUAL RUNOFF (CFSM)	1.70		3.87		2.28	
ANNUAL RUNOFF (INCHES)	23.10		52.64		31.00	
10 PERCENT EXCEEDS	599		1110		723	
50 PERCENT EXCEEDS	137		295		165	
90 PERCENT EXCEEDS	18		49		24	

a From rating curve extended above 7,000 ft³/s.

MONONGAHELA RIVER BASIN

03076000 DEEP CREEK RESERVOIR NEAR OAKLAND, MD

LOCATION.--Lat 39°30'34", long 79°23'28", Garrett County, Hydrologic Unit 05020006, on Deep Creek at dam, 1.8 mi upstream from mouth and 7.0 mi north of Oakland.

DRAINAGE AREA.--64.7 mi².

PERIOD OF RECORD.--July 1925 to current year. Prior to October 1950, monthend contents published in WSP 1305, and October 1950 to September 1955, monthend contents published in WSP 1385.

GAGE.--Water-stage recorder at right end of spillway. Datum of gage is at sea level, unadjusted.

REMARKS.--Reservoir is formed by an earthfill dam completed January 1925, with storage beginning at that time. Usable capacity, 92,975 acre-ft between elevations 2,425 ft, top of intake to outlet tunnel, and 2,462 ft, crest of spillway. Dead storage, 13,085 acre-ft. Figures given herein represent usable contents. Reservoir is used for hydroelectric power.

COOPERATION.--Elevations and capacity table furnished by Pennsylvania Electric Co.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 93,800 acre-ft, July 14, 1990, elevation, 2,462.25 ft; minimum observed, 11,763 acre-ft, Sept. 30, 1925, elevation, 2,433.45 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 90,400 acre-ft, May 31, elevation, 2,461.3 ft; minimum, 71,100 acre-ft, Feb. 8, elevation, 2,456.0 ft.

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	2456.9	74300	
Oct. 31	2456.5	72900	-1400
Nov. 30	2456.9	74300	+1400
Dec. 31	2456.7	73600	-700
CAL YR 1995			-300
Jan. 31	2456.7	73600	0
Feb. 29	2457.8	77500	+3900
Mar. 31	2459.2	82600	+5100
Apr. 30	2460.0	85500	+2900
May 31	2461.3	90400	+4900
June 30	2460.7	88100	-2300
July 31	2460.3	86700	-1400
Aug. 31	2459.0	81900	-4800
Sept. 30	2458.7	80800	-1100
WTR YR 1996			+6500

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MONONGAHELA RIVER BASIN

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 mi².

PERIOD OF RECORD.--August 1898 to December 1904 and October 1940 to current year. Annual maximum, water years 1905, 1923-31, 1940, published in WSP 1675. October, November 1940 monthly discharge only, published in WSP 1305. September 1922 to September 1926 (gage heights only) in reports of Pennsylvania Department of Forests and Waters.

REVISED RECORDS.--WSP 1385: Drainage area at former site, 1898-1905, 1941(M), 1942, 1944-45, 1948-49, 1951(M).

GAGE.--Water-stage recorder. Datum of gage is 1,487.33 ft above sea level. Aug. 17, 1898, to Dec. 31, 1904, and Sept. 1, 1922, to Sept. 30, 1926, nonrecording gages at bridge 0.7 mi downstream at datum 16.24 ft and 16.29 ft lower, respectively.

