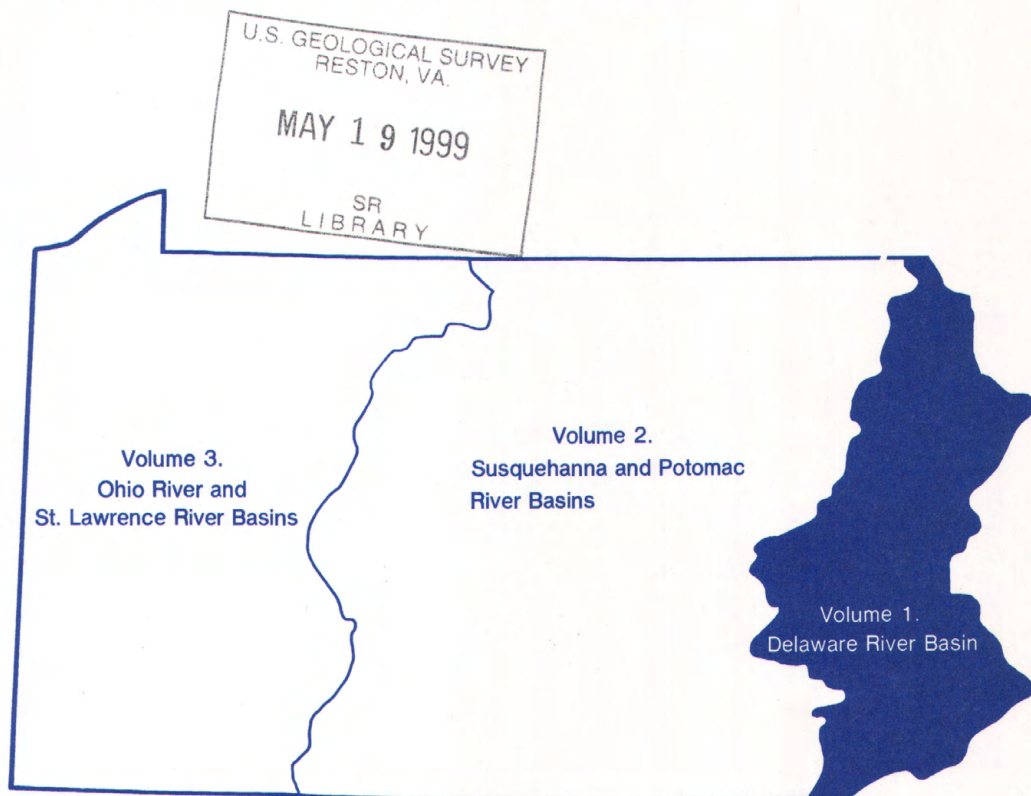


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Water Resources Data Pennsylvania Water Year 1996

Volume 1. Delaware River Basin



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT PA-96-1
Prepared in cooperation with the Pennsylvania Department of
Environmental Protection, the Philadelphia District of the U.S. Army
Corps of Engineers, the Chester County Water Resources Authority,
and with other State, municipal, and Federal agencies

CALENDAR FOR WATER YEAR 1996

1995

OCTOBER

S	M	T	W	T	F	S
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NOVEMBER

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1996

JANUARY

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SEPTEMBER

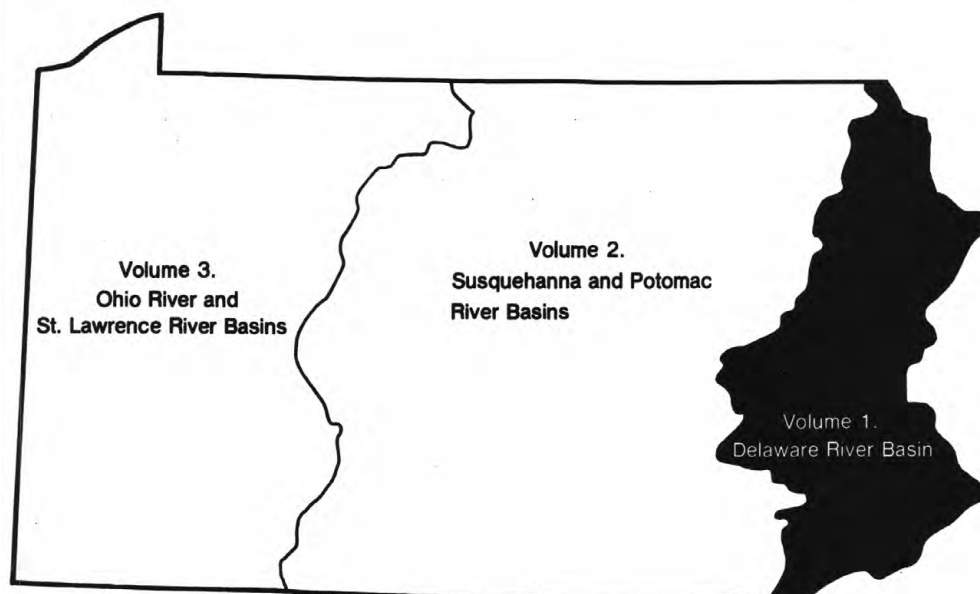
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29	30					



Water Resources Data Pennsylvania Water Year 1996

Volume 1. Delaware River Basin

by R.R. Durlin and W.P. Schaffstall



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT PA-96-1
Prepared in cooperation with the Pennsylvania Department of
Environmental Protection, the Philadelphia District of the U.S. Army
Corps of Engineers, the Chester County Water Resources Authority,
and with other State, municipal, and Federal agencies

U.S. DEPARTMENT OF THE INTERIOR

BRUCE BABBITT, Secretary

U.S. GEOLOGICAL SURVEY

Gordon P. Eaton, Director

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District Chief, Water Resources Division
U.S. Geological Survey
840 Market Street
Lemoyne, Pennsylvania 17043-1586

PREFACE

This volume of the annual hydrologic data report of Pennsylvania 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 Pennsylvania are contained in 3 volumes.

- Volume 1. Delaware River Basin
- Volume 2. Susquehanna and Potomac River Basins
- Volume 3. Ohio River and St. Lawrence River Basins

Volume 1 was prepared in cooperation with the Commonwealth of Pennsylvania and other agencies under the general supervision of Gary N. Paulachok, District Chief, Pennsylvania District; Randall R. Durlin, Chief of the Hydrologic Surveillance Project, Lemoyne Subdistrict, and William P. Schaffstall, Chief, Williamsport Project Office. It is the culmination of a concerted effort by dedicated personnel of the U.S. Geological Survey who collected, compiled, analyzed, verified, and organized the data, and who typed, edited, and assembled the report. In addition to the authors, who had primary responsibility for assuring that the information contained herein is accurate, complete, and adheres to Geological Survey policy and established guidelines, the following individuals contributed significantly to the collection, processing, and tabulation of the data:

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13. ABSTRACT (Maximum 200 words) Water resources data for the 1996 water year for Pennsylvania consists of records of discharge and water quality of streams; contents and elevations of lakes and reservoirs; and water levels and water quality of ground-water wells. This report, Volume 1, contains (1) discharge records for 74 continuous-record streamflow-gaging stations, 7 partial-record stations, and 15 special study and miscellaneous streamflow sites; (2) elevation and contents records for 13 lakes and reservoirs; (3) water-quality records for 20 streamflow-gaging stations and 51 ungaged stream sites; and (4) water-level records for 15 network observation wells. Site locations are shown in figures 6-9. Additional water data collected at various sites not involved in the systematic data-collection program are also presented. These data, together with the data in Volumes 2 and 3, represent that part of the National Water Data System operated by the U.S. Geological Survey and cooperating State, local, and Federal agencies in Pennsylvania.				
14. SUBJECT TERMS *Pennsylvania, *Hydrologic data, *Ground water, *Surface water, *Water quality, Gaging stations, Streamflow, Flow rates, Lakes, Reservoirs, Chemical analysis, Sediments, Water temperature, Water analysis, Water levels, Water wells, Data collection sites			15. NUMBER OF PAGES 367	
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SURFACE-WATER STATIONS, IN DOWNSTREAM ORDER, FOR WHICH RECORDS ARE PUBLISHED IN THIS VOLUME

[Letters after station name designate type of data: (d) discharge, (c) chemical, (sc) specific conductance, (pH), (t) water temperature, (do) dissolved oxygen, (s) sediment, (b) biological (e) elevation, gage heights, or contents, (r) radiochemical.]

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GROUND-WATER WELLS, BY COUNTY, FOR WHICH RECORDS ARE PUBLISHED IN THIS VOLUME

(Letters after local well number designate type of data: (1) water level)

GROUND WATER RECORDS

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BERKS COUNTY

Well 402615075530501 Local number BE 623 (1) 348

BUCKS COUNTY

Well 402643075150501 Local number BK 929 (1) 349

Well 401157075032001 Local number BK 1020 (1) 350

CARBON COUNTY

Well 410123075425401 Local number CB 104 (1) 351

CHESTER COUNTY

Well 395450075485401 Local number CH 10 (1) 352

DELAWARE COUNTY

Well 395040075341801 Local number DE 3 (1) 353

Well 395512075293701 Local number DE 723 (1) 354

LEBANON COUNTY

Well 402207076180801 Local number LB 372 (1) 355

LEHIGH COUNTY

Well 403429075392401 Local number LE 644 (1) 356

MONROE COUNTY

Well 411223075234901 Local number MO 190 (1) 357

MONTGOMERY COUNTY

Well 400808075210401 Local number MG 225 (1) 358

PHILADELPHIA COUNTY

Well 395342075102101 Local number PH 12 (1) 359

PIKE COUNTY

Well 410940074583401 Local number PI 200 (1) 360

SCHUYLKILL COUNTY

Well 404708076070701 Local number SC 296 (1) 361

WAYNE COUNTY

Well 414333075153201 Local number WN 64 (1) 362

WATER RESOURCES DATA - PENNSYLVANIA, 1996

DISCONTINUED CONTINUOUS-RECORD SURFACE-WATER DISCHARGE STATIONS

The following continuous-record surface-water discharge stations (listed in alphabetical order by stream name) have been discontinued. Daily streamflow records were collected and published for the period of record shown for each station. Those stations with an asterisk (*) after the station number are currently operated as crest-stage partial-record stations. Information regarding these stations may be obtained from the District Office at the address given on the back of the title page of this report.

Discontinued surface-water discharge stations

Station name	Station number	Drainage area (mi ²)	Period of record (water years)
DELAWARE RIVER BASIN			
Ariel Creek near Ledgedale	01431673	15.6	1992-94
Beaver Creek near Pocono Pines	01447550	0.96	1988-89
Bieber Creek near Lobachsville	01471835	9.08	1982
Byberry Creek at Chalfont Road, Philadelphia	01465790	5.34	1966-77
Byberry Creek at Grant Avenue, Philadelphia	01465795	7.13	1965-70
Cobbs Creek at Darby	01475550	22.0	1964-90
Cobbs Creek at US Highway No.1 at Philadelphia	01475530	4.78	1965-80
Cobbs Creek below Indian Creek near Upper Darby	01475540	10.6	1965-73
Cooks Creek at Durham Furnace	01457790	29.4	1991-93
Cooks Run at New Britain	01464741	3.08	1985-89
Crum Creek at Woodlyn	01476000	33.3	1932-37
Darby Creek near Darby	01475510	37.4	1964-90
East Branch Brandywine Creek at Dorlan	01480665	33.4	1967-68
East Branch Brandywine Creek at Downingtown	01480800	81.6	1958-68
East Branch Monocacy Creek near Bath	01452300	5.35	1963-68
Frankford Creek at Torresdale Avenue, Philadelphia	01467089	33.8	1967-80
Jenkintown Creek at Elkins Park	01467085	1.17	1974-78
Lackawaxen River at West Hawley	01430500	206	1922-37
Lehigh River at Tannery	01448000	322	1919-58
Limekiln Creek at Limekiln	01471710	2.49	1982
Little Lehigh Creek near East Texas	01451420	51.2	1987-94
Little Neshaminy Cr at Walton Road near Jacksonville	01464984	40.1	1986-92
Little Schuylkill River at Dreherstown	01470000	122	1948-50, 1964-65
Maiden Creek Tributary at Lenhartsville	01470720	7.46	1966-79
Maiden Creek at Virginville	01470756	159	1973-94
Manatawny Creek at Earlville	01471900	60.9	1982
Marsh Creek near Lyndell	01480680	17.8	1961-69
Martins Creek near East Bangor	01446600	10.4	1962-77
McMichaels Creek at Stroudsburg	01441000	65.3	1912-37
Middle Creek near Hawley	01431000	78.4	1945-59
Mill Creek near Wycombe	01465050	14.0	1990-93

WATER RESOURCES DATA - PENNSYLVANIA, 1996

DISCONTINUED CONTINUOUS-RECORD SURFACE-WATER DISCHARGE STATIONS--Continued

Station name	Station number	Drainage area (mi ²)	Period of record (water years)
DELAWARE RIVER BASIN--Continued			
Monocacy Creek at Limekiln	01471700	6.68	1982
Naylor Creek at West Chester Pike near Philadelphia	01475545	1.10	1974-78
Neshaminy Creek at Rushland	01465000	134	1885-1912, 1932-33
Neshaminy Creek near Rushland	01464750*	91.0	1987-92
North Branch Calkins Creek near Damascus	01427650	7.02	1965-73
Oysterville Creek at Manatawny	01471845	9.29	1982
Paunacussing Creek at Carversville	01460800	6.49	1991-93
Pennypack Creek at Pine Road, Philadelphia	01467042	37.9	1965-80
Pennypack Creek below Verree Road, Philadelphia	01467045	42.8	1965-70
Perkiomen Creek near Frederick	01472500	152	1885-1912
Pickering Creek near Chester Springs	01472174	5.98	1967-82
Pine Creek Near Manatawny	01471800	9.70	1982
Pine Run at Chalfont	01464710	11.6	1990-92
Pocono Creek near Stroudsburg	01441500	41.0	1912-19
Pohopoco Creek near Parryville	01450000	109	1941-69
Poquessing Creek at Trevoise Road, Philadelphia	01465770	5.08	1965-80
Poquessing Creek above Byberry Creek at Philadelphia	01465780	13.2	1965-70
Purdy Creek at Lakeville	01431685	8.18	1992-94
Ridley Creek at Media	01476480	30.5	1987-95
Ridley Creek at Moylan	01476500	31.9	1932-54
Rock Creek above Curtis Arboretum near Philadelphia	01467084	1.15	1972-78
Saucon Creek at Friedensville	01454500	26.6	1948-53
Saucon Creek at Lanark	01453500	12.1	1948-53
Schuylkill River above Passayunk Ave. at Philadelphia	01474505	1900	1979-93
Schuylkill River at Norristown	01473500	1760	1928-32
Schuylkill River at Pottsville	01467500	53.4	1944-69
Shohola Creek near Shohola	01432500	83.6	1920-28
Skippack Creek near Collegeville	01473120	53.7	1966-94
South Branch Saucon Creek at Friedensville	01454000	10.3	1948-53
Stevens Creek near Sterling	01431620	0.68	1992-94
Tacony Creek above Adams Avenue, Philadelphia	01467086	16.7	1966-86
Tacony Creek near Jenkintown	01467083	5.25	1973-78
Tinicum Creek near Ottsville	01458900	14.7	1991-93
Tohickon Creek at Point Pleasant	01460000	107	1884-98, 1901-12
Unnamed tributary to Little Neshaminy Creek at Traymore	01464930	4.34	1994-95
Unnamed tributary to Purdy Creek near Lakeville	01431685	0.34	1992-94

WATER RESOURCES DATA - PENNSYLVANIA, 1996

DISCONTINUED CONTINUOUS-RECORD SURFACE-WATER DISCHARGE STATIONS--Continued

Station name	Station number	Drainage area (mi ²)	Period of record (water years)
DELAWARE RIVER BASIN--Continued			
Walton Run at Philadelphia	01465785	2.17	1965-77
Wild Creek at Hatchery	01449500	16.8	1941-78
Wissahickon Creek at Bells Mill Road, Philadelphia	01473950	53.6	1966-70, 1974-81
Wissahickon Creek at Fort Washington	01473900	40.8	1962-68
Wissahickon Creek at Livezey Lane, Philadelphia	01473980	59.2	1967-70
Wooden Bridge Run at Philadelphia	01467050	3.35	1966-80

WATER RESOURCES DATA - PENNSYLVANIA, 1996

DISCONTINUED CONTINUOUS-RECORD SURFACE-WATER-QUALITY STATIONS

The following continuous-record water-quality stations (listed in alphabetical order by stream name) have been discontinued. Daily records were collected and published for the period of record shown for each station. Discontinued stations with less than 3 years of record, or stations with data collection less than daily, have not been included. If a station had 3 or more years of record for one constituent, all constituents having daily values will be listed for that station regardless of the length of record. Stations with an asterisk (*) after the station number are currently operated as partial-record stations. Information regarding these stations may be obtained from the District Office at the address given on the back of the title page of this report.

The following abbreviations are used to identify the record type: SC (specific conductance); pH (pH); Temp (water temperature); DO (dissolved oxygen); Sed (sediment concentration and discharge); Biol (biological).

Discontinued continuous-record surface-water-quality stations

Station name	Station number	Drainage area (mi ²)	Type of Record	Period of record (water years)
DELAWARE RIVER BASIN				
Brandywine Creek at Chadds Ford	01481000	287	Sed	1963-70
Byberry Creek at Chalfont Road, Philadelphia	01465790	5.34	Sed	1966-68 1970
Byberry Creek at Grant Avenue, Philadelphia	01465795	7.13	Sed	1965-70
Cobbs Creek at US Highway 1 near Philadelphia	01475530	4.78	Sed	1965-70
Cobbs Creek below Indian Creek near Upper Darby	01475540	9.65	Sed	1965-69
Cobbs Creek at Darby	01475550	22.0	Sed	1965-69
Crum Creek near Paoli	01475830	6.16	Biol	1970-83
Darby Creek near Darby	01475510	37.4	Sed	1965-69
Delaware River at Belvidere, N.J.	01448000	4,535	Temp SC	1944-47 1962-63 1962-63
Delaware River at Burlington-Bristol Bridge	01464600	7,163	Temp DO SC, pH	1954-75 1979-80 1961-75 1978-80 1967-75 1978-80
Delaware River at Delaware Memorial Bridge, Del.	01482100	11,030	Temp DO SC pH	1956-81 1962-81 1963-81 1968-81
Delaware River at Dingmans Ferry	01439000	3,542	Temp, SC, pH	1950-53
Delaware River at Dunnfield, N.J.	01442750	4,120	Sed	1964-75
Delaware River at Easton	01446700	4,636	SC, DO, Temp, pH	1967-77
Delaware River at Eddystone	01476200	10,190	Temp, SC, pH, DO	1949-68
Delaware River at League Island, Philadelphia	01467400	8,072	Temp, SC, pH, DO	1949-68
Delaware River at Lehigh Avenue, Philadelphia	01467100	7,935	Temp, SC, pH, DO	1949-68
Delaware River at Marcus Hook	01477200	10,370	Temp, SC, pH, DO	1949-77
Delaware River at Montague, N.J.	01438500	3,480	Temp SC, pH	1956-57 1956-73
Delaware River at Narrowsburg, N.Y.	01427740	2,023	SC, pH	1948-51
Delaware River at Palmyra, N.J.	01467060	7,850	Sed	1962-64
Delaware River at Port Jervis, N.Y.	01434000	3,070	Temp	1957-60 1973-94
Delaware Bay at Ship John Shoal Light, N.J.	01412350	---	SC, Temp	1968-86

WATER RESOURCES DATA - PENNSYLVANIA, 1996

DISCONTINUED CONTINUOUS-RECORD SURFACE-WATER-QUALITY STATIONS--Continued

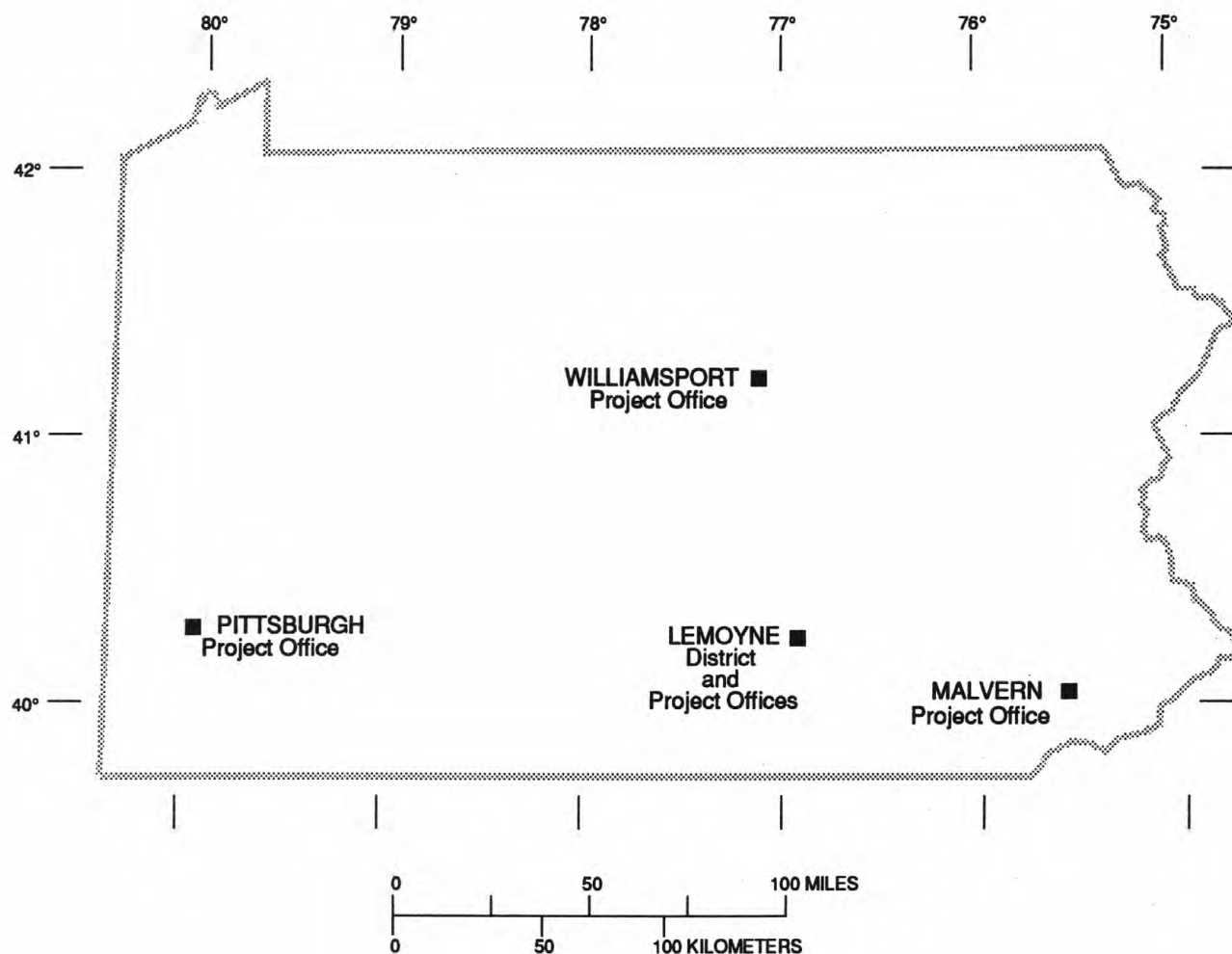
Station name	Station number	Drainage area (mi ²)	Type of Record	Period of record (water years)
DELAWARE RIVER BASIN--Continued				
Delaware River at Torresdale Intake, Philadelphia	01467030	7,781	Temp DO SC pH	1956-57 1960-81 1961-81 1963-81 1968-81
Delaware River at Wharton Street, Philadelphia	01467300	7,998	Temp, SC, pH, DO	1949-68
Delaware River near East Stroudsburg	01440090	3,830	SC, DO, Temp pH	1966-78 1972-78
East Branch Brandywine Creek near Struble Dam	01480647	4.36	Biol	1972-82
Frankford Creek at Torresdale Avenue, Philadelphia	01467088	33.8	Sed	1966-70
French Creek at Trythall	01472126	5.06	Biol	1971-83
French Creek near Knauertown	01472129	11.7	Biol	1970-83
Jordan Creek at Allentown	01452000	75.8	Sed	1967-69
Jordan Creek near Schnecksville	01451800	53.0	Sed	1967-69
Lehigh River at Bethlehem	01453000	1,279	SC, pH	1906-07 1956-72
Lehigh River at Walnutport	01451000	889	Sed	1948-53
Little Schuylkill River at Drehersville	01470000	122	SC, pH, Temp, Sed	1947-51 1963-65
Little Schuylkill River at South Tamaqua	01469700	65.7	SC, pH Sed	1948-51 1963 1950-53 1963
Maiden Creek near East Berkley	01470760	192	Sed	1963-65
Maiden Creek tributary at Lenhartsville	01470720	7.46	Sed	1963-65
Marsh Creek near Downingtown	01480695	20.3	Temp	1973-87
Marsh Creek near Lyndell	01480680	17.8	Temp Sed	1965-66 1965-66 1968
Neshaminy Creek near Langhorne	01465500	210	Sed	1956-58 1965-69
Pennypack Creek at Pine Road, Philadelphia	01467042	37.9	Sed	1965-69
Pennypack Creek below Verre Road, Philadelphia	01467045	42.8	Sed	1965-69
Perkiomen Creek at Graterford	01473000	279	SC, pH, Temp Sed	1946-51 1948-53 1963-66
Pickering Creek near Chester Springs	01472174*	5.98	Sed	1967-69
Pigeon Creek at Porters Mill	01472065	6.97	Biol	1970-83
Pigeon Creek near Bucktown	01472054	4.20	Biol	1970-83
Poquessing Creek above Byberry Creek, Philadelphia	01465780	13.2	Sed	1965-70
Poquessing Creek at Grant Avenue, Philadelphia	01465798	21.4	Sed	1965-70
Poquessing Creek at Trevoise Road, Philadelphia	01465770	5.08	Sed	1965-69
Schuylkill River at Auburn	01469000	160	Sed, SC, pH	1947-51 1963-65

WATER RESOURCES DATA - PENNSYLVANIA, 1996

DISCONTINUED CONTINUOUS-RECORD SURFACE-WATER-QUALITY STATIONS--Continued

Station name	Station number	Drainage area (mi ²)	Type of Record	Period of record (water years)
DELAWARE RIVER BASIN--Continued				
Schuylkill River at Berne	01470500	355	Temp	1948-53 1957-81 1963-81 1947-81
			SC,pH Sed	
Schuylkill River at Black Rock Dam at Mont Clare	01472119	--	SC,DO	1986-90
Schuylkill River at Flat Rock Dam at West Manayunk	01473780	---	SC,DO	1985-90
Schuylkill River at Landingville	01468500	133	SC,pH,Temp Sed	1947-53 1947-53 1963-65
Schuylkill River at Manayunk	01473800	893	SC,pH Sed Temp	1947-70 1947-86 1956-70
Schuylkill River at Norristown Dam at Bridgeport	01473499	---	SC,DO	1985-90
Schuylkill River at Plymouth Dam	01473675	---	SC,DO	1985-90
Schuylkill River at Port Carbon	01467470	27.1	SC,pH,Sed	1949-51 1963
Schuylkill River at Pottstown	01472000	1,147	Temp	1944-51 1956
			Sed,pH	1963-66 1948-51 1963-66 1948-51 1963-66 1985-89
Schuylkill River at Pottsville	01467500	53.4	SC,pH Sed	1948-51 1963-66 1963-66
Stony Run at Spring City	01472110	4.07	Biol	1970-83
Tacony Creek at County Line, Philadelphia	01467084	16.2	Sed	1966-69
Tulpehocken Creek near Reading	01471000	211	Sed	1963-65
Wissahickon Creek at Bells Mill Road, Philadelphia	01473950	53.6	Sed	1966-69
Wissahickon Creek at Fort Washington	01473900	40.8	Sed	1963-69
Wissahickon Creek at Livezey Lane, Philadelphia	01473980	59.2	Sed	1966-69
Wissahickon Creek at mouth, Philadelphia	01474000	64.0	Sed	1966-69
Walton Run at Philadelphia	01465785	2.17	Sed	1965-68
West Branch Brandywine Creek near Honey Brook	01480300	18.7	Sed	1965-66 1968
West Branch Schuylkill River at Cressona	01467950	52.5	Sed	1963-66
Wooden Bridge Run at Philadelphia	01467049	3.35	Sed	1965-70

PENNSYLVANIA DISTRICT OFFICE LOCATIONS AND ADDRESSES



District and Project Offices:
U.S. Geological Survey
Water Resources Division
 840 Market Street
 Lemoyne, PA 17043-1586
 (717) 730-6900
 FAX (717) 730-6997

Williamsport Project Office:
U.S. Geological Survey
Water Resources Division
 P.O. Box 1805
 Room 301 Federal Building
 240 W. Third Street
 Williamsport, PA 17703
 (717) 323-7736 or 323-9571

Pittsburgh Project Office:
U.S. Geological Survey
Water Resources Division
 Room 2204 Federal Building
 1000 Liberty Avenue
 Pittsburgh, PA 15222
 (412) 644-2863
 FAX (412) 355-2548

Malvern Project Office:
U.S. Geological Survey
Water Resources Division
 Great Valley Corporate Center
 111 Great Valley Parkway
 Malvern, PA 19355
 (610) 647-9008
 FAX (610) 647-4594

INTRODUCTION

The Water Resources Division of the U.S. Geological Survey, in cooperation with State, municipal, and Federal agencies, collects a large amount of data pertaining to the water resources of Pennsylvania 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 - Pennsylvania, Volumes 1, 2, and 3." Volume 1 contains data for the Delaware River Basin; Volume 2, the Susquehanna and Potomac River Basins; and Volume 3, the Ohio River and St. Lawrence River Basins.

This report, Volume 1, contains (1) discharge records for 74 continuous-record streamflow-gaging stations, 7 partial-record stations, and 15 special study and miscellaneous streamflow sites; (2) elevation and contents records for 13 lakes and reservoirs; (3) water-quality records for 20 gaging stations and 51 ungaged streamsites; and (4) water-level records for 15 network observation wells. Additional water data collected at various sites not involved in the systematic data-collection program may also be presented.

Publications similar to this report are published annually by the Geological Survey for all States. For the purpose of archiving, these official 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 PA-96-1." These water data reports, beginning with the 1971 water year are for sale as paper copy or microfiche by the National Technical Information Service, U.S. Department of Commerce, Springfield, VA 22161.

The annual series of Water Data Reports for Pennsylvania began with the 1961 water-year report and contained only data relating to quantities of surface water. Starting with the 1964 water year, a companion report (part 2) was introduced that contained only data relating to water quality. Beginning with the 1975 water year the report was changed to its present format of three volumes, with each volume containing data on quantities of surface water, quality of surface and ground water, and ground-water levels.

Prior to the introduction of this series and for several years concurrent with it, water-resources data for Pennsylvania 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," which was released in numbered parts as determined by natural drainage basins. For the 1961-70 water years, the data were published in two 5-year reports. Data prior to 1961 are included in two reports: "Compilation of Records of Surface Waters of the United States through 1950," and "Compilation of Records of Surface Waters of the United States, October 1950 to September 1960." Data for Pennsylvania are published in Parts 1, 3, 4. Data on chemical quality, temperature, and suspended sediment for the 1941-70 water years were published annually under the title "Quality of Surface Waters of the United States," and ground-water levels for the 1935-74 water years were published under the title "Ground-Water Levels in the United States." The above mentioned Water-Supply Papers may be consulted in the libraries of the principal cities of the United States and may be purchased from the U.S. Geological Survey, Information Services, Box 25286, Denver, CO 80225.

Information for ordering specific reports may be obtained from the Pennsylvania District Office at the address given on the back of title page or by phoning the Scientific and Technical Products Section, at (717) 730-6940. Information on the availability of unpublished data or statistical analyses may be obtained from the Hydrologic Surveillance Project (telephone (717) 730-6916).

COOPERATION

The U.S. Geological Survey and organizations of the Commonwealth of Pennsylvania have had cooperative agreements for the systematic collection of surface-water records during the periods 1919-21 and 1931 to date, water-quality records from 1944 to date, and ground-water records from 1925 to date. Organizations that supplied data are also acknowledged in station descriptions. Organizations that assisted in collecting data for this report through cooperative agreement with the Survey are listed below.

The Commonwealth of Pennsylvania Department of Environmental Protection, James M. Seif, Secretary through the following:

Office of Water Management, Hugh V. Archer, Deputy Secretary;
Bureau of Water Supply and Community Health, Glenn E. Maurer, Director;
Bureau of Topographic and Geologic Survey, Donald M. Hoskins, Director;

Delaware County Solid Waste Authority, Joseph W. Vasturia, Chief Executive Officer;
Delaware Geological Survey, John H. Talley, P.G., Associate Director;
Delaware River Basin Commission, G. M. Hansler, Executive Director;
Bucks County Commissioners, A. L. Warren, Chairman;
City of Allentown, Department of Public Works, D. S. Lichty, Chief Utility Engineer;
Chester County Water Resources Authority, Janet L. Bowers, Executive Director;
City of Bethlehem, Department of Public Works, J. A. Andrews, Superintendent, Water Supply and Treatment;
City of Philadelphia, Water Department, Kumar Kishinchand, Water Com missioner;
Doylestown Township Municipal Authority, Richard E. John, Director of Operations;
Hazelton City Authority, Water Department, R. L. Zientek, Manager;
North Penn Water Authority, D. J. Milan, Executive Manager;
North Wales Water Authority, P. S. Lukens, Executive Director;

Federal Energy Regulatory Commission Licensees:
Philadelphia Electric Co.,
Pennsylvania Power and Light Co.,

The following Federal agencies assisted in the data-collection program by providing funds or services:

Corps of Engineers, U.S. Army, in collecting records for 24 streamflow-gaging stations, 5 reservoir stations, and 2 crest-stage gages;

The following organizations aided in collecting records: Palmer Water Company, Philadelphia Suburban Water Company, borough of Tamaqua, Womelsdorf-Robeson Joint Water Authority, and the city of Coatesville.

WATER RESOURCES DATA - PENNSYLVANIA, 1996

SUMMARY OF HYDROLOGIC CONDITIONS

Surface Water

The Delaware River Basin extends from the river's east and west branch headwaters in the New York Catskill Mountains southward about 400 miles to the Atlantic Ocean. In addition to Pennsylvania, the Delaware River drains parts of the states of New York, New Jersey, Delaware, and Maryland. Of the nearly 13,500-mi² (square mile) drainage basin, 6,420 mi² (50 percent of the basin's total area) are within the Commonwealth of Pennsylvania.

Precipitation and streamflow

Precipitation for the 1996 water year in the Delaware River Basin averaged about 28 percent above normal. The basin received above-normal precipitation during the year except for the months of December, February, May, and August. The largest precipitation deficit in the basin, an average of 1.30 inches below normal, was in August. The greatest precipitation surplus in the basin, an average of 4.52 inches, was in October. The 1996 monthly precipitation recorded at Allentown, Pa., and the 1961-90 mean monthly precipitation are shown in figure 1. The precipitation data are from the National Oceanic and Atmospheric Administration (NOAA) (U.S. Department of Commerce, 1995-96) and National Weather Service records.

The basin received record snowfall during the month of January. The NOAA weather-monitoring station in Philadelphia, Pa., recorded a record storm snowfall of 30.7 inches from January 7 through January 8 and record 24-hour snowfall, snow depth, and daily snowfall of 27.6 inches. (Northeast Regional Climate Center, January 1996).

The drought declaration that had been in effect for the basin at the end of the 1995 water year was lifted on November 9, 1995 and no new drought declarations were made during the 1996 water year. Streamflow during the 1996 water year was generally above normal. Two U.S. Geological Survey (USGS) streamflow-monitoring stations within the basin were selected as indicators of streamflow conditions in the upper and lower Delaware Basin. The 1996 water year annual mean discharge was 138 percent of the 1961-90 median for Bush Kill at Shoemakers, in the upper Delaware Basin, and 133 percent of the 1961-90 median for the Schuylkill River at Pottstown, in the lower Delaware Basin (fig. 2). Monthly mean streamflows at Bush Kill at Shoemakers and Schuylkill River at Pottstown were above normal for 9 and 11 months, respectively, during the 1996 water year.

Streamflow during January was 212 and 163 percent above the normal monthly mean at Shoemakers and Pottstown, respectively. In the upper part of the basin, many new maximum monthly mean streamflows for the month of January were recorded. No new minimum monthly mean discharges were recorded at streamflow monitoring stations with more than 20 years of record for any month of the year.

Flooding occurred throughout the basin during January as a result of heavy rain, unseasonably high temperatures, high winds, and the result of rapid melting and runoff from thick snow pack. The stages and streamflows in streams and rivers throughout the basin peaked during the period January 19-21. By January 23, all counties in Pennsylvania had been declared Federal disaster areas eligible for emergency relief (Thompson, 1996).

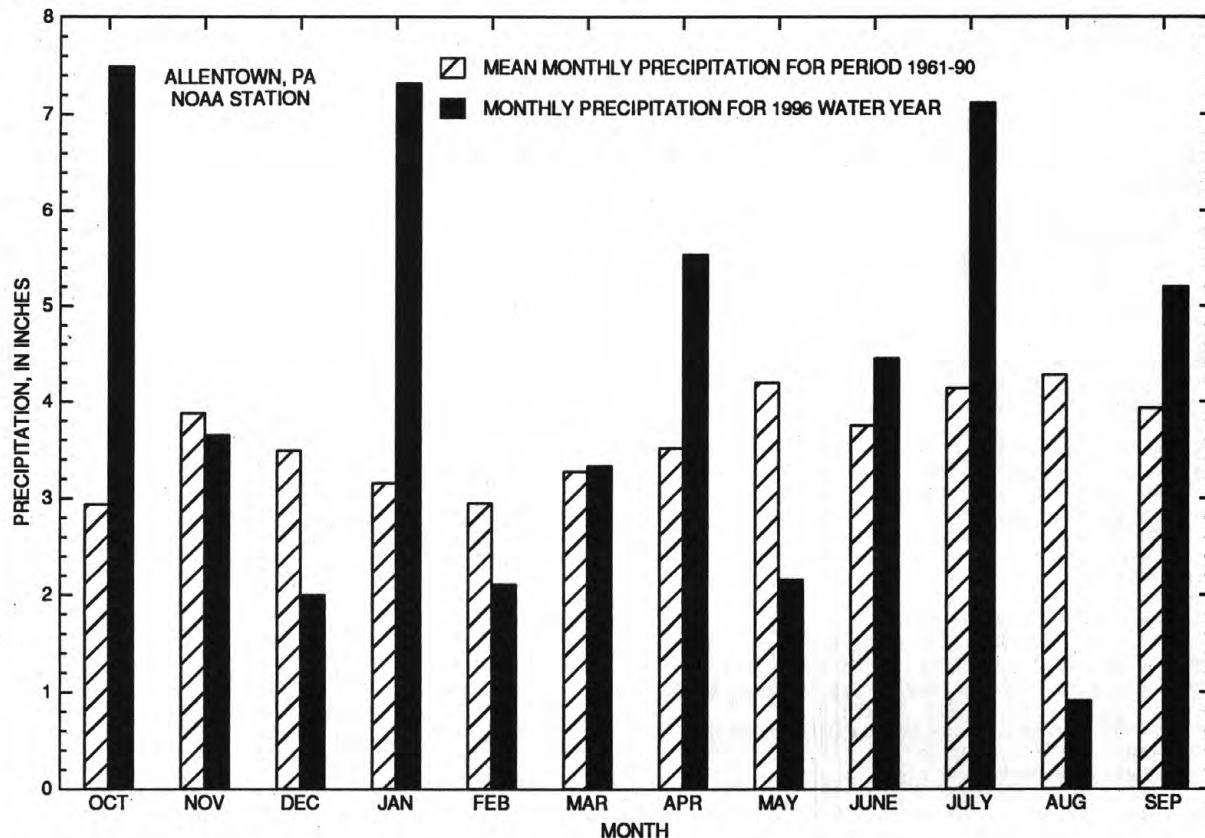


Figure 1.--Comparison of monthly precipitation in the Delaware River Basin at Allentown, Pa. during the 1996 water year with mean monthly precipitation for 1961 through 1990.

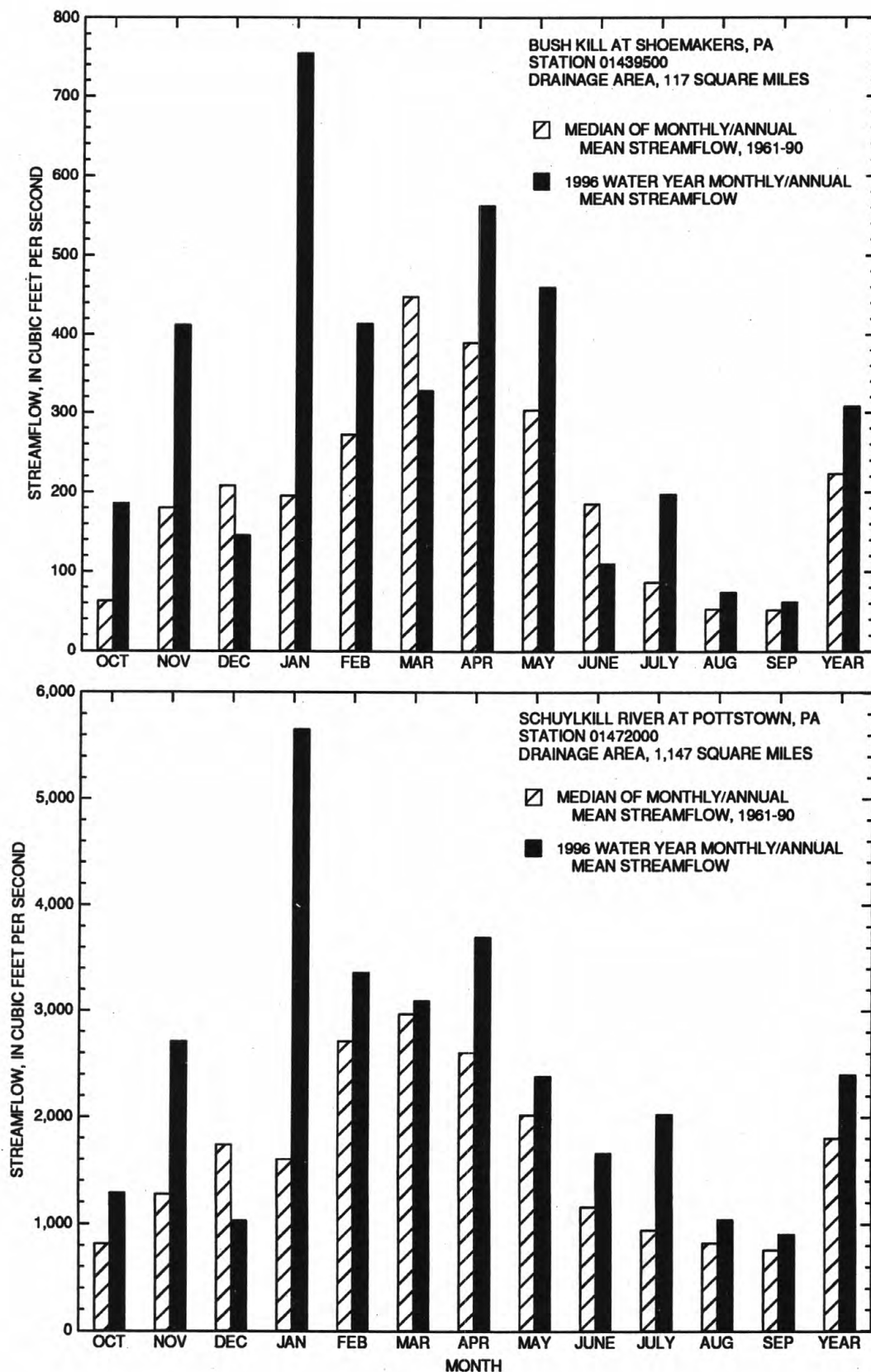


Figure 2.--Comparison of streamflow at two long-term gaging stations during the 1996 water year with the median of monthly and annual mean streamflow for the period 1961 through 1990.