REMARKS.--Records good except those for estimated daily discharges (ice effect), which are fair. Low and medium flow regulated since July 1925 by Deep Creek Reservoir, 12 mi upstream from station (see station 03076000). U.S. Army Corps of Engineers satellite 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 16,100 ft³/s, Jan. 19, gage height, 9.54 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	48	158	1310	279	1130	1760	1010	630	1480	195	3800	134
2	116	150	1230	572	793	1120	1320	917	1230	152	1750	192
3	46	237	926	1440	630	982	1070	966	1080	158	1240	201
4	61	184	1170	1410	663	899	951	932	1060	314	938	201
5	54	157	1040	974	466	879	951	1970	681	242	829	257
6	136	195	922	783	379	2680	718	2750	583	200	708	1390
7	77	140	779	534	267	3150	612	1840	508	154	667	4890
8	65	347	661	421	580	2870	696	2030	500	187	594	2520
9	120	314	462	487	2950	1520	704	3550	1730	230	635	1630
10	54	301	347	e430	1910	1010	673	2790	1280	127	628	1350
11	51	294	410	e320	2010	1190	662	2320	1050	90	529	1170
12	53	566	487	e320	1640	1140	677	2980	1220	150	573	489
13	121	654	437	e150	1210	898	495	1910	1190	125	2320	623
14	66	479	453	193	1030	789	468	1240	684	218	1280	559
15	205	417	821	490	869	1730	508	1140	737	246	816	359
16	254	495	1040	544	866	1890	1270	2580	465	234	585	530
17	110	466	1280	758	488	1240	1360	2840	493	265	638	2930
18	79	389	1090	2230	408	1280	1150	2370	368	135	513	2950
19	140	528	1500	11200	529	1170	1040	1580	290	5010	359	1860
20	133	697	1260	7110	698	2670	906	1410	426	6560	239	1320
21	91	747	978	3190	1050	1770	723	1250	392	2340	219	1030
22	144	685	804	2180	1550	1310	773	1830	267	1850	276	932
23	173	532	640	1770	1670	956	678	1450	227	1910	293	916
24	127	699	484	3320	1860	819	571	981	279	1240	256	559
25	108	555	386	3960	1520	1350	483	817	413	959	297	503
26	72	493	441	2530	1430	2050	508	950	277	842	287	437
27	127	769	482	2810	2460	1560	456	1380	209	709	181	390
28	67	2250	404	2750	3980	1230	397	2460	243	613	364	390
29	147	2200	401	2060	3040	1270	444	3060	199	589	386	431
30	438	1590	263	1730	---	977	445	3360	186	855	256	637
31	238	---	271	1530	---	820	---	2260	---	3670	225	---
TOTAL	3721	17688	23179	58475	38076	44979	22719	58543	19747	30569	22681	31780
MEAN	120	590	748	1886	1313	1451	757	1888	658	986	732	1059
MAX	438	2250	1500	11200	3980	3150	1360	3550	1730	6560	3800	4890
MIN	46	140	263	150	267	789	397	630	186	90	181	134
(†)	-22.8	+23.5	-11.4	0	+67.6	+83.2	+48.8	+79.7	-38.7	-22.8	-78.1	-18.5
MEAN*	97.2	614	737	1886	1380	1530	806	1960	619	905	654	1040
CFSM*	0.33	2.08	2.50	6.39	4.68	5.19	2.73	6.64	2.10	3.07	2.22	3.53
IN*	0.38	2.32	2.88	7.37	5.05	5.98	3.05	7.66	2.34	3.54	2.56	3.94

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1898 - 1905, 1941 - 1996, BY WATER YEAR (WY)

	MEAN	279	497	854	888	994	1224	946	700	478	373	303	245
MAX	1103	2190	2147	1886	2277	2644	2231	1888	1823	1335	1319	1059	
(WY)	1955	1986	1903	1996	1903	1963	1901	1996	1903	1990	1956	1996	
MIN	50.2	55.7	145	140	337	285	327	176	84.2	64.6	51.0	49.8	
(WY)	1992	1905	1944	1981	1954	1990	1995	1982	1969	1991	1991	1991	

† Change in contents in Deep Creek Reservoir, equivalent in cubic feet per second, provided by Pennsylvania Electric Co.

* Adjusted for change in reservoir contents.

MONONGAHELA RIVER BASIN

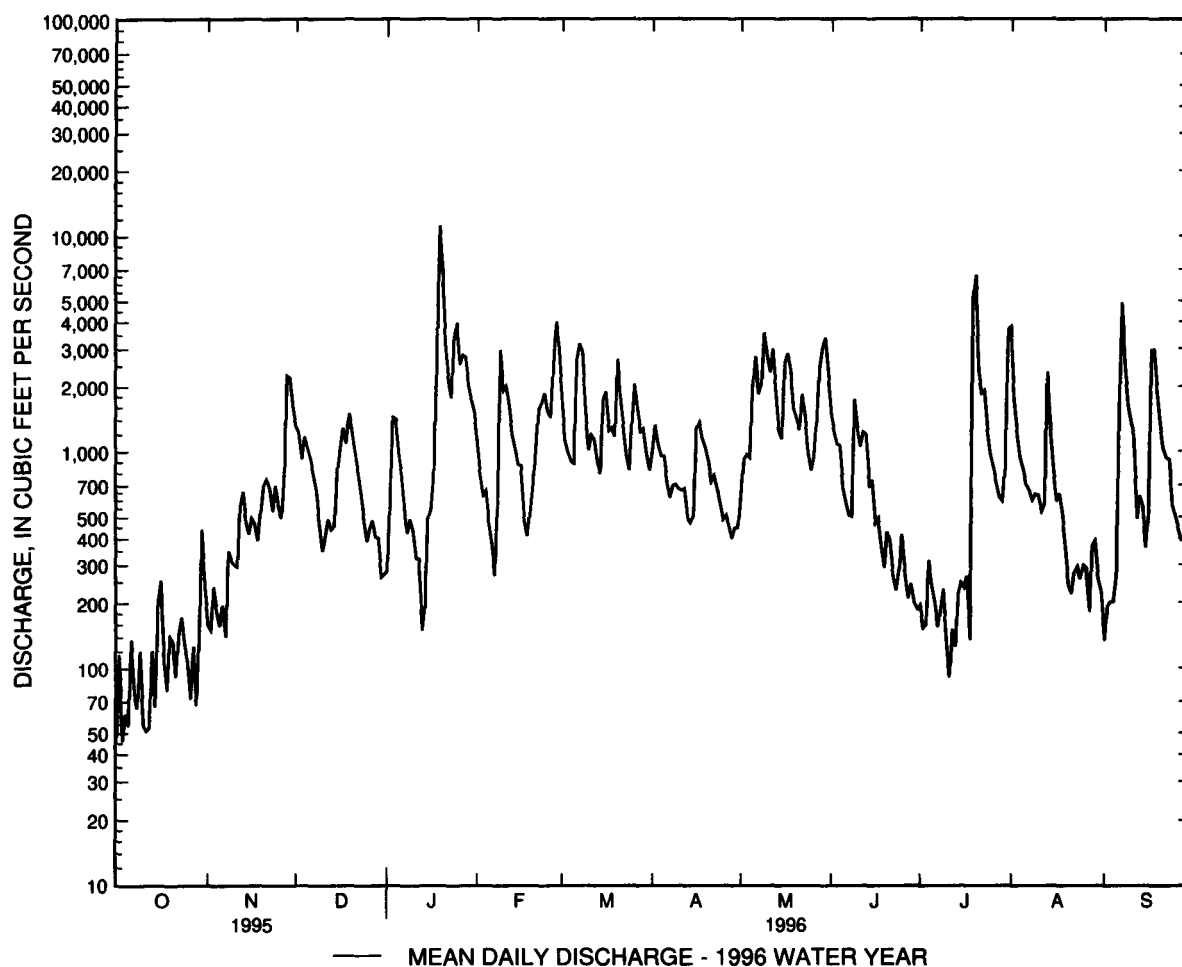
03076500 YOUGHIOGHENY RIVER AT FRIENDSVILLE, MD--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1898 - 1905 1941 - 1996	
ANNUAL TOTAL	170790		372157			
ANNUAL MEAN	468		1017		645	
ANNUAL MEAN*	468		1026		649	
HIGHEST ANNUAL MEAN					1052	
LOWEST ANNUAL MEAN					375	
HIGHEST DAILY MEAN	2650	Feb 24	11200	Jan 19	11200	Jan 19 1996
LOWEST DAILY MEAN	46	Oct 3	46	Oct 3	8.2	Sep 11 1966
ANNUAL SEVEN-DAY MINIMUM	63	Sep 10	76	Oct 8	29	Sep 21 1972
INSTANTANEOUS PEAK FLOW			(a) 16100	Jan 19	(a) 16100	Jan 19 1996
INSTANTANEOUS PEAK STAGE			9.54	Jan 19	(b) 14.20	Mar 29 1924
INSTANTANEOUS LOW FLOW			41	Oct 3	UNKNOWN	
ANNUAL RUNOFF (CFSM)	1.59		3.45		2.19	
ANNUAL RUNOFF (CFSM)*	1.59		3.48		2.20	
ANNUAL RUNOFF (INCHES)	21.54		46.93		29.71	
ANNUAL RUNOFF (INCHES)*	21.54		47.23		29.88	
10 PERCENT EXCEEDS	1160		2320		1430	
50 PERCENT EXCEEDS	307		679		409	
90 PERCENT EXCEEDS	81		153		106	

* Adjusted for change in reservoir contents since October 1940.

a From rating curve extended above 5,800 ft³/s on basis of slope-area measurement of peak flow.

b From floodmarks, site and datum then in use.



MONONGAHELA RIVER BASIN

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 mi².

PERIOD OF RECORD.--October 1964 to current year.

REVISED RECORDS.--WDR MD-DE-94-1: 1993

GAGE.--Water-stage recorder. Datum of gage is 1,551.34 ft above sea level.

REMARKS.--Records good except those for estimated daily discharges (ice effect), which are fair. U.S. Army Corps of Engineers satellite telemeter at station. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 660 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 19	0645	*4,310	*8.82	May 9	0430	633	3.74
Jan. 27	1200	687	3.82	July 19	1030	1,640	5.11
Feb. 28	0345	759	3.92	July 19	1530	1,460	4.88
Mar. 19	2245	812	3.99	Sept. 6	1745	1,710	5.21
May 5	2200	744	3.90	Sept. 17	0545	737	3.89