WATER RESOURCES DATA - PENNSYLVANIA, 1996

Water Quality

As part of an ongoing program, the USGS maintains a network of continuous-record water-quality monitoring sites along the Delaware River and its tributaries. Water temperature, dissolved oxygen, pH, and specific conductance are monitored at most sites from April through November. A primary concern to water-resource managers of the lower Delaware River Basin is the upstream migration of saline water from the Delaware Bay. The salinity and dissolved-solid content in the water is indirectly measured by specific conductance.

Freshwater streamflow into the Delaware Bay is a factor that influences the water quality and dilution of dissolved solids in the estuary. Low streamflows are closely monitored. At the end of the 1995 water year, streamflows were below normal. This resulted in above-normal measurements of specific conductance during the period (Durlin, 1997). However, throughout most of the 1996 water year the streamflows were above normal. This resulted in below-normal measurements of specific conductance during most of the year (fig. 3). Water year 1996 monthly mean specific conductances for the Delaware River at Reedy Island Jetty, De. and the monthly means for 1964 through 1995 were compared. Although no new minimum monthly mean specific conductances were measured, the mean for the months of November, February, March, May, July, August and September were less than the 25th percentile.

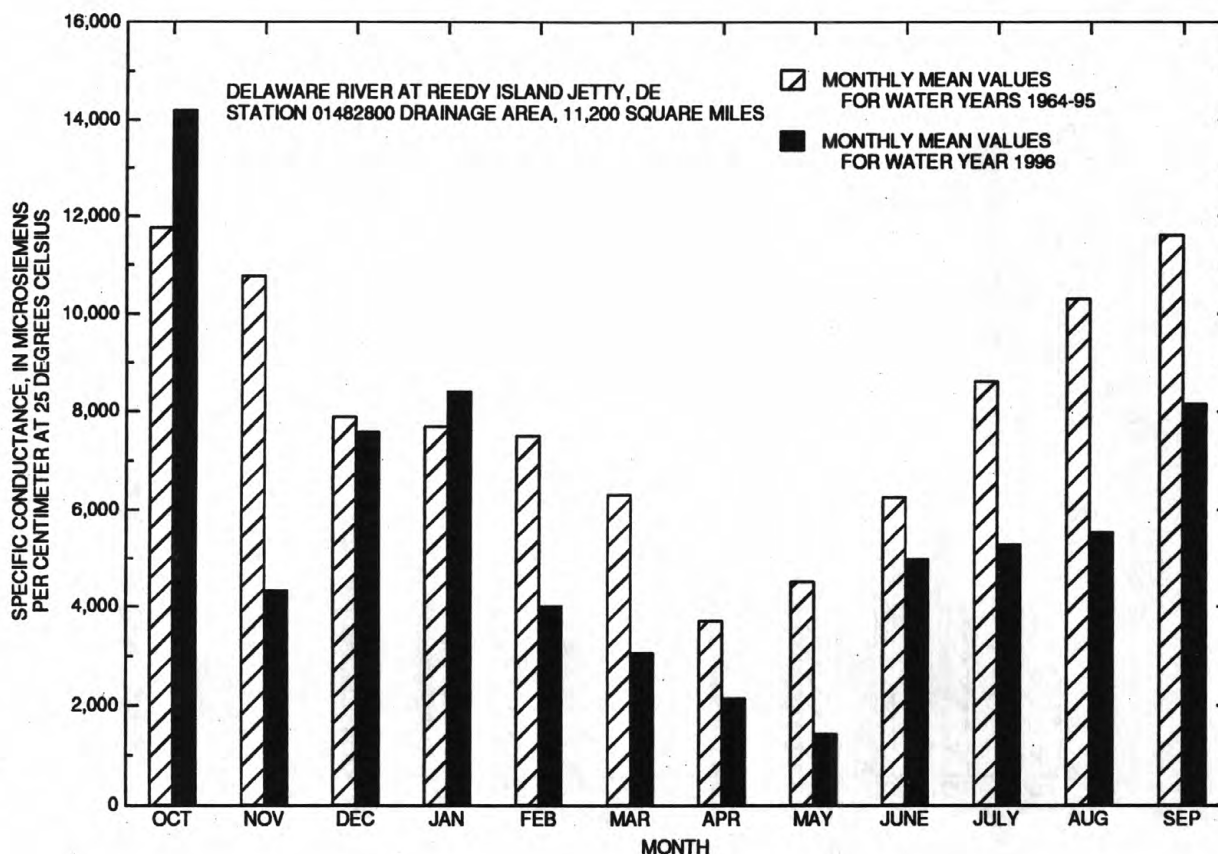


Figure 3.--Monthly mean specific conductance at Delaware River at Reedy Island Jetty, De. for the 1996 water year and the mean of the normal monthly mean specific conductance 1964 through 1995.

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Reservoirs

Combined storage in 12 major reservoirs in the Delaware River Basin within Pennsylvania increased slightly from 185,910 acre-feet (28 percent of total combined capacity) on September 30, 1995, to 201,160 acre-feet (31 percent of total combined capacity) on September 30, 1996.

Ground Water

Ground-water levels, which were generally below normal throughout much of the Delaware River Basin during the 1995 water year, continued to be normal or below normal at the beginning of the 1996 water year. The relation between the 1996 water-year seasonal mean ground-water levels and long-term seasonal mean ground-water levels is shown in figure 4. Ground-water levels during the water year closely reflected the seasonal precipitation variations (fig. 1). Ground-water levels were below normal or normal at 9 of 14 observation wells within the basin during the fall season. With the exception of the Pike County well (PI200), which was below normal throughout the entire water year; during the winter, spring, and summer seasons, all 14 observation wells were normal, above normal, or much above normal. One new highest water level was recorded at the Montgomery County well (MG225) on January 29, 1996.

References

- Durlin, R. R., 1997, Water resources data, Pennsylvania, water year 1995: U.S. Geological Survey Water-Data Report PA-95-1, 389 p.
- Northeast Regional Climate Center, 1996, Northeast Climate Impacts January 1996, Volume 96, Number 1, 11 p.
- Thompson, R.E., 1996, Statewide Floods in Pennsylvania, January 1996, U.S. Geological Survey Fact Sheet 103-96, 2 p.
- U.S. Department of Commerce, 1995-96, Climatological Data for Pennsylvania, Volume 100-101: National Oceanic and Atmospheric Administration, National Environmental Satellite, Data, and Information Service, 28 p.

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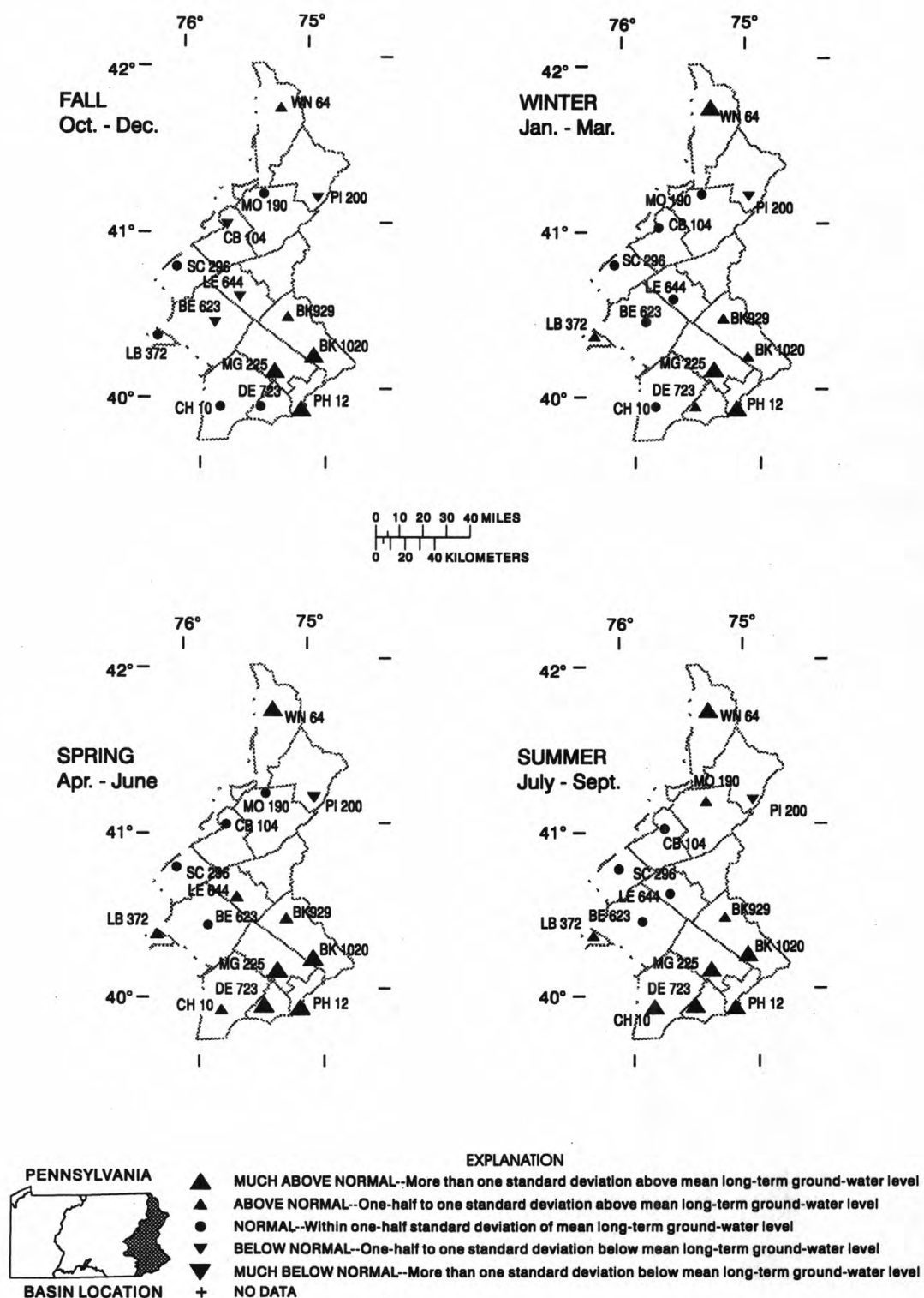


Figure 4.--Relation between 1996 seasonal mean ground-water levels and long-term mean ground-water levels.

SPECIAL NETWORKS AND PROGRAMS

The Hydrologic Bench-Mark Network is a network of 50 sites in small drainage basins throughout the country that provides consistent data on hydrology, water quality, and related factors in representative undeveloped watersheds nationwide. This network also provides analyses on a continuing basis to compare and contrast conditions observed in basins more obviously affected by human activities. There are no stations in the Delaware River Basin in Pennsylvania participating in this program.

The 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. Operated as part of this program in the Delaware River Basin and published in this report is the Delaware River at Trenton, N.J. (01463500).

The National Atmospheric Deposition Program/National Trends Network (NADP/NTN) provides continuous measurement and assessment of the chemical climate of precipitation throughout the United States. As the lead federal agency, the USGS works together with over 100 organizations to accomplish the following objectives; (1) Provide a long-term, spatial and temporal record of atmospheric deposition generated from a network of 191 precipitation chemistry monitoring sites. (2) Provide the mechanism to evaluate the effectiveness of the significant reduction in SO₂ emissions that began in 1995 as implementation of the Clean Air Act Amendments (CAAA) occurred. (3) Provide the scientific basis and nationwide evaluation mechanism for implementation of the Phase II CAAA emission reductions for SO₂ and NO_x scheduled to begin in year 2000.

Data from the network, as well as information about individual sites, are available through the world wide web at <http://nadp.nrel.colostate.edu/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, 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 the agencies. Additional information about the NAWQA Program is available through the world wide web at http://www.rvares.er.usgs.gov/nawqa/nawqa_home.

EXPLANATION OF THE RECORDS

The surface-water and ground-water records 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 streamflow stations, and ground-water-level data. The location of these stations and wells are shown in figures 6-9. 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 in this report, whether streamsite or well, 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 Pennsylvania, for some miscellaneous surface-water sites where only random water-quality samples or discharge measurements are made.

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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 main-stream station are listed before that station. A station on a tributary that enters between two main-stream 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 on which a station is situated with respect to the stream to which it is immediately tributary is indicated by an indentation in a list of stations in the front of the report. Each indentation represents one rank. This downstream-order 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 in downstream order. In assigning station numbers, no distinction is made between partial-record and continuous-record 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. A station number can be from 8 to 15 digits in length and normally appears to the left of the station name. For example, an 8-digit number for a station such as 01570500, includes a 2-digit part number "01" plus a 6-digit downstream-order number "570500." The part number designates major river basins; for example, part "01" is the North Atlantic Slope Basin.

Latitude-Longitude System

The identification numbers for wells and miscellaneous surface-water sites are assigned based on the grid system of latitude and longitude. The system provides the geographic location of the well or miscellaneous site and a unique number for each site. The number consists of 15 digits. The first six digits denote the degrees, minutes, and seconds of latitude, the next seven digits denote the degrees, minutes, and seconds of longitude, and the last two digits (assigned sequentially) identify the wells or other sites within a 1-second grid. See figure 5 below.

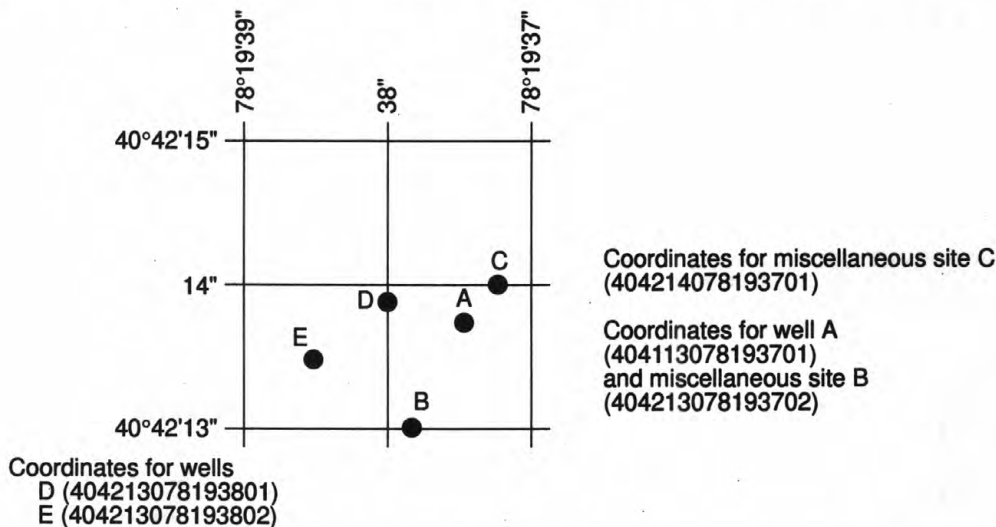


Figure 5.--System for numbering wells and miscellaneous sites (latitude and longitude).

A local well number is also assigned to the wells and consists of a 2-letter abbreviation of the county in which the well is located and a sequential number assigned at the time the well was scheduled.

Records of Stage and Water Discharge

Records of stage and water discharge may be continuous or partial. Continuous records of discharge are those obtained using a continuous stage-recording device through which either instantaneous water discharges may be computed for any time, or mean discharges may be computed for any period of time, during the period of record. Because daily mean discharges or end-of-day contents for reservoirs commonly are published for such stations, they are referred to as "daily stations" or "continuous-record 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-record stations," or "Low-flow partial-record stations." 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 continuous-record and partial-record stations for which data are given in this report are shown in figures 6-9.

Data Collection and Computation

The data obtained at a continuous-record gaging station on a stream consist of a continuous record of stage, individual measurements of discharge throughout a range of stages, and notations regarding factors that may affect the relation between stage and discharge. These data, together with supplemental information, such as weather records, are used to compute daily discharges.

Continuous records of stage are obtained with analog recorders that trace continuous graphs of stage, with digital recorders that punch stage values on paper tapes at selected time intervals, with solid-state electronic data loggers, or with data collection platforms (DCP's) that electronically record and then transmit the data via satellite to ground receiving stations. 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 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 each recorded stage value (gage height) 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 to compute discharge.

When computing records of lake or reservoir contents, it is necessary to have available from surveys, curves or tables defining the relation between 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 relation changes because of deposition of sediment in the lake or reservoir, periodic surveys may be necessary to redefine the relation. Even when this is done, the contents computed may increase in error as the time elapsed since the last survey increases. Discharges over lake or reservoir spillways are computed from stage-discharge relation much as other stream discharges are computed.

For some gaging stations, there are periods when no gage-height data are collected or when the recorded gage height is so imprecise or incorrect that it cannot be used to compute daily mean discharge or end-of-day 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

The records published for each continuous-record surface-water discharge station (gaging station) consist of four parts; (1) the manuscript or station description; (2) the data table of daily mean discharge values for the current water year with summary data; (3) a tabular statistical summary of monthly mean flow data for a designated period; and (4) a summary statistics table for a designated period 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

For each continuous-record station, 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 comments, as appropriate, 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, listed 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.

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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 its streamflow can reasonably be considered equivalent to the streamflow 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 sea level (see Definition of Terms), and a condensed history of the types, locations, and datums of previous gages are given under this heading.

REMARKS.--This paragraph is used to present information relative to the accuracy of the records, to special methods of computation, and to conditions that affect natural flow at the station. 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 DISCHARGES FOR CURRENT YEAR.--Peaks given here are similar to those found in the summary statistics table, except the peak discharge listing may include secondary peaks. For stations meeting certain criteria, all peak discharges and stages occurring during the water year and greater than a selected base discharge (see Definition of Terms) 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 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 accurate because published revisions of data are always accompanied by revisions of the data in computer storage.

Headings for AVERAGE DISCHARGE, EXTREMES FOR PERIOD OF RECORD, AND EXTREMES FOR CURRENT YEAR have been deleted and the information contained in these paragraphs, except for the listing of secondary instantaneous peak discharges in the EXTREMES FOR CURRENT YEAR paragraph, 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 presentations of lake contents. In order to present all the data collected on the Delaware River, data collected by the U.S. Geological Survey offices in New Jersey, New York and Delaware have been included in this report. This data is presented as published by each state, although the format differs slightly from that published in this volume.

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 mean 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."). Figures for cubic feet per second per square mile and runoff in inches may be omitted if there is extensive regulation or diversion or if the drainage area includes large noncontributing areas. At some stations both monthly and 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 daily 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 for the statistics may not be the same as the period of record published in the manuscript, occasionally the dates of occurrence listed for the daily and instantaneous extremes may not be within the designated period. Selected streamflow duration statistics and runoff data are also given. Runoff data may be omitted if there is extensive regulation or diversion of flow in the drainage basin.

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

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

ANNUAL MEAN.--The arithmetic mean of the individual daily mean discharges for the year noted or for the designated period. At some stations the yearly mean discharge 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-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. Note that secondary instantaneous peak discharges above a selected base discharge are stored in computer files for stations meeting certain criteria. Those discharge values may be obtained by writing to the District Office. (See address on back of title page of this report.)

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

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

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

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

Data collected at partial-record stations follow the information for continuous-record sites. Data for partial-record discharge stations are presented in two tables. The first is a table of annual maximum stage and discharge at crest-stage stations, and the second is a table of discharge measurements at low-flow partial-record stations. The tables of partial-record stations are followed by a listing of discharge measurements made at sites other than continuous-record or partial-record stations. These measurements are generally made 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.

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Identifying Estimated Daily Discharge

Beginning with the 1987 annual State data report, estimated daily discharge values published in the water-discharge tables are identified by flagging individual daily values with the letter symbol "e" and printing a table footnote, "e Estimated".

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 (cubic foot per second); to the nearest tenth from 1.0 to 10 ft³/s; to whole numbers from 10 to 1,000 ft³/s; and to 3 significant figures when greater 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 of a more detailed nature than that published for most of the gaging stations such as observations of water temperature, discharge measurements, gage-height records, and rating tables is on file in the District's offices. Most gaging-station records are available in computer-usable form and many statistical analyses have been made.

Information on the availability of unpublished data or statistical analyses may be obtained from the Hydrologic Surveillance Project (telephone (717) 730-6916).

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. Location of stations for which records on the quality of surface water appear in this report are shown in figures 6, 7, 9.

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

During the collection of water-quality data, assurance that the data obtained represent the in-situ quality of the water is a major concern. Certain measurements, such as water temperature, pH, and dissolved oxygen, need to be made onsite when the samples are collected. To assure that measurements made in the laboratory also represent the in-situ water quality, carefully prescribed procedures need to be followed when collecting the samples, when treating the samples to prevent changes in quality pending analysis, and when shipping the samples to the laboratory. Procedures for onsite measurements and for collecting, treating, and shipping samples are detailed in the TWRI Book 1, Chapter D2; Book 3, Chapter C2; and Book 5, Chapters A1, A3, and A4. These references are listed in the 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 U.S. Geological Survey District Office.

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 collected for the National Stream Quality Accounting Network (see Definition of Terms) are obtained from several verticals. Whether samples are obtained from the centroid of flow or from several verticals, depends on flow conditions and other factors that 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 determined from data that are recorded at 15-, 30-, or 60-minute intervals by digital recorders that punch each value on a paper tape, with solid-state electronic data loggers, or with Data Collection Platforms (DCP's). More detailed records (hourly values) may be obtained from the U.S. Geological Survey District Office at the address given on the back of the title page of this report.

Water Temperature

Water temperatures are measured at most of the water-quality stations. At stations where recording instruments are used, maximum, minimum, and mean temperatures for each day are published. In addition, water temperatures are measured at the time of discharge measurements for water-discharge stations and are on file in the District's offices. For stations where water temperature is measured manually once or twice daily, it is usually measured at about the same time each day. Large streams have a small diurnal temperature change; temperatures in 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 heated waste-water discharges.

Sediment

Suspended-sediment concentrations are determined from samples collected by hand or by pump samplers. Hand samples utilize the appropriate sampler (dependent on stream depth and velocity) and are collected using the depth-integrating method at single or multiple verticals in the cross section. Samples collected by pump samplers use an intake set to a fixed location in the cross section. The intake is located at a site that best represents the entire cross section on the basis of simultaneous samples collected at various stages by the pumping sampler and by hand. During periods of rapidly changing flow or rapidly changing concentration, samples may have been collected more frequently (twice daily or, in some instances, every 15 minutes). 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, mean concentration, and the constant 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 the 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. The remaining samples are analyzed in the Geological Survey laboratory in Arvada, Colorado. If other laboratories are used, they are identified in the "Remarks" or "Cooperation" paragraph of each water-quality station manuscript. Methods used to analyze sediment samples and to compute sediment records are described in the TWRI Book 5, Chapter C1. Methods used by the U.S. Geological Survey laboratories are given in the 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. Methods used by other laboratories are approved by the U.S. Geological Survey, Water Resources Division.

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 constituents currently measured daily. Tables of chemical, physical, biological, radiochemical, and other data, 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.

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In the descriptive headings, if the location is identical to that of the streamflow-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 constituents measured daily or continuously and those measured less often than daily. For those measured daily or continuously, periods of record are given for the constituents individually.

INSTRUMENTATION.--Information on instrumentation is given only if a water-quality monitor, temperature recorder, 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 constituents measured daily or more frequently. None are given for constituents measured 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 data tables in this report:

<u>PRINTED OUTPUT</u>	<u>REMARK</u>
E,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

Records of Ground-Water Levels

Ground-water level data from an observation well network and from ground-water projects are published herein. Locations of observation wells in the basic network are shown in figures 6 and 7. Ground-water data are grouped by counties, arranged in alphabetical order, and are listed on page viii. Those with an (1) following the well number have water-level data published in the report. Miscellaneous or short-term ground-water data collection projects are published following the basic network data.

Data Collection and Computation

Water levels are measured in many types of wells under varying conditions, but the methods of measurement are standardized to the extent possible. The equipment and measuring techniques used at each observation well ensure that measurements at each well are of consistent accuracy and reliability.

The prime identification number for a given well is the 15-digit number that appears above the station description. The secondary identification number is the local well number, an alphanumeric number, derived from the county location of the well.

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Water-level records are obtained from direct measurements with a steel tape, from the graph or punched tape of a water-stage recorder, with solid-state electronic data loggers, or with Data Collection Platforms (DCP's). The water-level measurements in this report are given in feet with reference to land-surface datum (lsd). Land-surface datum is a datum plane that is approximately at land surface at each well. If known, the elevation of the land-surface datum is given in the well description. The height of the measuring point (MP) above or below land-surface datum is given in each well description. Water levels in wells equipped with recording gages are reported for each day.

Water levels are reported to as many significant figures as can be justified by the local conditions. Accordingly, most measurements are reported to a hundredth of a foot, but some may be given to a tenth of a foot.

Data Presentation

Each well record consists of three parts; (1) the station description, (2) the data table of water levels observed during the current water year, and (3) a graph of the water levels for the last 3 years. The description of the well is presented first through use of descriptive headings preceding the tabular data. The comments that follow clarify information presented under the various headings of the station description.

LOCATION.--This paragraph follows the well-identification number and reports the latitude and longitude (given in degrees, minutes, and seconds), the hydrologic-unit number, the distance and direction from a geographic point of reference, and the owner's name.

AQUIFER.--This entry designates by name (if a name exists) and geologic age the aquifer(s) open to the well.

WELL CHARACTERISTICS.--This entry describes the well in terms of depth, diameter, casing depth or screened interval, method of construction, use, and additional information such as casing breaks, collapsed screen, and other changes since construction.

INSTRUMENTATION.--This paragraph provides information on both the frequency of measurement and the collection method, allowing the user to better evaluate the reported water-levels by knowing whether they are based on hourly, daily, or some other frequency of measurement.

DATUM.--This entry describes both the measuring point and the land-surface elevation at the well. The measuring point is described physically (such as top of collar, notch in top of casing, plug in pump base and so on), and in relation to land surface (such as 1.3 ft above land-surface datum). The elevation of the land-surface datum is described in feet above (or below) sea level; it is reported with a precision relative to the method of determination.

REMARKS.--This entry describes factors that may influence the water level in a well or the measurement of the water level. It should identify wells that also are water-quality observation wells, and may be used to acknowledge the assistance of local (non-Survey) observers.

PERIOD OF RECORD.--This entry indicates the period for which there are published records for the well. It reports the month and year of the start of publication of water-level records by the U.S. Geological Survey and the words "to current year" if the records are to be continued into the following year. Periods for which water-level records are available, but are not published by the Geological Survey, may be noted.

EXTREMES FOR PERIOD OF RECORD.--This entry contains the highest and lowest values of one daily water-level statistic (maximum, mean, or instantaneous) reported in the data tables for the period of published record with respect to land-surface datum, (or occasionally sea level), and the dates of their occurrence. For example, if the daily maximum depth below land surface is reported in the table of water levels, this paragraph would reflect the highest and lowest of these daily maximum values for the period of record. Depending on the statistic reported in the table of water levels, extremes would be determined from daily maximum, mean, or instantaneous values.

Data table of water-levels

A table of water levels follows the station description for each well. These tables usually report water-level data as maximum depth (in feet) above or below land-surface datum, but may report daily mean or instantaneous values depending upon the method used to obtain the record and how the record was published in the past. If water-level record is obtained from punched-tape recorders, electronic data loggers, or DCP's, in addition to data published in the table of water levels, the daily maximum, minimum, and mean water-levels are stored in computer files and available from the District Office as noted in the REMARKS paragraph for that well. The extremes of the water-levels reported in the table for the water year and their dates of occurrence are shown on a line below the table. Missing records are indicated by dashes in place of the water level. A hydrograph showing the last three years of water levels follows each water-level table.

Records of Ground-Water Quality

Records of ground-water quality are obtained at wells and springs included in ground-water projects. Records of ground-water quality in this report may involve a variety of types of data and measurement frequencies. Those wells with a (c) following the well number in the list of ground-water wells on page viii, have water-quality data published in the report. Miscellaneous or short-term ground-water data collection projects are published following the basic network data.

Data Collection and Computation

The records of ground-water quality in this report were obtained mostly as a part of special studies in specific areas. Consequently, a number of chemical analyses are presented for some counties but none are presented for others. As a result, the records for this year, by themselves, do not provide a balanced view of ground-water quality basinwide. Such a view can be attained only by considering records for this year in context with similar records obtained for these and other counties in previous years.

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Most methods for collecting and analyzing water samples are described in the U.S. Geological Survey TWRI publications referred to in the "On-site Measurements and Sample Collection" and the "Laboratory Measurements" sections in this data report. In addition, the TWRI Book 1, Chapter D2, describes guidelines for the collection and field analysis of ground-water samples for selected unstable constituents. The values reported in this report represent water-quality conditions at the time of sampling as much as possible, consistent with available sampling techniques and method of analysis. These methods are consistent with ASTM standards and generally follow ISO standards. All samples were obtained by trained personnel. The wells sampled were pumped long enough to assure that the water collected came directly from the aquifer and had not stood for a long time in the well casing where it would have been exposed to the atmosphere and to the material, possibly metal, comprising the casings.

Data Presentation

Ground-water-quality data are published with ground-water-level data at stations where level data are collected. Data collected at partial-record stations and miscellaneous sites follow the information for continuous ground-water record stations. Data for each section are listed alphabetically by county, and are identified by well number. The prime identification number for wells sampled is the 15-digit number derived from the latitude-longitude locations. No descriptive statements are given for ground-water-quality records; however, the well number, depth of well, date of sampling, and other pertinent data are given in the table containing the chemical analyses of the ground water. The REMARK codes listed for surface-water-quality records are also applicable to ground-water-quality records.

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 over 1,050,000 sites throughout the United States and its territories where the U.S. Geological Survey collects or has collected data.
- * Daily Values File - Contains over 300 million daily values of stream flows, stages, reservoir contents, water temperatures, specific conductances, sediment concentrations, sediment discharges, and ground-water levels.
- * Peak Flow File - Contains approximately 600,000 maximum (peak) streamflow and gage-height values at surface-water sites.
- * Water Quality File - Contains approximately 4.1 million analyses of water samples that describe the chemical, physical, biological, and radio-chemical characteristics of both surface and ground water.
- * Ground-Water Site Inventory Data Base - Contains inventory data for over 1.4 million wells, 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 incurred. Direct access may be obtained by contacting:

U.S. Geological Survey
Office of Water Information
MS 427 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 and 3-1/2 inch floppy disk. Information about the availability of specific types of data or products, and user charges, can be obtained locally from each of the Water Resources Division's District offices. (See address on the back of the title page.)

For most streamgages, "real-time" streamflow conditions are available on the World Wide Web (WWW) Pennsylvania District Home Page at <http://www.pah2o.er.usgs.gov/>. In addition, daily streamflow values for the period of record and annual peak stream discharges as well as streamflow conditions in surrounding states may also be obtained at that WWW address.

A wide variety of additional information, such as ordering U.S. Geological Survey maps and publications is available at the U.S. Geological Survey Home Page at <http://www.usgs.gov/>.

DEFINITION OF TERMS

Terms related to streamflow, water-quality, and other hydrologic data, as used in this report, are defined below. See also the table for converting Inch-pound 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 equal to 43,560 cubic feet or about 326,000 gallons.

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.

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

Aquifer is a geologic formation, group of formations, or part of a formation that contains sufficient saturated permeable material to yield significant quantities of water to wells and springs.

Artesian means confined and is used to describe a well in which the water level stands above the top of the aquifer tapped by the well. A flowing artesian well is one in which the water level is above the land surface.

Bacteria are microscopic unicellular organisms, typically spherical, rodlike, or spiral and threadlike in shape, often clumped into colonies. Some bacteria cause disease, 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.

Fecal coliform bacteria are bacteria that are present in the intestines or feces of warmblooded 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 hour when incubated at $44.5^{\circ}\text{C} \pm 0.2^{\circ}\text{C}$ 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 intestines 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 $35^{\circ}\text{C} \pm 1.0^{\circ}\text{C}$ on KF-streptococcus medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

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 the organisms that produce colonies with a golden-green metallic sheen within 24 hours when incubated at $35^{\circ}\text{C} \pm 1.0^{\circ}\text{C}$ on M-Endo medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Bed material is the unconsolidated material 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 microorganisms, 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 meter (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).

Cfs-day is the volume of water represented by flow of 1 cubic foot per second for 24 hours. It is equivalent to 86,400 cubic feet, 1.9835 acre-feet, or about 646,000 gallons.

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.

Continuous-record station is a station where streamflow and/or water-quality data are collected systematically over a period of years for use in hydrologic analyses. Data may be collected continuously or periodically.

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]¹ 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)¹ is the rate of discharge representing a volume of 1 cubic foot passing a given point during 1 second and is equivalent to approximately 7.48 gallons per second or 448.8 gallons per minute.

Data Collection Platform (DCP) is an electronic instrument which collects, processes, stores, and transmits data from various sensors to an earth-orbiting Geostationary Operational Environmental Satellite (GOES) and/or through landline telemetry.

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

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.

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

Base discharge is an arbitrary instantaneous discharge value, determined for stations meeting certain criteria, that will be exceeded about three times per year.

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

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

Dissolved refers to that material in a representative water sample which passes through a 0.45 μ m 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 specific 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 noted.

¹ Until appropriate changes can be made to the WATSTORE and PRIME computer systems, the unit abbreviations "CFS" and "CFSM" will appear on some computer-generated table headings and summaries.

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

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

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

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

The Hydrologic Bench-Mark Network is a network of 53 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 8-digit number.

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

Measuring point (MP) is an arbitrary permanent reference point from which the distance to the water surface in a well is measured to obtain the water level.

Metamorphic stage refers to the stage of development that an organism exhibits during its transformation from an immature form to an adult form. This development 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 substance (MBAS) is a measure of apparent detergents. This determination depends on the formation of a blue color when methylene blue dye reacts with synthetic anionic detergent compounds.

Micrograms per gram ($\mu\text{g/g}$) is a unit expressing the concentration of a chemical constituent as the mass (micrograms) of the element per unit mass (gram) of material analyzed.

Micrograms per liter ($\mu\text{g/L}$, $\mu\text{g/L}$) 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 represent 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 sediment per liter of water-sediment mixture.

Miscellaneous-record site is a site where limited streamflow and/or water-quality data are collected on a random basis for use in hydrologic analyses.

The 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.

The 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 national or regional water-quality planning and management. Sites for the NASQAN network 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 Program (NAWQA) 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.

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 unit area habitat, usually square meters (m²), acres, or hectare. Periphyton, benthic organisms, and macrophytes are expressed in these terms.

Organisms count/volume refers to the number of organisms collected and enumerated in a sample and adjusted to the number per sample volume, usually milliliters (mL) or liters (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 recommendations 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 material 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 algal mats or floating "moss" in lakes. Their concentrations are expressed as number of cells per milliliter (cells/mL) of sample.

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

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

Milligrams of carbon per area or volume per unit time [mg C/(m²•time)] for periphyton and macrophytes and [mg C/(m³•time)] for phytoplankton are units for expressing primary productivity. They define the amount of carbon dioxide consumed as measured by radioactive carbon (carbon 14). The carbon 14 method is of greater sensitivity than the oxygen light and dark bottle method, and is preferred for use in unenriched waters. Unit time may be either the hour or day, depending on the incubation period.

Milligrams of oxygen per area or volume per unit time [mg O/(m²•time)] for periphyton and macrophytes and [mg O/(m³•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.

Polychlorinated biphenyls (PCBs) are industrial chemicals that are mixtures of chlorinated biphenyl compounds having various percentages of chlorine. They are similar in structure to organochlorine insecticides.

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 only 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.

Recurrence interval 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 return period.

Runoff (see Annual Runoff)

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 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 (Q7,10) 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 the 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.

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 multi-plate samplers (made of hardboard) for benthic organism collection, and plexiglass strips for periphyton collection.

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

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

Surficial bed material is that 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 μ m 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 μ m 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 would be 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 μ m 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

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 an instrument that records temperature whether on a chart, a tape, or 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.

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

Tons per day (T/day) is the quantity of 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 determines 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 would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

The 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 as used in Geological Survey reports, 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, 1990, is called the "1990 water year."

WDR is used as an abbreviation for "Water-Data Report" in the REVISED RECORDS paragraph to refer to a State's annual hydrologic-data reports.

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 references to previously published reports.

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. Current prices can be obtained by writing to the above address. 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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- 1-D2. *Guidelines for collection and field analysis of ground-water samples for selected unstable constituents*, by W. W. Wood: USGS--TWRI Book 1, Chapter D2. 1976. 24 pages.
- 2-D1. *Application of surface geophysics to ground-water investigations*, by A. A. R. Zohdy, G. P. Eaton, and D. R. Mabey: USGS--TWRI Book 2, Chapter D1. 1974. 116 pages.
- 2-D2. *Application of seismic-refraction techniques to hydrologic studies*, by F. P. Haeni: USGS--TWRI Book 2, Chapter D2. 1988. 86 pages.
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- 3-A3. *Measurement of peak discharge at culverts by indirect methods*, by G. L. Bodhaine: USGS--TWRI Book 3, Chapter A3. 1968. 60 pages.
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- 3-A7. *Stage measurement at gaging stations*, by T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3, Chapter A7. 1968. 28 pages.

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- 3-A9. *Measurement of time of travel in streams by dye tracing*, by F. A. Kilpatrick and J. F. Wilson, Jr.: USGS--TWRI Book 3, Chapter A9. 1989. 27 pages.
- 3-A10. *Discharge ratings at gaging stations*, by E. J. Kennedy: USGS--TWRI Book 3, Chapter A10. 1984. 59 pages.
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- 3-A14. *Use of flumes in measuring discharge*, by F. A. Kilpatrick and V. R. Schneider: USGS--TWRI Book 3, Chapter A14. 1983. 46 pages.
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- 3-A20. *Simulation of soluble waste transport and buildup in surface waters using tracers*, by F. A. Kilpatrick: USGS--TWRI Book 3, Chapter A20. 1993. 38 pages.
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- 3-B4. *Regression modeling of ground-water flow*, by R. L. Cooley and R. L. Naff: USGS--TWRI Book 3, Chapter B4. 1990. 232 pages.
- 3-B4. *Supplement 1. Regression modeling of ground-water flow - Modifications to the computer code for nonlinear regression solution of steady-state ground-water flow problems*, by R. L. Cooley: USGS--TWRI Book 3, Chapter B4. 1993. 8 pages.

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- 3-B6. *The principle of superposition and its application in ground-water hydraulics*, by T. E. Reilly, O. L. Franke, and G. D. Bennett: USGS--TWRI Book 3, Chapter B6. 1987. 28 pages.
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- 5-A4. *Methods for collection and analysis of aquatic biological and microbiological samples*, by L. J. Britton and P. E. Greeson, editors: USGS--TWRI Book 5, Chapter A4. 1989. 363 pages.
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- 6-A2. *Documentation of a computer program to simulate aquifer-system compaction using the modular finite-difference ground-water flow model*, by S. A. Leake and D. E. Prudic: USGS--TWRI Book 6, Chapter A2. 1991. 68 pages.
- 6-A3. *A modular finite-element model (MODFE) for areal and axisymmetric ground-water-flow problems, Part 1: Model Description and User's Manual*, by L. J. Torak: USGS--TWRI Book 6, Chapter A3. 1993. 136 pages.
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- 6-A6. *A coupled surface-water and ground-water flow model (MODBRANCH) for simulation of stream-aquifer interaction*, by Eric D. Swain and Eliezer J. Wexler. 1995. 125 pages.
- 7-C1. *Finite difference model for aquifer simulation in two dimensions with results of numerical experiments*, by P. C. Trescott, G. F. Pinder, and S. P. Larson: USGS--TWRI Book 7, Chapter C1. 1976. 116 pages.
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- 7-C3. *A model for simulation of flow in singular and interconnected channels*, by R. W. Schaffranek, R. A. Baltzer, and D. E. Goldberg: USGS--TWRI Book 7, Chapter C3. 1981. 110 pages.
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- 8-B2. *Calibration and maintenance of vertical-axis type current meters*, by G. F. Smoot and C. E. Novak: USGS--TWRI Book 8, Chapter B2. 1968. 15 pages.

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DELAWARE RIVER BASIN

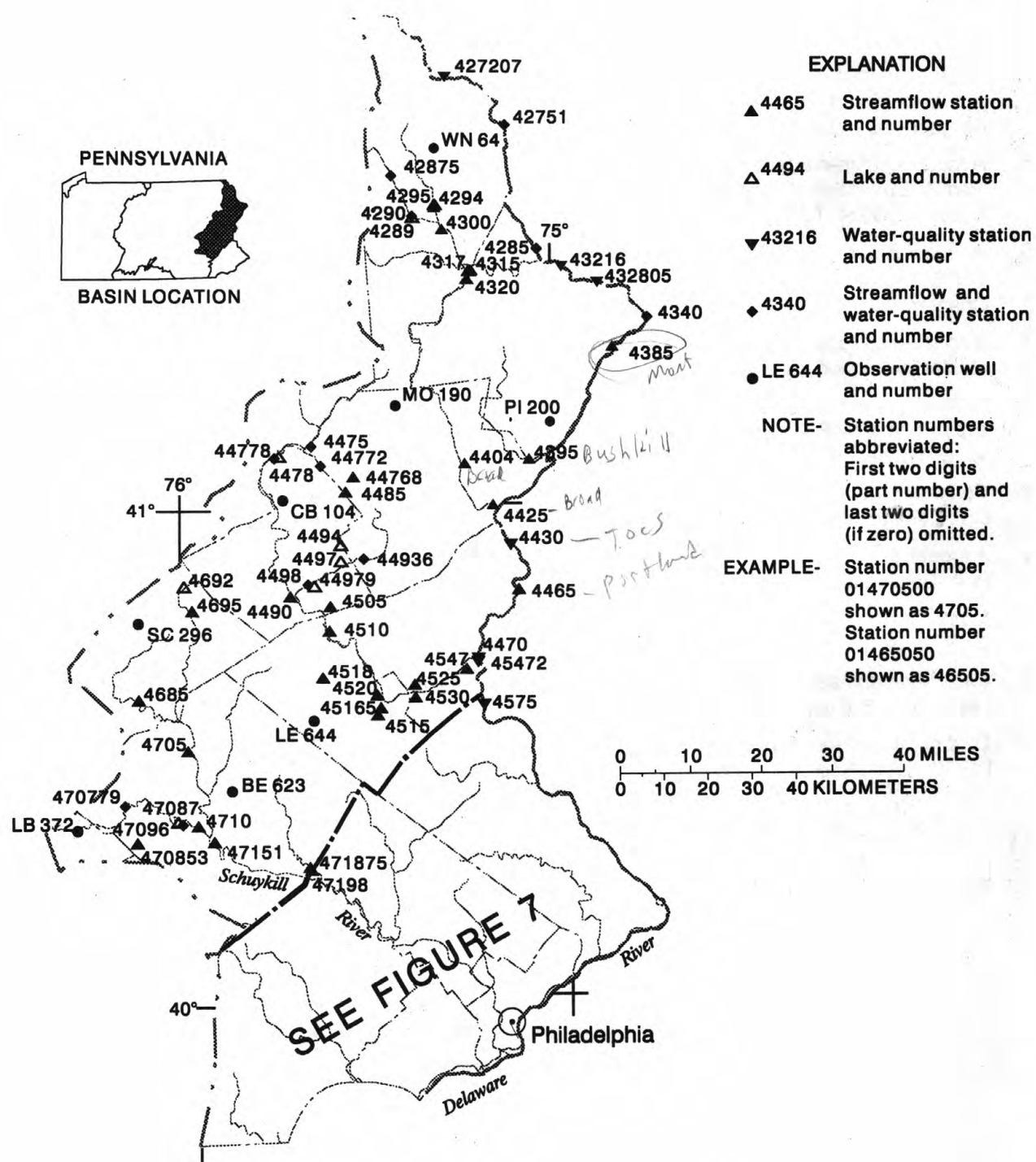


Figure 6.--Location of continuous-record data-collection stations in the upper Delaware River Basin.

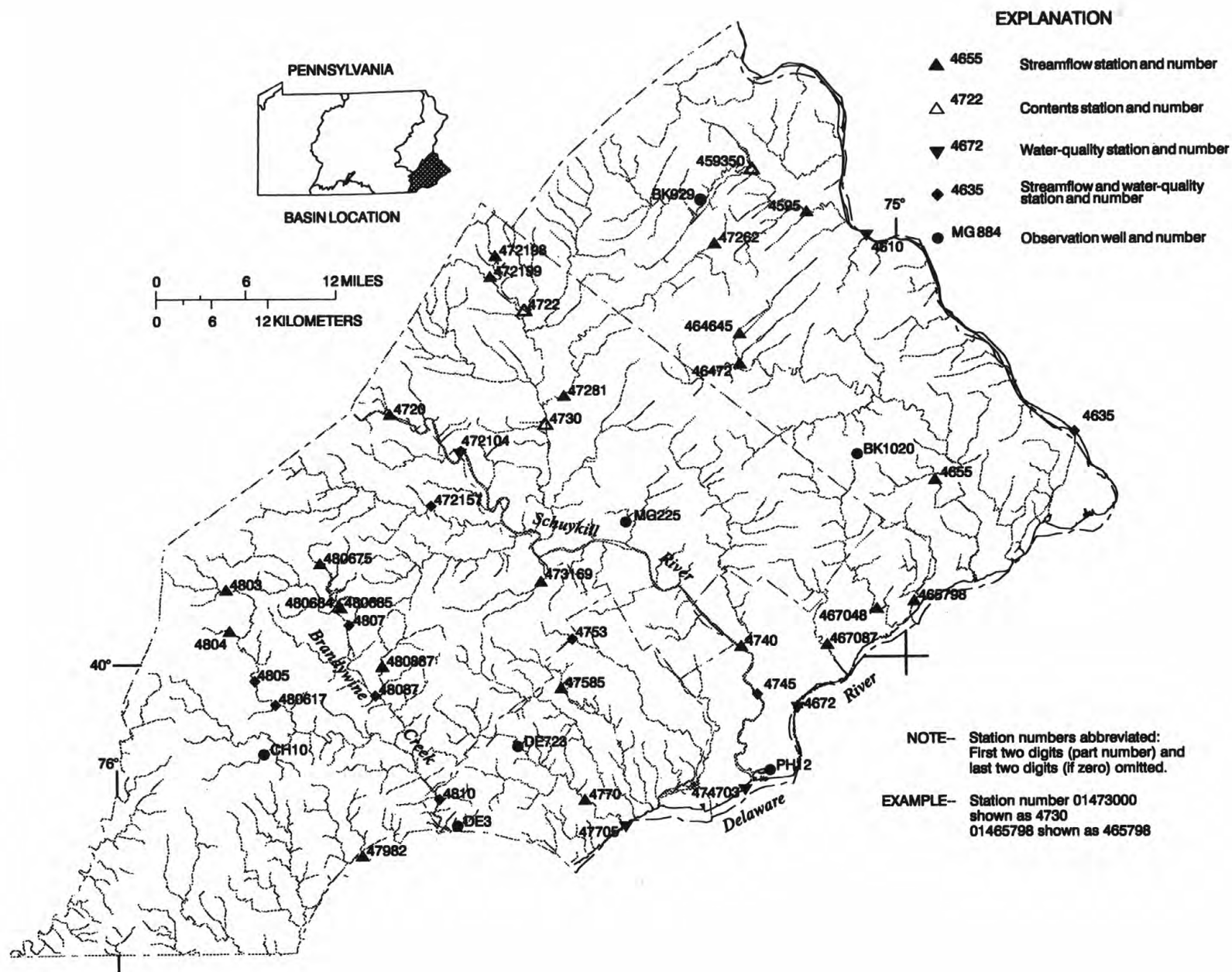


Figure 7.--Location of continuous-record data-collection stations in the lower Delaware River Basin.

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DELAWARE RIVER BASIN

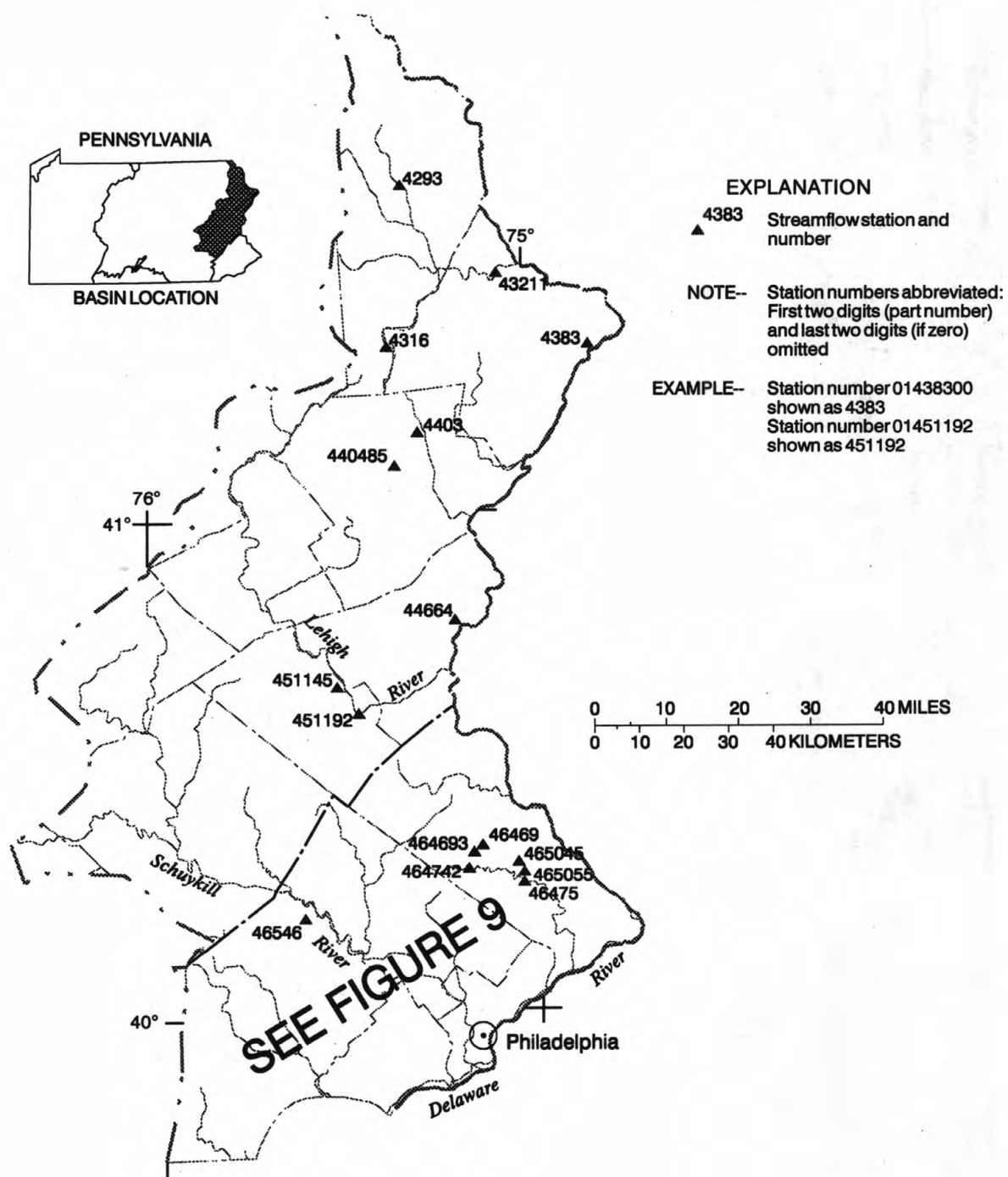
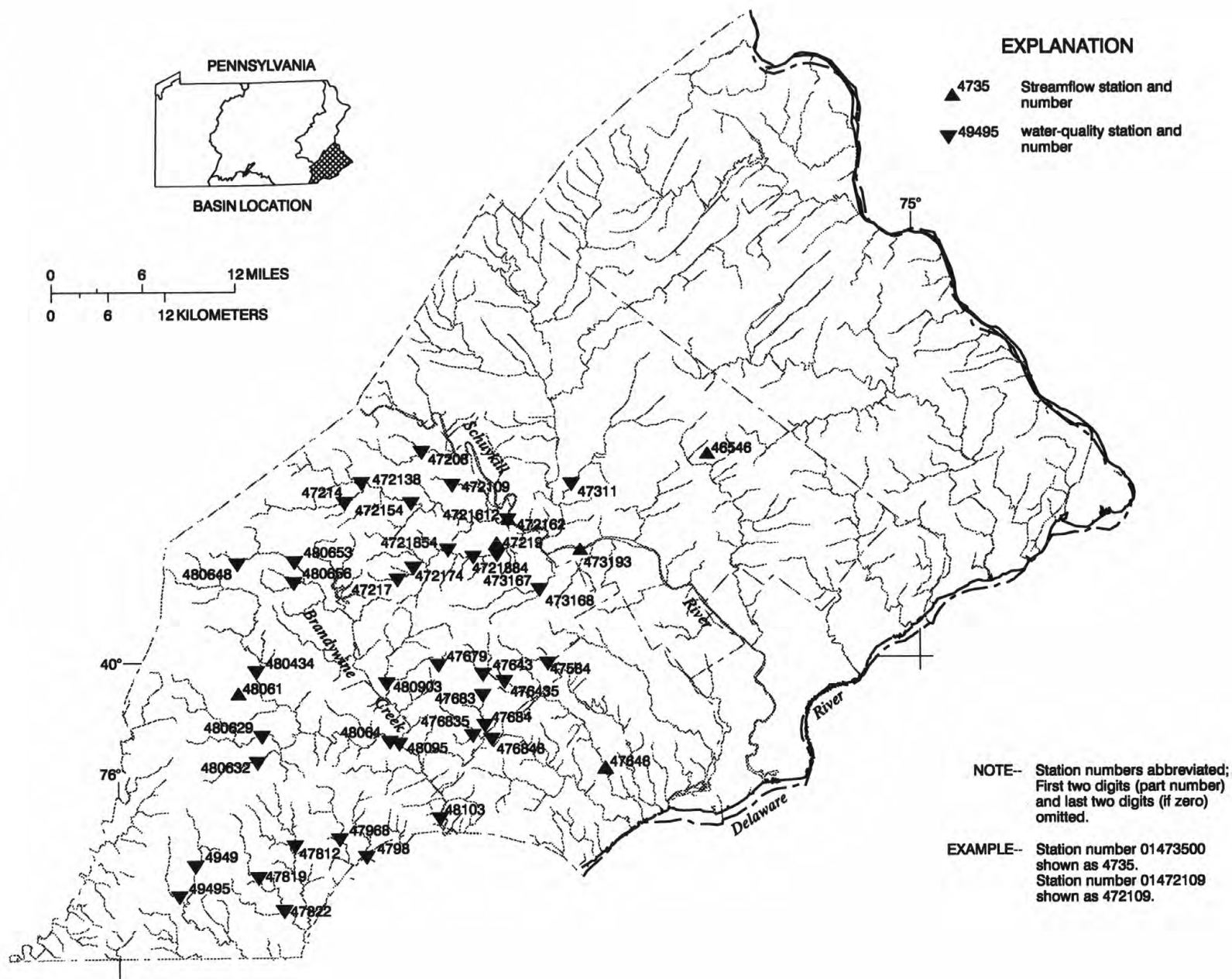


Figure 8.--Location of partial-record data-collection stations in the upper Delaware River Basin.

Figure 9.--Location of partial-record data-collection stations in the lower Delaware River Basin.



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SPECIAL NOTES, REMARK CODES, AND SELECTED CONSTITUENT DEFINITIONS

NOTES--Traditionally, dissolved trace-element concentrations have been reported at the microgram per liter ($\mu\text{G/L}$) 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 $\mu\text{G/L}$ 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 at some stations in water year 1994. Full implementation of the protocols took place during the 1995 water year.

--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).

--In March 1989 a bias was discovered in the turbidimetric method for **sulfate analysis** for those samples analyzed by the U.S. Geological Survey National Water-Quality Laboratory indicating that values below 75 mg/L have a median positive bias of 2 mg/L above the true value for the period between 1982 and 1989.

--**Methylene blue active substance (MBAS)** determinations made from January 1, 1970, through August 29, 1993, at the National Water Quality Laboratory in Denver (Analyzing Agency Code 80020) are positively biased. These data can be corrected on the basis of the following equation, if concentrations of dissolved nitrate plus nitrite, as nitrogen, and dissolved chloride, determined concurrently with the MBAS data are applied:

$$\text{MBASCOR} = M - 0.0088N - 0.00019C$$

where:

MBASCOR = corrected MBAS concentration, in mg/L ;
 M = reported MBAS concentration, in mg/L ;
 N = dissolved nitrate plus nitrite, as nitrogen, in mg/L ; and
 C = dissolved chloride concentration, in mg/L .

The detection limit of the new method is 0.02 mg/L , whereas the detection limit for the old method was 0.01 mg/L . A detection limit of 0.02 mg/L should be used with corrected MBAS data from January 1, 1970, through August 29, 1993.

Remark Codes--The following remark codes may appear with the data tables in this report:

<u>PRINTED OUTPUT</u>	<u>REMARK</u>
E,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
ND	Material specifically analyzed for but not detected

EXPLANATION OF CODES USED TO DEFINE SAMPLE COLLECTION PROCEDURES (partial listing)(71999) SAMPLE PURPOSE CODES:

10--Routine
 15--NAWQA
 20--NASQAN
 30--Benchmark

(82398) SAMPLE METHOD CODES:

10--Equal width increment
 20--Equal discharge increment
 30--Single vertical
 40--Multiple verticals
 50--Point sample
 70--Grab sample
 120--Velocity integrated
 8010--Other

(84164) SAMPLER TYPE: (partial list)

110--Sewage sampler
 3011--US D-77
 3035--DH-76 Trace metal sampler with teflon gasket and nozzle
 3039--D-77 Trace metal
 3040--D-77 Trace metal modified teflon bag sampler
 3045--DH-81 with Teflon cap and nozzle
 8010--Other (other than a defined sampler type)

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SPECIAL NOTES, REMARK CODES AND SELECTED CONSTITUENT DEFINITIONS--Continued

Explanation of selected abbreviations used in constituent definitions in water-quality tables:

AC-FT	acre-feet
BOT MAT	bottom material (Unconsolidated material of which a streambed, lake, pond, reservoir, or estuary bottom is composed.)
COLS/100 ML	colonies per 100 milliliters
DIS	dissolved
FET	fixed end-point titration
FLD	field (Measurement determined at field site.)
F/S	feet per second
G/M	gallons per minute
G/SQM; MG/M2	grams or milligrams per square meter
IT	incremental titration
KF AGAR	nutrient medium for growth of fecal streptococcal bacteria
μG/L	micrograms per liter
μS/CM	microsiemens per centimeter
MG/L	milligrams per liter
MG/M2	milligrams per square meter
MM OF HG	millimeters of mercury
NONCARB	noncarbonate
NTU	nephelometric turbidity unit
PCI/L	picocuries per liter
REC	recoverable
TOT	total
T/DAY	tons per day
WH IT	whole water, incremental titration (Alkalinity, bicarbonate, and carbonate as determined by incremental titration of unfiltered water at the field site.)
2 SIGMA	Counting statistic that represents error in the reported radon, uranium, or tritium value caused by variations in sample counting, background radiation, volume of sample, and decay since sample was collected.
0.7μ GF	0.7 micron glass-fiber filter (Water filtered through a glass-fiber membrane filter with openings that are 0.7 microns in size.)

(00027) AGENCY COLLECTING SAMPLE CODES:

1028--U.S. Geological Survey
42011--Susquehanna River Basin Commission

(00028) AGENCY ANALYZING SAMPLE CODES:

1028--U.S. Geological Survey
80020--U.S. Geological Survey, National Water-
Quality Laboratory, Denver, Colorado
9813--Pennsylvania Department of Environmental Protection

CONTINUOUS WATER-DISCHARGE AND WATER-QUALITY STATION RECORDS

NORTH ATLANTIC SLOPE BASINS

DELAWARE RIVER BASIN

01427207 DELAWARE RIVER AT LORDVILLE, N.Y.

LOCATION.--Lat 41°52'02", long 75°12'51", Wayne County, Pa., Hydrologic Unit 02040101, on right bank at site of former Lordville-Equinunk Interstate Bridge at Lordville, 9.7 mi southeast of Hancock.

DRAINAGE AREA.--1,590 mi².

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1967 to August 1971, June 1973 to May 1996 (discontinued).

REVISED RECORDS.--WDR NY-82-1: Drainage area.

INSTRUMENTATION.--Water-temperature satellite telemeter since June 1989, provides 15-minute-interval readings.

From June 1987 to June 1989, water-temperature satellite telemeter provided one-hour-interval readings. From June 1973 to November 1989, water-temperature digital recorder provided one-hour-interval readings. Prior to August 1971, water-temperature recorder provided continuous recordings.

REMARKS.--Water temperature is affected by release of water from upstream reservoir. Interruptions of record were due to malfunction of recording instrument.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum (water years 1968-70, 1973, 1975-86, 1989, 1991-95) 30.5°C, June 16, 1976, July 10, 1981; minimum (water years 1968-71, 1974, 1977-78, 1980-96), 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: (Oct. 1995 to May 1996): Maximum, 18.5°C, May 20, 24; minimum, 0.0°C on many days during winter period.

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	16.5	14.0	15.5	9.5	7.5	8.5	1.5	.0	.5	.0	.0	.0
2	17.5	15.5	16.5	11.0	9.5	10.5	2.0	1.5	1.5	.0	.0	.0
3	17.5	16.0	17.0	11.5	10.5	11.0	1.5	.5	1.0	.0	.0	.0
4	17.5	17.0	17.0	10.5	7.0	9.0	3.0	1.5	2.0	.0	.0	.0
5	17.0	15.5	16.5	7.0	5.5	6.0	2.0	1.0	1.5	.0	.0	.0
6	18.0	15.5	16.5	5.5	4.5	5.0	1.5	1.0	1.5	.0	.0	.0
7	17.5	16.0	16.5	5.0	4.0	4.5	1.0	.0	.0	.0	.0	.0
8	16.0	14.5	15.5	5.5	4.5	5.0	.0	.0	.0	.0	.0	.0
9	16.0	13.0	14.5	4.5	3.0	3.5	.0	.0	.0	.0	.0	.0
10	15.5	13.0	14.5	3.5	2.5	3.0	.0	.0	.0	.0	.0	.0
11	16.5	14.0	15.0	8.0	3.5	5.0	.0	.0	.0	.0	.0	.0
12	16.0	14.0	15.0	8.0	4.5	6.0	.0	.0	.0	.0	.0	.0
13	16.5	14.0	15.5	4.5	3.0	3.5	.0	.0	.0	.0	.0	.0
14	16.0	15.0	15.0	---	2.0	---	.0	.0	.0	.0	.0	.0
15	15.0	12.5	14.0	3.5	2.0	3.0	.0	.0	.0	.0	.0	.0
16	12.5	10.5	11.0	3.5	3.0	3.5	.0	.0	.0	.0	.0	.0
17	11.5	9.0	10.0	3.5	2.5	3.0	.0	.0	.0	.0	.0	.0
18	11.5	8.5	10.0	3.0	3.0	3.0	.0	.0	.0	.0	.0	.0
19	12.0	9.5	11.0	4.0	3.0	3.5	.0	.0	.0	.5	.0	.5
20	12.5	11.0	11.5	4.0	3.5	4.0	.0	.0	.0	1.0	.5	.5
21	14.0	12.0	13.0	4.5	3.5	4.0	.0	.0	.0	.5	.0	.5
22	12.0	10.5	11.0	4.0	3.5	4.0	.0	.0	.0	1.5	.5	1.0
23	11.0	9.5	10.5	3.5	2.5	2.5	.0	.0	.0	1.5	1.0	1.0
24	12.0	9.5	11.0	2.5	2.0	2.0	.0	.0	.0	2.5	1.5	2.0
25	12.0	10.5	11.0	---	.0	---	.0	.0	.0	2.0	.5	1.0
26	11.5	10.0	10.5	2.0	1.0	1.5	.0	.0	.0	.5	.0	.5
27	11.0	10.0	10.5	3.0	2.0	2.5	.0	.0	.0	2.5	.5	1.5
28	12.5	11.0	11.5	3.5	3.0	3.0	.0	.0	.0	2.0	1.0	1.0
29	12.0	9.0	10.5	3.0	1.5	2.0	.0	.0	.0	1.0	.5	1.0
30	9.0	8.0	8.5	1.5	.0	.5	.0	.0	.0	1.5	.5	1.0
31	8.0	7.5	7.5	---	---	---	.0	.0	.0	1.5	.5	1.0
MONTH	18.0	7.5	13.0	---	.0	---	3.0	.0	.5	2.5	.0	.5

DELAWARE RIVER BASIN

01427207 DELAWARE RIVER AT LORDVILLE, N.Y.--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
	FEBRUARY			MARCH			APRIL			MAY		
1	.5	.0	.0	.5	.0	.0	7.0	5.5	6.0	9.5	8.0	8.5
2	.5	.0	.5	1.5	.0	.5	7.0	4.5	5.5	10.0	7.5	8.5
3	.5	.5	.5	1.5	.0	.5	5.5	5.0	5.0	9.0	7.0	8.0
4	.5	.5	.5	.5	.0	.0	6.5	4.0	5.0	9.0	8.0	8.5
5	.5	.5	.5	.0	.0	.0	6.5	4.5	5.5	11.5	8.5	9.5
6	.5	.5	.5	1.0	.0	.5	6.5	4.0	5.0	11.0	9.5	10.0
7	.5	.5	.5	.5	.0	.0	6.0	5.0	5.5	10.5	8.5	9.5
8	.5	.5	.5	.0	.0	.0	5.5	4.0	4.5	12.5	9.5	10.5
9	.5	.5	.5	.0	.0	.0	5.5	4.0	5.0	12.0	10.5	11.0
10	1.0	.5	.5	.0	.0	.0	5.5	4.5	4.5	13.5	10.0	11.5
11	1.0	1.0	1.0	.0	.0	.0	7.0	3.5	5.0	13.5	12.0	13.0
12	1.0	.5	.5	.0	.0	.0	7.5	6.5	7.0	12.0	8.5	10.0
13	.5	.0	.5	.0	.0	.0	7.5	6.0	6.5	8.5	7.0	7.5
14	.0	.0	.0	.0	.0	.0	6.0	4.5	5.0	10.0	7.0	8.5
15	.5	.0	.0	2.5	.0	1.0	6.5	3.5	5.0	11.5	8.0	9.5
16	.5	.0	.0	3.5	1.0	2.0	6.5	5.0	5.5	11.0	9.5	9.5
17	.5	.0	.5	3.0	1.0	2.5	5.0	4.0	4.5	13.5	9.5	11.5
18	.5	.5	.5	5.0	3.0	3.5	7.0	3.5	5.0	14.0	12.0	13.0
19	.5	.5	.5	4.5	3.0	4.0	7.5	5.0	6.0	17.5	13.5	15.0
20	.5	.5	.5	4.5	3.0	4.0	8.5	6.0	7.0	18.5	14.5	16.5
21	.5	.0	.0	3.5	2.5	3.0	9.5	7.0	8.5	18.0	15.0	16.0
22	.5	.0	.5	3.0	2.0	2.5	10.5	7.0	9.0	16.5	13.5	15.0
23	1.5	.0	.5	2.5	1.0	2.0	11.0	9.5	10.5	17.5	14.5	16.0
24	2.5	1.5	2.0	4.0	1.0	2.5	10.5	8.0	9.0	18.5	15.5	16.5
25	3.0	1.0	2.0	6.5	2.5	4.5	8.5	7.0	8.0	---	---	---
26	3.0	1.5	2.5	6.5	5.0	6.0	9.0	8.0	8.5	---	---	---
27	2.5	1.5	2.0	5.0	2.0	3.5	9.0	7.5	8.5	---	---	---
28	3.5	2.5	3.0	3.5	2.0	2.5	9.5	7.0	8.0	---	---	---
29	2.5	.0	1.0	4.0	2.5	3.0	9.5	8.0	8.5	---	---	---
30	---	---	---	7.0	3.5	5.0	9.0	8.0	8.5	---	---	---
31	---	---	---	8.0	4.5	6.0	---	---	---	---	---	---
MONTH	3.5	.0	.5	8.0	.0	2.0	11.0	3.5	6.5	---	---	---

DELAWARE RIVER BASIN

01427510 DELAWARE RIVER AT CALLICOON, N.Y.

LOCATION.--Lat 41°45'24", long 75°03'28", Wayne County, Pennsylvania, Hydrologic Unit 02040101, on right bank, 0.5 mi downstream from Callicoon Creek, 0.5 mi downstream from Interstate Bridge 7, and 0.8 mi southeast of Callicoon. Water-quality sampling site at discharge station.

DRAINAGE AREA.--1,820 mi².

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WDR NY-82-1: Drainage area. WDR NY-86-1: 1975-84 (M).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 734.88 ft above sea level.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Subsequent to September 1954, entire flow from 371 mi² of drainage area controlled by Pepacton Reservoir, and subsequent to October 1963, entire flow from 454 mi² of drainage area controlled by Cannonsville Reservoir. Part of flow from these reservoirs diverted for New York City municipal supply. Remainder of flow (except for conservation releases and spill) impounded for release during period of low flow in the lower Delaware River Basin, as directed by the Delaware River Master. Satellite gage-height and temperature telemeter at station. Information on the above reservoirs can be found in the annual Water Data Report NJ-96-1.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 95,600 ft³/s, Jan. 19, 1996, gage-height, 16.31 ft; minimum, 307 ft³/s, Aug. 23, 1985; minimum gage height, 2.20 ft, Sept. 13, 1977, Aug. 23, 1985.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 95,600 ft³/s, Jan. 19, gage height, 16.31 ft; minimum, 487 ft³/s, Sept. 13, 14, minimum gage height, 2.56 ft, Oct. 10.

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	1230	2370	1990	e680	e6100	5310	3160	17500	1080	1600	2300	968
2	1280	2310	2110	e750	e4700	4680	3450	14300	1120	1370	2170	1120
3	1320	3080	1910	e720	e3800	4090	3360	11500	1110	1260	1890	1180
4	1420	3120	1950	e700	e3100	e3300	3150	9880	990	1470	1670	1200
5	1180	2520	1990	e720	e2200	e2900	2960	8800	1020	1810	1560	1360
6	1190	2160	1840	e700	e2000	e3100	2820	8240	995	1670	1540	1040
7	1470	1970	1710	e680	e2100	e3100	2710	8330	858	1420	1490	1040
8	914	2080	e1500	e680	e2200	e2500	3090	7320	1260	1290	1400	1130
9	661	1900	e1400	e680	e2100	e2000	2990	6560	2630	1320	1280	924
10	561	1610	e1300	e640	e2000	e1900	2780	6740	3640	1290	1340	833
11	859	1510	e1200	e700	e1800	e2000	2580	9060	6450	1220	1200	753
12	999	8800	e1200	e720	e1500	e2100	2410	17300	6620	1060	1130	710
13	1080	7560	e1200	e680	e1300	e2200	5320	17100	7400	3060	1080	641
14	1230	5620	e1200	e900	e1200	e2600	12000	13800	5940	9330	1040	1280
15	2340	7400	e1300	e1100	e1200	3750	10400	11000	4650	6680	1020	1140
16	2220	7040	e1100	e1500	e1100	4610	18800	9040	3530	11000	1140	835
17	1270	5160	e1200	e1300	e1100	4190	21000	7730	2580	8570	1180	1010
18	955	4160	e1000	e1200	e1100	3990	15900	6720	2100	6860	1000	2170
19	814	3670	e900	e34000	e1000	4090	12300	6210	1920	5990	896	1840
20	716	3320	e850	48100	e1100	5990	9910	5510	2210	6610	840	1080
21	7990	3020	e880	12800	e5000	6970	8220	4860	1960	5130	812	779
22	19700	2830	e720	8000	7950	6150	7180	4560	1700	4040	986	695
23	7560	2490	e650	5930	8830	5320	6430	3810	1600	3210	1080	1070
24	4670	2200	e680	5730	9710	4610	6920	3150	1500	2650	1310	1130
25	3360	1930	e720	8660	10200	4160	7100	2630	1330	2030	1240	967
26	2560	1780	e780	7150	8360	4340	6560	2160	1220	3530	1130	906
27	2060	1690	e800	12200	6950	4520	6070	1860	1120	4460	981	779
28	4040	1680	e780	21900	6420	4050	5510	1630	1090	3290	1300	717
29	5760	2240	e720	13100	6470	3810	5820	1450	1170	2810	1530	1220
30	3650	2100	e700	9930	---	3680	11500	1310	1250	2510	999	1540
31	2780	---	e650	7980	---	3350	---	1190	---	2160	852	---
TOTAL	87839	99320	36930	210530	112590	119360	212400	231250	72043	110700	39386	32057
MEAN	2834	3311	1191	6791	3882	3850	7080	7460	2401	3571	1271	1069
MAX	19700	8800	2110	48100	10200	6970	21000	17500	7400	11000	2300	2170
MIN	561	1510	650	640	1000	1900	2410	1190	858	1060	812	641

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1975 - 1996, BY WATER YEAR (WY)

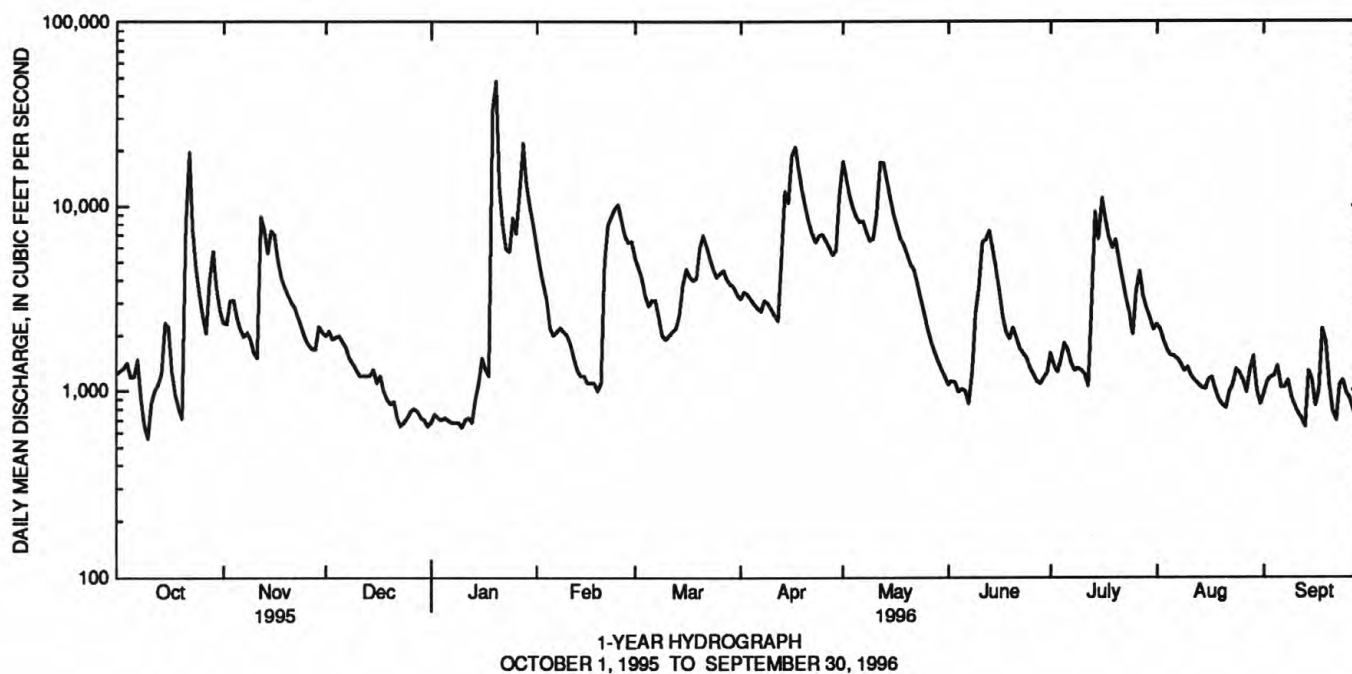
	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
MEAN	2137	2607	2409	2401	2711	4542	5754	3466	1649	1331	1309	1439										
MAX	6545	4508	6065	7594	7993	11080	14500	7866	3228	3571	2710	3716										
(WY)	1978	1987	1978	1978	1976	1977	1993	1984	1984	1996	1994	1977										
MIN	701	1130	1127	587	611	1177	1496	935	734	777	560	839										
(WY)	1992	1979	1990	1977	1980	1981	1985	1985	1985	1981	1985	1994										

e Estimated

DELAWARE RIVER BASIN

01427510 DELAWARE RIVER AT CALLICOON, N.Y.--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1975 - 1996	
ANNUAL TOTAL	734408		1364405		2638	
ANNUAL MEAN	2012		3728		3972	
HIGHEST ANNUAL MEAN					1978	
LOWEST ANNUAL MEAN					1434	
HIGHEST DAILY MEAN	19700	Oct 22	48100	Jan 20	54800	Mar 15 1986
LOWEST DAILY MEAN	561	Oct 10	561	Oct 10	312	Aug 23 1985
ANNUAL SEVEN-DAY MINIMUM	733	Dec 22	683	Jan 7	354	Aug 17 1985
10 PERCENT EXCEEDS	4350		8340		5920	
50 PERCENT EXCEEDS	1300		2010		1390	
90 PERCENT EXCEEDS	844		834		774	



DELAWARE RIVER BASIN

01427510 DELAWARE RIVER AT CALLICOON, N.Y.--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: June 1975 to current year.

INSTRUMENTATION.--Water-temperature satellite telemeter since May 1989, provides 15-minute-interval readings.
Prior to May 1989, water-temperature digital recorder provided one-hour-interval readings.

REMARKS.--Water temperature is affected by release of water from upstream reservoir. Interruptions of record were due to malfunction of recording instrument.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum recorded, (water years 1976-96), 30.5°C, July 12, 1987; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 26.5°C, Aug. 6-8; minimum, 0.0°C on many days during winter period.

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	16.5	13.5	15.0	9.0	7.5	8.5	1.0	.0	.5	.0	.0	.0
2	18.0	14.5	16.0	10.5	9.0	10.0	1.5	.5	1.0	.0	.0	.0
3	18.0	15.0	16.5	11.5	10.5	11.0	1.5	.5	1.0	.0	.0	.0
4	17.5	17.0	17.0	10.5	7.5	9.0	2.5	1.5	1.5	.0	.0	.0
5	17.5	16.5	17.0	7.5	5.5	6.5	2.0	1.0	1.5	.0	.0	.0
6	18.5	15.5	17.0	6.0	4.5	5.0	1.5	.5	1.0	.0	.0	.0
7	17.5	16.0	16.5	4.5	4.0	4.5	1.0	.0	.5	.0	.0	.0
8	16.0	14.5	15.5	5.5	3.5	4.5	.0	.0	.0	.0	.0	.0
9	15.5	13.5	14.5	4.0	2.5	3.5	.0	.0	.0	.0	.0	.0
10	16.0	13.0	14.5	3.5	2.5	3.0	.0	.0	.0	.0	.0	.0
11	16.5	14.0	15.5	7.5	3.0	4.5	.0	.0	.0	.0	.0	.0
12	17.0	13.5	15.5	7.5	5.0	6.0	.0	.0	.0	.0	.0	.0
13	17.5	14.0	16.0	5.0	3.0	4.0	.0	.0	.0	.0	.0	.0
14	16.0	14.5	15.0	3.0	2.5	2.5	.0	.0	.0	.0	.0	.0
15	15.5	12.5	14.0	3.0	2.5	2.5	.0	.0	.0	.0	.0	.0
16	12.5	10.5	11.5	3.5	3.0	3.0	.0	.0	.0	.0	.0	.0
17	11.5	9.5	10.5	3.5	2.5	3.0	.0	.0	.0	.0	.0	.0
18	12.0	9.0	10.5	3.0	3.0	3.0	.0	.0	.0	.0	.0	.0
19	13.0	9.5	11.5	3.5	3.0	3.0	.0	.0	.0	---	.0	---
20	13.0	11.0	11.5	4.0	3.5	3.5	.0	.0	.0	---	.0	---
21	14.0	12.0	13.0	4.5	3.5	4.0	.0	.0	.0	---	.0	---
22	12.0	10.5	11.5	4.0	3.5	3.5	.0	.0	.0	1.0	.0	---
23	11.0	10.0	10.5	3.5	2.5	3.0	.0	.0	.0	1.0	.5	1.0
24	11.5	10.0	10.5	2.5	1.5	2.0	.0	.0	.0	2.0	1.0	1.5
25	11.5	10.5	11.0	1.5	.5	1.0	.0	.0	.0	2.0	.5	1.0
26	11.5	10.0	10.5	2.0	.5	1.0	.0	.0	.0	.5	.0	.0
27	11.5	10.0	10.5	2.5	1.5	2.0	.0	.0	.0	2.0	.0	1.5
28	12.0	11.0	11.5	3.5	2.5	3.0	.0	.0	.0	2.0	1.0	1.0
29	11.5	9.5	11.0	2.5	1.5	2.0	.0	.0	.0	1.0	.5	.5
30	9.5	8.0	9.0	1.5	.0	.5	.0	.0	.0	1.0	.5	1.0
31	8.0	7.5	8.0	---	---	---	.0	.0	.0	1.0	.0	.5
MONTH	18.5	7.5	13.0	11.5	.0	4.0	2.5	.0	.0	---	.0	---

DELAWARE RIVER BASIN

01427510 DELAWARE RIVER AT CALLICOON, N.Y.--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
FEBRUARY			MARCH			APRIL			MAY			
1	.0	.0	.0	1.0	.0	.5	7.5	6.0	6.5	9.5	8.0	9.0
2	.0	.0	.0	1.0	.0	.5	7.5	5.0	6.0	9.5	8.5	9.0
3	.0	.0	.0	1.5	.0	.5	6.5	5.0	5.5	9.0	7.5	8.0
4	.0	.0	.0	.0	.0	.0	7.0	4.5	5.5	8.5	8.0	8.0
5	.0	.0	.0	.0	.0	.0	7.0	5.0	6.0	11.0	8.5	9.5
6	.0	.0	.0	1.0	.0	.5	8.0	4.0	6.0	11.0	9.0	10.0
7	.0	.0	.0	.5	.0	.5	6.5	5.0	6.0	10.0	8.5	9.5
8	.0	.0	.0	---	---	---	6.5	4.0	5.0	12.0	9.5	10.5
9	.0	.0	.0	---	---	---	6.5	3.5	5.0	11.5	11.0	11.5
10	.5	.0	.0	---	---	---	6.0	4.0	5.0	12.5	10.5	11.0
11	1.0	.0	.5	1.5	---	---	8.0	3.5	6.0	14.0	12.5	13.0
12	.0	.0	.0	2.0	.0	1.0	9.0	6.5	7.5	12.5	8.5	10.5
13	.0	.0	.0	3.0	.0	1.0	8.0	6.0	7.0	8.5	7.0	7.5
14	.0	.0	.0	3.0	.0	1.5	6.0	4.5	5.5	9.0	7.0	8.0
15	.0	.0	.0	2.0	.5	1.5	6.0	4.0	5.0	10.5	8.5	9.5
16	.0	.0	.0	3.5	1.0	2.0	6.0	5.0	5.5	10.5	9.0	10.0
17	.0	.0	.0	4.0	1.5	2.5	5.0	4.0	4.5	12.5	9.0	10.5
18	.0	.0	.0	5.5	3.0	4.0	6.5	3.5	4.5	13.5	12.5	13.0
19	.0	.0	.0	5.0	3.5	4.0	7.0	6.0	6.5	16.5	13.0	15.0
20	.0	.0	.0	4.5	3.5	4.0	8.0	7.0	7.5	19.0	16.0	17.5
21	.0	.0	.0	4.0	3.0	3.5	9.5	8.0	9.0	18.5	15.5	17.5
22	.5	.0	.0	3.0	2.0	2.5	10.5	8.5	9.5	17.0	14.5	15.5
23	1.0	.0	.5	2.5	1.5	2.0	12.5	10.0	11.5	---	15.0	---
24	2.0	1.0	1.5	4.0	1.5	2.5	11.0	9.0	10.0	19.0	16.0	---
25	3.0	1.5	2.0	6.0	3.0	4.5	9.0	8.0	8.5	19.0	14.5	16.5
26	3.0	2.0	2.5	7.5	5.0	6.5	10.0	8.0	9.0	17.0	14.5	15.5
27	3.0	2.0	2.5	5.5	3.0	4.5	10.0	8.5	9.0	---	---	---
28	4.0	2.5	3.0	3.5	2.5	3.0	10.0	7.5	9.0	---	---	---
29	3.0	.5	1.5	4.5	2.0	3.0	9.0	8.0	9.0	---	---	---
30	---	---	---	7.0	3.5	5.0	9.0	7.5	8.0	---	---	---
31	---	---	---	9.0	5.0	6.5	---	---	---	18.5	---	---
MONTH	4.0	.0	.5	---	---	---	12.5	3.5	7.0	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	---	---	---	22.5	18.0	19.5	21.0	17.5	19.0	24.0	19.5	22.0
2	---	---	---	25.0	19.0	22.0	23.0	18.5	20.5	23.5	20.0	22.0
3	---	---	---	23.0	21.0	22.0	22.0	20.0	21.0	24.0	19.5	21.5
4	21.0	---	---	21.0	18.0	19.5	24.0	20.0	21.5	22.0	19.0	20.0
5	22.0	18.0	20.0	21.5	16.5	19.0	26.0	21.0	23.0	19.5	17.5	18.5
6	23.0	17.5	20.5	---	---	---	26.5	22.0	24.0	20.5	17.0	18.5
7	24.5	19.5	22.0	---	---	---	26.5	22.5	24.5	20.5	19.0	20.0
8	25.5	22.0	24.0	---	---	---	26.5	23.0	24.5	21.5	19.0	20.0
9	25.5	22.5	23.5	26.0	22.2	---	24.5	22.5	23.0	23.5	19.5	21.5
10	23.0	21.0	22.0	23.5	20.5	22.0	23.5	20.0	22.0	24.0	21.5	23.0
11	21.0	19.5	20.0	24.5	19.0	22.0	23.0	18.0	21.0	23.5	21.0	22.5
12	21.0	19.5	20.0	24.0	19.0	21.5	21.5	19.0	20.0	22.5	20.5	21.0
13	20.5	19.5	20.0	22.5	18.5	20.0	22.5	19.0	20.5	21.0	19.0	19.5
14	21.0	19.5	20.0	19.0	17.0	18.0	24.0	19.0	22.0	20.0	17.5	18.5
15	22.5	20.0	21.0	19.5	18.5	19.0	24.5	21.0	22.5	17.5	15.0	16.0
16	23.0	20.0	21.5	19.5	18.5	19.0	23.0	21.0	22.0	16.0	14.5	15.5
17	22.0	20.5	21.0	20.5	19.0	19.5	24.0	20.0	22.0	15.5	15.0	15.0
18	21.5	19.5	20.5	21.5	19.5	20.5	24.5	20.0	22.5	15.5	14.0	15.0
19	20.5	18.0	19.0	22.0	20.5	21.0	26.0	20.5	23.5	17.5	14.0	15.5
20	18.0	17.0	17.5	20.5	18.5	19.5	25.5	22.0	24.0	18.5	14.5	16.5
21	21.5	17.0	19.0	20.5	18.0	19.0	24.5	22.5	23.5	19.5	15.5	17.5
22	19.5	18.5	19.0	21.5	18.5	19.5	26.0	21.5	23.5	18.5	16.0	16.5
23	22.5	17.5	20.0	20.5	19.5	20.0	24.5	21.5	23.0	16.0	14.5	15.5
24	21.5	18.0	19.5	23.0	18.5	20.5	23.5	21.0	22.0	14.5	13.0	13.5
25	21.5	19.5	20.5	22.0	20.0	21.0	24.0	19.0	21.5	14.5	12.5	13.5
26	22.5	17.5	20.0	23.0	20.0	21.5	24.5	19.5	22.0	14.5	12.0	13.0
27	23.5	17.5	20.5	21.0	19.5	20.0	24.5	20.5	22.5	14.5	13.5	14.0
28	25.0	20.0	22.5	21.5	18.5	20.0	24.0	21.0	22.5	16.0	14.5	15.0
29	23.0	20.5	21.0	20.0	19.0	19.5	22.5	20.0	21.5	16.5	14.0	15.5
30	20.5	18.5	19.5	19.0	17.5	18.0	23.0	18.5	21.0	16.5	14.0	15.0
31	---	---	---	18.0	17.0	17.5	23.5	19.0	21.5	---	---	---
MONTH	---	---	---	---	---	---	26.5	17.5	22.0	24.0	12.0	17.5

DELAWARE RIVER BASIN

01428500 DELAWARE RIVER ABOVE LACKAWAXEN RIVER NEAR BARRYVILLE, N.Y.

LOCATION.--Lat 41°30'32", long 74°59'10", Sullivan County, New York, Hydrologic Unit 02040101, on left bank, 1.6 mi upstream from Lackawaxen River, and 4.6 mi northwest of Barryville. Water-quality sampling site at discharge station.