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.7	8.5	123	42	e140	273	188	97	124	25	307	15
2	3.7	13	134	82	e120	193	304	190	101	27	182	14
3	2.9	13	106	e215	e100	145	244	174	88	45	131	14
4	4.8	10	110	e170	e90	115	190	152	77	34	100	17
5	9.3	8.8	89	e135	e85	120	179	288	69	25	81	15
6	11	8.2	79	e100	e80	373	136	555	61	21	72	468
7	7.0	10	e62	e85	e75	481	125	338	56	19	63	600
8	5.0	14	e53	e70	187	375	114	334	55	43	57	235
9	4.4	12	e42	e65	302	234	107	570	57	34	76	129
10	4.2	11	e40	e60	199	180	106	420	53	23	59	91
11	3.8	19	e46	e60	298	142	103	369	50	19	52	71
12	3.7	31	e55	e60	260	127	101	404	50	17	67	63
13	3.7	24	e60	e60	180	121	98	287	46	17	72	94
14	6.8	24	70	e60	147	117	96	199	54	15	56	69
15	14	26	80	e60	117	173	88	168	70	19	50	60
16	7.7	31	159	61	e100	179	152	236	53	20	51	168
17	5.7	32	167	168	e95	161	190	256	48	15	46	578
18	5.0	34	127	791	e90	142	203	237	43	66	41	482
19	4.7	50	127	e2400	e85	252	198	187	49	876	36	292
20	5.4	52	e110	e900	106	611	164	143	50	461	31	169
21	26	65	e95	e350	241	374	132	126	42	195	37	116
22	13	61	e85	e230	363	245	111	109	37	139	50	98
23	8.4	56	e80	e165	366	172	104	86	33	106	36	84
24	6.9	56	e70	e420	415	154	99	77	54	79	31	69
25	6.4	52	e65	e480	304	180	83	70	61	67	26	64
26	6.0	49	e60	e307	268	230	79	65	47	64	23	58
27	5.7	115	e55	557	503	196	74	84	40	57	22	54
28	6.4	345	e50	411	680	179	67	109	35	51	22	62
29	16	230	e48	271	449	157	66	196	31	48	22	67
30	17	138	e46	187	---	134	91	225	28	78	18	60
31	10	---	e44	161	---	122	---	168	---	368	16	---
TOTAL	238.3	1598.5	2537	9183	6445	6657	3992	6919	1662	3073	1933	4376
MEAN	7.69	53.3	81.8	296	222	215	133	223	55.4	99.1	62.4	146
MAX	26	345	167	2400	680	611	304	570	124	876	307	600
MIN	2.9	8.2	40	42	75	115	66	65	28	15	16	14
CFSM	.16	1.09	1.67	6.06	4.54	4.39	2.72	4.56	1.13	2.03	1.28	2.98
IN.	.18	1.22	1.93	6.99	4.90	5.06	3.04	5.26	1.26	2.34	1.47	3.33

e Estimated

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

MEAN	34.7	70.1	122	117	152	192	154	104	50.9	52.1	32.7	34.0
MAX	187	341	293	296	387	413	293	223	153	274	117	256
(WY)	1980	1986	1991	1996	1986	1994	1984	1996	1981	1990	1980	1971
MIN	4.05	12.0	23.2	19.1	39.8	45.5	59.4	23.5	10.6	6.35	4.32	2.98
(WY)	1992	1992	1966	1977	1993	1990	1995	1982	1991	1965	1966	1991

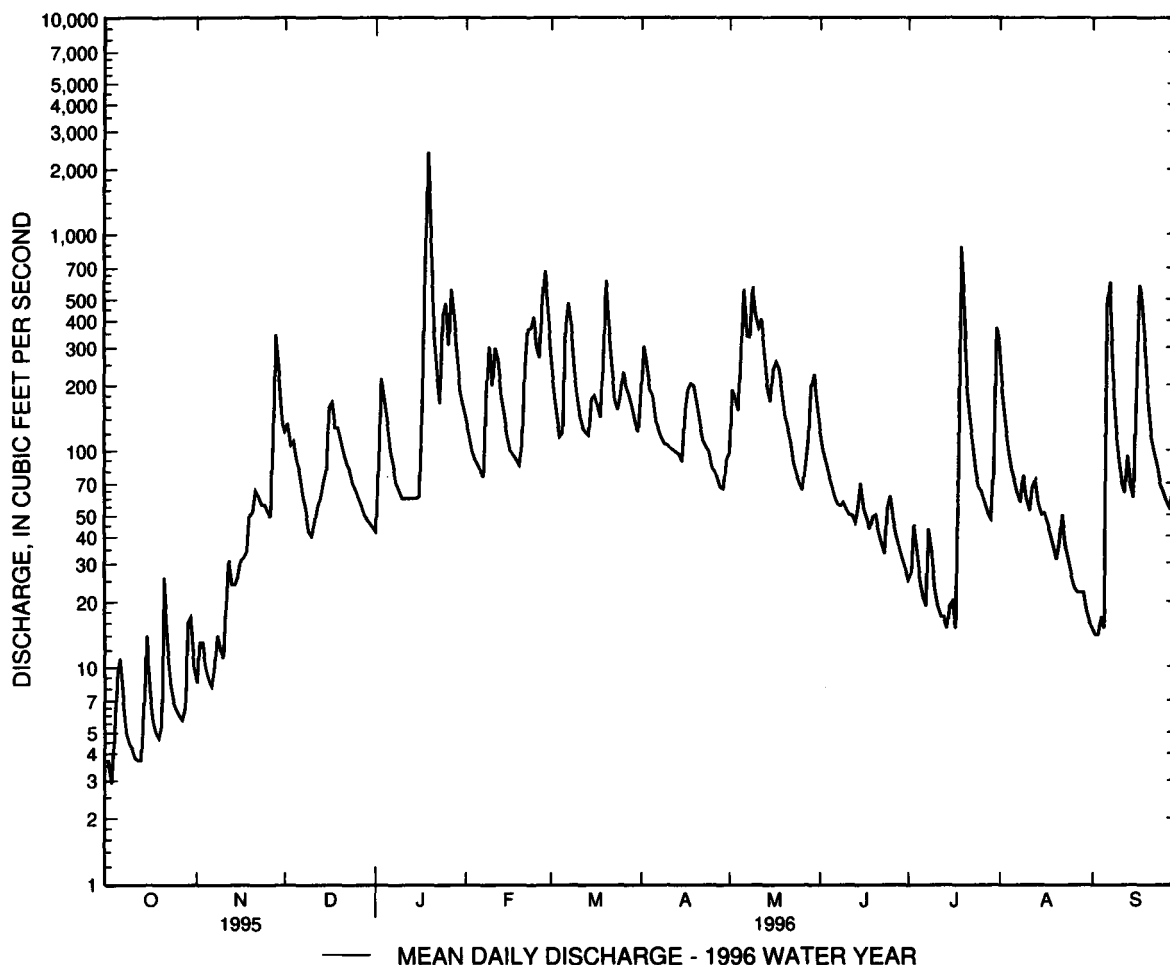
03076600 BEAR CREEK AT FRIENDSVILLE, MD--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1965 - 1996	
ANNUAL TOTAL	22280.3		48613.8			
ANNUAL MEAN	61.0		133		92.8	
HIGHEST ANNUAL MEAN					133	
LOWEST ANNUAL MEAN					53.4	
HIGHEST DAILY MEAN	345	Mar 1	2400	Jan 19	3100	Sep 14 1971
LOWEST DAILY MEAN	2.9	Oct 3	2.9	Oct 3	1.6	(a)
ANNUAL SEVEN-DAY MINIMUM	3.5	Sep 6	4.5	Oct 8	2.0	Sep 7 1966
INSTANTANEOUS PEAK FLOW			4130	Jan 19	(b) 4650	Sep 14 1971
INSTANTANEOUS PEAK STAGE			8.82	Jan 19	(c) 9.60	Sep 14 1971
INSTANTANEOUS LOW FLOW			2.5	Oct 11	1.5	Sep 12 1966
ANNUAL RUNOFF (CFSM)	1.25		2.72		1.90	
ANNUAL RUNOFF (INCHES)	16.95		36.98		25.78	
10 PERCENT EXCEEDS	162		305		229	
50 PERCENT EXCEEDS	36		78		50	
90 PERCENT EXCEEDS	5.0		14		8.7	