DRAINAGE AREA.--2,020 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1940 to current year.

REVISED RECORDS.--WDR NY-82-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 600.22 ft above sea level.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Subsequent to September 1954, entire flow from 371 mi² of drainage area controlled by Pepacton Reservoir, and subsequent to October 1963, entire flow from 454 mi² of drainage area controlled by Cannonsville Reservoir. Part of flow of these reservoirs diverted for New York City municipal supply. Remainder of flow (except for conservation releases and spill) impounded for release during periods of low flow in the lower Delaware River Basin, as directed by the Delaware River Master. Telephone gage-height telemeter at station. Information on the above reservoirs can be found in the annual Water Data Report NJ-96-1.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 130,000 ft³/s, Aug. 19, 1955, gage height, 26.40 ft, from floodmarks in gage house, from rating curve extended above 55,000 ft³/s, on basis of slope-area measurement at gage height 23.19 ft; minimum discharge, 122 ft³/s, Sept. 5, 1953, gage height, 1.11 ft; minimum daily, 126 ft³/s, Sept. 4, 1953.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 98,300 ft³/s, Jan. 20, gage height, 22.18 ft recorded in gage well; outside gage height, 22.45 ft, from floodmarks; minimum daily discharge, 663 ft³/s, Oct. 10.

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	1280	2960	2510	e800	e5800	5660	3430	19600	1040	1970	2790	953
2	1230	2810	2680	e850	e4300	5030	3670	15900	990	1700	2730	1110
3	1380	3480	2500	e900	e3300	4380	3680	12500	1030	1720	2320	1180
4	1370	3810	2430	e880	e2800	3630	3450	10600	991	1850	2010	1230
5	1470	3210	2580	e820	e2400	3220	3280	9260	947	2170	1810	1330
6	1190	2730	2370	e880	e2300	e2900	3120	8600	977	2090	1720	1280
7	1650	2420	2170	e850	e2400	e2400	3010	8810	873	1680	1620	919
8	1180	2520	e1700	e850	e2500	e2100	3440	7650	853	1470	1560	1350
9	834	2410	e1400	e860	e2600	e2000	3470	6740	2570	1630	1400	1060
10	663	1980	e1300	e830	e2700	e2000	3190	7140	3540	1500	1460	945
11	752	1760	e1200	e860	e2200	e2100	2970	9130	6520	1400	1310	849
12	995	8830	e1300	e900	e1800	e2200	2730	18700	6750	1230	1230	793
13	1050	9890	e1500	e860	e1600	e2400	4780	18900	7950	3470	1180	777
14	1210	6780	e1400	e980	e1400	3020	12000	15100	6460	10800	1140	1020
15	2020	9000	e1500	e1200	e1400	3980	11800	11900	5150	7790	1090	1270
16	2860	9060	e1400	e1800	e1400	5400	20300	9610	4110	11700	1200	1020
17	1570	6490	e1300	e1600	e1300	4790	24600	8090	3260	9540	1260	1140
18	1110	5230	e1300	e1500	e1300	4450	18000	6960	2790	7470	1130	3160
19	934	4560	e1100	e24000	e1300	4530	13700	6320	2480	6470	1020	2810
20	823	4240	e1000	63000	e1300	6130	10800	5610	2850	6810	941	1600
21	4340	3890	e1000	16900	e4000	7860	8760	4980	2590	5670	905	1100
22	23800	3720	e900	9570	e8000	6830	7480	4830	2170	4550	957	923
23	9390	3320	e780	6780	e8500	5830	6630	4030	1900	3780	1150	1180
24	5600	2960	e820	6150	e10500	5030	6980	3400	1840	3230	1450	1480
25	4080	2580	e880	9760	11800	4490	7210	2880	1570	2630	1460	1240
26	3210	2290	e950	7700	9390	4440	6720	2330	1390	3920	1180	1160
27	2560	2150	e1000	13100	7670	4760	6120	1950	1280	5270	1150	1030
28	3580	2080	e950	28200	6800	4330	5560	1670	1230	3940	1180	938
29	6660	2670	e850	16000	6990	4010	5720	1440	1290	3400	1840	1300
30	4450	2740	e900	11300	---	3930	12000	1270	1390	3100	1250	1940
31	3460	---	e780	8770	---	3660	---	1150	---	2750	992	---
TOTAL	96701	122570	44450	239450	119750	127490	228600	247050	78781	126700	44435	38087
MEAN	3119	4086	1434	7724	4129	4113	7620	7969	2626	4087	1433	1270
MAX	23800	9890	2680	63000	11800	7860	24600	19600	7950	11700	2790	3160
MIN	663	1760	780	800	1300	2000	2730	1150	853	1230	905	777

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1996, BY WATER YEAR (WY)

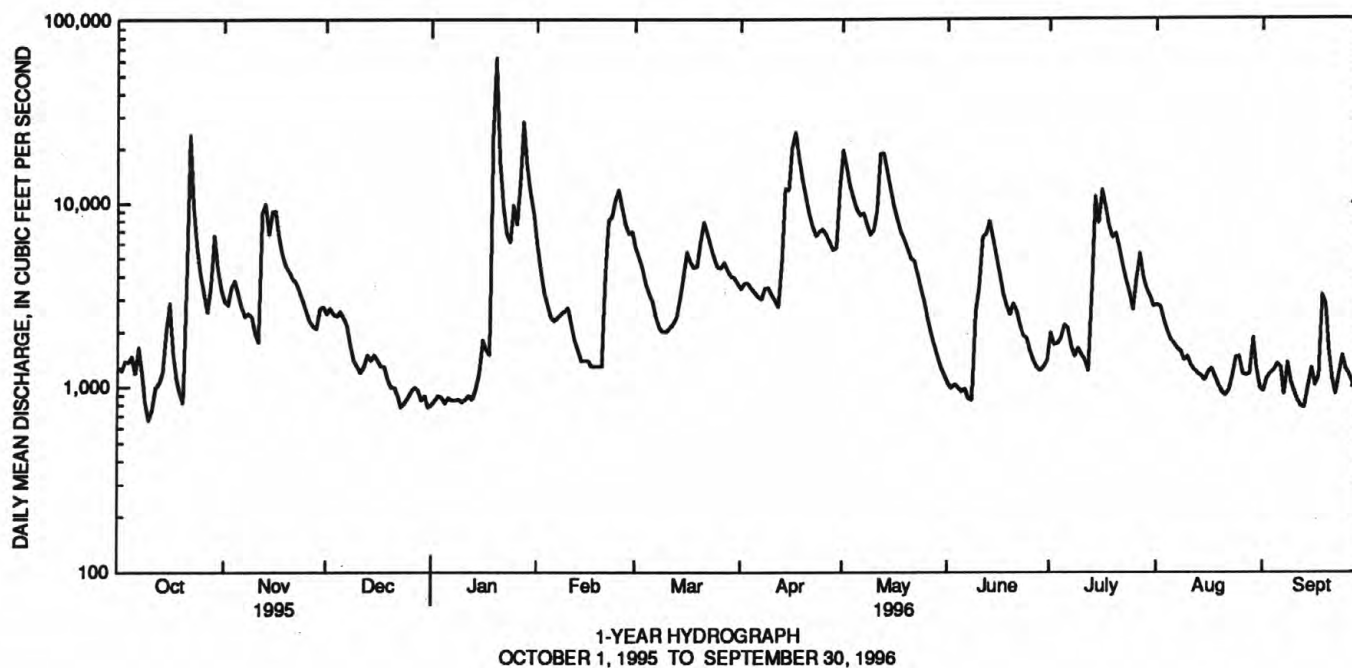
	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975
MEAN	2074	2721	2944	2698	2987	5069	6524	4031	2235	1613	1402	1511
MAX	7404	6481	7375	8335	9389	12050	16500	8615	6701	4087	3033	4186
(WY)	1978	1973	1974	1978	1976	1977	1993	1984	1972	1996	1994	1987
MIN	527	610	1181	687	712	1399	1878	1161	673	328	465	448
(WY)	1964	1965	1989	1977	1980	1981	1985	1965	1965	1965	1965	1965

e Estimated

DELAWARE RIVER BASIN

01428500 DELAWARE RIVER ABOVE LACKAWAXEN RIVER NEAR BARRYVILLE, N.Y.--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1964 - 1996	
ANNUAL TOTAL	849442		1514064		2981	
ANNUAL MEAN	2327		4137		1297	
HIGHEST ANNUAL MEAN					4650	1973
LOWEST ANNUAL MEAN					1297	1965
HIGHEST DAILY MEAN	23800	Oct 22	63000	Jan 20	63000	Jan 20 1996
LOWEST DAILY MEAN	663	Oct 10	663	Oct 10	250	Oct 27 1963
ANNUAL SEVEN-DAY MINIMUM	890	Dec 23	844	Dec 31	264	Oct 23 1963
10 PERCENT EXCEEDS	5120		9170		6520	
50 PERCENT EXCEEDS	1420		2450		1630	
90 PERCENT EXCEEDS	993		946		851	



DELAWARE RIVER BASIN

01428500 DELAWARE RIVER ABOVE LACKAWAXEN RIVER NEAR BARRYVILLE, N.Y.--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1968 to current year.

CHEMICAL DATA: 1971-73 (a).

NUTRIENT DATA: 1971 (a).

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1967 to current year (no winter record for water years 1969-76).

INSTRUMENTATION.--Water-temperature recorder since October 1975 provides one-hour-interval readings. Prior to October 1975 water-temperature recorder provided continuous recordings.

REMARKS.--Interruptions of record were due to malfunction of recording instrument.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum (water years 1968-75, 1980-81, 1983, 1985-96), 32.5°C, July 9, 10, 1993; minimum (water years 1968, 1977-96), 0.0°C, on many days during winter periods each year except water years 1980-82.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 27.5°C, Aug. 22, 23; minimum, 0.0°C on many days during winter period.

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	16.0	14.0	15.5	---	---	---	2.0	.5	1.0	.0	.0	.0
2	17.0	14.5	16.0	---	---	---	2.0	1.0	1.0	.0	.0	.0
3	17.5	15.5	16.5	11.0	10.0	10.5	1.5	1.0	1.0	.0	.0	.0
4	18.0	17.0	17.5	10.5	8.5	9.5	2.5	1.5	2.0	.0	.0	.0
5	17.5	17.0	17.5	8.5	6.0	7.5	2.0	1.0	1.5	.0	.0	.0
6	19.0	16.5	17.5	7.0	5.0	6.0	2.0	1.0	1.5	.0	.0	.0
7	18.5	17.0	17.5	5.0	4.5	5.0	1.5	.0	1.0	.0	.0	.0
8	17.0	15.5	16.5	5.5	4.0	4.5	1.0	.0	.0	.0	.0	.0
9	17.0	14.5	15.5	4.5	3.0	4.0	.0	.0	.0	.0	.0	.0
10	18.0	13.5	15.5	4.0	3.0	3.5	.0	.0	.0	.0	.0	.0
11	19.0	14.0	15.5	6.5	3.0	4.5	.0	.0	.0	.0	.0	.0
12	17.0	14.0	15.5	6.5	5.5	6.0	.0	.0	.0	.0	.0	.0
13	17.0	15.0	16.0	5.5	3.5	4.5	.0	.0	.0	.0	.0	.0
14	16.5	15.5	16.0	3.5	2.5	3.0	.0	.0	.0	.0	.0	.0
15	16.0	14.0	15.0	3.0	2.5	3.0	.0	.0	.0	.0	.0	.0
16	14.5	11.5	13.0	3.0	2.5	3.0	.0	.0	.0	.0	.0	.0
17	12.0	10.5	11.0	3.5	2.5	3.0	.0	.0	.0	.0	.0	.0
18	11.5	9.5	11.0	3.0	2.5	2.5	.0	.0	.0	.0	.0	.0
19	12.5	10.0	11.5	3.5	3.0	3.0	.0	.0	.0	.0	.0	.0
20	13.5	11.0	12.5	4.0	3.5	3.5	.0	.0	.0	.5	.0	.5
21	14.5	12.5	13.5	4.5	3.5	4.0	.0	.0	.0	.5	.0	.0
22	12.5	11.0	11.5	4.0	3.5	3.5	.0	.0	.0	.5	.0	.5
23	11.5	10.0	10.5	3.5	3.0	3.0	.0	.0	.0	1.0	.5	.5
24	12.0	10.0	11.0	3.0	2.0	2.5	.0	.0	.0	1.5	1.0	1.5
25	11.5	10.5	11.0	2.5	1.0	1.5	.0	.0	.0	1.5	.5	1.0
26	11.5	9.5	10.5	2.0	1.0	1.5	.0	.0	.0	.5	.0	.0
27	11.5	9.5	10.5	2.5	1.0	2.0	.0	.0	.0	1.5	.0	1.0
28	12.5	11.0	11.5	3.5	2.0	2.5	.0	.0	.0	1.5	.5	1.0
29	11.5	10.0	11.0	2.5	1.5	2.5	.0	.0	.0	.5	.5	.5
30	10.0	8.5	9.5	2.0	.5	1.5	.0	.0	.0	1.0	.5	.5
31	---	---	---	---	---	---	.0	.0	.0	1.0	.0	.5
MONTH	---	---	---	---	---	---	2.5	.0	.5	1.5	.0	.0

(a) 1 or 2 samples per year.

DELAWARE RIVER BASIN

01428500 DELAWARE RIVER ABOVE LACKAWAXEN RIVER NEAR BARRYVILLE, N.Y.--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
FEBRUARY			MARCH			APRIL			MAY			
1	.0	.0	.0	1.5	.0	1.0	---	---	---	10.0	8.5	9.0
2	.0	.0	.0	1.0	.0	.5	---	---	---	10.0	9.0	9.5
3	.0	.0	.0	1.0	.5	1.0	---	---	---	9.5	8.5	9.0
4	.0	.0	.0	1.0	.0	.5	7.5	5.5	6.5	8.5	8.0	8.5
5	.0	.0	.0	---	.0	---	7.5	6.0	6.5	11.0	8.5	9.5
6	.0	.0	.0	---	---	---	8.0	5.5	6.5	11.0	10.0	10.5
7	.0	.0	.0	---	---	---	7.0	5.5	6.5	10.0	9.0	9.5
8	.0	.0	.0	---	---	---	7.0	5.5	6.0	12.0	9.5	10.5
9	.5	.0	.0	---	---	---	6.0	5.0	5.5	12.0	11.5	11.5
10	.5	.0	.0	---	---	---	6.0	5.0	5.5	12.5	11.0	11.5
11	.5	.0	.5	---	---	---	7.5	5.0	6.5	14.5	12.5	13.5
12	.0	.0	.0	---	---	---	9.5	7.0	8.0	13.5	9.5	11.5
13	.5	.0	.0	---	---	---	8.5	7.5	8.0	9.5	8.0	8.5
14	.0	.0	.0	---	---	---	7.5	5.5	6.5	9.0	7.5	8.0
15	.0	.0	.0	---	---	---	6.0	4.5	5.5	10.5	8.5	9.5
16	.0	.0	.0	---	---	---	6.0	5.5	6.0	10.5	10.0	10.0
17	.0	.0	.0	---	---	---	5.5	4.0	5.0	12.0	9.5	10.5
18	.0	.0	.0	---	---	---	6.0	4.0	5.0	14.5	12.0	13.0
19	.0	.0	.0	---	---	---	7.5	6.0	6.5	16.5	13.5	15.0
20	.0	.0	.0	---	---	---	8.5	7.0	7.5	19.0	16.0	17.5
21	.0	.0	.0	---	---	---	10.5	8.0	9.0	19.0	18.0	18.5
22	.5	.0	.0	---	---	---	11.5	9.0	10.5	18.0	16.5	17.0
23	.5	.0	.0	---	---	---	13.5	10.5	12.0	18.0	16.0	17.0
24	1.0	.0	.5	---	---	---	13.0	10.5	11.5	19.0	17.0	18.0
25	2.5	1.0	2.0	---	---	---	10.5	9.0	10.0	19.0	16.0	17.5
26	3.0	2.0	2.5	---	---	---	10.0	9.0	9.5	17.5	16.0	16.5
27	3.0	2.0	2.5	---	---	---	10.5	9.0	10.0	17.5	15.0	16.0
28	4.0	2.5	3.0	---	---	---	10.5	8.5	9.5	16.0	15.0	15.5
29	3.0	1.5	2.0	---	---	---	10.0	9.0	9.5	17.0	14.5	15.5
30	---	---	---	---	---	---	9.0	8.5	9.0	17.5	13.5	15.5
31	---	---	---	---	---	---	---	---	---	19.0	13.0	16.0
MONTH	4.0	.0	.5	---	---	---	---	---	---	19.0	7.5	13.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	21.0	15.0	18.0	22.5	19.5	21.0	21.5	18.0	19.5	24.5	20.5	22.5
2	22.5	17.0	19.5	25.0	20.5	22.5	22.5	19.5	21.0	26.0	21.0	23.5
3	19.5	18.0	19.0	23.0	21.5	22.5	22.0	21.0	21.5	26.0	22.0	24.0
4	21.5	18.0	19.5	21.5	19.5	20.5	24.0	20.5	22.0	23.5	22.0	23.0
5	22.5	18.5	20.5	22.0	18.5	20.5	25.5	22.0	23.5	24.0	21.5	22.5
6	23.0	18.5	21.0	23.5	19.5	21.5	27.0	23.0	25.0	23.0	20.5	21.5
7	25.0	20.0	22.5	25.0	21.0	23.0	27.0	24.0	25.5	22.0	20.5	21.5
8	26.5	22.5	24.0	25.5	22.5	24.0	27.0	24.0	25.5	23.5	20.5	22.0
9	25.0	23.0	24.0	27.0	23.5	25.0	25.5	23.5	24.5	25.5	21.5	23.5
10	24.0	22.5	23.5	25.0	22.5	23.5	25.5	22.0	23.5	25.5	22.5	23.5
11	22.5	21.5	22.0	25.0	20.5	23.0	25.0	21.0	23.0	24.0	22.0	23.0
12	21.5	20.0	21.0	24.5	21.0	22.5	22.5	21.0	21.5	22.5	21.5	22.0
13	21.5	20.0	21.0	22.5	19.5	21.0	23.0	20.0	21.0	21.5	20.0	21.0
14	21.5	20.0	21.0	19.5	18.5	19.0	25.0	20.0	22.5	22.0	19.0	20.5
15	23.0	20.5	22.0	20.0	19.0	19.5	25.5	22.0	23.5	20.0	17.5	19.0
16	23.5	21.5	22.5	20.5	19.0	20.0	24.5	22.5	23.0	19.5	17.0	18.0
17	22.5	21.5	22.0	21.0	19.0	20.0	25.0	22.0	23.5	17.5	16.0	17.0
18	22.0	21.0	21.5	22.0	20.0	21.0	26.0	21.5	24.0	16.0	15.0	15.5
19	21.0	19.5	20.5	22.5	20.5	21.5	27.0	22.0	24.5	17.5	15.0	16.0
20	19.5	18.5	19.0	21.5	19.5	20.5	26.5	23.0	24.5	19.0	15.0	17.0
21	21.5	18.0	19.5	20.5	18.5	19.5	25.5	23.5	24.0	20.0	16.0	18.0
22	20.5	19.5	20.0	20.5	19.0	20.0	27.5	23.0	25.0	18.0	16.5	17.0
23	23.0	18.5	20.5	20.5	20.0	20.5	27.5	23.5	25.5	17.0	15.0	16.0
24	22.5	20.0	21.0	22.5	20.0	21.0	25.5	23.0	24.5	15.0	14.0	14.5
25	22.5	20.0	21.0	23.0	21.0	22.0	25.5	21.5	23.5	15.0	13.5	14.0
26	23.5	19.0	21.5	23.0	21.0	21.5	25.5	21.5	23.5	16.0	13.0	14.5
27	24.0	19.0	21.5	21.5	20.0	21.0	25.5	22.0	24.0	16.0	14.0	15.0
28	25.5	21.0	23.0	22.0	19.5	20.5	26.0	22.5	24.0	16.5	15.0	15.5
29	23.0	21.5	22.5	20.5	19.5	20.0	24.5	22.0	23.0	17.5	15.0	16.0
30	21.5	20.0	20.5	19.5	18.5	19.0	24.5	20.5	22.5	17.5	15.0	16.0
31	---	---	---	18.5	18.0	18.5	25.0	20.5	22.5	---	---	---
MONTH	26.5	15.0	21.0	27.0	18.0	21.0	27.5	18.0	23.5	26.0	13.0	19.0

LACKAWAXEN RIVER BASIN

01428750 WEST BRANCH LACKAWAXEN RIVER NEAR ALDENVILLE, PA

LOCATION.--Lat 41°40'28", long 75°22'35", Wayne County, Hydrologic Unit 02040104, on right bank at steel bridge on State Highway 247, 0.3 mi downstream from Johnson Creek, and 2.0 mi northwest of Aldenville.

DRAINAGE AREA.--40.6 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Occasional discharge measurements and annual maximums, water years 1975-86. October 1986 to current year. Published as station number 01427950, 1975-88.

GAGE.--Water-stage recorder. Datum of gage is 1,244.60 ft above sea level.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Satellite telemetry at station.

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	1400	2,400	6.36	Jan. 27	1630	1,300	5.23
Jan. 19	1730	*4,340	*8.00	Apr. 16	0500	1,420	5.39

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	12	60	96	e26	e100	e140	90	433	23	34	e35	22
2	16	94	107	e26	e86	e110	104	241	23	26	e30	21
3	18	137	86	e28	e72	e78	89	164	22	33	e27	21
4	16	111	122	e27	e60	e72	80	138	22	34	26	21
5	37	76	95	e26	e52	e74	77	108	24	32	e24	22
6	178	66	84	e25	e48	109	73	136	22	26	e24	24
7	45	65	71	e26	e45	89	79	115	21	24	23	28
8	26	73	e64	e28	e47	74	92	90	38	22	22	28
9	23	57	e60	e27	e54	e68	82	76	29	21	23	24
10	22	49	e55	e26	e58	e60	80	164	92	18	23	22
11	21	59	e48	e26	e52	e56	78	401	57	17	22	22
12	19	440	e43	e29	e48	e60	95	461	53	15	22	21
13	19	164	e39	e30	e41	e70	373	271	83	296	22	24
14	19	143	e38	e27	e42	101	411	175	51	138	e20	25
15	47	501	e39	e28	e37	236	264	123	39	96	e22	22
16	27	320	e40	e28	e34	204	905	96	32	282	e20	22
17	24	198	e40	e27	e33	131	448	83	29	81	e19	70
18	22	154	e38	e31	e31	119	270	69	28	52	e18	236
19	24	150	e37	e1600	e30	125	191	61	38	43	e17	58
20	22	141	e35	1190	e29	429	144	51	43	31	e18	42
21	1020	132	e33	e500	e400	286	116	52	36	25	e19	34
22	448	120	e35	321	e360	190	91	56	33	22	e17	33
23	183	96	e33	218	e320	132	81	44	32	21	e21	34
24	113	83	e32	295	e460	103	96	38	29	20	28	35
25	84	74	e29	367	386	104	79	34	28	18	24	34
26	65	67	e28	292	298	182	73	31	26	27	23	31
27	59	64	e29	657	209	131	84	31	25	21	24	33
28	155	151	e27	515	269	100	66	30	24	18	44	32
29	99	148	e27	e320	219	92	244	28	24	16	29	68
30	81	103	e26	e190	---	92	483	27	40	e20	25	41
31	66	---	e27	e120	---	86	---	25	---	e26	23	---
TOTAL	3010	4096	1563	7076	3920	3903	5438	3852	1066	1555	734	1150
MEAN	97.1	137	50.4	228	135	126	181	124	35.5	50.2	23.7	38.3
MAX	1020	501	122	1600	460	429	905	461	92	296	44	236
MIN	12	49	26	25	29	56	66	25	21	15	17	21
CFSM	2.39	3.36	1.24	5.62	3.33	3.10	4.46	3.06	.88	1.24	.58	.94
IN.	2.76	3.75	1.43	6.48	3.59	3.58	4.98	3.53	.98	1.42	.67	1.05

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

	MEAN	55.9	114	96.5	90.8	83.0	126	180	99.6	48.7	27.3	34.7	36.1
MAX	116	199	228	228	192	173	419	258	200	63.0	155	156	
(WY)	1991	1987	1991	1996	1990	1987	1993	1989	1989	1989	1994	1987	
MIN	6.46	29.9	21.2	21.9	30.0	87.0	58.7	37.4	14.3	8.86	9.43	7.41	
(WY)	1992	1992	1989	1989	1993	1989	1988	1995	1991	1991	1993	1991	

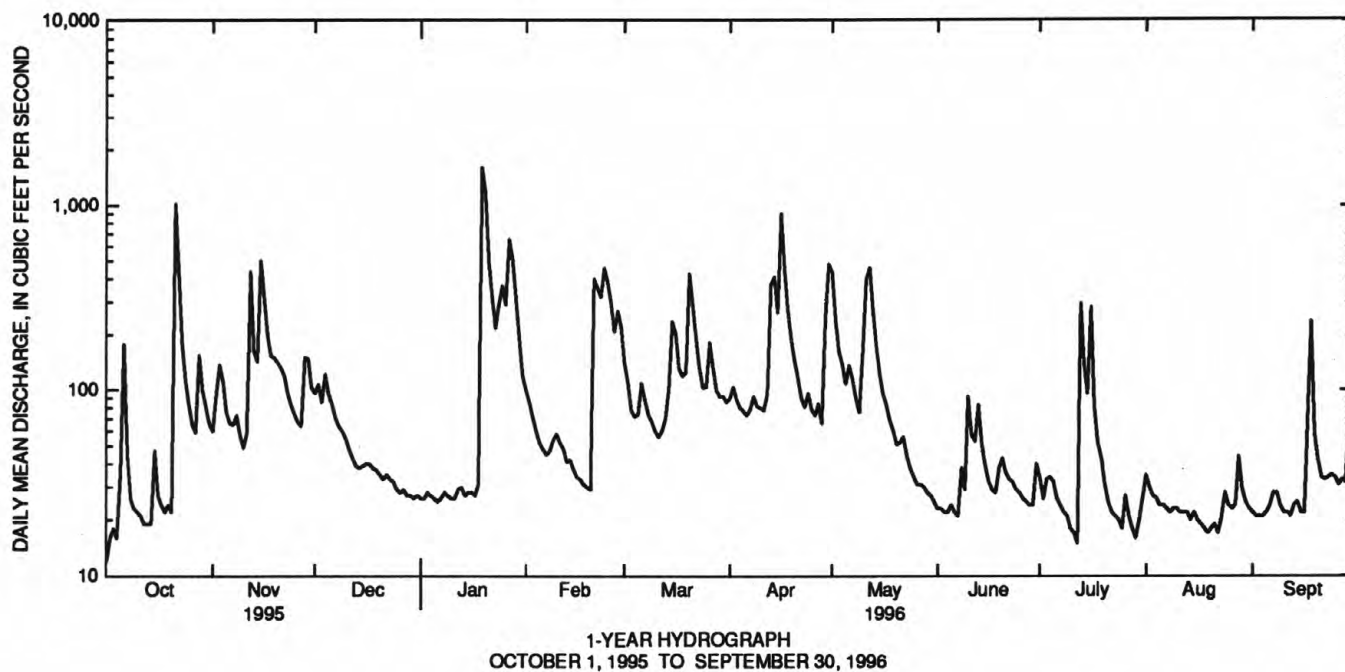
e Estimated.

LACKAWAXEN RIVER BASIN

01428750 WEST BRANCH LACKAWAXEN RIVER NEAR ALDENVILLE, PA--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1987 - 1996	
ANNUAL TOTAL	24527.7		37363		82.6	
ANNUAL MEAN	67.2		102		53.4	
HIGHEST ANNUAL MEAN					106	
LOWEST ANNUAL MEAN					1994	
HIGHEST DAILY MEAN	1020	Oct 21	e1600	Jan 19	e1600	Jan 19 1996
LOWEST DAILY MEAN	6.0	Aug 30	12	Oct 1	4.2	Sep 17 1991
ANNUAL SEVEN-DAY MINIMUM	6.9	Aug 30	a18	Aug 16	4.6	Sep 12 1991
INSTANTANEOUS PEAK FLOW			4340	Jan 19	4340	Jan 19 1996
INSTANTANEOUS PEAK STAGE			8.00	Jan 19	8.00	Jan 19 1996
ANNUAL RUNOFF (CFSM)	1.66		2.51		2.03	
ANNUAL RUNOFF (INCHES)	22.47		34.23		27.64	
10 PERCENT EXCEEDS	150		265		180	
50 PERCENT EXCEEDS	39		47		42	
90 PERCENT EXCEEDS	9.7		22		12	

a Computed using estimated daily discharges.
e Estimated.



LACKAWAXEN RIVER BASIN

01428750 WEST BRANCH LACKAWAXEN RIVER NEAR ALDENVILLE, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Water years 1988 to current year.

INSTRUMENTATION.--Temperature probe interfaced with a data collection platform.

REMARKS.--Interruptions in the record were due to malfunctions of the equipment

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum, 27.0°C, Aug. 10, 1989, July 10, 1993, Aug. 16, 1995; minimum, 0.0°C, many days during winter periods.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum recorded, 23.0°C, July 9; minimum recorded, 0.0°C, many days during winter periods.

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	14.0	8.0	11.0	---	---	---	2.5	.0	1.5	.0	.0	.0
2	15.5	10.5	13.0	---	---	---	2.5	.5	1.5	.0	.0	.0
3	15.5	11.5	14.0	---	---	---	2.5	.5	1.5	.0	.0	.0
4	16.0	14.5	15.0	---	---	---	3.0	1.5	2.5	.0	.0	.0
5	15.0	14.5	15.0	---	---	---	---	---	---	.0	.0	.0
6	16.5	14.0	15.0	---	---	---	2.0	.5	1.5	---	---	---
7	15.0	14.0	14.5	---	---	---	1.5	.0	.5	---	---	---
8	14.0	12.0	13.5	5.0	3.0	4.5	.0	.0	.0	---	---	---
9	14.0	11.0	12.5	3.0	1.5	2.5	---	---	---	---	---	---
10	13.5	9.5	11.5	4.0	1.5	3.0	---	---	---	---	---	---
11	15.0	11.0	13.0	8.5	3.5	6.0	.0	.0	.0	---	---	---
12	---	---	---	8.0	2.5	4.5	.0	.0	.0	.0	.0	.0
13	---	---	---	2.5	1.5	2.0	.0	.0	.0	.0	.0	.0
14	---	---	---	2.5	.0	1.5	.0	.0	.0	.0	.0	.0
15	---	---	---	1.5	.0	1.5	.0	.0	.0	.0	.0	.0
16	---	---	---	2.5	1.0	1.5	.0	.0	.0	.0	.0	.0
17	---	---	---	2.5	.5	1.5	---	---	---	.0	.0	.0
18	---	---	---	2.5	1.5	2.0	---	---	---	.0	.0	.0
19	---	---	---	3.5	2.0	3.0	.0	.0	.0	.0	.0	.0
20	---	---	---	3.0	2.5	3.0	.0	.0	.0	.5	.0	.0
21	---	---	---	4.0	2.5	3.0	.0	.0	.0	.5	.0	.0
22	---	---	---	2.5	2.0	2.5	.0	.0	.0	.5	.0	.0
23	---	---	---	2.0	1.0	1.5	.0	.0	.0	1.0	.5	.5
24	---	---	---	2.0	.0	1.0	.0	.0	.0	1.5	.5	1.0
25	---	---	---	.5	.0	.0	.0	.0	.0	.5	.0	.0
26	---	---	---	2.0	.0	1.0	.0	.0	.0	.0	.0	.0
27	---	---	---	2.5	1.5	2.0	.0	.0	.0	1.0	.0	.5
28	---	---	---	3.5	1.5	2.5	.0	.0	.0	.5	.0	.0
29	---	---	---	1.5	.0	.5	.0	.0	.0	.0	.0	.0
30	---	---	---	.5	.0	.0	.0	.0	.0	1.0	.0	.5
31	---	---	---	---	---	---	.0	.0	.0	.5	.0	.0
MONTH	16.5	8.0	13.5	8.5	.0	2.2	3.0	.0	.3	1.5	.0	.1

LACKAWAXEN RIVER BASIN

01428750 WEST BRANCH LACKAWAXEN RIVER NEAR ALDENVILLE, PA--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
FEBRUARY			MARCH			APRIL			MAY			
1	.0	.0	.0	.0	.0	.0	5.0	3.5	4.5	11.5	6.5	9.0
2	.0	.0	.0	1.5	.0	.5	6.5	2.5	4.0	12.0	8.0	10.0
3	.0	.0	.0	1.0	.0	.5	5.0	2.5	3.5	10.0	7.5	9.0
4	.0	.0	.0	.0	.0	.0	6.5	2.5	4.5	9.5	9.0	9.0
5	.0	.0	.0	.0	.0	.0	5.5	3.0	4.5	13.0	8.0	10.5
6	.0	.0	.0	1.0	.0	.5	7.0	1.5	4.5	11.0	7.5	9.5
7	.0	.0	.0	.5	.0	.0	---	---	---	9.5	5.5	8.0
8	.0	.0	.0	.0	.0	.0	5.0	1.5	3.0	12.5	7.5	10.0
9	.0	.0	.0	.0	.0	.0	5.0	1.0	3.0	10.5	9.5	10.0
10	.0	.0	.0	.0	.0	.0	4.5	2.0	3.5	14.0	9.0	11.0
11	.0	.0	.0	.0	.0	.0	7.5	2.0	5.0	14.5	12.0	13.0
12	.0	.0	.0	.5	.0	.0	9.0	5.0	7.0	12.0	8.5	9.5
13	.0	.0	.0	.5	.0	.0	7.0	5.0	5.5	10.0	6.5	8.0
14	.0	.0	.0	1.0	.0	.5	5.0	3.5	4.5	11.5	5.5	8.5
15	.0	.0	.0	1.0	.5	1.0	7.5	2.5	5.0	12.5	7.0	9.5
16	.0	.0	.0	2.5	.0	1.0	5.0	3.5	4.5	10.5	8.5	9.0
17	.0	.0	.0	2.5	.0	1.0	4.0	3.0	3.5	15.0	9.0	11.5
18	.0	.0	.0	4.5	1.5	3.0	8.5	2.5	5.0	16.5	11.0	13.5
19	.0	.0	.0	3.5	1.0	2.5	9.0	4.5	7.0	19.5	13.5	16.5
20	.0	.0	.0	3.0	1.5	2.0	10.0	6.5	8.5	21.0	15.5	18.0
21	.0	.0	.0	3.0	1.5	2.0	12.0	8.5	10.5	18.0	15.0	16.5
22	.0	.0	.0	2.0	1.0	1.5	12.5	7.5	10.0	17.0	12.5	14.5
23	1.0	.0	.5	2.5	.5	1.0	14.5	10.5	12.5	17.5	11.5	14.5
24	1.5	.5	1.0	4.0	.0	2.0	12.0	7.5	9.5	17.5	13.0	15.0
25	3.0	.5	1.5	6.5	1.0	4.0	11.0	7.0	9.0	16.0	10.0	13.0
26	3.0	1.0	2.0	5.5	2.5	4.5	11.5	9.0	10.5	13.5	10.0	11.5
27	2.5	.5	1.5	3.5	.0	2.0	11.5	7.5	9.5	15.0	11.0	12.5
28	4.0	1.0	3.0	2.5	.0	1.5	12.0	6.0	9.0	12.5	11.0	11.5
29	1.0	.0	.0	3.5	1.0	2.0	9.5	7.5	8.0	14.5	10.5	12.0
30	---	---	---	7.0	2.0	4.5	9.5	8.0	8.5	14.0	8.5	11.0
31	---	---	---	7.5	2.0	5.0	---	---	---	16.0	8.0	12.0
MONTH	4.0	.0	.3	7.5	.0	1.4	14.5	1.0	6.5	21.0	5.5	11.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	18.0	10.0	13.5	---	---	---	---	---	---	---	---	---
2	19.0	11.5	15.0	---	---	---	---	---	---	---	---	---
3	15.0	11.5	13.5	---	---	---	---	---	---	19.5	14.0	16.5
4	16.0	12.5	14.0	---	---	---	---	---	---	---	---	---
5	18.5	13.0	15.5	---	---	---	21.5	16.5	19.0	---	---	---
6	18.5	12.0	15.5	---	---	---	---	---	---	---	---	---
7	21.0	14.0	17.0	---	---	---	22.5	17.5	20.0	---	---	---
8	20.0	16.5	18.5	21.0	17.0	19.0	22.5	18.0	20.0	---	---	---
9	21.0	16.5	18.5	23.0	18.0	20.0	20.0	18.5	19.0	---	---	---
10	19.0	17.5	18.0	19.5	16.0	17.5	19.5	16.0	18.0	---	---	---
11	20.5	17.0	18.5	20.5	13.5	17.0	20.0	14.0	17.0	---	---	---
12	---	---	---	20.0	14.0	17.0	17.5	15.0	16.5	19.5	17.0	18.0
13	---	---	---	18.0	16.5	17.0	---	---	---	18.0	16.5	17.0
14	20.5	16.0	18.0	---	---	---	---	---	---	17.0	14.0	15.5
15	21.5	16.5	19.0	---	---	---	---	---	---	16.5	13.0	14.5
16	21.0	15.5	18.0	---	---	---	---	---	---	16.5	14.0	15.0
17	20.0	17.0	18.5	21.0	18.0	19.5	---	---	---	15.0	14.0	14.5
18	18.5	17.0	18.0	21.5	17.5	19.5	---	---	---	14.5	13.5	14.0
19	17.5	15.5	16.5	21.5	18.5	19.5	---	---	---	16.0	13.0	14.0
20	16.5	15.0	15.5	19.5	16.5	17.5	---	---	---	15.5	12.0	13.5
21	21.0	15.5	18.0	20.0	15.0	17.5	---	---	---	16.0	11.5	13.5
22	17.5	15.5	16.5	20.0	15.0	17.5	---	---	---	14.0	12.5	13.0
23	20.0	15.0	17.0	18.5	16.5	17.0	---	---	---	13.5	11.5	13.0
24	18.0	14.5	16.0	21.5	15.5	18.0	---	---	---	11.5	9.5	11.0
25	18.0	15.5	17.0	20.5	16.5	18.5	---	---	---	12.5	10.5	11.5
26	19.5	13.5	16.5	21.0	17.5	19.0	---	---	---	12.5	9.5	11.0
27	19.5	13.0	16.5	19.5	16.5	18.0	---	---	---	13.0	12.0	12.5
28	21.5	15.5	18.0	20.5	15.0	17.5	---	---	---	15.0	13.0	14.0
29	---	---	---	17.0	15.0	16.0	---	---	---	14.0	12.0	13.0
30	---	---	---	---	---	---	---	---	---	14.0	10.5	12.0
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	21.5	10.0	16.8	23.0	13.5	18.0	22.5	14.0	18.5	19.5	9.5	13.8

LACKAWAXEN RIVER BASIN

01429000 WEST BRANCH LACKAWAXEN RIVER AT PROMPTON, PA

LOCATION.--Lat 41°35'14", long 75°19'38", Wayne County, Hydrologic Unit 02040103, on left bank 500 ft downstream from Prompton Reservoir, 1,500 ft upstream from bridge on U.S. Highway 6 at Prompton, and 2,000 ft upstream from Van Auken Creek.

DRAINAGE AREA.--59.7 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1944 to current year. Prior to October 1952, published as Lackawaxen River at Prompton.

REVISED RECORDS.--WSP 1432: 1948-49. WDR PA-71-1: 1970(M).

GAGE.--Water-stage recorder. Datum of gage is 1,083.78 ft above sea level.

REMARKS.--No estimated daily discharges. Records good. Flow regulated since 1960 by Prompton Reservoir (station 01428900) 500 ft upstream. Satellite and landline telemetry at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 23, 1942 reached a stage of 16.7 ft, from floodmark, discharge not determined.

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	15	93	144	44	184	222	128	604	40	32	40	21
2	15	94	143	44	157	186	133	435	38	32	40	21
3	15	121	136	45	132	157	133	316	36	33	38	20
4	15	141	138	46	104	122	125	253	36	33	37	19
5	17	121	145	45	90	111	117	216	36	33	36	19
6	29	102	135	44	82	125	113	196	36	33	34	19
7	35	91	122	44	78	138	110	205	35	33	33	19
8	35	91	104	45	76	125	123	184	34	33	31	20
9	36	87	95	46	81	106	126	160	33	32	30	20
10	35	75	86	46	88	94	123	180	39	31	29	20
11	34	68	75	46	86	89	116	288	56	30	27	20
12	32	244	67	46	85	87	117	523	70	28	26	20
13	31	257	63	47	73	87	231	440	117	62	25	19
14	31	217	63	47	67	95	373	325	106	212	24	20
15	33	350	64	47	65	157	344	247	81	185	22	20
16	33	431	65	48	59	238	806	200	61	252	22	20
17	33	325	65	46	55	209	745	173	52	223	21	24
18	33	251	62	47	53	183	466	151	47	160	20	53
19	32	217	60	e760	48	173	332	134	44	116	19	80
20	30	203	58	2190	46	323	261	115	49	92	18	71
21	371	188	55	1030	127	387	218	103	49	72	18	59
22	723	181	53	545	257	310	182	111	45	58	18	51
23	374	164	53	368	317	238	e160	101	43	51	17	51
24	228	143	52	306	397	193	e150	86	40	46	19	46
25	162	124	51	410	452	167	142	73	38	42	20	46
26	121	113	50	315	385	178	127	62	36	50	20	45
27	94	103	47	457	302	185	121	57	35	51	19	43
28	109	112	47	765	271	164	112	53	33	46	21	42
29	130	168	47	481	280	147	133	50	32	42	23	47
30	120	160	45	330	---	139	362	46	31	41	23	53
31	104	---	44	246	---	133	---	42	---	40	23	---
TOTAL	3105	5035	2434	9026	4497	5268	6729	6129	1428	2224	793	1028
MEAN	100	168	78.5	291	155	170	224	198	47.6	71.7	25.6	34.3
MAX	723	431	145	2190	452	387	806	604	117	252	40	80
MIN	15	68	44	44	46	87	110	42	31	28	17	19
CFSM	1.68	2.81	1.32	4.88	2.60	2.85	3.76	3.31	.80	1.20	.43	.57
IN.	1.93	3.14	1.52	5.62	2.80	3.28	4.19	3.82	.89	1.39	.49	.64

e Estimated.

LACKAWAXEN RIVER BASIN

01429000 WEST BRANCH LACKAWAXEN RIVER AT PROMPTON, PA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1961 - 1996, BY WATER YEAR (WY) (SINCE REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	61.5	99.2	116	101	123	212	235	132	70.6	40.0	31.5	41.1
MAX	307	362	272	312	369	620	556	329	260	133	127	221
(WY)	1978	1973	1972	1979	1981	1977	1993	1989	1973	1984	1994	1987
MIN	7.15	7.65	31.8	19.1	19.0	60.4	86.5	45.8	17.5	10.2	9.43	6.67
(WY)	1965	1965	1965	1981	1980	1981	1988	1965	1962	1966	1962	1964

SUMMARY STATISTICS FOR 1995 CALENDAR YEAR FOR 1996 WATER YEAR WATER YEARS 1961 - 1996

ANNUAL TOTAL	28924.2	47696	
ANNUAL MEAN	79.2	130	105
HIGHEST ANNUAL MEAN			176
LOWEST ANNUAL MEAN			49.7
HIGHEST DAILY MEAN	723	Oct 22	2190
LOWEST DAILY MEAN	4.6	Sep 7	15
ANNUAL SEVEN-DAY MINIMUM	4.8	Sep 1	18
INSTANTANEOUS PEAK FLOW			2370
INSTANTANEOUS PEAK STAGE			5.65
INSTANTANEOUS LOW FLOW			
ANNUAL RUNOFF (CFSM)	1.33		2.18
ANNUAL RUNOFF (INCHES)	18.02		29.72
10 PERCENT EXCEEDS	186		311
50 PERCENT EXCEEDS	53		72
90 PERCENT EXCEEDS	10		23

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1945 - 1960, BY WATER YEAR (WY) (PRIOR TO REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	62.2	113	136	130	125	221	264	139	63.6	54.3	45.8	47.0
MAX	376	213	243	245	230	409	539	301	155	190	304	153
(WY)	1956	1946	1951	1952	1951	1945	1958	1947	1960	1947	1955	1960
MIN	15.2	23.7	28.8	36.2	46.4	104	57.4	38.6	16.4	10.3	1.33	11.6
(WY)	1958	1958	1947	1948	1958	1960	1946	1951	1959	1955	1960	1957

SUMMARY STATISTICS WATER YEARS 1945 - 1960

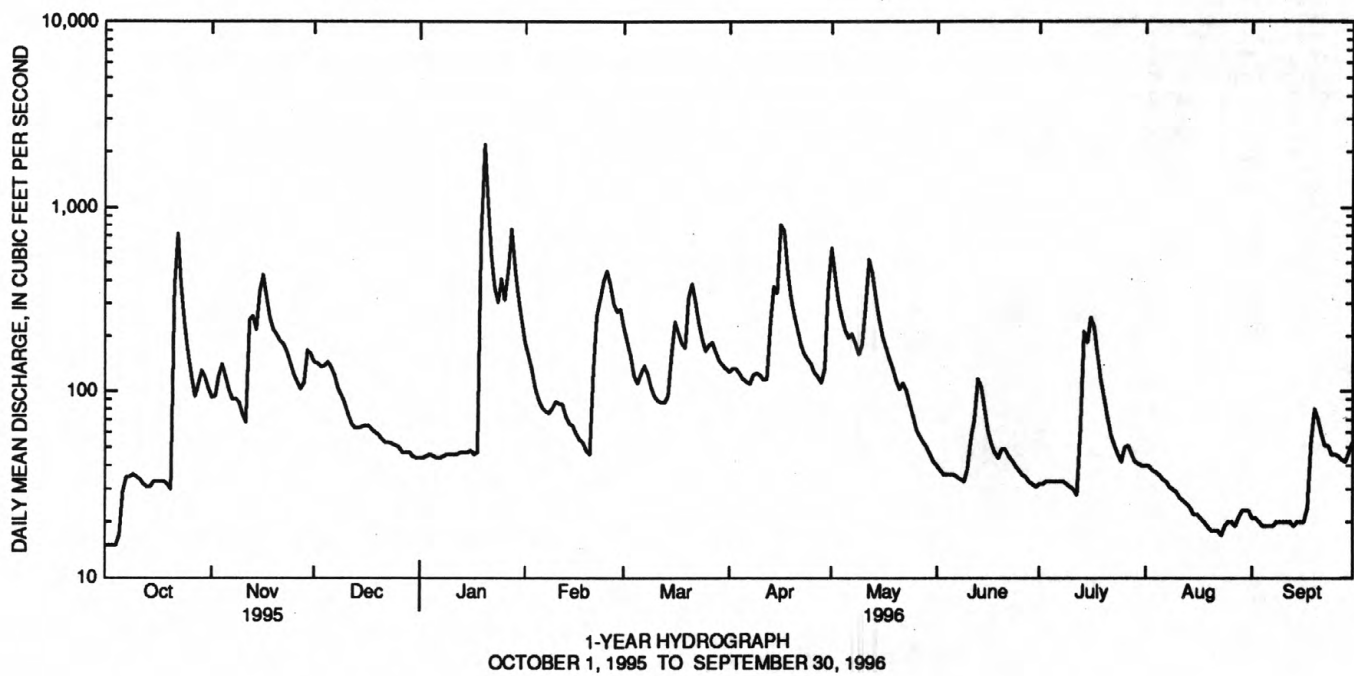
ANNUAL MEAN	117	
HIGHEST ANNUAL MEAN	152	1952
LOWEST ANNUAL MEAN	78.1	1957
HIGHEST DAILY MEAN	2440	Aug 19 1955
LOWEST DAILY MEAN	.00	Jul 27 1960
ANNUAL SEVEN DAY MINIMUM	.00	Jul 27 1960
INSTANTANEOUS PEAK FLOW	a5860	Aug 18 1955
INSTANTANEOUS PEAK STAGE	9.24	Aug 18 1955
INSTANTANEOUS LOW FLOW	b.00	Jul 26 1960
ANNUAL RUNOFF (CFSM)	1.95	
ANNUAL RUNOFF (INCHES)	26.56	
10 PERCENT EXCEEDS	257	
50 PERCENT EXCEEDS	62	
90 PERCENT EXCEEDS	15	

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

b No flow July 26 to Aug. 25, 1960, result of construction work upstream.

LACKAWAXEN RIVER BASIN

01429000 WEST BRANCH LACKAWAXEN RIVER AT PROMPTON, PA--Continued



LACKAWAXEN RIVER BASIN

01429000 WEST BRANCH LACKAWAXEN RIVER AT PROMPTON, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Water years 1987 to current year.

INSTRUMENTATION.--Temperature probe interfaced with a data collection platform.

REMARKS.--Interruptions in the record were due to malfunctions of the recording instrument.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum, 26.5°C, Sept. 10, 1989; minimum, 0.0°C, several days during March and April 1994 and January 1996.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum, 24.0°C, July 17, 18; minimum, 0.0°C, Jan. 20-25.

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	15.5	14.5	15.0	9.5	9.5	9.5	3.0	2.5	3.0	3.5	3.0	3.0
2	15.5	14.5	15.0	9.5	9.0	9.5	3.0	2.5	3.0	3.0	3.0	3.0
3	15.5	14.5	15.0	10.0	9.0	9.5	3.0	3.0	3.0	3.0	3.0	3.0
4	15.0	15.0	15.0	9.5	9.0	9.5	3.0	2.5	3.0	3.0	3.0	3.0
5	15.0	14.5	15.0	9.0	8.5	8.5	3.0	3.0	3.0	3.0	3.0	3.0
6	15.5	15.0	15.0	9.0	8.0	8.5	3.0	3.0	3.0	3.0	3.0	3.0
7	15.5	15.0	15.0	8.5	7.5	8.0	3.0	3.0	3.0	3.0	2.5	3.0
8	16.0	15.5	15.5	7.5	6.5	7.5	3.0	2.5	3.0	3.0	2.5	2.5
9	15.5	15.5	15.5	6.5	6.0	6.5	2.5	2.5	2.5	3.0	2.5	2.5
10	15.5	15.0	15.0	6.5	6.0	6.0	2.5	2.5	2.5	3.0	2.5	2.5
11	15.0	14.5	15.0	6.5	6.0	6.5	2.5	2.5	2.5	2.5	2.5	2.5
12	15.5	14.5	15.0	6.0	5.5	6.0	2.5	2.5	2.5	2.5	2.5	2.5
13	15.0	14.5	15.0	5.5	5.0	5.0	2.5	2.5	2.5	2.5	2.0	2.5
14	15.0	13.5	14.5	5.0	4.5	4.5	2.5	2.5	2.5	2.5	2.0	2.5
15	15.0	14.5	15.0	4.5	4.0	4.5	2.5	2.5	2.5	2.5	2.0	2.0
16	14.5	13.5	14.0	4.0	2.5	3.5	2.5	2.5	2.5	2.5	2.0	2.0
17	14.0	13.5	13.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.0	2.5
18	13.5	13.0	13.0	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.0	2.0
19	13.0	12.5	13.0	2.5	2.5	2.5	2.5	2.5	2.5	2.0	.5	1.0
20	12.5	11.5	12.0	2.5	2.5	2.5	2.5	2.5	2.5	.5	.0	.0
21	12.5	11.5	12.5	3.0	2.5	3.0	3.0	2.5	2.5	.0	.0	.0
22	12.5	11.0	12.0	3.0	2.5	2.5	3.0	2.5	2.5	.0	.0	.0
23	12.0	10.5	11.0	3.0	2.5	3.0	3.0	2.5	3.0	.5	.0	.0
24	10.5	10.0	10.5	3.0	2.5	3.0	3.0	3.0	3.0	.0	.0	.0
25	11.0	10.5	10.5	3.0	3.0	3.0	3.0	3.0	3.0	.5	.0	.5
26	11.5	10.5	11.0	3.0	3.0	3.0	3.0	3.0	3.0	1.0	.5	.5
27	10.5	10.5	10.5	3.0	3.0	3.0	3.0	3.0	3.0	.5	.5	.5
28	11.0	10.5	11.0	3.0	3.0	3.0	3.0	3.0	3.0	.5	.5	.5
29	11.0	10.0	10.5	3.0	3.0	3.0	3.5	3.0	3.0	.5	.5	.5
30	10.5	10.0	10.0	3.0	3.0	3.0	3.5	3.0	3.0	.5	.5	.5
31	10.0	9.5	9.5	---	---	---	3.5	3.0	3.0	.5	.5	.5
MONTH	16.0	9.5	13.2	10.0	2.5	5.1	3.5	2.5	2.8	3.5	.0	1.7

LACKAWAXEN RIVER BASIN

01429500 DYBERRY CREEK NEAR HONESDALE, PA

LOCATION.--Lat 41°36'25", long 75°16'00", Wayne County, Hydrologic Unit 02040103, on right bank 180 ft upstream from unnamed tributary, 1,700 ft downstream from General Edgar Jadwin Reservoir, 2.1 mi north of Honesdale, and 2.6 mi upstream from mouth.

DRAINAGE AREA.--64.6 mi².

PERIOD OF RECORD.--October 1943 to current year. Published as "at Dyberry" October 1943 to September 1959 and as "near Dyberry" October 1959 to September 1961.

REVISED RECORDS.--WSP 1382: 1947(M), 1950(M), 1951-53.

GAGE.--Water-stage recorder. Datum of gage is 970.70 ft above sea level. Prior to Oct. 1, 1957, nonrecording gage at site 1.9 mi upstream at datum 13.70 ft higher.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Flow regulated since October 1959 by General Edgar Jadwin Reservoir (station 01429400) 1,700 ft upstream. Several measurements of water temperature were made during the year. Satellite and landline telemetry at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 23, 1942 reached a stage of 15.86 ft, from floodmarks, site and datum then in use, discharge not determined.

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	8.5	82	128	53	e160	217	122	1030	45	61	66	22
2	7.0	115	138	53	e150	185	138	499	42	48	50	20
3	7.3	153	126	51	e120	157	124	292	39	48	43	21
4	8.1	152	140	e52	e96	123	114	242	39	61	40	18
5	14	111	143	51	e90	122	108	204	47	63	37	18
6	97	95	129	e54	96	145	104	216	41	49	34	18
7	54	90	117	e53	92	151	107	241	36	38	32	43
8	33	104	99	e52	93	e120	153	195	33	34	30	95
9	24	88	e86	e58	111	e110	146	170	31	39	29	47
10	18	77	e82	e62	109	104	136	239	55	37	30	33
11	14	77	77	e58	101	98	126	448	84	31	28	27
12	13	536	73	e55	e94	98	120	749	304	28	25	24
13	11	316	70	58	e76	104	336	435	772	338	25	24
14	16	226	70	64	75	131	477	279	185	603	25	41
15	86	590	80	59	74	264	322	219	114	e350	23	32
16	48	574	82	50	64	326	1050	185	82	e430	23	26
17	33	328	76	54	63	211	1030	170	68	e240	23	202
18	26	227	71	60	59	187	488	152	62	e110	23	892
19	22	203	68	1170	54	191	306	140	64	99	21	243
20	19	197	66	2460	62	563	248	117	85	83	18	112
21	644	186	64	2010	416	508	216	110	77	65	17	79
22	1170	183	66	1450	481	328	170	127	62	61	17	95
23	345	154	64	467	491	231	147	99	55	e54	18	127
24	168	129	62	360	645	191	171	84	48	54	33	81
25	125	118	60	523	606	171	138	73	44	48	31	76
26	100	113	57	275	443	194	121	69	40	99	22	65
27	84	112	56	683	321	174	119	71	35	69	19	57
28	139	125	57	1100	337	142	105	68	33	52	82	56
29	125	171	52	449	328	135	218	60	34	46	48	122
30	105	138	46	298	---	137	764	53	46	51	32	84
31	90	---	54	228	---	128	---	50	---	57	25	---
TOTAL	3653.9	5770	2559	12470	5907	5946	7924	7086	2702	3446	969	2800
MEAN	118	192	82.5	402	204	192	264	229	90.1	111	31.3	93.3
MAX	1170	590	143	2460	645	563	1050	1030	772	603	82	892
MIN	7.0	77	46	50	54	98	104	50	31	28	17	18

e Estimated.

LACKAWAXEN RIVER BASIN

01429500 DYBERRY CREEK NEAR HONESDALE, PA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1960 - 1996, BY WATER YEAR (WY) (SINCE REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	59.5	113	122	112	142	233	248	140	74.8	43.9	31.9	43.1
MAX	292	413	326	402	466	552	572	397	291	170	145	281
(WY)	1977	1973	1974	1996	1981	1977	1993	1989	1972	1973	1994	1987
MIN	4.17	5.48	28.2	20.8	20.2	73.0	83.6	43.3	12.0	3.23	5.32	2.26
(WY)	1965	1965	1965	1981	1980	1981	1985	1965	1962	1962	1966	1980

SUMMARY STATISTICS FOR 1995 CALENDAR YEAR FOR 1996 WATER YEAR WATER YEARS 1960 - 1996

ANNUAL TOTAL	30588.3	61232.9		
ANNUAL MEAN	83.8	167	113	
HIGHEST ANNUAL MEAN			186	1973
LOWEST ANNUAL MEAN			51.4	1965
HIGHEST DAILY MEAN	1170	Oct 22	2460	Jan 20 1996
LOWEST DAILY MEAN	4.2	Sep 7	7.0	Oct 2 1970
ANNUAL SEVEN-DAY MINIMUM	4.8	Sep 3	18	Oct 8 1980
INSTANTANEOUS PEAK FLOW			2600	Jan 20 1996
INSTANTANEOUS PEAK STAGE			7.32	Jan 20 1996
INSTANTANEOUS LOW FLOW			a.00	Oct 2, 3 1968
10 PERCENT EXCEEDS	169		377	250
50 PERCENT EXCEEDS	61		89	55
90 PERCENT EXCEEDS	8.5		26	11

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1944 - 1959, BY WATER YEAR (WY) (PRIOR TO REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	53.7	110	128	119	109	236	262	145	55.8	68.9	45.7	30.5
MAX	348	263	255	248	227	539	628	345	127	293	339	90.8
(WY)	1956	1946	1953	1952	1951	1945	1958	1947	1946	1952	1955	1952
MIN	10.2	18.8	20.4	29.0	47.4	91.8	59.9	44.4	19.2	8.16	5.82	5.30
(WY)	1948	1947	1947	1944	1958	1949	1946	1955	1959	1955	1953	1953

SUMMARY STATISTICS WATER YEARS 1944 - 1959

ANNUAL MEAN	114	
HIGHEST ANNUAL MEAN	170	1952
LOWEST ANNUAL MEAN	77.2	1957
HIGHEST DAILY MEAN	5880	Jul 10 1952
LOWEST DAILY MEAN	2.0	Oct 5 1953
ANNUAL SEVEN DAY MINIMUM	2.3	Sep 29 1953
INSTANTANEOUS PEAK FLOW	b15500	Jul 10 1952
INSTANTANEOUS PEAK STAGE	c14.60	Jul 10 1952
ANNUAL RUNOFF (CFSM)	1.76	
ANNUAL RUNOFF (INCHES)	23.91	
10 PERCENT EXCEEDS	252	
50 PERCENT EXCEEDS	54	
90 PERCENT EXCEEDS	9.4	

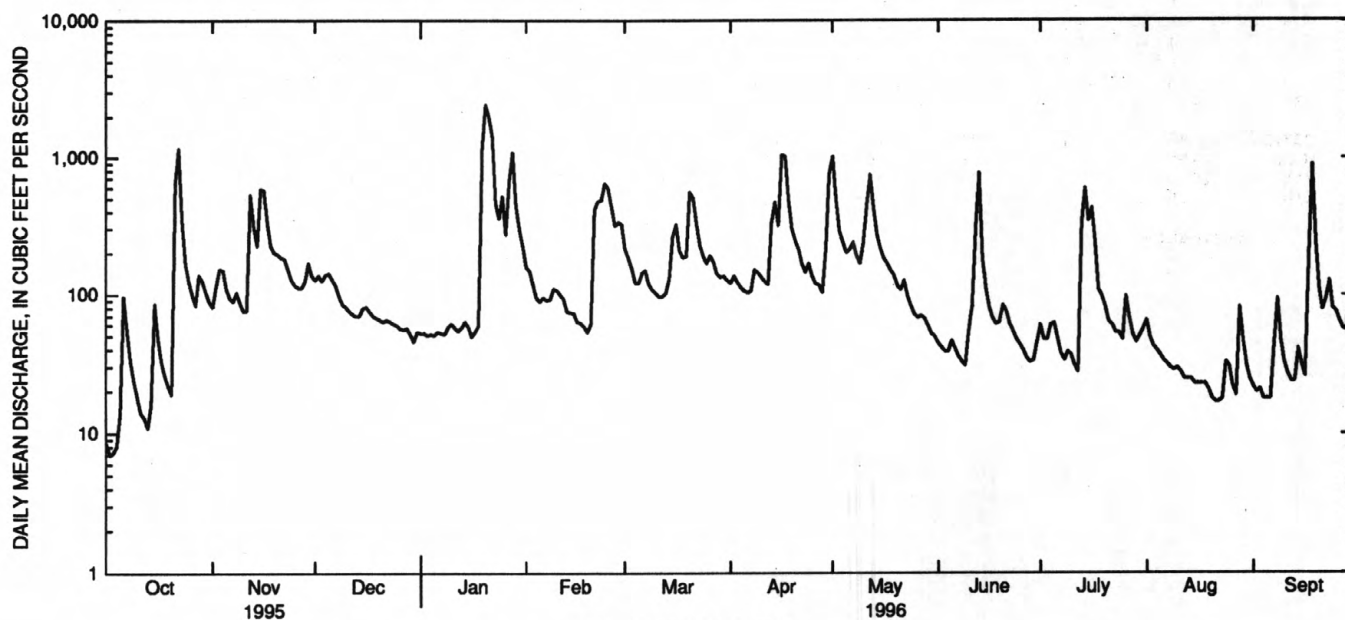
a Result of shutoff at General Jadwin Reservoir.

b From rating curve extended above 2,500 ft³/s on basis of slope-area measurement at gage height 13.78 ft.

c Site and datum then in use.

LACKAWAXEN RIVER BASIN

01429500 DYBERRY CREEK NEAR HONESDALE, PA--Continued



1-YEAR HYDROGRAPH
OCTOBER 1, 1995 TO SEPTEMBER 30, 1996

LACKAWAXEN RIVER BASIN

01430000 LACKAWAXEN RIVER NEAR HONESDALE, PA

LOCATION.--Lat 41°33'43", long 75°14'54", Wayne County, Hydrologic Unit 02040103, on right bank at Lemnitzer Bridge (Brown Street), on U.S. Highway 6, and 1.2 mi downstream from Dyberry Creek and Honesdale.

DRAINAGE AREA.--164 mi².

PERIOD OF RECORD.--October 1948 to September 1969, October 1985 to current year. Occasional discharge measurements and annual maximums, water years 1974-85.

REVISED RECORDS.--WDR PA 90-1: 1989. WDR PA 94-1: 1989(M).

GAGE.--Water-stage recorder. Datum of gage is 946.34 ft above sea level.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Flow regulated since 1960 by Prompton Reservoir (station 01428900) and at high flow since 1959 by General Edgar Jadwin Reservoir (station 01429400). Several measurements of water temperature were made during the year. Satellite telemetry at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--The flood of May 1942 reached a stage of 24.5 ft, discharge not determined.

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	28	235	366	107	e430	e560	308	2100	100	132	138	55
2	25	280	388	e100	e380	e450	345	1200	95	113	115	51
3	26	362	356	e100	e330	e350	318	795	89	138	105	51
4	27	386	383	e110	e290	e290	292	651	89	144	99	47
5	49	307	385	e110	e250	296	279	555	98	139	93	47
6	159	259	350	e100	e230	355	267	578	89	113	88	48
7	113	240	310	e98	e220	e380	280	610	83	97	82	64
8	83	263	263	e98	e210	e320	371	518	80	89	78	139
9	71	232	e240	e100	e230	e290	363	449	77	99	74	83
10	63	202	e220	e110	e220	e270	343	581	135	88	74	67
11	58	207	e210	e100	e190	e250	317	970	176	77	70	61
12	54	1050	e190	e100	e170	e240	307	1610	519	69	65	57
13	50	822	e180	e110	e160	e240	686	1110	1150	690	65	59
14	66	638	e170	e120	e160	309	1060	774	394	1110	62	77
15	161	1360	e180	e110	e160	568	865	597	255	794	62	67
16	103	1420	179	e110	e150	754	2370	486	180	867	62	58
17	79	e940	168	e130	e150	570	2220	429	181	589	65	242
18	70	679	158	e150	e140	486	1200	383	170	394	59	1100
19	65	585	152	e2800	e130	474	820	341	176	295	55	431
20	61	556	e150	e6000	e140	1120	661	285	215	238	51	240
21	1480	525	e150	e3800	642	1150	553	277	191	179	51	174
22	2500	515	142	e2200	883	830	449	322	156	148	49	185
23	1030	443	137	1090	987	632	394	258	144	128	52	237
24	558	380	132	e880	1240	496	421	212	125	118	76	167
25	404	335	128	e1200	1270	433	367	178	114	110	68	159
26	309	308	e120	e880	1030	459	322	161	102	257	57	141
27	248	294	e120	1650	798	e420	307	157	92	182	50	127
28	334	326	118	e2400	766	375	273	145	87	138	111	127
29	345	466	112	e1100	e800	347	440	132	85	123	88	216
30	303	403	e100	e820	---	342	1410	119	116	125	69	176
31	261	---	e110	e620	---	322	---	110	---	127	60	---
TOTAL	9183	15018	6367	27403	12756	14378	18608	17093	5563	7910	2293	4753
MEAN	296	501	205	884	440	464	620	551	185	255	74.0	158
MAX	2500	1420	388	6000	1270	1150	2370	2100	1150	1110	138	1100
MIN	25	202	100	98	130	240	267	110	77	69	49	47

e Estimated.

LACKAWAXEN RIVER BASIN

01430000 LACKAWAXEN RIVER NEAR HONESDALE, PA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1960 - 1969, 1986 - 1996, BY WATER YEAR (WY) (SINCE REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	143	299	278	266	274	563	582	337	176	91.3	86.9	112
MAX	344	650	679	884	716	1133	1464	985	544	255	364	656
(WY)	1990	1987	1991	1996	1990	1986	1993	1989	1989	1996	1994	1987
MIN	14.5	16.5	80.5	73.5	106	261	240	124	43.9	20.3	17.2	12.3
(WY)	1965	1965	1965	1961	1963	1965	1988	1965	1962	1965	1964	1964

SUMMARY STATISTICS FOR 1995 CALENDAR YEAR FOR 1996 WATER YEAR WATER YEARS 1960 - 1996

ANNUAL TOTAL	77330						141325					
ANNUAL MEAN	212						386			267		
HIGHEST ANNUAL MEAN										400		1960
LOWEST ANNUAL MEAN										130		1965
HIGHEST DAILY MEAN	2500			Oct 22			e6000	Jan 20		6280	Mar 15	1986
LOWEST DAILY MEAN	e10			Sep 7, 8, 12			25	Oct 2		8.8	Sep 25	1964
ANNUAL SEVEN-DAY MINIMUM	all			Sep 6			51	Aug 31		9.7	Sep 21	1964
INSTANTANEOUS PEAK FLOW							7180	Jan 19		7180	Jan 19	1996
INSTANTANEOUS PEAK STAGE							8.49	Jan 19		8.49	Jan 19	1996
INSTANTANEOUS LOW FLOW										6.2	Sep 25	1964
10 PERCENT EXCEEDS				462			881			595		
50 PERCENT EXCEEDS				140			215			144		
90 PERCENT EXCEEDS				21			65			31		

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1949 - 1959, BY WATER YEAR (WY) (PRIOR TO REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	151	281	412	377	364	538	746	322	126	112	125	83.1
MAX	955	520	649	669	664	788	1458	592	304	425	865	189
(WY)	1956	1956	1951	1962	1951	1951	1958	1952	1956	1952	1955	1952
MIN	37.9	80.6	154	130	127	291	379	108	47.8	26.2	20.6	26.2
(WY)	1949	1958	1956	1956	1958	1949	1955	1951	1959	1955	1953	1957

SUMMARY STATISTICS WATER YEARS 1949 - 1959

ANNUAL MEAN	302											
HIGHEST ANNUAL MEAN	428											1952
LOWEST ANNUAL MEAN	209											1957
HIGHEST DAILY MEAN	8920				Aug 19							1955
LOWEST DAILY MEAN	12				Aug 29							1953
ANNUAL SEVEN DAY MINIMUM	12				Aug 29							1953
INSTANTANEOUS PEAK FLOW	b18600				Aug 18							1955
INSTANTANEOUS PEAK STAGE	15.52				Aug 18							1955
ANNUAL RUNOFF (CFSM)	1.84											
ANNUAL RUNOFF (INCHES)	25.06											
10 PERCENT EXCEEDS	695											
50 PERCENT EXCEEDS	152											
90 PERCENT EXCEEDS	32											

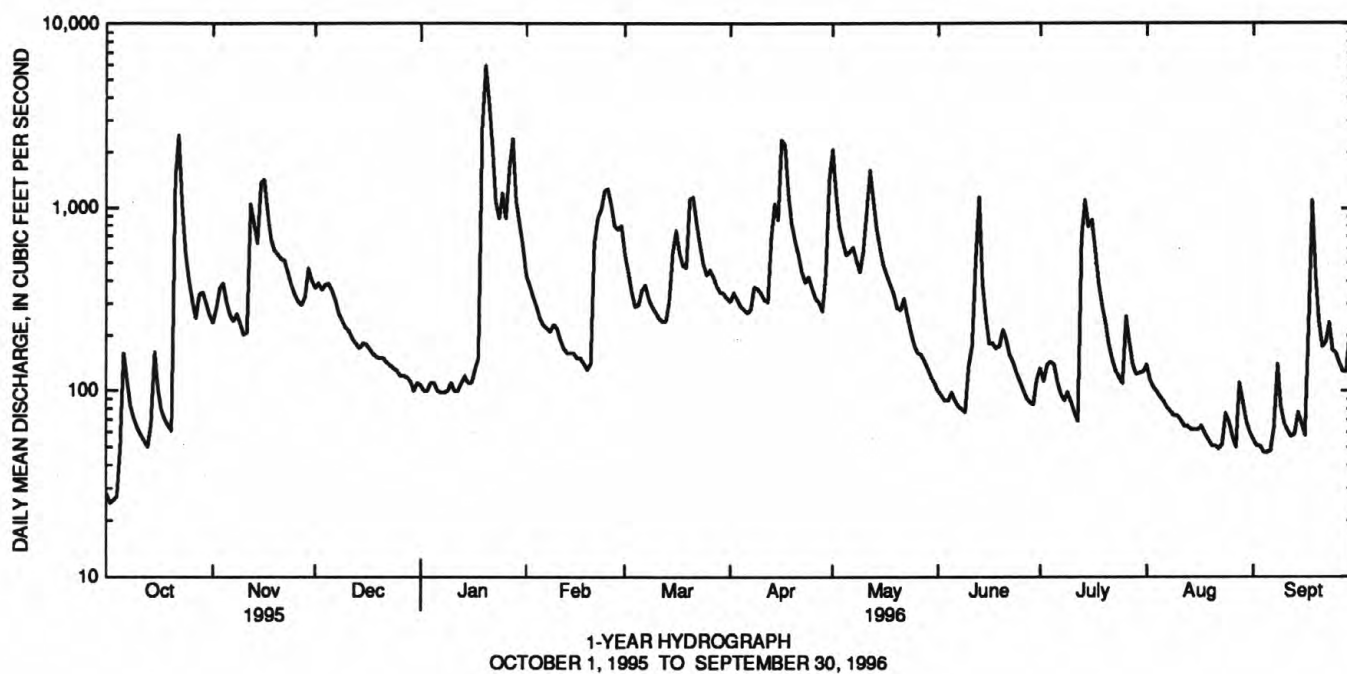
a Computed using estimated daily discharges.

b From rating curve extended above 11,000 ft³/s.

e Estimated.

LACKAWAXEN RIVER BASIN

01430000 LACKAWAXEN RIVER NEAR HONESDALE, PA--Continued



LACKAWAXEN RIVER BASIN

01431500 LACKAWAXEN RIVER AT HAWLEY, PA

LOCATION.--Lat 41°28'34", long 75°10'21", Wayne County, Hydrologic Unit 02040103, on left bank at bridge on Church Street in Hawley, 700 ft upstream from Wallenpaupack Creek, and 3,000 ft downstream from Middle Creek.

DRAINAGE AREA.--290 mi².

PERIOD OF RECORD.--July 1908 to September 1917, August 1938 to current year. Monthly discharge only for some periods, published in WSP 1302. October 1917 to December 1919, gage heights and discharge measurements only, in reports of Water Supply Commission of Pennsylvania.

REVISED RECORDS.--WSP 1951: 1938-41. WSP 1302: 1909-17. WSP 1432: 1942. WSP 1502: 1956.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 869.00 ft above sea level. Prior to 1938, nonrecording gage at same site and datum, and Aug 20, 1955, to Feb. 13, 1956, nonrecording gage at site 1,000 ft downstream at same datum.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Regulation since 1960 by Prompton Reservoir (station 01428900) 14.9 mi upstream, and at high flow since 1959 by General Edgar Jadwin Reservoir (station 01429400) 13.0 mi upstream. Several measurements of water temperature were made during the year. Satellite telemetry at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of 1936 reached a stage of 19.1 ft at present site, 13.9 ft at former site, from floodmarks, discharge, 27,600 ft³/s.

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	43	342	608	e180	e770	969	561	4190	175	230	259	79
2	43	384	675	e170	e660	804	660	2270	158	185	215	73
3	41	524	607	e180	e570	684	599	1460	147	250	190	70
4	44	546	632	e200	e500	530	548	1190	149	274	192	66
5	60	436	649	e200	e440	e560	526	1020	160	249	183	66
6	278	364	583	e190	e390	e640	514	1120	147	195	156	65
7	241	331	522	e190	e380	e700	530	1220	131	155	142	85
8	150	375	441	e180	e390	e600	745	970	124	140	130	181
9	120	344	403	e180	e400	e500	750	823	127	195	128	127
10	106	288	e360	e200	354	e450	685	1180	305	174	122	96
11	93	272	e320	e190	309	e440	622	e1800	376	143	111	81
12	82	1900	e310	e190	292	e410	579	e3400	414	118	102	73
13	75	1520	e300	e200	e290	e430	1100	2250	1580	1280	105	70
14	86	1100	e290	e210	e290	569	1870	1470	546	2270	98	91
15	280	2370	e330	e200	e280	1110	1570	1100	367	1520	94	88
16	237	2510	e310	e190	e260	1550	4340	878	272	1450	91	75
17	162	1640	e290	e220	e250	1090	4470	787	273	933	100	284
18	134	1180	e270	e240	e240	893	2360	692	335	643	90	1650
19	115	989	e260	e4900	e230	856	1540	614	309	505	81	802
20	99	947	e250	9480	e260	2240	1200	508	395	420	75	401
21	2140	896	e260	5470	1210	2330	1000	470	334	317	73	271
22	4460	902	e250	3320	1360	1560	820	562	267	261	73	251
23	1810	767	e240	1770	1530	1120	721	446	272	228	72	401
24	901	647	e230	1570	1900	886	835	364	240	208	126	276
25	647	545	e220	2290	e2200	769	708	308	203	196	118	250
26	481	501	e210	1440	e1800	772	611	270	175	482	91	220
27	369	468	e200	3570	e1300	730	577	268	151	423	78	191
28	508	500	e210	9540	1330	627	519	254	135	287	118	178
29	550	779	e190	7480	1330	593	809	234	128	234	140	322
30	464	686	e180	3910	---	602	2520	208	180	255	101	295
31	388	---	e200	e1100	---	593	---	188	---	249	86	---
TOTAL	15207	25053	10800	59350	21515	26607	34889	32514	8575	14469	3740	7178
MEAN	491	835	348	1915	742	858	1163	1049	286	467	121	239
MAX	4460	2510	675	9540	2200	2330	4470	4190	1580	2270	259	1650
MIN	41	272	180	170	230	410	514	188	124	118	72	65

e Estimated.

LACKAWAXEN RIVER BASIN

01431500 LACKAWAXEN RIVER AT HAWLEY, PA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1960 - 1996, BY WATER YEAR (WY) (SINCE REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	247	450	533	497	571	1007	1041	620	344	183	137	190
MAX	1056	1643	1487	1915	1434	2651	2392	1826	1475	680	522	1368
(WY)	1977	1973	1974	1996	1976	1977	1994	1989	1972	1984	1994	1987
MIN	20.8	25.7	124	92.0	133	280	348	196	63.6	29.7	30.9	20.5
(WY)	1965	1965	1965	1981	1980	1981	1988	1962	1965	1965	1964	1964

SUMMARY STATISTICS FOR 1995 CALENDAR YEAR FOR 1996 WATER YEAR WATER YEARS 1960 - 1996

ANNUAL TOTAL	133516	259897	
ANNUAL MEAN	366	710	484
HIGHEST ANNUAL MEAN			761
LOWEST ANNUAL MEAN			204
HIGHEST DAILY MEAN	4460	Oct 22	9540
LOWEST DAILY MEAN	22	Sep 7,8,12a	41
ANNUAL SEVEN-DAY MINIMUM	b23	Sep 6	72
INSTANTANEOUS PEAK FLOW			12700
INSTANTANEOUS PEAK STAGE			11.54
10 PERCENT EXCEEDS	849	1570	1130
50 PERCENT EXCEEDS	240	349	249
90 PERCENT EXCEEDS	39	100	57

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1909-17, 1939-59, BY WATER YEAR (WY) (PRIOR TO REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	239	388	482	527	555	1019	1117	629	296	236	209	156
MAX	1773	1116	1166	1235	1279	2985	2644	1531	680	1246	2485	601
(WY)	1956	1956	1951	1913	1909	1945	1940	1942	1916	1947	1955	1945
MIN	25.4	28.6	89.0	116	180	353	280	166	79.7	38.2	32.1	24.6
(WY)	1910	1910	1909	1944	1940	1915	1946	1941	1959	1955	1957	1909

SUMMARY STATISTICS WATER YEARS 1909 - 1917
1939 - 1959

ANNUAL MEAN	487
HIGHEST ANNUAL MEAN	748
LOWEST ANNUAL MEAN	316
HIGHEST DAILY MEAN	28100
LOWEST DAILY MEAN	8.0
ANNUAL SEVEN DAY MINIMUM	12
INSTANTANEOUS PEAK FLOW	c51900
INSTANTANEOUS PEAK STAGE	d24.80
ANNUAL RUNOFF (CFSM)	1.68
ANNUAL RUNOFF (INCHES)	22.83
10 PERCENT EXCEEDS	1110
50 PERCENT EXCEEDS	242
90 PERCENT EXCEEDS	49

a Sept. 7-8 are estimated values.

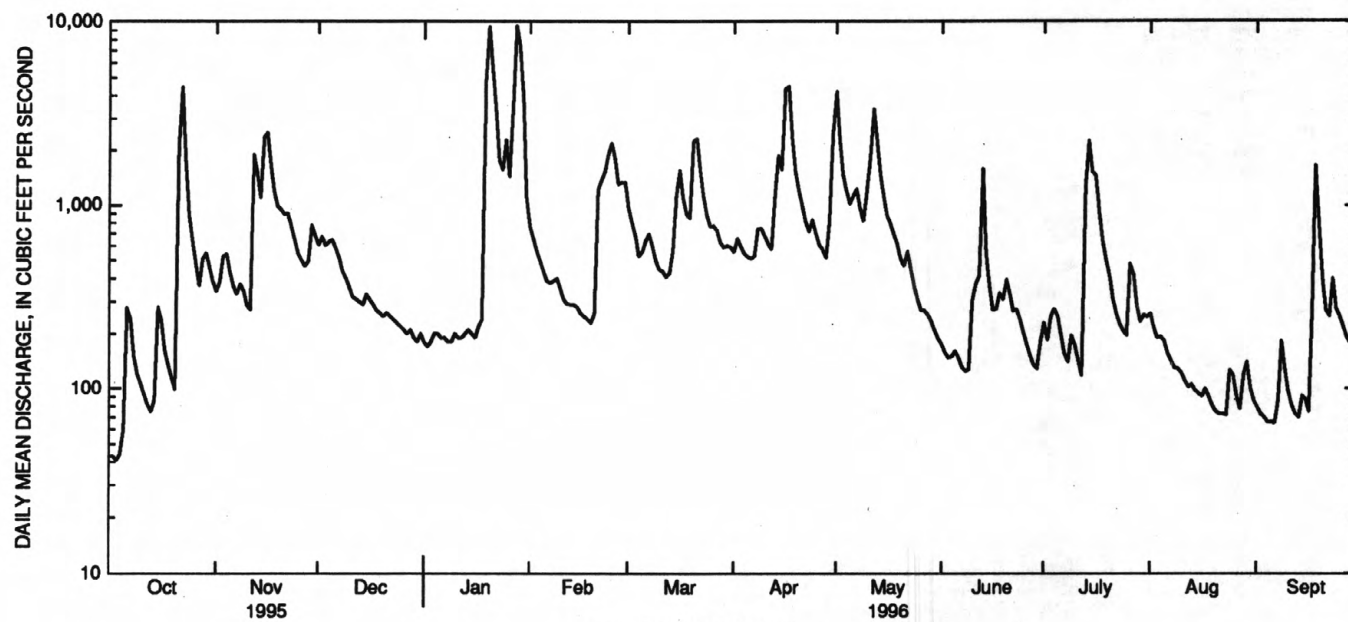
b Computed using estimated daily discharges.

c From rating curve extended above 12,000 ft³/s on basis of slope-area measurement at gage height 20.1 ft.

d From floodmark.