a Sept. 12, 13, 1966.

b From rating curve extended above 2,000 ft³/s on basis of slope-area measurement of peak flow.

c From floodmarks.



MONONGAHELA RIVER BASIN

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 north-east of Grantsville.

DRAINAGE AREA.--62.5 mi².

PERIOD OF RECORD.--July 1947 to current year.

REVISED RECORDS.--WSP 1143: 1948.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 2,088.97 ft above sea level.

REMARKS.--Records good except those for estimated daily discharges (ice effect), which are fair. U.S. Army Corps of Engineers satellite telemeter at station. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

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

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 19	UNKNOWN	*6,410	(a)*9.15	July 19	1300	2,610	5.56
Jan. 24	1645	1,330	4.01	July 31	1500	1,160	3.76
Feb. 27	1800	1,160	3.76	Aug. 9	0030	1,410	4.11
Mar. 20	0100	1,160	3.76	Sept. 6	2130	4,830	7.79
May 9	0845	1,040	3.59	Sept. 17	0915	1,350	4.04

a From floodmark

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.3	28	214	e70	e180	322	322	201	166	46	397	22
2	3.0	49	237	e100	e150	254	394	390	136	38	212	20
3	3.2	52	176	393	e130	210	251	230	118	68	157	19
4	3.4	41	225	244	e120	198	205	194	119	60	123	29
5	17	31	172	e180	e105	218	200	421	122	41	103	29
6	34	27	158	e150	e95	589	169	585	92	31	88	1410
7	19	28	129	e100	e90	570	152	327	77	26	73	1750
8	12	53	114	e85	e170	e400	138	546	111	74	264	394
9	7.7	45	99	e80	532	e320	136	845	227	82	656	225
10	5.8	36	e70	e78	308	e260	135	428	143	41	221	161
11	4.8	81	e68	e78	600	e230	130	431	282	31	135	126
12	4.6	165	e67	e76	e310	e200	132	477	482	26	227	109
13	4.3	85	e66	e76	e250	e180	113	301	221	23	300	323
14	8.8	74	e75	e72	e190	167	109	235	159	20	159	188
15	26	79	e80	e76	e160	329	97	236	158	25	117	126
16	19	91	271	e85	e145	267	204	492	105	29	120	337
17	13	80	214	e100	e135	203	218	366	85	20	97	1120
18	9.8	84	151	e350	e125	181	205	288	75	187	77	556
19	7.7	119	157	e3600	e120	362	188	221	93	1720	64	308
20	17	116	131	e950	e145	773	168	180	91	608	55	213
21	161	146	e120	e450	e220	357	141	164	67	218	66	162
22	56	124	e108	e270	e330	266	123	177	69	217	85	158
23	30	111	e96	235	461	224	120	129	78	232	54	165
24	22	119	e86	831	703	209	135	113	171	144	46	125
25	18	103	e78	635	493	267	110	112	215	107	41	118
26	16	94	e72	404	486	364	104	94	103	100	35	93
27	15	215	e68	649	861	240	105	161	72	82	31	82
28	18	537	e66	e450	964	217	88	317	57	64	40	105
29	62	304	e64	e350	489	221	88	442	49	58	44	139
30	67	203	e62	e240	---	230	214	347	44	172	31	90
31	38	---	e67	e210	---	193	---	216	---	832	26	---
TOTAL	726.4	3320	3761	11667	9067	9021	4894	9666	3987	5422	4144	8702
MEAN	23.4	111	121	376	313	291	163	312	133	175	134	290
MAX	161	537	271	3600	964	773	394	845	482	1720	656	1750
MIN	3.0	27	62	70	90	167	88	94	44	20	26	19
CFSM	.37	1.77	1.94	6.02	5.00	4.66	2.61	4.99	2.13	2.80	2.14	4.64
IN.	.43	1.98	2.24	6.94	5.40	5.37	2.91	5.75	2.37	3.23	2.47	5.18