LACKAWAXEN RIVER BASIN

01431500 LACKAWAXEN RIVER AT HAWLEY, PA--Continued



1-YEAR HYDROGRAPH
OCTOBER 1, 1995 TO SEPTEMBER 30, 1996

LOCATION.--Lat 41°27'33", long 75°11'08", Pike County, Hydrologic Unit 02040103, at hydroelectric plant of Pennsylvania Power and Light Co., at lower end of penstock, at Kimble, and 1.2 mi south of Hawley.

REVISED RECORDS.--WSP 756: Drainage area. WSP 1302: 1918, 1923-24. WSP 1432: 1920-21. WSP 2102: 1966 (monthly mean). WDR PA-92-1: 1990.

REMARKS.--No estimated daily discharges. Records good. No flow over spillway or roller gates. Flow regulated since 1925 by Lake Wallenpaupack (station 01431700).

COOPERATION.--Records of generator load, operation of power plant, net operation head, water-surface elevations in lake, and daily discharges furnished by Pennsylvania Power and Light Co., in connection with a Federal Power Commission project.

[illegible]

LACKAWAXEN RIVER BASIN

01432000 WALLENPAUPACK CREEK AT WILSONVILLE, PA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1926 - 1996, BY WATER YEAR (WY) (SINCE REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	276	262	353	446	445	394	458	353	371	340	314	331
MAX	750	1012	1036	1070	1112	1029	1500	1849	1573	965	995	1018
(WY)	1956	1956	1984	1978	1978	1986	1958	1996	1972	1928	1969	1987
MIN	1.32	1.50	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
(WY)	1996	1966	1926	1926	1926	1926	1926	1926	1958	1956	1956	1956

SUMMARY STATISTICS

FOR 1995 CALENDAR YEAR

FOR 1996 WATER YEAR

WATER YEARS 1926 - 1996

ANNUAL TOTAL	105461.00			233556.00			361			1996		
ANNUAL MEAN	289			638			86.9			1926		
HIGHEST ANNUAL MEAN							9650			May 25 1996		
LOWEST ANNUAL MEAN							.00			Nov 4 1925a		
HIGHEST DAILY MEAN	1820			Nov 16			9650			May 25 1996		
LOWEST DAILY MEAN	.00			Jan 7			.00			Oct 1		
ANNUAL SEVEN-DAY MINIMUM	.00			Feb 25			.00			Oct 1		
10 PERCENT EXCEEDS	931						1390			916		
50 PERCENT EXCEEDS	.00						626			241		
90 PERCENT EXCEEDS	.00						.00			.00		

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1910 - 1925, BY WATER YEAR (WY) (PRIOR TO REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	235	271	384	490	426	868	831	468	307	206	143	144
MAX	542	627	1043	1219	1031	1656	1677	682	838	575	532	366
(WY)	1913	1920	1921	1911	1915	1920	1916	1924	1917	1916	1915	1915
MIN	28.0	32.0	69.5	104	156	344	396	283	115	57.0	49.0	35.0
(WY)	1910	1910	1923	1918	1920	1924	1925	1922	1921	1912	1910	1910

SUMMARY STATISTICS

WATER YEARS 1910 - 1925

ANNUAL MEAN	397											
HIGHEST ANNUAL MEAN	527						1916					
LOWEST ANNUAL MEAN	279						1923					
HIGHEST DAILY MEAN	4840						Mar 29 1914					
LOWEST DAILY MEAN	8.0						Sep 30 1917					
ANNUAL SEVEN-DAY MINIMUM	10						Aug 14 1911					
10 PERCENT EXCEEDS	910											
50 PERCENT EXCEEDS	240											
90 PERCENT EXCEEDS	60											

a Many days each year.

LACKAWAXEN RIVER BASIN

LAKES AND RESERVOIRS IN LACKAWAXEN RIVER BASIN

01428900 **PROMPTON RESERVOIR**--Lat 41°35'18", long 75°19'39", Wayne County, Hydrologic Unit 02040103, at dam on West Branch Lackawaxen River, 0.3 mi north of Prompton, 0.4 mi upstream from highway bridge, and 0.5 mi upstream from Van Auken Creek. DRAINAGE AREA, 59.6 mi². PERIOD OF RECORD, December 1960 to current year. GAGE, data collection platform (U.S. Army Corps of Engineers datum).

REMARKS.--Reservoir formed by an earth and rockfill dam with ungated bedrock spillway at elevation 1,205.00 ft. Storage began July 1960. Capacity at elevation 1,205.00 ft is 51,700 acre-ft. Ordinary minimum (conservation) pool is 1,125.00 ft, capacity, 3,420 acre-ft. Reservoir is used for flood control and recreation. Figures given herein represent total contents. Regulation is accomplished by discharge through an ungated tunnel.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 8,170 acre-ft, June 29, 1973, elevation, 1,138.40 ft; minimum (after first filling), 2,500 acre-ft, June 5, 1991, elevation, 1,121.46 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 6,840 acre-ft, Jan. 20, elevation, 1,134.61 ft; minimum contents, 3,030 acre-ft, Oct. 1, 2, elevation, 1,123.33 ft.

01429400 **GENERAL EDGAR JADWIN RESERVOIR**--Lat 41°36'44", long 75°15'55", Wayne County, Hydrologic Unit 02040103, at dam on Dyberry Creek, 0.4 mi upstream from unnamed tributary, 2.4 mi north of Honesdale, and 2.9 mi upstream from mouth. DRAINAGE AREA, 64.5 mi². PERIOD OF RECORD, October 1959 to current year. GAGE, data collection platform (U.S. Army Corps of Engineers datum).

REMARKS.--Reservoir formed by an earth and rockfill dam with ungated concrete spillway at elevation 1,053.00 ft. Storage began October 1959. Capacity at elevation of 1,053.00 ft is 24,500 acre-ft. Reservoir is used for flood control. Figures given herein represent total contents. Regulation is accomplished by discharge through an ungated tunnel.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 6,520 acre-ft, June 19, 1973, elevation, 1,017.40 ft; minimum contents, no storage many times.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 4,920 acre-ft, Jan. 20, elevation, 1,012.08 ft; minimum contents, no storage many times.

01431700 **LAKE WALLENPAUPACK**--Lat 41°27'35", long 75°11'10", Wayne County, Hydrologic Unit 02040103, at dam on Wallenpaupack Creek at Wilsonville, 1.2 mi south of Hawley, and 1.5 mi upstream from mouth. DRAINAGE AREA, 228 mi². PERIOD OF RECORD, January 1926 to current year. GAGE, vertical staff. Datum of gage is sea level (levels by Pennsylvania Power and Light Co.).

REMARKS.--Lake formed by concrete gravity-type and earthfill dam, with concrete spillway in two sections at elevation 1,176.00 ft. Spillway equipped with 14 ft high roller gate on each section. Storage began Nov. 3, 1925; water in reservoir first reached minimum pool elevation January 1926. Total capacity at elevation 1,190.00 ft (top of gates), is 209,300 acre-ft, of which 108,900 acre-ft, above elevation 1,170.00 ft (minimum pool), is controlled storage. Prior to 1984, minimum pool elevation was 1,160.00 ft. Reservoir is used for generation of hydroelectric power. Figures given herein represent usable contents. Records prior to 1984 included additional usable contents of 48,900 acre-ft.

COOPERATION.--Records provided by Pennsylvania Power and Light Co.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 129,300 acre-ft, Aug. 19-21, 1955, elevation, 1,193.45 ft; minimum (after first filling), 12,280 acre-ft (old minimum pool), Mar. 28, 1958, elevation, 1,162.60 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 100,000 acre-ft, Jan. 27, elevation, 1,188.6 ft; minimum contents, 41,990 acre-ft, Jan. 17, elevation 1,178.4 ft.

LACKAWAXEN RIVER BASIN

LAKES AND RESERVOIRS IN LACKAWAXEN RIVER BASIN--Continued

MONTHEND ELEVATION, IN FEET ABOVE SEA LEVEL, AND CONTENTS AT 2400 HRS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

Date	Elevation (feet)	Contents (acre- feet)	Change in contents (equivalent in ft ³ /s)	Elevation (feet)	Contents (acre- feet)	Change in contents (equivalent in ft ³ /s)
<u>01428900 Prompton Reservoir</u>				<u>01429400 General Edgar Jadwin Reservoir</u>		
Sept. 30.....	1,123.38	3,050	--	976.16	0	--
Oct. 31.....	1,125.43	3,620	+ 9.3	978.56	11	+ 0.2
Nov. 30.....	1,125.84	3,740	+ 2.0	981.86	114	+ 1.7
Dec. 31.....	1,124.91	3,480	- 4.2	977.26	0	- 1.9
CAL YR 1995.....	--	--	- 0.1	--	--	0
Jan. 31.....	1,126.24	3,850	+ 6.0	983.51	180	+ 2.9
Feb. 29.....	1,126.49	3,920	+ 1.2	983.46	178	0
Mar. 31.....	1,125.64	3,680	- 3.9	982.53	141	- 0.6
Apr. 31.....	1,128.47	4,470	+13.3	992.76	876	+12.4
May 31.....	1,124.85	3,460	-16.4	977.86	0	-14.2
June 30.....	1,124.56	3,380	- 1.3	981.85	114	+ 1.9
July 31.....	1,124.89	3,470	+ 1.5	977.26	0	- 1.9
Aug. 31.....	1,123.77	3,160	- 5.0	976.41	0	0
Sept. 30.....	1,123.49	3,080	- 1.3	977.36	0	0
WTR YR 1996.....	--	--	0	--	--	0
<u>01431700 Lake Wallenpaupack</u>						
Sept. 30.....	1,179.7	50,490	--			
Oct. 31.....	1,184.6	77,650	+442			
Nov. 30.....	1,185.2	81,290	+ 61.2			
Dec. 31.....	1,181.2	58,320	-374			
CAL YR 1995.....	--	--	+ 0.7			
Jan. 31.....	1,185.4	82,290	+390			
Feb. 29.....	1,181.2	58,320	-417			
Mar. 31.....	1,180.5	54,970	- 54.5			
Apr. 30.....	1,185.2	81,290	+442			
May 31.....	1,185.7	83,810	+ 41.0			
June 30.....	1,184.5	77,000	-114			
July 31.....	1,184.1	74,450	- 41.5			
Aug. 31.....	1,181.7	60,830	-222			
Sept. 30.....	1,178.6	43,200	-296			
WTR YR 1996.....	--	--	- 10.0			

DELAWARE RIVER BASIN

01432160 DELAWARE RIVER AT BARRYVILLE, N.Y.

LOCATION.--Lat 41°28'31", long 74°54'46", Pike County, Pennsylvania, Hydrologic Unit 02040104, at Shohola-Barryville Bridge at Barryville, just upstream from Halfway Brook, and 1,000 ft upstream from Shohola Creek.

DRAINAGE AREA.--2,659 mi².

PERIOD OF RECORD.--Water years 1958, 1968 to current year.

CHEMICAL DATA: 1958 (d), 1969 (a), 1973 (b), 1974 (d), 1975 (b).

NUTRIENT DATA: 1973 (b), 1974 (d), 1975 (b).

BIOLOGICAL DATA:

Bacteria.--1973 (b), 1974 (d), 1975 (b).

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1967 to September 1973, March 1975 to current year.

INSTRUMENTATION.--Water-temperature recorder since February 1994, provides 15-minute-interval readings. From March 1975 to February 1994, water-temperature digital recorder provided one-hour-interval readings. Prior to September 1973, water-temperature recorder provided continuous recordings.

REMARKS.--Unpublished records of daily temperatures for May to September 1964-66 are available in files of the U.S. Geological Survey. Temperature probe may be influenced by solar radiation during periods of low flow. Interruptions of record were due to malfunction of recording instrument.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum (water years 1968-73, 1976-78, 1980-82, 1986-88, 1990-96), 32.0°C, July 20, 21, 1980; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 27.5°C, Aug. 22; minimum, 0.0°C on many days during winter period.

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	16.0	14.0	15.0	---	---	---	3.5	1.5	2.5	.5	.0	.0
2	17.0	14.5	16.0	---	---	---	3.5	1.0	2.0	.5	.0	.0
3	17.5	15.5	16.5	12.0	10.0	11.0	2.0	.5	1.5	.5	.0	.0
4	18.0	17.0	17.5	11.5	8.0	9.5	4.0	1.5	2.5	.5	.0	.0
5	17.5	17.0	17.5	8.5	6.5	7.5	3.5	1.5	2.5	.5	.0	.0
6	18.5	16.5	17.5	7.5	5.0	6.0	3.5	2.0	2.5	1.0	.0	.0
7	18.5	16.5	17.5	7.0	5.0	5.5	2.5	1.0	2.0	.5	.0	.0
8	17.0	15.5	16.5	5.5	4.5	5.0	2.0	.0	1.0	.5	.0	.0
9	17.0	14.5	15.5	5.5	4.0	4.5	2.0	.0	.5	.5	.0	.0
10	18.0	13.5	15.0	5.0	3.5	4.5	.5	.0	.0	.5	.0	.0
11	19.0	14.0	15.5	7.5	4.5	5.5	.5	.0	.0	.5	.0	.0
12	17.0	14.0	15.5	7.5	5.0	6.5	.5	.0	.0	.0	.0	.0
13	17.0	15.0	16.0	5.5	4.0	4.5	.5	.0	.0	.0	.0	.0
14	16.0	15.0	15.5	4.5	3.5	4.0	.5	.0	.0	.0	.0	.0
15	16.0	14.0	15.0	4.5	3.5	4.0	.5	.0	.0	.5	.0	.0
16	14.0	11.5	13.0	4.5	3.0	4.0	.5	.0	.0	.5	.0	.0
17	11.5	10.0	11.0	5.0	3.5	4.0	.5	.0	.0	.5	.0	.0
18	11.5	9.5	10.5	4.5	3.5	4.0	1.0	.0	.0	.0	.0	.0
19	12.5	10.0	11.5	5.0	4.0	4.5	1.0	.0	.0	1.0	.0	.0
20	13.5	11.0	12.0	5.5	4.5	5.0	.5	.0	.0	1.0	.0	.0
21	14.5	12.0	13.5	5.5	4.5	5.0	.5	.0	.0	.5	.0	.0
22	12.5	11.0	11.5	5.0	4.0	4.5	.5	.0	.0	1.0	.0	.5
23	11.5	10.0	10.5	4.5	3.0	3.5	.5	.0	.0	1.5	.0	.5
24	12.0	10.0	11.0	3.5	2.0	2.5	.5	.0	.0	2.0	.5	1.5
25	11.5	10.5	11.0	2.5	.5	1.5	.5	.0	.0	1.5	.0	1.0
26	11.5	9.5	10.5	2.5	1.0	1.5	.5	.0	.0	1.0	.0	.5
27	11.5	9.5	10.5	3.5	1.5	2.5	.5	.0	.0	2.0	.5	1.0
28	12.5	11.0	11.5	4.5	3.0	3.5	.5	.0	.0	1.5	.5	1.0
29	11.5	10.0	11.0	4.0	2.5	3.0	.5	.0	.0	1.5	.0	1.0
30	10.0	8.5	9.5	3.5	2.0	2.5	.5	.0	.0	1.5	.5	1.0
31	---	---	---	---	---	---	.5	.0	.0	1.0	.0	.5
MONTH	---	---	---	---	---	---	4.0	.0	.5	2.0	.0	.5

(a) 1-2 samples per year.

(b) 3-5 samples per year.

(c) 6-9 samples per year.

(d) 10-20 samples per year.

DELAWARE RIVER BASIN

01432160 DELAWARE RIVER AT BARRYVILLE, N.Y.--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
FEBRUARY			MARCH			APRIL			MAY			
1	.5	.0	.0	2.0	.0	1.0	7.0	5.5	6.5	10.5	8.5	9.5
2	.0	.0	.0	2.0	.0	1.0	7.5	5.0	6.0	11.0	9.0	10.0
3	.5	.0	.0	1.5	.0	1.0	6.5	5.0	5.5	10.0	9.0	9.5
4	.5	.0	.0	2.0	.0	.5	7.0	4.5	6.0	9.5	9.0	9.5
5	.5	.0	.0	2.5	.0	1.0	7.5	5.5	6.5	11.5	9.0	10.5
6	.5	.0	.0	2.5	1.0	1.5	8.0	5.0	6.5	11.0	10.0	10.5
7	.5	.0	.0	2.0	.0	1.0	7.0	5.5	6.5	11.0	9.0	10.0
8	1.0	.0	.5	1.0	.0	.0	6.5	4.5	5.5	12.5	9.5	11.0
9	1.5	.5	1.0	.5	.0	.0	6.0	4.5	5.5	12.0	11.0	11.5
10	1.5	.0	1.0	1.0	.0	.5	6.0	4.5	5.0	13.0	10.5	11.5
11	1.0	.0	1.0	2.5	.0	1.0	8.0	4.5	6.0	15.0	12.5	13.5
12	1.0	.0	.0	2.5	.0	1.0	9.5	6.5	8.0	14.0	10.0	11.5
13	.5	.0	.0	4.0	.0	1.5	9.0	7.5	8.5	10.0	8.5	9.0
14	.5	.0	.0	4.0	.5	2.5	7.5	5.5	6.5	10.5	8.0	9.0
15	1.0	.0	.5	3.0	1.5	2.5	7.0	4.5	6.0	11.5	8.5	10.0
16	.5	.0	.0	3.0	1.0	2.0	6.5	5.5	6.0	11.0	10.0	10.5
17	.5	.0	.0	3.5	1.0	2.5	6.0	4.5	5.0	13.0	9.5	11.0
18	.5	.0	.0	5.5	2.5	4.0	6.5	3.5	5.0	15.0	12.0	13.0
19	.5	.0	.0	4.5	3.5	4.0	8.0	5.5	7.0	17.0	14.0	15.5
20	1.0	.0	.5	4.5	3.0	4.0	9.0	7.0	8.0	19.0	16.5	17.5
21	1.0	.0	.5	4.0	3.0	3.5	11.0	8.0	9.5	19.5	17.0	18.0
22	1.5	.0	.5	3.5	2.5	3.0	12.0	9.0	10.5	17.5	15.5	17.0
23	1.5	.0	.5	3.0	2.0	2.5	13.5	10.5	12.0	17.5	15.0	16.0
24	2.0	.5	1.0	4.0	1.5	2.5	12.5	10.0	11.5	18.0	15.5	17.0
25	3.0	1.0	2.0	6.0	2.5	4.0	10.5	9.5	10.0	18.5	14.5	16.5
26	3.0	1.5	2.5	7.0	5.0	6.0	11.0	9.0	10.0	17.0	15.0	16.0
27	3.0	1.5	2.5	6.0	4.0	5.0	11.0	9.0	10.0	17.0	14.5	16.0
28	4.0	2.5	3.0	4.5	3.0	3.5	11.0	8.5	10.0	16.5	14.5	15.0
29	3.0	1.0	2.0	4.0	2.5	3.0	10.5	9.0	10.0	16.0	14.0	15.0
30	---	---	---	6.5	3.0	4.5	9.5	9.0	9.0	16.0	13.5	15.0
31	---	---	---	8.0	4.5	6.5	---	---	---	17.5	13.5	15.5
MONTH	4.0	.0	.5	8.0	.0	2.5	13.5	3.5	7.5	19.5	8.0	13.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	19.5	15.5	17.5	23.0	19.0	20.5	21.5	18.0	19.5	24.5	20.5	22.5
2	21.5	17.0	19.5	24.0	20.0	22.0	22.0	19.0	20.5	24.5	21.0	23.0
3	19.5	17.5	18.5	22.0	20.0	21.5	22.0	19.5	21.0	25.0	22.5	24.0
4	21.0	17.5	19.0	20.5	19.5	20.0	24.0	20.5	22.0	24.0	22.5	23.0
5	22.5	18.5	20.5	22.0	18.0	20.0	24.5	21.5	23.0	24.0	21.5	23.0
6	22.0	18.5	20.5	23.5	19.0	21.0	24.5	21.5	23.5	22.5	20.5	21.5
7	24.0	18.0	21.5	24.5	21.0	23.0	26.0	22.5	24.0	21.0	20.0	20.5
8	26.0	20.0	23.5	25.0	22.0	23.5	26.0	23.0	24.0	22.5	20.0	21.0
9	25.5	22.5	24.0	26.0	22.5	24.5	24.0	22.0	23.0	23.5	20.5	22.5
10	24.0	20.5	23.0	24.0	21.5	23.0	25.0	21.0	23.0	24.0	21.0	22.5
11	23.0	20.0	21.5	24.0	20.5	22.0	24.0	21.0	23.0	23.5	21.0	22.5
12	22.0	19.5	20.5	23.5	20.5	22.0	23.0	20.0	21.5	22.5	20.0	21.0
13	20.5	18.0	19.5	21.0	18.0	20.0	21.5	19.0	20.0	20.5	19.0	20.0
14	20.5	18.5	19.5	20.0	18.0	19.0	24.0	19.0	21.5	22.0	18.0	20.0
15	23.0	19.0	21.0	20.0	19.0	19.5	25.5	22.0	23.5	19.5	18.0	18.5
16	23.0	21.0	22.0	21.0	19.0	20.0	23.5	22.5	23.0	19.5	17.5	18.5
17	22.5	19.5	21.5	21.5	19.0	20.0	25.0	22.0	23.5	18.0	16.5	17.0
18	---	---	---	22.0	19.5	21.0	25.0	22.0	23.5	16.5	15.5	16.0
19	20.0	---	---	22.5	20.0	21.0	26.5	22.0	24.0	17.0	14.5	16.0
20	18.5	17.0	18.0	21.0	19.5	20.5	26.0	23.0	24.5	17.5	15.0	16.5
21	21.5	17.0	18.5	21.0	18.5	20.0	25.5	23.0	24.0	18.0	16.0	17.0
22	20.0	18.0	19.0	20.5	19.0	19.5	27.5	22.5	25.0	17.5	16.0	17.0
23	22.0	18.5	20.5	20.5	18.5	19.5	26.5	22.0	24.5	16.5	15.5	16.0
24	21.5	19.0	20.5	22.0	18.5	20.0	25.5	23.5	24.5	16.0	13.5	15.0
25	22.0	18.5	20.0	22.5	19.5	21.0	25.0	22.5	23.5	15.5	14.0	15.0
26	22.0	17.5	20.0	22.0	20.0	21.0	25.0	22.0	24.0	16.0	14.0	15.0
27	22.5	17.5	20.0	21.5	20.0	20.5	25.5	23.0	24.0	16.5	15.0	15.5
28	24.0	19.0	21.5	22.5	19.5	21.0	24.5	23.0	23.5	17.5	16.0	16.5
29	22.0	20.0	21.0	21.0	18.5	20.0	24.0	22.5	23.5	16.5	15.0	16.0
30	21.0	19.5	20.0	19.5	18.5	19.0	23.5	21.0	22.5	16.5	14.5	15.5
31	---	---	---	19.0	18.0	18.5	24.0	21.0	22.5	---	---	---
MONTH	---	---	---	26.0	18.0	21.0	27.5	18.0	23.0	25.0	13.5	19.0

LOCATION.--Lat 41°26'20", long 74°49'11", Pike County, Pennsylvania, Hydrologic Unit 02040104, at interstate bridge at Pond Eddy, 450 ft downstream from Mill Brook, and 4.5 mi upstream from Monqaup River.

PERIOD OF DAILY RECORD. --

INSTRUMENTATION.--Water-temperature recorder since August 1994, provides 15-minute-interval readings. Prior to August 1994, water-temperature digital recorder provided one-hour-interval readings.

EXTREMES FOR PERIOD OF DAILY RECORD.--

EXTREMES FOR CURRENT YEAR. --

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

[illegible]

DELAWARE RIVER BASIN

01432805 DELAWARE RIVER AT POND EDDY, N.Y.--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
FEBRUARY			MARCH			APRIL			MAY			
1	---	.0	---	---	---	---	7.5	6.5	7.0	10.0	9.0	9.5
2	---	.0	---	---	---	---	7.5	5.5	6.5	11.0	9.5	10.0
3	---	.0	---	---	---	---	7.0	5.5	6.0	10.0	9.0	9.5
4	---	.0	---	---	.0	---	7.0	5.0	6.5	9.5	9.0	9.0
5	---	.0	---	2.0	.5	1.0	7.0	6.0	6.5	11.0	9.0	10.0
6	---	.0	---	2.0	1.5	1.5	7.5	5.5	6.5	11.0	10.0	10.5
7	---	.0	---	1.5	.0	1.0	7.5	6.0	6.5	10.5	9.5	10.0
8	.0	.0	.0	.0	.0	.0	6.5	5.0	6.0	12.0	10.0	11.0
9	---	.0	---	.0	.0	.0	6.0	5.0	5.5	12.0	11.5	12.0
10	---	.0	---	.5	.0	.0	6.0	5.0	5.5	13.0	11.5	12.0
11	---	---	---	.5	.0	.0	7.5	4.5	6.0	14.5	12.5	13.5
12	---	.0	---	1.5	.0	1.0	9.5	7.0	8.5	14.0	10.5	12.0
13	---	.0	---	3.0	1.0	1.5	9.5	8.0	8.5	10.5	8.5	9.5
14	---	.0	---	3.5	1.5	2.5	8.0	5.5	7.0	10.0	8.0	9.0
15	---	.0	---	3.5	2.0	2.5	6.5	5.0	6.0	11.0	8.5	10.0
16	---	.0	---	3.0	1.5	2.0	6.5	6.0	6.0	11.0	10.0	10.5
17	---	.0	---	3.0	1.5	2.5	6.0	4.5	5.0	12.5	10.0	11.0
18	---	.0	---	5.0	3.0	4.0	6.0	4.0	5.0	14.5	12.0	13.0
19	---	.0	---	4.5	3.5	4.0	8.0	6.0	7.0	16.5	14.5	15.5
20	---	.0	---	4.5	4.0	4.0	9.0	7.0	8.0	19.5	16.5	18.0
21	---	.0	---	4.0	3.5	3.5	10.5	8.5	9.5	19.5	18.0	18.5
22	---	.0	---	3.5	3.0	3.5	12.0	9.5	10.5	18.5	17.0	17.5
23	---	---	---	3.0	2.5	2.5	13.5	11.0	12.5	18.0	15.5	17.0
24	---	---	---	3.5	2.0	3.0	13.0	11.0	12.0	19.0	16.5	17.5
25	---	---	---	5.5	3.0	4.0	11.0	10.0	10.5	18.0	15.0	17.0
26	---	---	---	7.0	5.5	6.0	11.0	9.5	10.5	17.5	16.0	16.5
27	---	---	---	6.0	4.5	5.5	11.0	10.0	10.5	18.0	16.0	16.5
28	---	---	---	5.0	3.5	4.0	11.0	9.0	10.0	16.5	15.0	16.0
29	---	---	---	3.5	3.0	3.5	10.5	9.5	10.0	16.5	15.0	15.5
30	---	---	---	6.0	3.0	4.5	9.5	9.0	9.5	16.5	14.0	15.0
31	---	---	---	7.5	5.0	6.0	---	---	---	18.5	14.0	16.0
MONTH	---	---	---	---	---	---	13.5	4.0	8.0	19.5	8.0	13.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	20.5	15.5	17.5	22.5	19.5	21.0	21.0	18.5	19.5	24.5	21.0	22.5
2	22.5	17.5	19.5	24.0	20.5	22.5	22.0	19.5	21.0	25.5	21.5	23.0
3	19.5	18.0	18.5	23.5	21.5	22.5	21.5	20.5	21.0	26.5	22.5	24.0
4	21.5	18.0	19.0	21.5	19.5	20.0	23.5	21.0	22.0	24.0	23.0	23.5
5	23.0	19.0	20.5	22.0	19.0	20.5	25.0	22.5	23.5	25.0	22.5	23.5
6	23.0	19.5	21.0	23.0	19.5	21.5	25.0	22.5	23.5	23.5	21.5	22.5
7	23.5	20.5	21.5	24.5	22.0	23.0	25.5	23.0	24.0	22.0	21.0	21.5
8	26.5	22.0	24.0	24.5	23.0	23.5	25.5	23.0	24.5	22.5	20.5	21.5
9	25.5	23.0	24.5	26.0	21.0	24.5	24.5	23.0	23.5	24.5	22.0	23.0
10	25.0	23.0	24.0	25.0	22.5	23.5	24.5	21.5	23.0	25.0	22.5	23.5
11	23.5	21.5	22.5	24.5	21.0	22.5	25.0	22.0	23.0	23.0	22.0	23.0
12	22.0	21.0	21.5	23.5	21.5	22.5	23.0	21.0	22.0	22.0	21.0	21.5
13	21.5	19.5	20.5	22.5	19.0	20.5	22.0	20.0	20.5	21.0	20.0	20.5
14	21.0	20.0	20.5	20.0	18.5	19.5	24.0	20.0	21.5	21.5	19.0	20.0
15	23.0	20.0	21.5	20.0	19.5	19.5	26.0	22.0	23.5	20.0	18.5	19.0
16	23.5	21.5	22.5	21.0	19.5	20.0	24.0	23.0	23.5	19.5	18.0	18.5
17	23.0	22.0	22.5	21.5	19.5	20.5	26.0	22.0	23.5	18.5	16.5	17.5
18	22.0	20.0	21.0	22.5	20.0	21.0	26.0	22.5	24.0	16.5	16.0	16.0
19	21.0	19.5	20.0	22.5	21.0	21.5	27.0	22.5	24.5	17.0	15.0	16.0
20	19.5	18.0	18.5	21.5	20.5	21.0	26.5	23.5	24.5	17.5	15.5	16.5
21	21.0	18.0	19.5	21.0	19.0	20.0	25.5	23.5	24.5	19.0	16.5	17.5
22	20.5	19.0	19.5	20.5	19.5	20.0	28.0	23.5	25.0	17.5	17.0	17.5
23	22.5	19.0	20.5	20.5	19.5	20.0	26.0	23.5	25.0	17.0	15.0	16.0
24	22.0	20.5	21.0	22.0	19.0	20.5	26.5	24.0	25.0	15.5	14.0	15.0
25	22.0	20.0	21.0	22.5	20.5	21.5	26.5	23.0	24.5	16.0	14.0	15.0
26	22.0	18.5	20.5	22.5	20.5	21.5	26.5	23.0	24.0	16.5	14.5	15.5
27	22.5	18.5	20.5	22.0	20.5	21.0	26.0	23.0	24.5	17.0	15.0	16.0
28	23.5	20.0	22.0	22.5	20.0	21.0	25.0	23.5	24.0	17.5	15.5	16.5
29	22.5	21.0	22.0	21.5	19.5	20.5	25.0	23.0	23.5	17.0	16.0	16.5
30	21.0	20.0	20.5	19.5	19.0	19.5	25.0	22.0	23.0	17.0	15.0	16.0
31	---	---	---	19.0	18.5	18.5	25.5	21.0	22.5	---	---	---
MONTH	26.5	15.5	21.0	26.0	18.5	21.0	28.0	18.5	23.5	26.5	14.0	19.5

DELAWARE RIVER BASIN

01434000 DELAWARE RIVER AT PORT JERVIS, N.Y.

LOCATION.--Lat°41 22'14", long 74°41'52", Pike County, Pennsylvania, Hydrologic Unit 02040104, on right bank 250 ft downstream from bridge on U.S. Highways 6 and 209 between Port Jervis, New York and Matamoras, Pennsylvania, 1.2 mi upstream from Neversink River, and 6.5 mi downstream from Mongaup River.

DRAINAGE AREA.--3,070 mi².

PERIOD OF RECORD.--October 1904 to current year.

REVISED RECORDS.--WSP 1031: 1905-36. WDR NY-71-1: 1970. WDR NY-82-1: Drainage area. WDR NY-86-1: 1979-80.

GAGE.--Water-stage recorder. Datum of gage is 415.35 ft above sea level. October 1904 to August 13, 1928, nonrecording gage at bridge 250 ft upstream at present datum; operated by U.S. Weather Service prior to June 20, 1914.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Flow regulated by Lake Wallenpaupack and by Toronto, Cliff Lake, and Swinging Bridge Reservoirs and smaller reservoirs. Large diurnal fluctuations at medium and low flows caused by powerplants on tributary streams. Subsequent to September 1954, entire flow from 371 mi² of drainage area controlled by Pepacton Reservoir, and subsequent to October 1963, entire flow from 454 mi² of drainage area controlled by Cannonsville Reservoir. Part of the flow from these reservoirs is diverted for New York City municipal supply. Remainder of flow (except for conservation releases and spill) impounded for release during periods of low flow in the lower Delaware River Basin, as directed by the Delaware River Master. Telephone and satellite gage-height telemeters at station. Information on the above reservoirs can be found in the annual Water Data Report NJ-96-1.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 233,000 ft³/s, Aug. 19, 1955, gage height, 23.91 ft, from floodmarks in gage house, from rating curve extended above 89,000 ft³/s, on basis of slope-area measurement of peak flow; maximum gage height, 26.6 ft, Feb. 12, 1981 (ice jam), from floodmarks; minimum observed discharge, 175 ft³/s, Sept. 23, 1908, gage height, 0.6 ft.

EXTREMES OUTSIDE PERIOD OF RECORD.--The U.S. Weather Bureau reported a discharge of 205,000 ft³/s, Oct. 10, 1903, gage height, 23.1 ft, from rating curve extended above 70,000 ft³/s, by velocity-area studies; maximum gage height, 25.5 ft, Mar. 8, 1904 (ice jam).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 134,000 ft³/s, Jan. 20, gage height, 18.37 ft; minimum, 751 ft³/s, Oct. 11, gage height, 1.76 ft; minimum daily, 781 ft³/s, Oct. 11.

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	1380	3690	4830	1360	12100	9420	5190	21700	2150	2910	4170	1490
2	1330	3820	4270	1950	10600	8040	6150	23000	1880	3080	4400	1460
3	1430	4400	3720	2680	8980	6850	6370	18400	1850	3100	3530	1720
4	1440	4710	3970	2120	7510	6340	5360	15700	2100	3000	2830	1830
5	1890	3860	4710	2320	6720	5720	4800	14000	2010	2710	2810	1760
6	2080	3510	4660	2530	6270	5630	4040	13100	1840	3040	3570	2750
7	2060	3440	4450	2220	5710	6510	3950	13300	2090	2550	3080	2930
8	1800	3220	4190	e2300	5400	6120	4830	11900	1890	2340	2890	2530
9	1210	3590	3200	e2500	5610	5040	5250	10500	2280	2990	2960	2570
10	970	2940	2770	e2600	5520	4020	4750	10600	3530	2780	3150	2460
11	781	2830	e3000	e2400	4980	4820	4470	11400	6920	2160	1860	1720
12	1030	11100	e3400	e2500	5360	4200	3850	21800	7100	2300	1840	1610
13	1160	15700	e3100	e2300	4800	4840	5210	24000	8340	4190	2810	1680
14	1300	11800	3040	e1700	3850	5390	13000	20200	8820	10800	2390	1640
15	1820	15600	3050	e2000	3830	6540	15300	16200	6950	12300	1620	1720
16	3090	17600	3280	e3200	3860	8610	25800	13500	5120	14700	1920	1640
17	2100	13300	2590	e3000	3570	7210	33500	11700	4170	13700	1820	1970
18	1470	10600	2690	2930	2720	7180	24200	9680	4360	10800	1780	3770
19	1180	9040	3220	21600	2880	7630	18500	8390	4230	9310	1710	5970
20	1060	8320	2950	95200	3430	10300	14700	8100	4800	8140	1730	3640
21	3860	7830	3160	29200	8150	13400	12000	7810	4350	6900	1300	2620
22	29200	7340	2770	17700	13500	11600	10600	7340	3520	5740	1350	2100
23	14500	5360	1540	13100	14700	9230	10000	6640	2770	5670	2330	2470
24	7960	4820	1680	11200	15400	7580	10400	5840	2850	4840	1870	3370
25	5400	4220	1990	16700	16900	7040	10600	4770	3150	4120	2220	2900
26	4080	3810	2330	14000	14700	7220	9960	3440	2950	5340	2140	2900
27	3480	3920	3280	21800	12400	7480	8560	3030	2680	7040	2150	2740
28	4130	3930	2790	50900	11000	6920	7510	2940	2580	5220	1710	2490
29	7840	4340	2450	31500	11200	6580	7380	2830	2320	4510	2230	2670
30	5860	5900	2220	21900	---	5690	14100	2740	2030	4660	2220	3740
31	4400	---	1330	15000	---	5100	---	2270	---	4100	1570	---
TOTAL	121291	204540	96630	402410	231650	218250	310330	346820	111630	175040	73960	74860
MEAN	3913	6818	3117	12980	7988	7040	10340	11190	3721	5646	2386	2495
MAX	29200	17600	4830	95200	16900	13400	33500	24000	8820	14700	4400	5970
MIN	781	2830	1330	1360	2720	4020	3850	2270	1840	2160	1300	1460

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1996, BY WATER YEAR (WY)

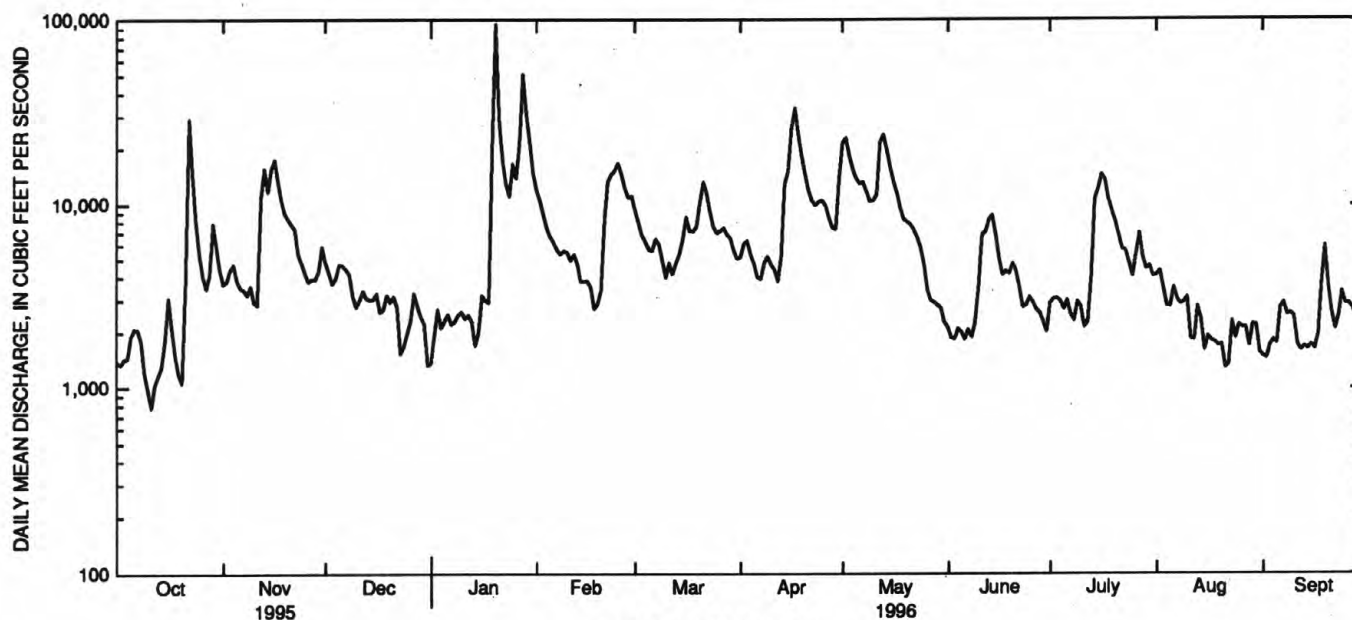
	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975
MEAN	3019	4094	4987	4770	5175	7943	9539	6109	3780	2683	2264	2437
MAX	10440	10310	12320	12980	13730	17520	23650	12670	12650	6680	4513	7928
(WY)	1978	1973	1974	1996	1976	1977	1993	1984	1972	1973	1969	1987
MIN	1001	884	1866	1216	1601	2583	2954	1890	993	699	963	1144
(WY)	1965	1965	1965	1981	1980	1981	1985	1995	1965	1965	1965	1965

e Estimated

DELAWARE RIVER BASIN

01434000 DELAWARE RIVER AT PORT JERVIS, N.Y.--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1964 - 1996	
ANNUAL TOTAL	1339551		2367411		4728	
ANNUAL MEAN	3670		6468		7216	
HIGHEST ANNUAL MEAN					1973	
LOWEST ANNUAL MEAN					2028	
HIGHEST DAILY MEAN	29200	Oct 22	95200	Jan 20	95200	Jan 20 1996
LOWEST DAILY MEAN	781	Oct 11	781	Oct 11	385	Jul 6 1965
ANNUAL SEVEN-DAY MINIMUM	1180	Oct 8	1180	Oct 8	432	Jul 1 1965
10 PERCENT EXCEEDS	7690		14000		10100	
50 PERCENT EXCEEDS	2540		4060		2840	
90 PERCENT EXCEEDS	1470		1790		1490	



1-YEAR HYDROGRAPH
OCTOBER 1, 1995 TO SEPTEMBER 30, 1996

DELAWARE RIVER BASIN

01438500 DELAWARE RIVER AT MONTAGUE, NJ

LOCATION.--Lat 41°18'33", long 74°47'44", Pike County, Pennsylvania, Hydrologic Unit 02040104, on right bank 1,500 ft upstream from toll bridge on U.S. Route 206 between Montague, New Jersey and Milford, Pennsylvania, 0.8 mi downstream from Sawkill Creek, and at river mile 246.3.

DRAINAGE AREA.--3,480 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1936 to September 1939 (gage heights only, published as "at Milford, PA"). October 1939 to current year. Monthly discharge only for some periods, published in WSP 1302.

REVISED RECORDS.--WDR-NJ-81-2: 1980.

GAGE.--Water-stage recorder. Datum of gage is 369.93 ft above sea level. Prior to Feb. 9, 1940; nonrecording gage on upstream side of left span of subsequently dismantled bridge at present site at datum 70 ft lower.

REMARKS.--Records good except for estimated daily discharges and periods of shifting control, which are fair. Diurnal fluctuations at medium and low flow caused by powerplants on tributary streams. Flow regulated by Lake Wallenpaupack, Cliff Lake, and by Pepacton, Cannonsville, Swinging Bridge, Toronto, and Neversink Reservoirs and smaller reservoirs. Diversion from Pepacton, Cannonsville, and Neversink Reservoirs. Several measurements of water temperature were made during the year. Satellite telemeter at station. Information on the above reservoirs can be found in the annual Water Data Report NJ-96-1.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of October 10, 1903 reached a stage of 35.5 ft, from floodmark, present datum.