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1947 - 1996, BY WATER YEAR (WY)

	MEAN	46.1	86.8	149	164	195	264	212	137	72.1	50.5	38.3	35.6
MAX	288	449	341	376	414	582	468	312	200	175	202	290	
(WY)	1955	1986	1973	1996	1956	1963	1970	1996	1951	1996	1956	1996	
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 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1947 - 1996	
ANNUAL TOTAL	31873.4		74377.4			
ANNUAL MEAN	87.3		203		120	
HIGHEST ANNUAL MEAN					203	1996
LOWEST ANNUAL MEAN					64.2	1954
HIGHEST DAILY MEAN	537	Nov 28	(e) 3600	Jan 19	(e) 3600	Jan 19 1996
LOWEST DAILY MEAN	2.2	Sep 12	3.0	Oct 2	(a) .00	Aug 31 1962
ANNUAL SEVEN-DAY MINIMUM	2.4	Sep 7	6.9	Oct 8	.89	Aug 27 1962
INSTANTANEOUS PEAK FLOW			6410	Jan 19	(b) 8400	Oct 15 1954
INSTANTANEOUS PEAK STAGE			(c) 9.15	Jan 19	10.70	Oct 15 1954
INSTANTANEOUS LOW FLOW			2.4	(d)	(a) .00	(f)
ANNUAL RUNOFF (CFSM)	1.40		3.25		1.93	
ANNUAL RUNOFF (INCHES)	18.97		44.27		26.19	
10 PERCENT EXCEEDS	194		429		280	
50 PERCENT EXCEEDS	70		129		67	
90 PERCENT EXCEEDS	7.1		28		8.4	

e Estimated

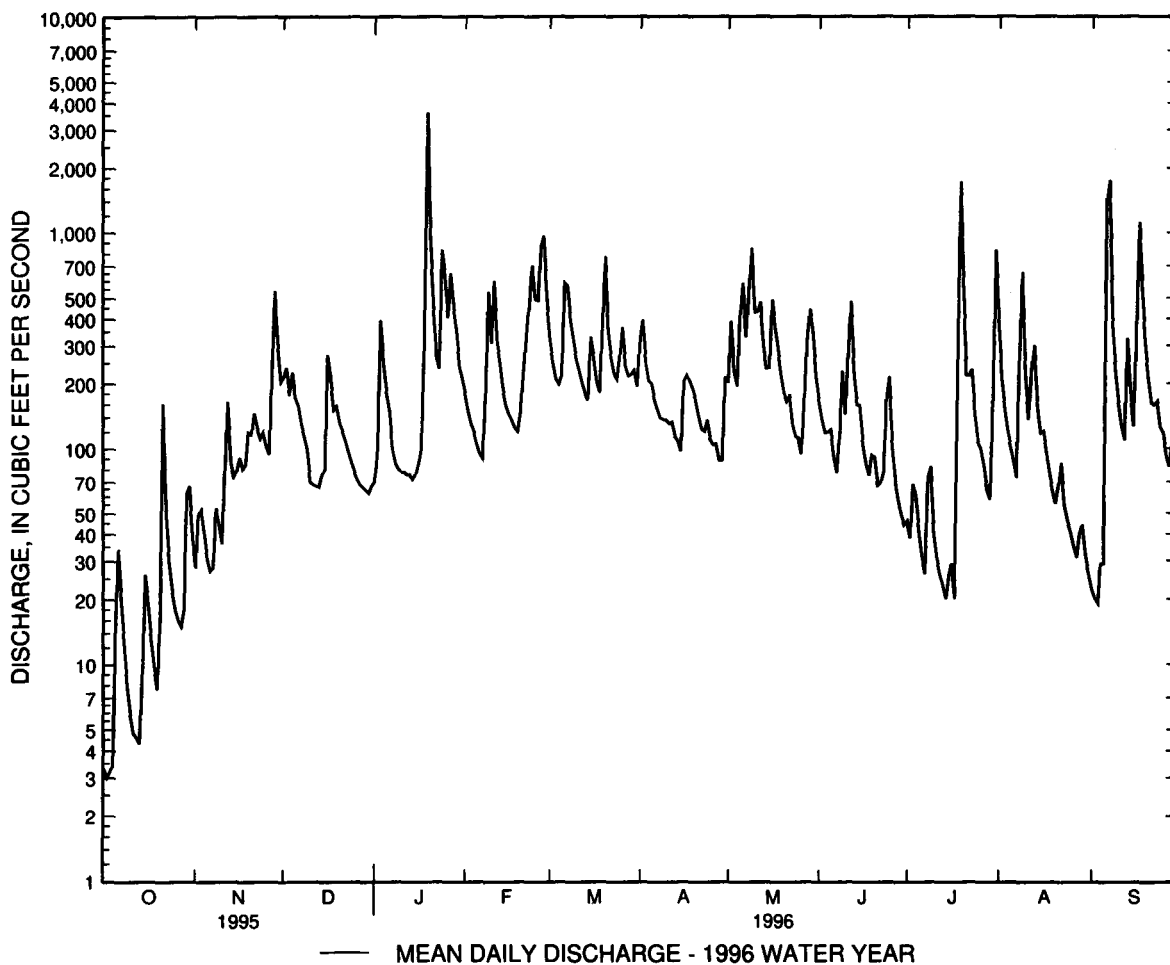
a Result of regulation from unknown source.

b From rating curve extended above 1,600 ft³/s on basis of contracted-opening measurement at gage height 8.13 ft.

c From floodmark.

d Oct. 3, 4.

f Aug. 31, Sept. 1, 1962.



DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

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 1996 maximum			Period of record maximum			
			Date	Gage height (ft)	Dis- charge (ft ³ /s)	Date	Gage height (ft)	Dis- charge (ft ³ /s)	
POTOMAC RIVER BASIN									
North Branch Potomac River at Kitzmiller, Md. (01595500)	Lat 39°23'38", long 79°10'55", Garrett County, Hydrologic Unit 02070002, on left bank 0.6 mi downstream from bridge on State Highway 38 in Kitz- miller. Drainage area is 225 mi ² .	1950-85#, 1986-96	9-6-96	13.40	36,200	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#, 1986-96	8-13-96	8.82	8,550	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 down- stream from Mill Run. Drain- age area is 596 mi ² .	1939-85#, 1986-96	9-7-96	19.91	26,200	10-16-54	23.23	37,000	
Toms Creek at Emmitsburg, Md. (01639375)	Lat 39°42'13", long 77°20'41", Frederick County, Hydrologic Unit 02070009, on upstream face of left abutment of old bridge site, 80 ft upstream from bridge on Annan- dale Rd., 8.0 mi upstream from mouth. Drainage area is 41.3 mi ² .	1986-90#, 1996	6-19-96	a10.20	4,450	5-19-88	8.36	2,910	

* Operated as a continuous-record station.

a From floodmark

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Tidal crest-stage partial-record stations

The following table contains annual maximum stages for tidal crest-stage stations. The information is obtained from a crest-stage gage or a water-stage recorder located at each site. A crest-stage gage is a device which will register the peak stage occurring between inspections of the gage. All stages are elevations above National Geodetic Vertical Datum of 1929. Only the maximum stage is given. Information on some other high stages may have been obtained but is not published herein. The years given in the period of record represent water years for which the annual maximum has been determined.

Annual maximum stage at tidal crest-stage partial-record stations during water year 1996

			Annual Maximum		
Station No.	Station Name	Location	Period of Record	Date	Elevation, in feet NGVD
DELAWARE RIVER BASIN					
01480065	Christina River at Newport, De.	Lat 39°42'38", long 75°36'33", New Castle County, Hydrologic Unit 02040205, on downstream side of bridge on James Street, at Newport and 7.5 mi upstream from the confluence with Delaware River.	1995-96	3-20-96	6.17
01481602	Delaware River below Christina River, at Wilmington, De.	Lat 39°43'00", long 75°31'03", New Castle County, Hydrologic Unit 02040205, on right bank, 1,000 ft from mouth of Christina River at the Wilmington Marine Terminal, 2.0 mi upstream of Delaware Memorial Bridge, and at river mi 69.70.	1983-91, 1995-96	1-19-96	5.74
INDIAN RIVER BASIN					
01484549	Vines Creek near Dagsboro, De.	Lat 38°33'23", long 75°12'13", Sussex County, Hydrologic Unit 02060010, on right bank at upstream side of bridge on State Highway 26, 2.4 mi east of Dagsboro and 3.8 mi up- stream from the confluence with Indian River at Indian River Bay.	1985-96	1-7-96	5.26
01484540	Indian River at Rosedale Beach, De.	Lat 38°35'29", long 75°12'44", Sussex County, Hydrologic Unit 02060010, on left bank attached to a privately owned fishing pier, at Seals Point, 1.9 mi west of Oak Orchard.	1992-96	1-7-96	5.59
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.	1985-96	1-8-96	3.70
01484683	Indian River Bay at Indian River Inlet near Bethany Beach, De.	Lat 38°36'35", long 75°04'06", Sussex County, Hydrologic Unit 02060010, 0.3 mi northwest of the Indian River Inlet, 0.2 mi west of State Highway 1, 4.9 mi north of Bethany Beach and at the Indian River Coast Guard Station.	1992-96	1-7-96	4.95