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	1640	4540	5770	e1800	13900	10800	5950	31800	2510	3240	4590	1630
2	1620	4730	5290	e2200	12200	9260	7210	27900	2210	3550	4840	1740
3	1630	5190	4670	e3200	e10300	8190	7550	21600	2100	3440	4240	1810
4	1660	5750	4690	e2700	e8700	7310	6500	18000	2590	3530	3270	2040
5	2000	4850	5550	e2600	e7500	6680	5960	15700	2520	3130	3180	1990
6	2810	4260	5500	e2900	e7100	6590	5030	14400	2250	3400	3930	2810
7	2710	4340	5310	e2400	e6400	7560	4770	14500	2530	2900	3560	3320
8	2330	4100	4950	e2500	e6200	7090	5770	12900	2280	2730	3340	3200
9	1590	4380	4070	e2800	e6400	6130	6280	11500	2570	3360	3260	3400
10	1270	3900	e3500	e2900	e6300	5030	5830	11600	3830	3280	3670	3110
11	1030	3610	e3600	e2700	e6000	5360	5460	12400	8340	2490	2280	2110
12	1210	12800	e4500	e2900	6200	5230	4870	22500	8640	2500	1990	1880
13	1450	18000	e4300	e2800	5800	5440	5730	26100	11100	5210	3140	1960
14	1620	13300	e3700	e1900	4930	6200	12300	22300	10400	16700	2860	2000
15	2350	17500	e3600	e2200	4580	7410	16700	17700	7740	14000	1990	2010
16	3670	20400	e4100	e3400	4530	9870	26000	14700	5720	15400	2140	1940
17	2850	15300	e3400	e3300	4390	8570	37900	12700	4610	15400	2350	2300
18	2020	12300	e3200	e3200	3700	8100	27900	10900	4960	12000	2240	6510
19	1650	10600	e3900	e17000	3860	8660	21300	9640	4850	10000	1930	7510
20	1430	9750	e3600	118000	4200	11200	16800	9130	5440	8730	2030	4740
21	3740	9170	e3700	42900	8610	14500	13400	8840	5060	7580	1680	3520
22	28000	8600	e3600	25500	14600	12800	11800	8440	4230	6210	1500	2720
23	16700	6760	e2200	18500	16200	10700	11200	7610	3310	6110	2550	2830
24	9490	6010	e2300	14800	16900	8860	11800	6680	3180	5230	2110	3900
25	6820	5350	e2400	20300	19200	8070	11800	5640	3650	4550	2580	3570
26	5410	4870	e2600	16500	16400	8300	11100	4000	3380	6230	2550	3310
27	4520	4830	e3800	24500	13800	8500	9890	3560	3130	8190	2460	3210
28	5000	4890	e3300	57900	12300	7900	8660	3380	2990	6020	1990	3150
29	8350	5140	e3000	36100	12400	7570	8380	3320	2700	5080	2400	4210
30	7140	6720	e2800	25700	---	6830	16300	3190	2360	5240	2550	4740
31	5350	---	e1800	17500	---	6120	---	2600	---	4660	1960	---
TOTAL	139060	241940	118700	483600	263600	250830	350140	395230	131180	200090	85160	93170
MEAN	4486	8065	3829	15600	9090	8091	11670	12750	4373	6455	2747	3106
MAX	28000	20400	5770	118000	19200	14500	37900	31800	11100	16700	4840	7510
MIN	1030	3610	1800	1800	3700	5030	4770	2600	2100	2490	1500	1630

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1996, BY WATER YEAR (WY)

	MEAN	3327	5111	6086	5843	5986	9965	12030	7418	4354	3055	2618	2661
MAX	15690	11760	14050	15600	15120	24480	31560	16090	15200	11220	14230	9167	
(WY)	1956	1952	1974	1996	1976	1945	1940	1943	1972	1945	1955	1960	
MIN	807	995	1968	1318	1748	3191	3322	2215	1214	864	715	892	
(WY)	1942	1965	1965	1981	1980	1981	1985	1965	1965	1954	1954	1941	

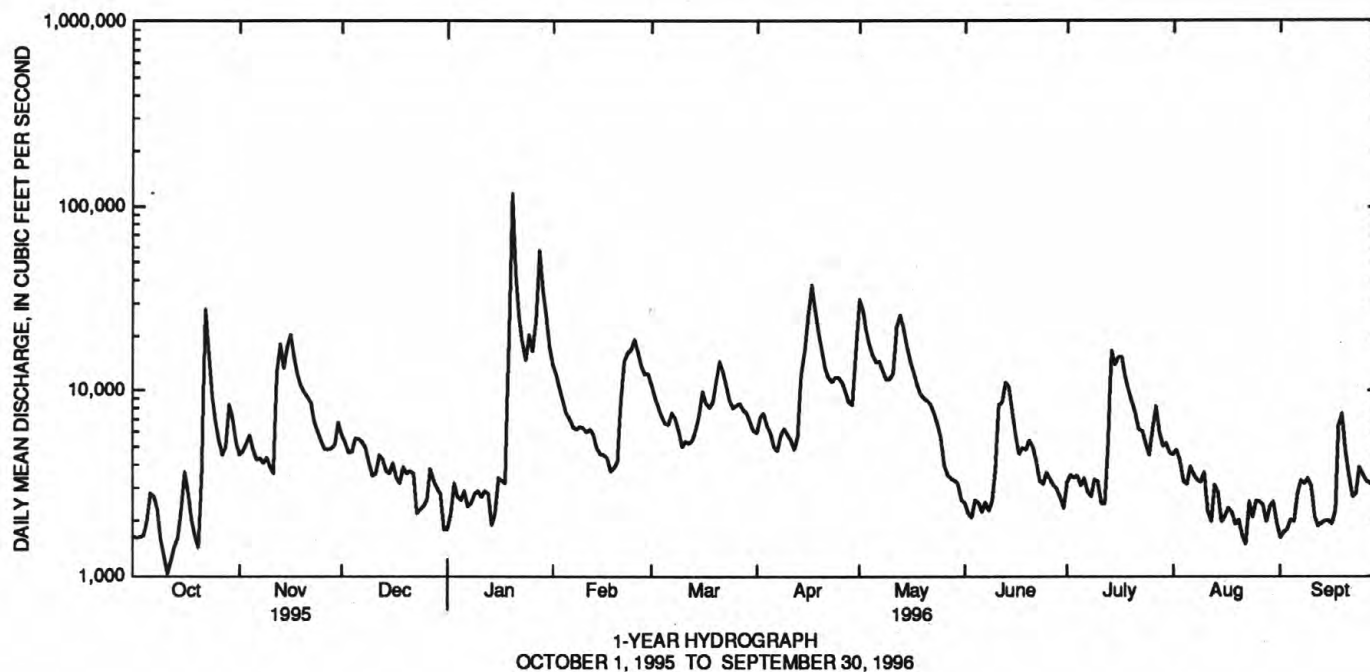
e Estimated.

DELAWARE RIVER BASIN

01438500 DELAWARE RIVER AT MONTAGUE, NJ--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1940 - 1996	
ANNUAL TOTAL	1567620		2752700		5699	
ANNUAL MEAN	4295		7521		8621	1952
HIGHEST ANNUAL MEAN					2309	1965
LOWEST ANNUAL MEAN					187000	Aug 19 1955
HIGHEST DAILY MEAN	28000	Oct 22	118000	Jan 20	412	Aug 23 1954
LOWEST DAILY MEAN	1030	Oct 11	1030	Oct 11	565	Jul 1 1965
ANNUAL SEVEN-DAY MINIMUM	1500	Oct 8	1500	Oct 8	a250000	Aug 19 1955
INSTANTANEOUS PEAK FLOW			149000	Jan 20	35.15	Aug 19 1955
INSTANTANEOUS PEAK STAGE			26.66	Jan 20	382	Aug 24 1954
INSTANTANEOUS LOW FLOW			970	Oct 11	12000	
10 PERCENT EXCEEDS	8640		16200		3420	
50 PERCENT EXCEEDS	3180		4870		1590	
90 PERCENT EXCEEDS	1670		2110			

a From rating curve extended above 90,000 ft³/s on basis of flood-routing study.



DELAWARE RIVER BASIN

01438500 DELAWARE RIVER AT MONTAGUE, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1956-73, 1976-78, 1991 to current year.

REMARKS.--For February 15, dissolved ammonia as N (00608) was not used in the calculation to determine the sum of dissolved solid constituents (70301). Dissolved ammonia is generally a small percentage of the sum of dissolved solid constituents.

COOPERATION.--Field data and samples for laboratory analyses provided by staff of the New Jersey Department of Environmental Protection. Analyses of fecal coliform bacteria by the MPN method, enterococcus bacteria by the membrane filtration method, dissolved nitrite, total ammonia, dissolved ammonia, and BOD performed by the New Jersey Department of Health, Public Health and Environmental Laboratories.

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 (µS/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 (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, EC BROTH (MPN) (31615)	ENTERO-COCCI ME, MF WATER TOTAL (COL / 100 ML) (31649)	HARD-NESS TOTAL (MG/L AS CaCO3) (00900)	
DEC 1995													
06...	1200	4830	79	8.0	3.0	753	12.8	96	<1.0	<20	<10	22	
FEB 1996													
15...	1200	4370	91	7.9	0.5	743	13.5	96	--	--	--	23	
APR 08...	1200	5690	82	8.4	6.0	750	12.3	100	E1.1	<20	<10	21	
JUN 26...	1145	3220	78	7.5	19.5	751	8.5	94	E2.8	<20	10	21	
AUG 05...	1145	2810	80	8.0	23.0	756	8.5	100	<1.0	20	10	24	
DATE		CALCIUM DIS-SOLVED (MG/L AS Ca) (00915)	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 LAB (MG/L AS CaCO3) (90410)	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)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	RESIDUE TOTAL AT 105 DEG.C, SUS-PENDED (MG/L) (00530)
DEC 1995													
06...	6.7	1.3	4.9	0.70	12	8.6	8.4	<0.1	2.5	46	42	4	
FEB 1996													
15...	7.0	1.4	7.2	0.80	11	8.3	12	<0.1	4.0	62	50	1	
APR 08...	6.3	1.2	6.4	0.60	11	7.6	11	<0.1	1.4	42	42	2	
JUN 26...	6.3	1.3	5.3	0.80	13	7.7	9.0	<0.1	2.1	40	41	6	
AUG 05...	7.2	1.4	5.4	0.80	17	7.4	8.4	<0.1	2.0	52	43	6	
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 TOTAL (MG/L AS N) (00610)	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)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	NITRO-GEN DIS-SOLVED (MG/L AS N) (00602)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)
DEC 1995													
06...	0.005	0.31	0.03	<0.03	0.14	0.18	0.45	0.49	0.02	<0.01	2.6	0.3	
FEB 1996													
15...	--	0.60	--	--	0.18	0.17	0.78	0.77	0.02	0.02	2.2	0.2	
APR 08...	0.003	0.26	<0.03	<0.03	0.15	0.18	0.41	0.44	0.01	<0.01	2.2	0.4	
JUN 26...	<0.003	0.24	<0.03	0.04	0.12	0.11	0.36	0.35	<0.01	<0.01	2.6	0.3	
AUG 05...	0.009	<0.05	<0.03	<0.03	0.16	0.20	--	--	<0.01	<0.01	2.6	0.4	

DELAWARE RIVER BASIN

01438500 DELAWARE RIVER AT MONTAGUE, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L) (00340)	ARSENIC TOTAL (µG/L AS AS) (01002)	BERYL- LIUM, TOTAL RECOV- ERABLE (µG/L AS BE) (01012)	BORON, TOTAL RECOV- ERABLE (µG/L AS B) (01022)	CADMIUM TOTAL RECOV- ERABLE (µG/L AS CD) (01027)	CHRO- MIUM, TOTAL RECOV- ERABLE (µG/L AS CR) (01034)	COPPER, TOTAL RECOV- ERABLE (µG/L AS CU) (01042)
JUN 1996 26...	1145	12	<1	<10	70	<1	<1	1

DATE	IRON, TOTAL RECOV- ERABLE (µG/L AS FE) (01045)	LEAD, TOTAL RECOV- ERABLE (µG/L AS PB) (01051)	MANGA- NESE, TOTAL RECOV- ERABLE (µG/L AS MN) (01055)	MERCURY TOTAL RECOV- ERABLE (µG/L AS HG) (71900)	NICKEL, TOTAL RECOV- ERABLE (µG/L AS NI) (01067)	SELE- NIUM, TOTAL (µG/L AS SE) (01147)	ZINC, TOTAL RECOV- ERABLE (µG/L AS ZN) (01092)
JUN 1996 26...	150	<1	40	<0.1	1	<1	<10

BUSH KILL BASIN

01439500 BUSH KILL AT SHOEMAKERS, PA

LOCATION.--Lat 41°05'17", long 75°02'17", Monroe County, Hydrologic Unit 02040104, on right bank 30 ft downstream from highway bridge, 0.1 mi downstream from Saw Creek, 0.7 mi northwest of Shoemakers, and 2.0 mi southwest of Bushkill.

DRAINAGE AREA.--117 mi².

PERIOD OF RECORD.--October 1908 to current year. Monthly discharge only for some periods, published in WSP 1302. Prior to October 1928, published as Bushkill Creek near Shoemakers; October 1928 to September 1952, published as Bushkill Creek at Shoemakers.

REVISED RECORDS.--WSP 756: Drainage area. WSP 1202: 1921, 1932(M), 1933, 1935-36, 1938(M), 1939-40, 1942, 1945, 1946(M), 1948(M). WSP 1302: 1909-15, 1920(M), 1922-29. WDR PA-89-1: 1988.

GAGE.--Water-stage recorder. Datum of gage is 421.13 ft above sea level. Sept. 19, 1908, to Aug. 12, 1938, nonrecording gage, and Aug. 13, 1938, to June 20, 1956, water-stage recorder at site 50 ft upstream at same datum.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Several measurements of water temperature were made during the year. Satellite telemetry at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,100 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 21	1730	1,240	3.55	Apr. 16	1400	2,350	4.69
Jan. 19	2200	3,240	a5.63	May 1	0030	1,400	3.73
Jan. 27	2200	*4,990	*7.01				

a Ice jam; discharge computed using open-flow peak of 5.52 ft.

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	13	245	224	e94	771	411	298	1260	e100	136	163	29
2	12	291	222	e100	668	373	456	965	e94	109	136	28
3	12	308	209	e110	530	340	399	780	e90	94	121	26
4	12	264	211	e90	e440	e280	353	675	e96	101	116	25
5	27	233	208	e74	e400	285	335	581	e160	88	113	25
6	228	214	209	e80	e380	320	313	630	e130	72	108	26
7	135	207	201	e90	e370	355	316	599	e110	63	95	27
8	88	228	185	e110	351	318	375	517	e105	69	84	38
9	63	208	e170	e160	330	e280	356	467	e100	104	78	39
10	50	186	e150	e140	303	e260	328	498	e98	87	82	30
11	43	189	e130	e120	285	e250	300	583	e100	69	73	27
12	38	823	e120	e100	266	e240	282	872	102	60	69	25
13	33	710	e120	e110	e210	256	324	696	112	430	103	29
14	34	664	e130	e100	e210	286	433	586	119	616	106	41
15	59	1030	e150	e96	e200	341	419	503	129	436	84	35
16	63	915	e150	e94	e180	346	1820	456	118	388	74	25
17	51	742	e140	e96	e180	314	1720	451	123	289	70	58
18	44	630	e130	e100	e170	293	1200	406	136	222	63	150
19	39	558	e130	e1400	e160	285	909	367	124	184	55	122
20	37	508	e140	2600	245	472	731	321	142	165	51	87
21	650	463	e130	1650	556	508	616	278	127	133	49	74
22	859	427	e120	1180	622	465	524	256	118	119	52	70
23	562	381	e110	904	633	415	477	243	141	115	48	86
24	412	341	e110	1010	689	373	549	212	113	112	46	84
25	323	306	e110	1300	690	338	475	185	105	106	48	78
26	267	286	e110	958	615	318	422	166	87	520	41	68
27	229	265	e100	2630	548	292	396	161	74	392	37	62
28	391	251	e98	3370	515	273	345	155	67	269	35	78
29	386	249	e94	2100	475	279	472	144	61	203	35	215
30	312	236	e92	1420	---	278	906	132	113	183	33	151
31	269	---	e98	1030	---	314	---	117	---	170	30	---
TOTAL	5741	12358	4501	23416	11992	10158	16849	14262	3294	6104	2298	1858
MEAN	185	412	145	755	414	328	562	460	110	197	74.1	61.9
MAX	859	1030	224	3370	771	508	1820	1260	160	616	163	215
MIN	12	186	92	74	160	240	282	117	61	60	30	25
CFSM	1.58	3.52	1.24	6.46	3.53	2.80	4.80	3.93	.94	1.68	.63	.53
IN.	1.83	3.93	1.43	7.45	3.81	3.23	5.36	4.53	1.05	1.94	.73	.59

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1909 - 1996, BY WATER YEAR (WY)

	1909	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920
MEAN	123	213	261	260	274	434	437	306	194	132	99.3	94.0
MAX	773	643	769	807	706	1119	1002	773	919	747	864	569
(WY)	1956	1933	1974	1979	1909	1936	1993	1989	1972	1945	1955	1933
MIN	7.74	13.6	28.3	44.2	39.7	156	141	90.7	32.8	14.7	8.33	4.39
(WY)	1965	1965	1923	1981	1934	1981	1985	1941	1962	1965	1964	1964

e Estimated.

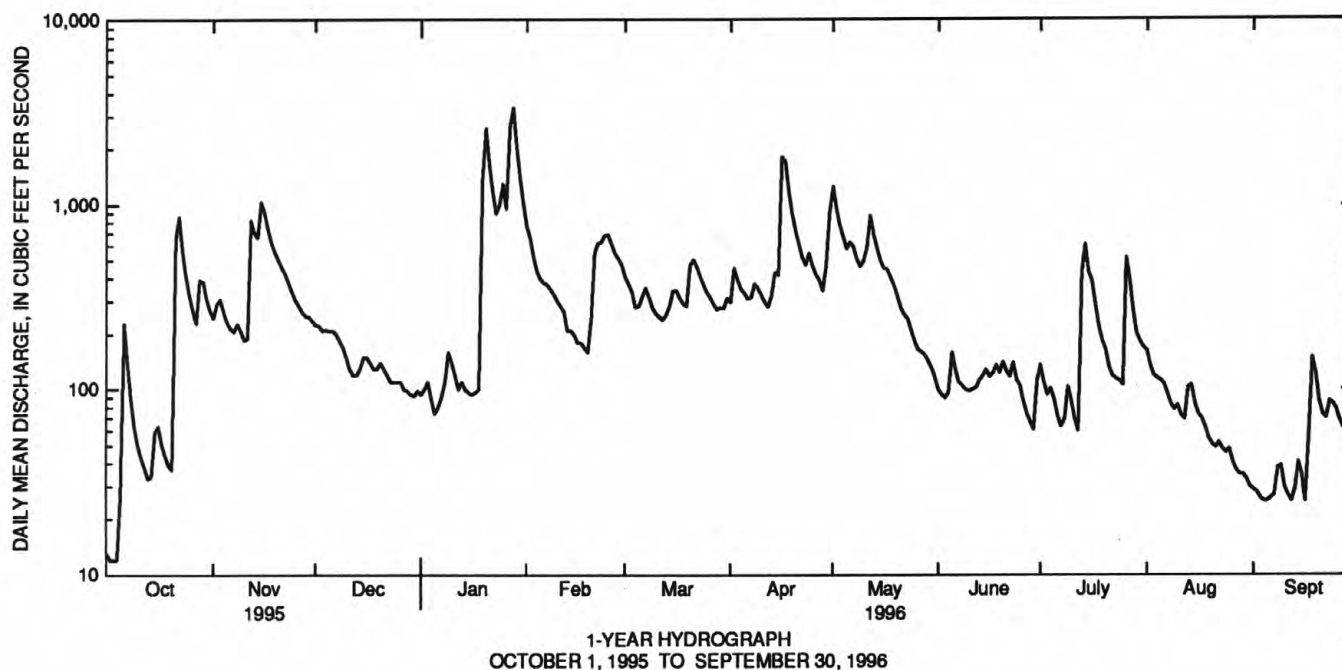
BUSH KILL BASIN

01439500 BUSH KILL AT SHOEMAKERS, PA--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1909 - 1996	
ANNUAL TOTAL	60619.8		112831		235	
ANNUAL MEAN	166		308		419	1928
HIGHEST ANNUAL MEAN					95.4	1965
LOWEST ANNUAL MEAN					11800	Aug 19 1955
HIGHEST DAILY MEAN	1040	Mar 9	3370	Jan 28	2.6	Sep 25 1964
LOWEST DAILY MEAN	8.3	Sep 8	12	Oct 2-4	2.7	Sep 21 1964
ANNUAL SEVEN-DAY MINIMUM	8.8	Sep 4	27	Sep 1		
INSTANTANEOUS PEAK FLOW			b4990	Jan 27	b23400	Aug 19 1955
INSTANTANEOUS PEAK STAGE			7.01	Jan 27	c13.95	Aug 19 1955
INSTANTANEOUS LOW FLOW					2.6	Sep 25 1964
ANNUAL RUNOFF (CFSM)	1.42		2.63		2.01	
ANNUAL RUNOFF (INCHES)	19.27		35.87		27.34	
10 PERCENT EXCEEDS	352		654		523	
50 PERCENT EXCEEDS	130		185		160	
90 PERCENT EXCEEDS	16		48		28	

b From rating curve extended above 2,600 ft³/s on basis of slope-area measurement of peak flow.

c From floodmark.



DELAWARE RIVER BASIN

01440200 DELAWARE RIVER BELOW TOCKS ISLAND DAMSITE, NEAR DELAWARE WATER GAP, PA

LOCATION.--Lat 41°00'42", long 75°05'09", Warren County, NJ, Hydrologic Unit 02040105, on left bank 40 ft streamward from River Road, 1.0 mi downstream from Tocks Island, 3.7 mi northeast of Delaware Water Gap, PA, 4.0 mi upstream from bridge on Interstate Route 80, and at mile 216.1.

DRAINAGE AREA.--3,850 mi².

PERIOD OF RECORD.--May 1964 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 293.64 ft above sea level.

REMARKS.--Records good except for estimated daily discharges, which are fair. Diurnal fluctuation at medium and low flow caused by powerplants on tributary streams. Flow regulated by Lake Wallenpaupack, and by Pepacton, Cannonsville, Swinging Bridge, Toronto, Cliff Lake, and Neversink Reservoirs and smaller reservoirs. Diversion from Pepacton, Cannonsville, and Neversink Reservoirs. Several measurements of water temperature were made during the year. Gage height satellite telemeter at station. Information on the above reservoirs can be found in the annual Water Data Report NJ-95-1.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Aug. 19, 1955, reached a stage of 37.4 ft, present datum (discharge about 260,000 ft³/s). Information on stage supplied by Harlan Fish, retired caretaker of Worthington State Forest.

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

THE 1996 WATER YEAR DATA WAS UNAVAILABLE AT PRESS TIME.

DATA WILL BE PUBLISHED IN THE 1997 WATER YEAR ANNUAL DATA REPORT "WATER RESOURCES

DATA FOR NEW JERSEY" (NY-97-1).

BRODHEAD CREEK BASIN

01440400 BRODHEAD CREEK NEAR ANALOMINK, PA

LOCATION.--Lat 41°05'05", long 75°12'54", Monroe County, Hydrologic Unit 02040104, on left bank 1.5 mi upstream from Paradise Creek, 1.6 mi southeast of Henryville, and 2.3 mi north of Analomink.

DRAINAGE AREA.--65.9 mi².

PERIOD OF RECORD.--October 1957 to current year.

GAGE.--Water-stage recorder. Datum of gage is 586.50 ft above sea level. Prior to Dec. 12, 1957, nonrecording gage at same site and datum.

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

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,100 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 21	1530	1,960	5.60	Jan. 27	Unknown	Unknown	Unknown
Nov. 12	0200	1,360	4.87	Apr. 16	0830	2,580	6.23
Jan. 19	1730	*7,120	*9.32	July 13	1500	1,240	4.71

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	11	130	135	57	e380	235	189	741	70	91	92	22
2	11	208	136	e56	e320	211	298	487	65	70	77	22
3	11	198	125	e60	e280	192	237	383	63	79	71	23
4	11	161	129	e54	e250	166	209	332	65	88	69	21
5	28	140	121	e48	e210	164	201	287	74	68	64	21
6	185	129	124	e50	e200	202	184	364	62	56	57	24
7	74	125	114	e54	e180	221	199	318	56	53	52	26
8	52	141	105	e70	e170	189	223	270	53	57	49	25
9	39	118	104	e94	159	e160	199	249	50	63	48	24
10	33	106	e96	e86	147	e150	183	289	94	55	50	27
11	28	117	e90	e76	144	e150	168	315	88	46	45	22
12	25	916	e82	e66	133	141	162	440	71	42	42	22
13	23	502	e82	e70	e120	149	196	329	62	521	64	26
14	29	403	e88	e62	e110	175	280	277	53	445	54	30
15	61	670	e96	e56	103	213	244	243	50	265	46	24
16	49	496	90	e54	e100	205	1740	239	47	221	43	22
17	39	376	84	e54	e94	181	1000	239	128	164	41	54
18	34	316	79	e58	e92	172	692	207	117	130	37	69
19	31	287	e76	e2000	e88	170	472	188	105	119	35	49
20	29	266	e75	e3800	91	378	365	166	107	111	33	41
21	781	245	e74	e1200	486	333	310	148	85	91	33	30
22	580	228	74	e640	435	282	264	141	94	81	34	35
23	305	202	70	e500	417	244	249	146	140	78	32	46
24	193	182	68	e680	513	213	306	123	89	74	32	34
25	153	165	66	e700	462	196	239	108	78	91	33	29
26	121	159	65	e470	384	186	214	100	65	245	29	25
27	107	148	e62	e2200	327	168	198	101	57	162	27	23
28	260	146	e58	e2000	318	156	172	96	52	111	26	24
29	210	154	e57	e900	279	168	272	91	48	92	25	57
30	165	139	e56	e620	---	172	584	84	99	92	24	43
31	141	---	e56	e500	---	190	---	76	---	97	23	---
TOTAL	3819	7573	2737	17335	6992	6132	10249	7577	2287	3958	1387	940
MEAN	123	252	88.3	559	241	198	342	244	76.2	128	44.7	31.3
MAX	781	916	136	3800	513	378	1740	741	140	521	92	69
MIN	11	106	56	48	88	141	162	76	47	42	23	21
CFSM	1.87	3.83	1.34	8.49	3.66	3.00	5.18	3.71	1.16	1.94	.68	.48
IN.	2.16	4.27	1.55	9.79	3.95	3.46	5.79	4.28	1.29	2.23	.78	.53

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

	MEAN	72.6	128	167	155	160	248	260	184	106	61.8	42.8	53.8
MAX	237	336	489	559	371	537	596	440	474	380	159	464	
(WY)	1977	1973	1974	1996	1981	1977	1983	1989	1972	1969	1973	1987	
MIN	8.36	10.2	21.3	15.1	41.8	92.7	84.0	62.3	23.2	10.7	8.30	7.56	
(WY)	1964	1965	1981	1981	1980	1989	1985	1962	1962	1965	1964	1964	

e Estimated.

BRODHEAD CREEK BASIN

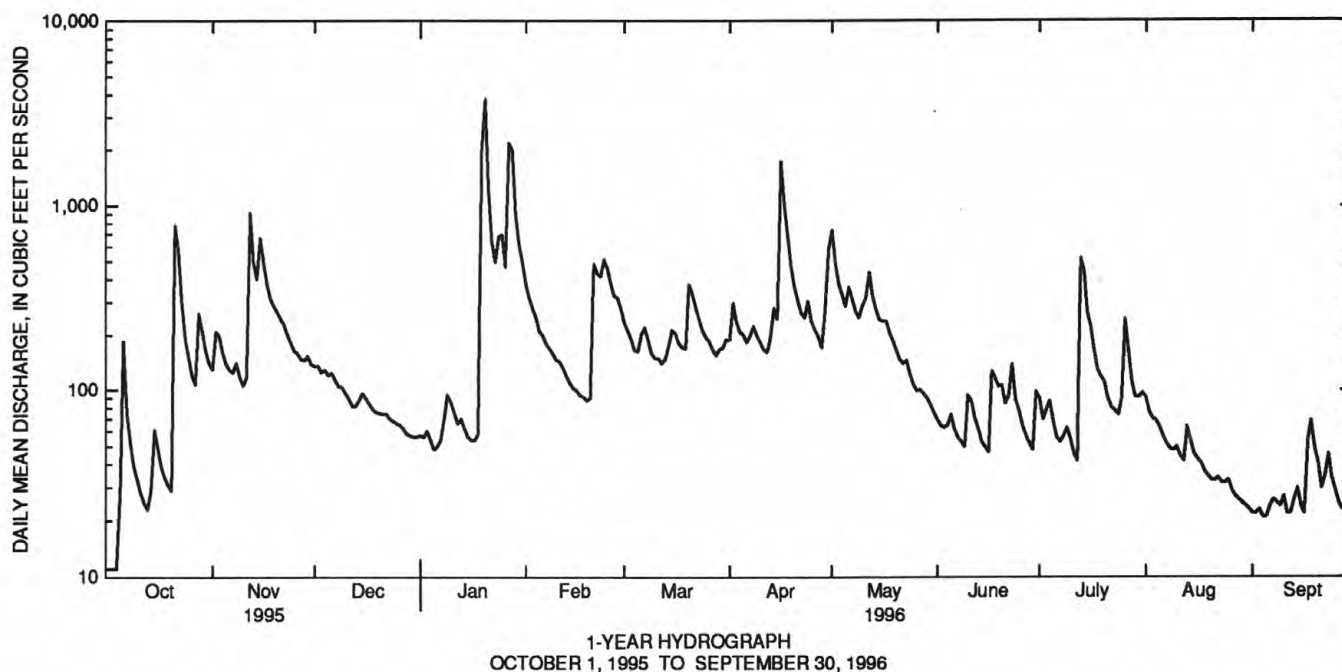
01440400 BRODHEAD CREEK NEAR ANALOMINK, PA--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1958 - 1996	
ANNUAL TOTAL	36799.7		70986		136	
ANNUAL MEAN	101		194		213	
HIGHEST ANNUAL MEAN					1973	
LOWEST ANNUAL MEAN					59.6	
HIGHEST DAILY MEAN	916	Nov 12	e3800	Jan 20	6070	Jul 28 1969
LOWEST DAILY MEAN	7.0	Sep 8	11	Oct 1-4	5.4	Sep 12 1980
ANNUAL SEVEN-DAY MINIMUM	7.6	Sep 2	22	Aug 30	5.9	Sep 8 1980
INSTANTANEOUS PEAK FLOW			a7120	Jan 19	a12900	Jul 28 1969
INSTANTANEOUS PEAK STAGE			9.32	Jan 19	11.82	Jul 28 1969
INSTANTANEOUS LOW FLOW			10	Oct 3,4	5.4	Sep 11 1980 ^b
ANNUAL RUNOFF (CFSM)	1.53		2.94		2.07	
ANNUAL RUNOFF (INCHES)	20.77		40.07		28.11	
10 PERCENT EXCEEDS	209		383		294	
50 PERCENT EXCEEDS	75		107		84	
90 PERCENT EXCEEDS	12		30		17	

a From rating curve extended above 1,400 ft³/s on basis of slope-area measurement of peak flow.

b Also Sep. 14, 1980.

e Estimated.



LOCATION.--Lat 40°59'55", long 75°08'35", Monroe County, Hydrologic Unit 02040104, on left bank at Minisink Hills, 500 ft upstream from Marshall Creek, 1,500 ft downstream from Coates Paper Box Co., 0.8 mi upstream from mouth, and 3.0 mi southeast of East Stroudsburg.

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

REVISID RECORDS.--WSP 1232: 1951(P).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 301.84 ft above sea level. Prior to Aug. 19, 1955, water-stage recorder, and Aug. 23 to Nov. 24, 1955, nonrecording gage at site about 1,300 ft upstream at datum 2.19 ft higher. Nov. 25, 1955, to July 24, 1956, nonrecording gage at site 40 ft upstream at present datum.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Several measurements of water temperature were made during the year. Satellite telemetry at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,300 ft³/s and maximum (*):

<u>Date</u>	<u>Time</u>	<u>Discharge</u> <u>(ft³/s)</u>	<u>Gage height</u> <u>(ft)</u>	<u>Date</u>	<u>Time</u>	<u>Discharge</u> <u>(ft³/s)</u>	<u>Gage height</u> <u>(ft)</u>
Oct. 21	1600	9,630	8.38	Jan. 27	1830	20,100	11.26
Nov. 12	0430	5,360	6.65	Apr. 16	0930	9,570	8.36
Jan. 19	2000	a*22,400	b*11.93	Apr. 30	2300	4,340	6.12
Jan. 24	2100	4,520	6.57	July 13	1730	7,720	7.65

a Gage height 11.78 ft, from outside gage.

b Ice jam.

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	75	508	501	e210	1490	859	729	2980	302	394	467	123
2	89	795	495	e220	1270	794	1330	1960	284	290	383	120
3	93	723	448	e240	1080	738	998	1550	273	316	349	116
4	93	601	475	e210	961	640	903	1350	291	449	357	114
5	213	541	432	e180	827	646	852	1160	347	313	e330	116
6	1020	500	440	e180	e760	895	789	1360	278	247	e300	114
7	341	485	408	e220	e730	930	838	1210	247	218	e270	145
8	241	539	382	e270	720	798	966	1040	231	221	e260	156
9	196	455	385	e380	711	690	823	963	227	372	e250	139
10	173	401	e350	e350	665	656	760	981	368	271	e280	124
11	163	419	e320	e300	661	620	693	1150	356	208	e240	116
12	148	3270	e290	e260	629	632	658	2020	385	185	e220	113
13	138	1680	e290	e270	495	676	750	1410	288	3300	e350	120
14	148	1460	313	e240	e480	778	950	1200	244	2440	e290	152
15	248	2510	361	e220	470	897	845	1050	221	1320	e240	122
16	204	1840	356	e210	434	865	6310	1000	201	1230	e220	116
17	170	1430	334	e210	420	775	4030	987	293	902	e210	362
18	151	1200	307	e220	e380	736	2550	857	383	712	e200	417
19	140	1090	e290	e7000	362	703	1890	779	341	629	e190	253
20	135	996	e280	e13000	396	1630	1510	679	e420	578	e180	197
21	3620	e930	e280	4130	1670	1310	1290	618	e380	471	181	165
22	2210	e850	e270	2270	1440	1120	1100	596	341	425	185	168
23	1050	e780	e260	1900	1380	983	991	573	805	410	172	234
24	727	e700	e250	2670	1630	877	1180	514	390	376	182	180
25	587	e620	e250	2720	1570	806	926	461	333	346	173	160
26	474	e580	e240	1870	1350	748	844	423	275	1220	157	141
27	404	e560	e230	8380	1170	660	797	429	237	797	147	130
28	971	e560	e230	7660	1150	623	691	411	214	573	144	158
29	760	e600	e220	3350	1010	740	1150	388	201	478	141	354
30	614	516	e220	2350	---	742	2360	358	420	473	133	232
31	547	---	e210	1900	---	758	---	328	---	472	127	---
TOTAL	16143	28139	10117	63590	26311	25325	40503	30785	9576	20636	7328	5157
MEAN	521	938	326	2051	907	817	1350	993	319	666	236	172
MAX	3620	3270	501	13000	1670	1630	6310	2980	805	3300	467	417
MIN	75	401	210	180	362	620	658	328	201	185	127	113
CFSM	2.01	3.62	1.26	7.92	3.50	3.15	5.21	3.83	1.23	2.57	.91	.66
IN.	2.32	4.04	1.45	9.13	3.78	3.64	5.82	4.42	1.38	2.96	1.05	.76

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

MEAN	311	557	721	630	668	989	1020	714	419	265	250	234
MAX	1560	1634	1913	2051	1498	2108	2293	1619	1876	923	2505	1649
(WY)	1956	1973	1974	1996	1951	1977	1983	1989	1972	1969	1955	1987
MIN	54.4	68.1	83.4	50.6	196	387	312	268	119	65.4	46.4	40.8
(WY)	1964	1965	1981	1981	1980	1985	1985	1962	1962	1965	1957	1964

e Estimated.

BRODHEAD CREEK BASIN

01442500 BRODHEAD CREEK AT MINISINK HILLS, PA--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1951 - 1996	
ANNUAL TOTAL	150126		283610		564	
ANNUAL MEAN	411		775		957	
HIGHEST ANNUAL MEAN					1952	
LOWEST ANNUAL MEAN					238	
HIGHEST DAILY MEAN	3620	Oct 21	ce13000	Jan 20	30500	Aug 19 1955
LOWEST DAILY MEAN	60	Sep 7	75	Oct 1	30	Sep 26 1964
ANNUAL SEVEN-DAY MINIMUM	62	Sep 2	119	Aug 31	33	Sep 6 1964
INSTANTANEOUS PEAK FLOW			ac22400	Jan 19	c66800	Aug 19 1955
INSTANTANEOUS PEAK STAGE			b11.93	Jan 19	d27.00	Aug 19 1955
INSTANTANEOUS LOW FLOW					29	Sep 27 1964
ANNUAL RUNOFF (CFSM)	1.59		2.99		2.18	
ANNUAL RUNOFF (INCHES)	21.56		40.73		29.60	
10 PERCENT EXCEEDS	831		1470		1220	
50 PERCENT EXCEEDS	312		448		349	
90 PERCENT EXCEEDS	90		162		94	

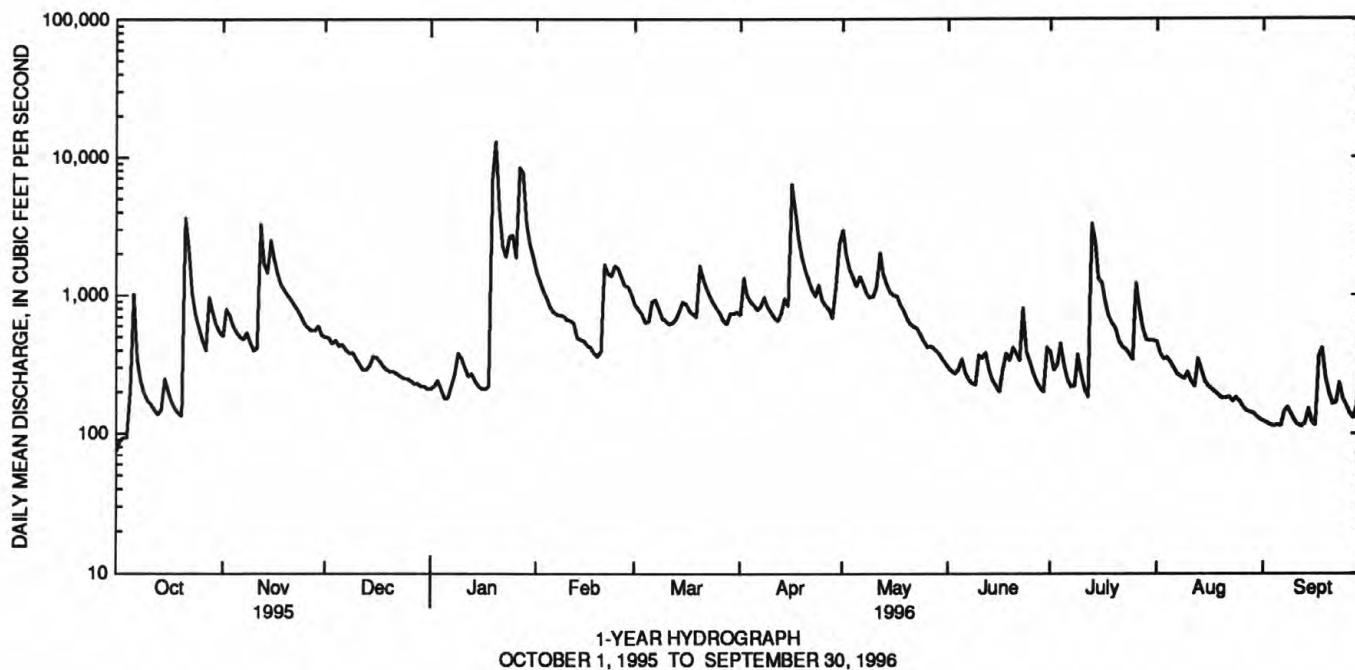
a Discharge computed from crest-stage gage reading.

b Ice jam.

c From rating curve extended above 4,600 ft³/s on basis of computation of flow-over-dam at gage height 14.43 ft and slope-area measurement of peak flow.

d From floodmark, at site about 1,300 ft upstream at datum 2.19 ft higher.

e Estimated.



DELAWARE RIVER BASIN

01443000 DELAWARE RIVER AT PORTLAND, PA

LOCATION.--Lat 40°55'26", long 75°05'46", Northampton County, Hydrologic Unit 02040105, at footbridge connecting Portland, PA and Columbia, NJ, and 0.5 mi upstream of Paulins Kill.

DRAINAGE AREA.--4,165 mi².

PERIOD OF RECORD.--Water years 1976 to current year.

REMARKS.--For February 20, dissolved ammonia as N (00608) was not used in the calculation to determine the sum of dissolved solid constituents (70301). Dissolved ammonia is generally a small percentage of the sum of dissolved solid constituents.

COOPERATION.--Field data and samples for laboratory analyses provided by staff of the New Jersey Department of Environmental Protection. Analyses of fecal coliform bacteria by the MPN method, enterococcus bacteria by the membrane filtration method, dissolved nitrite, total ammonia, dissolved ammonia, and BOD performed by the New Jersey Department of Health, Public Health and Environmental Laboratories.