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

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 1995 TO SEPTEMBER 1996

CHESTER RIVER BASIN

01493112 CHESTER RIVER TRIBUTARY NEAR CRUMPTON, MD

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	TEMPER- ATURE AIR (DEG C) (00020)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	ALKA- LITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)
JUL 1996									
13...	1530	102	6.9	22.0	25.0	754	4.9	57	--
SEP									
11...	1300	167	7.2	20.5	24.0	760	6.5	72	31

DATE	BICAR- BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	NITRO- GEN, DIS- SOLVED (MG/L AS N) (00600)	NITRO- GEN, DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, DIS- SOLVED (MG/L AS N) (00608)
JUL 1996						
13...	--	4.3	3.7	0.060	2.50	0.110
SEP						
11...	37	--	5.6	0.030	5.30	0.050

DATE	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
JUL 1996								
13...	1.2	0.70	0.330	0.130	0.140	13	60	94
SEP								
11...	0.30	0.30	0.040	<0.010	0.020	2.9	8	--

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

PATAPSCO RIVER BASIN

01589295 SCOTTS LEVEL BRANCH AT VILLA NOVA, MD

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	TEMPER- ATURE AIR (DEG C) (00020)	OXYGEN, DIS- SOLVED (MG/L) (00300)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)
OCT 1995 19...	0830	0.87	294	7.3	11.0	12.5	13.2	--
NOV 21...	1120	2.0	322	7.5	7.0	12.0	11.8	<0.010

DATE	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)
OCT 1995 19...	--	--	--	--	--	--	--
NOV 21...	1.30	<0.015	<0.20	<0.20	<0.010	<0.010	<0.010

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

PATAPSCO RIVER BASIN--Continued

01589350 GWYNNS FALLS AT US 1 AT BALTIMORE, MD

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	TEMPER- ATURE AIR (DEG C) (00020)	OXYGEN, DIS- SOLVED (MG/L) (00300)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS NO3) (71851)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)
OCT 1995 19...	1045	31	296	7.7	13.0	20.0	13.7	--	--
NOV 21...	1430	48	315	7.7	8.5	11.5	11.7	6.6	0.010

DATE	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN,AM- MONIA + ORGANIC DIS- (MG/L AS N) (00623)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)
OCT 1995 19...	--	--	--	--	--	--	--
NOV 21...	1.50	0.020	<0.20	<0.20	<0.010	<0.010	0.010

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CONVERSION FACTORS AND VERTICAL DATUM

Multiply	By	To obtain
<i>Length</i>		
inch (in.)	2.54×10^1	millimeter
	2.54×10^{-2}	meter
foot (ft)	3.048×10^{-1}	meter
mile (mi)	1.609×10^0	kilometer
<i>Area</i>		
acre	4.047×10^3	square meter
	4.047×10^{-1}	square hectometer
	4.047×10^{-3}	square kilometer
square mile (mi ²)	2.590×10^0	square kilometer
<i>Volume</i>		
gallon (gal)	3.785×10^0	liter
	3.785×10^0	cubic decimeter
	3.785×10^{-3}	cubic meter
million gallons (Mgal)	3.785×10^3	cubic meter
	3.785×10^{-3}	cubic hectometer
cubic foot (ft ³)	2.832×10^1	cubic decimeter
	2.832×10^{-2}	cubic meter
cubic-foot-per-second day [(ft ³ /s) d]	2.447×10^3	cubic meter
	2.447×10^{-3}	cubic hectometer
acre-foot (acre-ft)	1.233×10^3	cubic meter
	1.233×10^{-3}	cubic hectometer
	1.233×10^{-6}	cubic kilometer
<i>Flow</i>		
cubic foot per second (ft ³ /s)	2.832×10^1	liter per second
	2.832×10^1	cubic decimeter per second
	2.832×10^{-2}	cubic meter per second
gallon per minute (gal/min)	6.309×10^{-2}	liter per second
	6.309×10^{-2}	cubic decimeter per second
	6.309×10^{-5}	cubic meter per second
million gallons per day (Mgal/d)	4.381×10^1	cubic decimeter per second
	4.381×10^{-2}	cubic meter per second
<i>Mass</i>		
ton (short)	9.072×10^{-1}	megagram or metric ton

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

U.S. DEPARTMENT OF THE INTERIOR
U.S. Geological Survey
8983 Yellow Brick Road
Baltimore, MD 21237