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 (μS/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 (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, EC BROTH (MPN) (31615)	ENTERO-COCCI ME, MF WATER TOTAL (COL / 100 ML) (31649)	HARD-NESS TOTAL (MG/L AS CAC03) (00900)	
NOV 1995													
28...	1130	6980	83	8.0	3.5	748	13.6	104	E1.1	<20	<10	26	
FEB 1996													
20...	1145	6310	110	7.8	1.0	758	12.9	91	--	--	--	28	
APR													
09...	1100	9370	93	8.0	6.0	752	12.2	100	E1.8	<20	<10	28	
JUN													
18...	1100	6430	99	7.2	22.0	754	7.3	84	<1.0	330	190	30	
AUG													
05...	1200	4540	112	7.5	22.0	760	8.5	98	<1.0	20	100	34	
DATE		CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	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 LAB AS CAC03 (90410)	SULFATE DIS-SOLVED (MG/L AS S04) (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)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)
NOV 1995													
28...	7.8	1.5	5.5	0.80	13	9.5	9.6	<0.1	3.5	50	47	2	
FEB 1996													
20...	8.6	1.7	6.8	0.70	17	9.4	12	<0.1	4.5	56	64	8	
APR													
09...	8.5	1.7	6.7	0.70	17	8.5	12	<0.1	1.3	50	51	2	
JUN													
18...	8.8	2.0	6.2	0.90	21	7.7	10	<0.1	2.9	54	53	6	
AUG													
05...	10	2.2	7.3	0.80	25	8.8	12	<0.1	2.2	56	58	6	
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 TOTAL (MG/L AS N) (00610)	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)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	NITRO-GEN DIS-SOLVED (MG/L AS N) (00602)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)
NOV 1995													
28...	0.005	0.33	<0.03	--	0.12	0.18	0.45	0.51	<0.01	0.01	2.7	0.2	
FEB 1996													
20...	--	2.30	--	--	0.70	0.58	3.0	2.9	0.22	0.16	2.7	--	
APR													
09...	<0.003	0.21	<0.03	<0.03	0.20	0.18	0.41	0.39	0.02	0.02	2.0	0.4	
JUN													
18...	0.005	0.35	<0.03	<0.03	0.30	0.26	0.65	0.61	0.05	0.03	2.9	0.3	
AUG													
05...	0.015	<0.05	<0.03	0.03	0.20	0.21	--	--	<0.01	<0.01	2.6	0.4	

DELAWARE RIVER BASIN

01443000 DELAWARE RIVER AT PORTLAND, PA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L) (00340)	ARSENIC TOTAL (µG/L AS AS) (01002)	BERYL- LIUM, TOTAL RECOV- ERABLE (µG/L AS BE) (01012)	BORON, TOTAL RECOV- ERABLE (µG/L AS B) (01022)	CADMIUM TOTAL RECOV- ERABLE (µG/L AS CD) (01027)	CHRO- MIUM, TOTAL RECOV- ERABLE (µG/L AS CR) (01034)	COPPER, TOTAL RECOV- ERABLE (µG/L AS CU) (01042)
JUN 1996 18...	1100	18	<1	<10	40	<1	<1	1

DATE	IRON, TOTAL RECOV- ERABLE (µG/L AS FE) (01045)	LEAD, TOTAL RECOV- ERABLE (µG/L AS PB) (01051)	MANGA- NESE, TOTAL RECOV- ERABLE (µG/L AS MN) (01055)	MERCURY TOTAL RECOV- ERABLE (µG/L AS HG) (71900)	NICKEL, TOTAL RECOV- ERABLE (µG/L AS NI) (01067)	SELE- NIUM, TOTAL (µG/L AS SE) (01147)	ZINC, TOTAL RECOV- ERABLE (µG/L AS ZN) (01092)
JUN 1996 18...	150	<1	70	<0.1	<1	<1	<10

DELAWARE RIVER BASIN

01446500 DELAWARE RIVER AT BELVIDERE, NJ

LOCATION.--Lat 40°49'36", long 75°05'02", Warren County, Hydrologic Unit 02040105, on left bank at Belvidere, 800 ft downstream from Pequest River, and at river mile 197.7.

DRAINAGE AREA.--4,535 mi².

PERIOD OF RECORD.--October 1922 to current year.

REVISED RECORDS.--WSP 781: 1933(M). WSP 951: 1940-41, Drainage area. WSP 1432: 1923, 1924(M).

GAGE.--Water-stage recorder. Datum of gage is 226.43 ft above sea level. Prior to Jan. 1, 1929, nonrecording gage at site 200 ft upstream at same datum.

REMARKS.--No estimated daily discharges, records good. Diurnal fluctuations at medium and low flow caused by powerplants on tributary streams. Flow regulated by Lake Wallenpaupack, and by Pepacton, Cannonsville, Swinging Bridge, Toronto, Cliff Lake, and Neversink Reservoirs and smaller reservoirs. Diversions from Pepacton, Cannonsville, and Neversink Reservoirs. Satellite telemeter and National Weather Service gage-height telemeter at station. Information on the above reservoirs can be found in the annual Water Data Report NJ-96-1.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 10, 1903, reached a stage of 28.6 ft, from floodmark, discharge, 220,000 ft³/s, from rating curve extended above 170,000 ft³/s.

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	1940	7760	8940	3240	22100	15900	9220	40300	4070	4290	6700	2290
2	1920	8010	7940	3170	18700	13800	12000	41600	3820	5000	6610	2080
3	1890	8280	7120	3110	16400	12500	12200	31200	3410	4740	6540	2080
4	1940	8700	6720	3930	13500	10700	11200	25500	3670	5270	5360	2250
5	2380	7980	7360	3240	11100	10200	10100	21900	4390	4590	5050	2440
6	6230	6930	7680	3020	10500	10300	8890	20200	4050	4430	4910	2510
7	5390	6710	7470	3080	10300	11200	8370	19900	3640	4230	5290	3480
8	4270	6600	7180	3240	10400	11400	9240	18500	3720	3820	4630	3670
9	3360	6410	6760	3380	10400	9820	9930	16500	3390	4250	4340	4000
10	2530	6440	5400	3560	10600	8370	9820	15600	4330	4680	4620	3860
11	2090	5550	4060	3900	10200	7800	8980	17000	6810	4040	4290	3190
12	1710	13900	4290	3900	9380	8590	8390	25600	10700	3290	3120	2460
13	1790	26400	4920	4020	7710	8010	7960	34000	11000	8030	3570	2310
14	2130	21200	5010	4240	7240	9260	12200	30300	13500	21400	4500	2520
15	3330	24300	5070	3420	7120	10500	21600	24300	10900	22300	3720	2440
16	3880	30300	5910	3170	6650	13000	33100	20400	8050	18800	2870	2440
17	4680	24900	6080	4330	6270	13300	56600	18100	6730	21400	3200	2800
18	3440	19500	4950	4630	5870	11400	43200	16000	6470	16800	3100	4940
19	2680	16400	5190	12600	5000	12100	32100	13800	6550	13700	2880	10300
20	2300	14900	4500	111000	5800	14600	25300	12600	6590	12000	2690	7600
21	7690	13900	4440	69400	9770	19300	20300	12300	7020	10500	2650	5330
22	29100	12900	4920	35000	18800	18800	17200	11600	6170	8780	2290	4010
23	30400	11700	4990	25600	21700	16300	16000	10900	5810	8230	2230	3650
24	16400	9590	3740	21900	23000	13500	16000	9820	4640	7540	3230	4170
25	11400	8840	3510	30100	26100	11900	16100	8750	4860	6680	2860	4670
26	8790	8070	3600	28100	23300	11600	15300	6870	4670	8630	3190	4090
27	7120	7460	3650	34000	20200	11600	14400	5940	4320	11600	3000	4050
28	8680	7470	4670	85500	17800	11200	12300	5340	3950	10100	2970	3920
29	10800	7400	4680	62000	17000	11100	12300	5280	3710	8000	2480	5580
30	12000	8390	4100	42400	---	10700	19900	4960	3880	7420	2980	6570
31	9210	---	3870	29300	---	9640	---	4620	---	7150	2940	---
TOTAL	211470	366890	168720	651480	382910	368390	510200	549680	174820	281690	118810	115700
MEAN	6822	12230	5443	21020	13200	11880	17010	17730	5827	9087	3833	3857
MAX	30400	30300	8940	111000	26100	19300	56600	41600	13500	22300	6700	10300
MIN	1710	5550	3510	3020	5000	7800	7960	4620	3390	3290	2230	2080

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1923 - 1996, BY WATER YEAR (WY)

	MEAN	4620	7196	8322	8037	8357	13960	15950	9908	5900	4342	3679	3781
MAX	19570	21140	20590	21020	19930	42520	40720	21470	22280	16840	19260	13940	
(WY)	1956	1928	1974	1996	1976	1936	1940	1989	1972	1928	1955	1938	
MIN	1055	1226	1481	1683	2452	5243	4512	3261	1590	1017	881	1199	
(WY)	1942	1965	1923	1981	1980	1981	1985	1965	1965	1965	1954	1941	

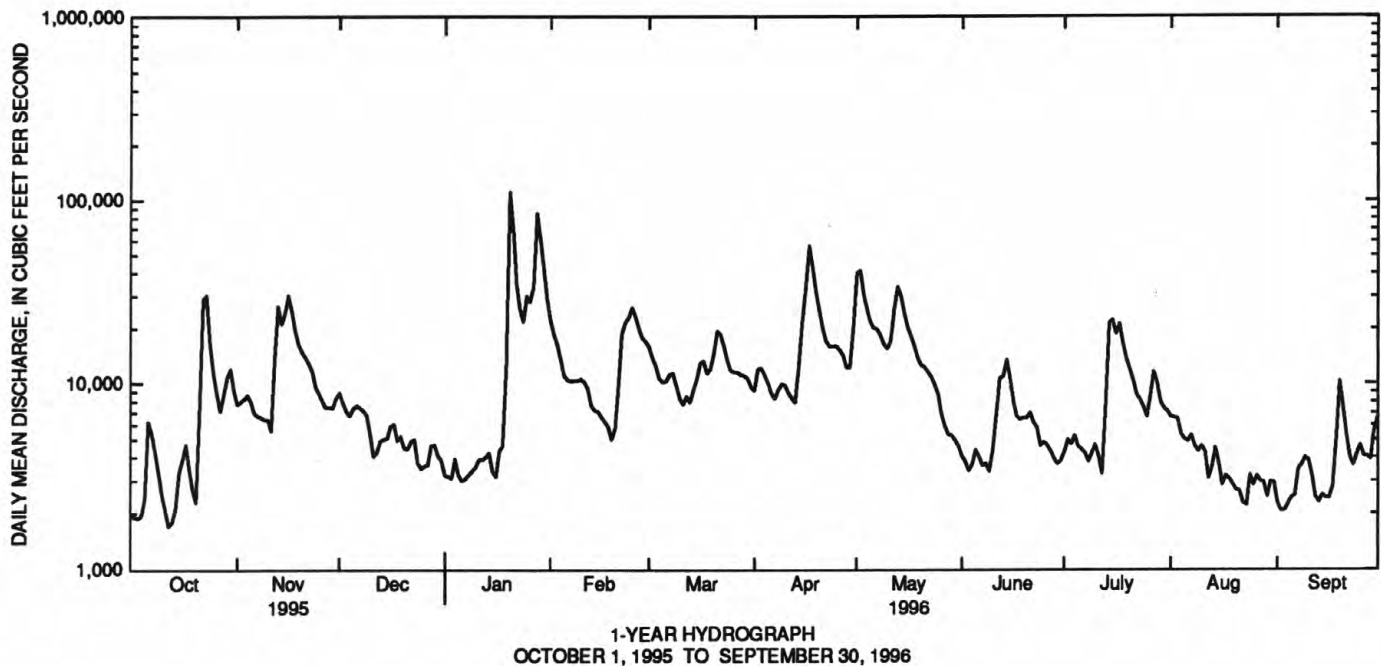
DELAWARE RIVER BASIN

01446500 DELAWARE RIVER AT BELVIDERE, NJ--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1923 - 1996	
ANNUAL TOTAL	2237320		3900760		7830	
ANNUAL MEAN	6130		10660		14130	
HIGHEST ANNUAL MEAN					1928	
LOWEST ANNUAL MEAN					2990	
HIGHEST DAILY MEAN	31200	Mar 10	111000	Jan 20	184000	Aug 19 1955
LOWEST DAILY MEAN	1600	Aug 11	1710	Oct 12	610	Aug 25 1954
ANNUAL SEVEN-DAY MINIMUM	2000	Aug 24	2370	Aug 31	782	Aug 14 1954
INSTANTANEOUS PEAK FLOW			158000	Jan 20	a273000	Aug 19 1955
INSTANTANEOUS PEAK STAGE			22.96	Jan 20	b30.21	Aug 19 1955
INSTANTANEOUS LOW FLOW			1600	Oct 12	609	Sep 28 1943
10 PERCENT EXCEEDS	12200		21900		16600	
50 PERCENT EXCEEDS	4590		7380		5000	
90 PERCENT EXCEEDS	2130		3010		1930	

a From rating curve extended above 170,000 ft³/s on basis of flood-routing study.

b From high-water mark in gage house.



DELAWARE RIVER BASIN

01447000 DELAWARE RIVER AT NORTHAMPTON STREET AT EASTON, PA

LOCATION.--Lat 40°41'30", long 75°12'15", Northampton County, Hydrologic Unit 02040105, at bridge on Northampton Street in Easton, 600 ft upstream from Lehigh River, and 0.2 mi downstream from U.S. Route 22 toll bridge in Easton.

DRAINAGE AREA.--4,717 mi².

PERIOD OF RECORD.--Water years 1976 to current year.

REMARKS.--For February 20, dissolved ammonia as N (00608) was not used in the calculation to determine the sum of dissolved solid constituents (70301). Dissolved ammonia is generally a small percentage of the sum of dissolved solid constituents.

COOPERATION.--Field data and samples for laboratory analyses provided by staff of the New Jersey Department of Environmental Protection. Analyses of fecal coliform bacteria by the MPN method, enterococcus bacteria by the membrane filtration method, dissolved nitrite, total ammonia, dissolved ammonia, and BOD performed by the New Jersey Department of Health, Public Health and Environmental Laboratories.

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 (μS/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 (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L) (00310)	COLI- FORM, FECAL, EC BROTH (MPN) (31615)	ENTERO- COCCI ME, MF WATER TOTAL (COL / 100 ML) (31649)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	
NOV 1995													
28...	1145	7610	135	7.9	4.5	749	12.0	94	E1.3	<20	10	44	
FEB 1996													
20...	1200	5520	179	7.7	3.0	760	13.3	99	--	--	--	56	
APR													
10...	1100	10100	130	7.9	7.0	748	12.4	104	E1.8	<20	10	43	
JUN													
25...	1200	4730	--	8.0	23.0	749	8.1	--	E2.0	70	30	61	
AUG													
06...	1200	5310	143	7.8	24.5	761	8.0	96	<1.0	40	40	46	
DATE		CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	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 LAB (MG/L AS CACO3) (90410)	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)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDED (MG/L) (00530)
NOV 1995													
28...	12	3.4	6.7	0.80	29	13	10	<0.1	4.0	72	70	1	
FEB 1996													
20...	15	4.4	14	1.0	38	13	21	<0.1	4.7	110	100	1	
APR													
10...	12	3.2	8.0	0.70	30	11	14	<0.1	1.5	72	71	3	
JUN													
25...	17	4.6	8.1	1.2	41	18	11	<0.1	3.7	102	92	9	
AUG													
06...	13	3.4	7.3	1.0	35	12	11	<0.1	2.5	66	73	1	
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 TOTAL (MG/L AS N) (00610)	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)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	NITRO- GEN DIS- SOLVED (MG/L AS N) (00602)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C) (00689)
NOV 1995													
28...	0.005	0.57	<0.03	<0.03	0.20	0.14	0.77	0.71	0.03	<0.01	2.5	0.2	
FEB 1996													
20...	--	0.92	--	--	0.30	0.17	1.2	1.1	0.02	0.02	2.2	0.2	
APR													
10...	0.003	0.49	<0.03	<0.03	0.20	0.16	0.69	0.65	<0.01	<0.01	2.1	0.4	
JUN													
25...	0.010	0.81	<0.03	<0.03	0.20	0.17	1.0	0.98	<0.01	<0.01	3.0	0.2	
AUG													
06...	0.013	0.42	<0.03	<0.03	0.20	0.09	0.62	0.51	<0.01	<0.01	2.8	0.3	

DELAWARE RIVER BASIN

01447000 DELAWARE RIVER AT NORTHAMPTON STREET AT EASTON, PA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L) (00340)	ARSENIC TOTAL (µG/L) AS AS) (01002)	BERYL- LIUM, TOTAL RECOV- ERABLE (µG/L) AS BE) (01012)	BORON, TOTAL RECOV- ERABLE (µG/L) AS B) (01022)	CADMIUM TOTAL RECOV- ERABLE (µG/L) AS CD) (01027)	CHRO- MIUM, TOTAL RECOV- ERABLE (µG/L) AS CR) (01034)	COPPER, TOTAL RECOV- ERABLE (µG/L) AS CU) (01042)
JUN 1996 25...	1200	19	<1	<10	30	<1	<1	2

DATE	IRON, TOTAL RECOV- ERABLE (µG/L) AS FE) (01045)	LEAD, TOTAL RECOV- ERABLE (µG/L) AS PB) (01051)	MANGA- NESE, TOTAL RECOV- ERABLE (µG/L) AS MN) (01055)	MERCURY TOTAL RECOV- ERABLE (µG/L) AS HG) (71900)	NICKEL, TOTAL RECOV- ERABLE (µG/L) AS NI) (01067)	SELE- NIUM, TOTAL RECOV- ERABLE (µG/L) AS SE) (01147)	ZINC, TOTAL RECOV- ERABLE (µG/L) AS ZN) (01092)
JUN 1996 25...	270	<1	50	<0.1	<1	<1	<10

LEHIGH RIVER BASIN

01447500 LEHIGH RIVER AT STODDARTSVILLE, PA

LOCATION.--Lat 41°07'49", long 75°37'33", Monroe County, Hydrologic Unit 02040106, on left bank 75 ft upstream from bridge on State Highway 115, at Stoddartsville, 1.9 mi upstream from Tobyhanna Creek, and 4.0 mi southwest of Thornhurst.

DRAINAGE AREA.--91.7 mi².

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WSP 1382: 1947, 1951.

GAGE.--Water-stage recorder. Datum of gage is 1,463.81 ft above sea level. Prior to Oct. 1, 1946, nonrecording gage at site 350 ft downstream at datum 2.14 ft lower.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Satellite and landline telemetry at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 22, 1942, reached a stage of 12.03 ft, from floodmark, present site and datum, discharge, 15,700 ft³/s.

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

<u>Date</u>	<u>Time</u>	<u>Discharge</u> <u>(ft³/s)</u>	<u>Gage height</u> <u>(ft)</u>	<u>Date</u>	<u>Time</u>	<u>Discharge</u> <u>(ft³/s)</u>	<u>Gage height</u> <u>(ft)</u>
Oct. 21	2000	3,210	6.09	Jan. 27	2000	4,410	7.26
Jan. 19	2100	*7,190	*9.65	May 1	0100	1,520	3.85

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	17	172	212	e74	e430	325	285	1180	101	154	188	47
2	16	205	216	e72	e370	288	352	714	91	115	156	43
3	15	211	197	e82	e310	264	311	524	86	150	138	39
4	17	177	212	e78	e270	e230	277	445	87	231	163	37
5	35	153	204	e72	e250	247	276	384	98	162	245	38
6	248	139	198	e70	e240	338	262	441	87	123	247	40
7	131	135	178	e86	e240	374	257	412	78	103	171	130
8	82	157	161	e130	e230	325	278	361	77	102	140	121
9	58	139	155	e180	e220	e280	258	333	75	100	129	85
10	47	125	146	e130	e210	e250	240	367	205	91	125	67
11	42	149	e130	e120	e200	e240	224	400	207	75	108	57
12	36	985	e120	e100	e190	e220	223	642	182	69	99	50
13	33	653	e120	e110	e170	237	286	489	142	490	121	47
14	36	509	132	e94	e160	258	401	388	117	834	116	47
15	169	610	151	e86	e150	316	357	328	111	490	98	44
16	119	550	132	e82	e140	351	730	292	92	426	89	41
17	83	426	119	e82	e130	300	811	277	85	321	86	101
18	67	359	e100	e130	e130	273	563	253	97	247	78	184
19	58	327	e100	e2800	e120	264	444	234	124	222	72	147
20	54	305	e110	3510	e150	680	384	212	139	211	66	102
21	1400	289	e110	1450	537	621	341	197	118	164	66	78
22	1640	275	e100	864	561	487	302	205	119	145	70	91
23	709	246	e96	612	529	397	292	195	212	139	66	130
24	438	224	e92	760	618	337	440	172	150	129	73	100
25	304	201	e90	1010	607	309	348	152	133	120	74	82
26	227	189	e86	664	500	295	300	136	109	330	62	72
27	193	181	e86	2230	422	265	284	141	90	329	56	63
28	298	222	e84	2480	423	244	252	137	80	234	70	64
29	281	279	e80	1140	393	267	345	128	71	210	74	131
30	220	240	e80	749	---	281	768	118	153	231	60	107
31	186	---	e80	560	---	296	---	109	---	199	52	---
TOTAL	7259	8832	4077	20607	8900	9859	10891	10366	3516	6946	3358	2385
MEAN	234	294	132	665	307	318	363	334	117	224	108	79.5
MAX	1640	985	216	3510	618	680	811	1180	212	834	247	184
MIN	15	125	80	70	120	220	223	109	71	69	52	37
CFSM	2.55	3.21	1.43	7.25	3.35	3.47	3.96	3.65	1.28	2.44	1.18	.87
IN.	2.94	3.58	1.65	8.36	3.61	4.00	4.42	4.21	1.43	2.82	1.36	.99

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

MEAN	119	181	212	195	199	304	362	257	158	112	93.4	86.7
MAX	613	439	561	665	709	577	867	604	655	528	1101	511
(WY)	1956	1973	1974	1996	1981	1977	1993	1989	1972	1947	1955	1987
MIN	14.1	17.1	35.5	18.3	62.2	131	135	92.9	43.0	19.8	14.2	9.18
(WY)	1964	1965	1981	1981	1980	1989	1995	1995	1962	1965	1964	1964

e Estimated.

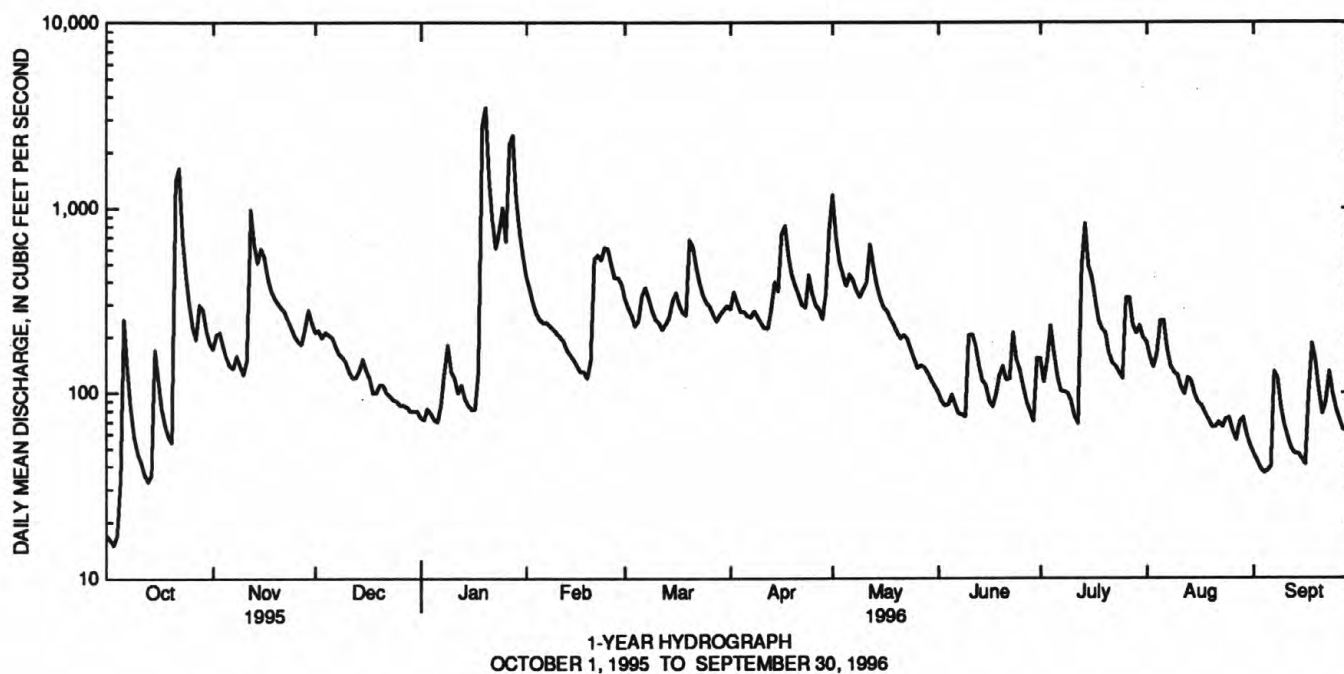
LEHIGH RIVER BASIN

01447500 LEHIGH RIVER AT STODDARTSVILLE, PA--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1944 - 1996	
ANNUAL TOTAL	52185		96996		190	
ANNUAL MEAN	143		265		268	1973
HIGHEST ANNUAL MEAN					86.2	1965
LOWEST ANNUAL MEAN					18900	Aug 19 1955
HIGHEST DAILY MEAN	1640	Oct 22	3510	Jan 20	7.0	Sep 26 1964
LOWEST DAILY MEAN	12	Sep 6-9	15	Oct 3	7.4	Sep 21 1964
ANNUAL SEVEN-DAY MINIMUM	13	Sep 3	42	Aug 31		
INSTANTANEOUS PEAK FLOW			a7190	Jan 19	a31900	Aug 19 1955
INSTANTANEOUS PEAK STAGE			9.65	Jan 19	b16.37	Aug 19 1955
INSTANTANEOUS LOW FLOW			14	Oct 3	7.0	Sep 26 1964
ANNUAL RUNOFF (CFSM)	1.56		2.89		2.07	
ANNUAL RUNOFF (INCHES)	21.17		39.35		28.12	
10 PERCENT EXCEEDS	300		513		390	
50 PERCENT EXCEEDS	106		174		128	
90 PERCENT EXCEEDS	20		68		33	

a From rating curve extended above 1,700 ft³/s on basis of slope-area measurement of peak flow.

b From floodmark.



LEHIGH RIVER BASIN

01447500 LEHIGH RIVER AT STODDARTSVILLE, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Water years 1981 to current year.

INSTRUMENTATION.--Temperature probe interfaced with a data collection platform.

REMARKS.--Interruptions in the record were due to malfunctions of the recording instrument.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum recorded, 30.0°C, July 15, 1995; minimum, 0.0°C, many days during winter periods.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum recorded, 24.0°C, June 9, 15, July 9, Aug. 23; minimum recorded, 0.0°C, many days during winter period.

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	16.0	9.0	12.5	9.5	8.5	9.0	3.0	1.0	2.0	.5	.5	.5
2	17.0	10.0	13.5	11.0	9.5	10.5	3.0	2.0	2.5	.5	.0	.5
3	16.5	10.5	13.5	12.0	10.5	11.5	3.0	1.5	2.0	2.0	.0	.5
4	16.0	14.5	15.0	10.5	6.0	8.0	4.0	2.5	3.0	1.5	.0	.5
5	15.5	14.5	15.0	6.5	5.0	5.5	2.5	1.5	2.0	.5	.0	.0
6	17.5	15.0	16.5	5.5	3.5	4.5	2.5	1.5	2.0	1.0	.0	.0
7	17.0	16.0	16.5	5.0	3.5	4.0	1.5	1.0	1.0	.0	.0	.0
8	16.0	13.5	15.0	5.0	4.0	4.5	1.0	.0	.5	.0	.0	.0
9	15.5	11.0	13.0	4.0	2.0	3.0	.5	.0	.5	.0	.0	.0
10	15.5	10.0	12.5	4.0	2.0	3.0	1.0	.0	.5	1.0	.0	.0
11	16.5	11.5	13.5	8.0	3.5	5.5	1.0	.0	.5	.0	.0	.0
12	16.0	10.0	13.0	7.0	3.5	5.0	.5	.0	.0	.5	.0	.0
13	17.0	11.0	13.5	3.5	2.5	3.0	1.0	.0	.0	.5	.5	.5
14	15.0	12.0	13.5	3.0	1.0	2.0	.5	.0	.0	.5	.5	.5
15	14.0	11.0	12.5	2.5	1.0	2.0	.5	.0	.5	.5	.0	.5
16	11.0	9.0	10.0	2.0	1.5	1.5	.5	.5	.5	.5	.0	.0
17	11.0	7.5	9.0	2.0	.5	1.5	1.0	.0	.5	.5	.5	.5
18	11.0	7.0	9.0	2.5	1.5	2.0	1.5	.0	.5	.5	.5	.5
19	12.5	7.5	10.0	3.5	2.5	3.0	.5	.0	.0	.5	.0	.0
20	13.0	9.5	11.0	3.5	3.0	3.0	.5	.0	.5	.0	.0	.0
21	14.0	11.0	12.0	4.0	3.0	3.5	.5	.0	.5	.5	.0	.0
22	11.0	9.5	10.5	3.5	2.0	3.0	.5	.0	.5	1.0	.0	.5
23	11.0	9.0	10.0	3.0	1.5	2.5	1.0	.0	.5	1.0	.5	.5
24	12.0	9.5	11.0	3.0	1.5	2.5	.5	.5	.5	2.0	1.0	1.5
25	12.0	10.0	11.0	1.5	.0	1.0	1.0	.0	.5	1.0	.0	.5
26	11.0	9.0	10.0	2.5	1.0	1.5	1.5	.0	.5	1.0	.0	.5
27	10.5	9.0	9.5	4.0	2.5	3.0	1.0	.0	.5	2.0	.0	1.0
28	12.5	10.5	11.5	5.0	3.5	4.5	1.0	.0	.5	1.0	.0	.5
29	11.0	8.5	9.5	3.5	2.0	2.5	1.0	.0	.5	.5	.0	.5
30	8.5	7.5	8.0	2.0	.5	1.0	.5	.0	.0	1.0	.0	.5
31	8.5	8.0	8.5	---	---	---	1.5	.0	.5	1.0	.0	.5
MONTH	17.5	7.0	11.9	12.0	.0	3.9	4.0	.0	.8	2.0	.0	.4

LEHIGH RIVER BASIN

01447680 TUNKHANNOCK CREEK NEAR LONG POND, PA

LOCATION.--Lat 41°03'55", long 75°31'14", Monroe County, Hydrologic Unit 02040106, on left bank 0.6 mi downstream from unnamed tributary, 0.9 mi downstream from bridge on SR 4002, 3.0 mi west of Long Pond, and 5.0 mi upstream from mouth.

DRAINAGE AREA.--18.0 mi². At site used prior to July 7, 1966, 16.8 mi².

PERIOD OF RECORD.--March 1965 to current year.

REVISED RECORDS.--WDR PA-90-1: 1990 (monthly runoff).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1,804.83 ft above sea level. Prior to July 7, 1966, nonrecording gage at site 0.8 mi upstream at different datum.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Diversion upstream to Wild Creek Basin since October 1969. Several measurements of water temperature were made during the year. Satellite telemetry at station.

COOPERATION.--Records of diversion provided by the city of Bethlehem.

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	3.8	28	49	e18	e150	e82	72	228	35	36	40	18
2	3.7	31	46	e17	e110	68	85	205	33	33	37	e17
3	4.1	36	48	e20	e98	e56	87	146	31	28	35	e16
4	5.2	31	45	e20	e96	e54	73	104	32	26	34	e16
5	12	27	48	e16	e90	59	64	90	37	24	41	e15
6	28	24	45	e17	e84	77	63	93	37	22	44	15
7	41	23	39	e20	e80	e80	59	100	32	21	41	31
8	35	23	e37	e30	e74	e74	61	90	28	23	36	35
9	26	24	35	e42	69	e68	60	82	27	26	32	34
10	19	24	e33	e30	71	e62	53	78	75	26	30	30
11	14	28	e31	e24	69	e58	54	85	109	25	29	26
12	11	89	e29	e22	e64	e52	61	158	105	22	28	23
13	8.3	122	e28	e27	e58	54	70	159	80	68	31	21
14	12	110	e29	e21	51	57	79	114	53	130	32	20
15	23	101	e30	e19	48	65	83	84	39	151	32	19
16	27	84	e31	e18	e47	73	187	76	33	114	30	18
17	24	71	e32	e18	e45	67	254	81	28	78	29	23
18	20	54	e29	e23	e42	56	209	77	26	57	28	28
19	16	41	e27	e230	e40	56	138	68	28	46	27	31
20	15	39	e28	e450	48	127	99	61	33	39	25	29
21	103	37	e29	e400	119	151	84	55	30	34	25	25
22	205	36	e26	e310	161	124	79	55	30	31	24	24
23	207	34	e23	218	153	86	73	56	52	30	24	25
24	132	31	e23	185	150	68	100	52	51	29	24	26
25	67	29	e21	192	151	71	103	48	37	28	23	25
26	41	28	e21	174	132	65	80	45	30	41	22	22
27	30	28	e20	330	106	63	72	44	26	55	22	20
28	48	31	e19	e480	e93	58	66	46	23	56	22	20
29	56	40	e18	423	e90	58	75	43	22	48	20	22
30	47	44	e18	271	---	65	152	39	28	43	20	24
31	35	---	e18	195	---	72	---	38	---	41	19	---
TOTAL	1319.1	1348	955	4260	2589	2226	2795	2700	1230	1431	906	698
MEAN	42.6	44.9	30.8	137	89.3	71.8	93.2	87.1	41.0	46.2	29.2	23.3
MAX	207	122	49	480	161	151	254	228	109	151	44	35
MIN	3.7	23	18	16	40	52	53	38	22	21	19	15
(†)	6.8	18.9	2.0	2.0	2.0	3.7	2.1	3.9	4.8	15.0	7.3	2.9

† Diversion to Wild Creek Basin, equivalent in cubic feet per second.

e Estimated.

LEHIGH RIVER BASIN

01447680 TUNKHANNOCK CREEK NEAR LONG POND, PA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 1996, BY WATER YEAR (WY) (SINCE REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	35.0	46.6	52.5	48.3	47.0	67.3	85.7	62.1	45.1	30.8	22.2	27.5
MAX	93.2	90.1	114	137	89.3	148	209	115	116	89.5	63.6	142
(WY)	1978	1971	1974	1996	1996	1977	1993	1990	1972	1984	1990	1987
MIN	7.35	9.39	7.07	3.85	13.2	21.1	20.5	24.8	15.9	8.68	8.30	4.59
(WY)	1981	1981	1981	1981	1980	1989	1985	1995	1987	1991	1993	1995

SUMMARY STATISTICS FOR 1995 CALENDAR YEAR FOR 1996 WATER YEAR WATER YEARS 1970 - 1996

ANNUAL TOTAL	11524.5			22457.1			47.5			1978		
ANNUAL MEAN	31.6			61.4			65.9			1985		
HIGHEST ANNUAL MEAN							23.7			1985		
LOWEST ANNUAL MEAN							643			Apr 6 1984		
HIGHEST DAILY MEAN	207			Oct 23			e480			Jan 28		
LOWEST DAILY MEAN	3.2			Sep 30			3.7			Oct 2		
ANNUAL SEVEN-DAY MINIMUM	3.8			Sep 27			14			Oct 1		
INSTANTANEOUS PEAK FLOW							564			Jan 20		
INSTANTANEOUS PEAK STAGE							4.23			Jan 20		
10 PERCENT EXCEEDS	57						125			96		
50 PERCENT EXCEEDS	27						39			34		
90 PERCENT EXCEEDS	5.4						20			11		

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 1969, BY WATER YEAR (WY) (PRIOR TO REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	21.5	29.2	37.5	25.7	23.3	55.7	42.6	38.3	38.8	26.6	27.7	16.0
MAX	36.3	35.8	63.0	33.0	27.8	64.7	53.3	49.0	83.3	77.1	80.8	26.6
(WY)	1966	1969	1969	1969	1968	1966	1967	1968	1969	1969	1969	1969
MIN	12.5	22.9	21.0	17.1	21.1	42.2	29.4	20.8	10.4	7.17	8.46	8.86
(WY)	1969	1966	1966	1966	1967	1969	1966	1965	1965	1965	1966	1966

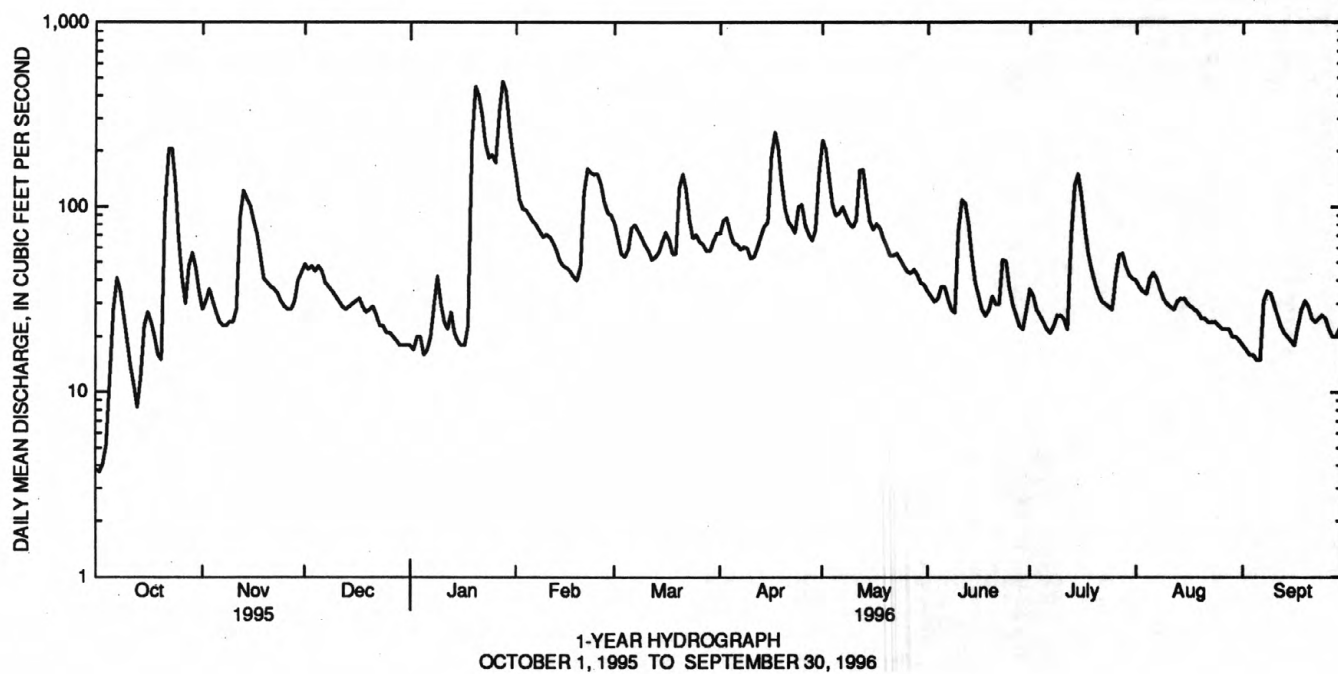
SUMMARY STATISTICS WATER YEARS 1965 - 1969

ANNUAL TOTAL	33.8											
ANNUAL MEAN				47.0			1969					
HIGHEST ANNUAL MEAN	24.7						1966					
LOWEST ANNUAL MEAN	448			Jul 30 1969								
HIGHEST DAILY MEAN	4.0			Sep 13 1966								
LOWEST DAILY MEAN	4.7			Sep 8 1966								
ANNUAL SEVEN DAY MINIMUM	480			Jul 30 1969								
INSTANTANEOUS PEAK FLOW	4.34			Jul 30 1969								
INSTANTANEOUS PEAK STAGE	3.0			Mar 11 1969								
INSTANTANEOUS LOW FLOW	1.88											
ANNUAL RUNOFF (CFSM)	25.53											
ANNUAL RUNOFF (INCHES)	60											
10 PERCENT EXCEEDS	24											
50 PERCENT EXCEEDS	8.6											
90 PERCENT EXCEEDS												

e Estimated.

LEHIGH RIVER BASIN

01447680 TUNKHANNOCK CREEK NEAR LONG POND, PA--Continued



LEHIGH RIVER BASIN

01447720 TOBYHANNA CREEK NEAR BLAKESLEE, PA

LOCATION.--Lat 41°05'05", long 75°36'21", Carbon County, Hydrologic Unit 02040106, on left bank 50 ft downstream from bridge on State Highway 940, 500 ft downstream from Shingle Mill Run, and 1.5 mi southwest of Blakeslee.

DRAINAGE AREA.--118 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1961 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,511.23 ft above sea level. Prior to Jan. 16, 1962, nonrecording gage at site 50 ft upstream at same datum.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Power generation at Pocono Lake about 5.0 mi upstream since 1985 and minor diversion from Tunkhannock Creek Basin into Wild Creek Basin. Satellite and landline telemetry at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Aug. 19, 1955, reached a stage of 19.41 ft, from floodmark, discharge, 35,300 ft³/s, by slope-area measurement.

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)
Oct. 21	2330	3,660	8.11	Apr. 16	2130	1,800	6.04
Jan. 19	2230	*8,420	*11.61	May 1	0500	1,660	5.85
Jan. 27	2230	7,360	10.94	July 14	0130	2,110	6.43

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	62	245	307	e95	e560	437	396	1530	113	277	194	81
2	59	257	293	e100	e440	375	500	1030	123	192	194	80
3	56	267	282	e120	e390	335	476	699	128	165	163	73
4	34	249	278	e110	e360	289	406	545	130	228	174	72
5	54	189	278	e95	e340	297	369	462	174	222	429	70
6	218	160	274	e100	e320	393	345	497	180	180	332	64
7	210	167	253	e130	e290	489	336	533	120	139	244	212
8	203	191	227	e170	e270	445	351	468	115	158	173	248
9	115	186	180	e230	e260	e350	342	416	112	158	160	150
10	99	170	e180	e190	e270	e300	319	398	594	149	141	116
11	77	239	e160	e160	e250	e280	300	523	784	110	132	103
12	73	1350	e150	e130	e250	e260	303	905	542	105	124	94
13	69	976	e140	e150	e240	e250	358	730	360	979	181	94
14	86	756	139	e130	e220	e290	507	539	267	1800	178	90
15	228	833	186	e120	e210	364	510	424	236	1090	150	86
16	169	765	207	e100	e200	412	1430	376	204	841	146	84
17	117	582	150	e100	e190	376	1560	371	101	602	140	176
18	100	466	121	109	e180	329	1030	346	114	409	100	256
19	93	403	e130	3850	e170	334	709	321	221	321	107	223
20	79	374	e140	5360	e190	991	543	292	226	294	100	169
21	1840	355	e150	2330	845	996	458	272	184	237	103	129
22	2610	343	e130	1360	974	732	404	264	231	192	101	142
23	1230	318	e130	886	830	536	388	213	428	186	101	210
24	665	295	e120	898	879	424	558	218	317	175	120	190
25	410	271	e120	1190	864	386	507	209	223	167	109	209
26	296	256	e110	875	718	368	417	192	176	276	97	204
27	271	246	e120	3840	584	346	382	189	137	402	91	200
28	420	269	e110	4680	546	316	336	191	123	322	89	198
29	454	331	e98	2000	518	337	381	189	111	266	86	165
30	350	326	e100	1180	---	355	896	181	226	244	84	153
31	281	---	e96	809	---	379	---	173	---	216	82	---
TOTAL	11028	11835	5359	31597	12358	12771	15817	13696	7000	11102	4625	4341
MEAN	356	394	173	1019	426	412	527	442	233	358	149	145
MAX	2610	1350	307	5360	974	996	1560	1530	784	1800	429	256
MIN	34	160	96	95	170	250	300	173	101	105	82	64
CFSM	3.01	3.34	1.47	8.64	3.61	3.49	4.47	3.74	1.98	3.03	1.26	1.23
IN.	3.48	3.73	1.69	9.96	3.90	4.03	4.99	4.32	2.21	3.50	1.46	1.37

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1962 - 1996, BY WATER YEAR (WY)

	190	270	290	275	276	415	485	334	227	159	122	161
MEAN	190	270	290	275	276	415	485	334	227	159	122	161
MAX	598	644	821	1019	768	948	1247	784	777	481	372	785
(WY)	1977	1973	1974	1996	1981	1977	1993	1989	1972	1969	1969	1987
MIN	31.2	48.1	58.0	40.6	100	172	162	141	66.6	42.8	34.3	28.0
(WY)	1964	1965	1981	1981	1980	1989	1985	1962	1962	1965	1964	1964

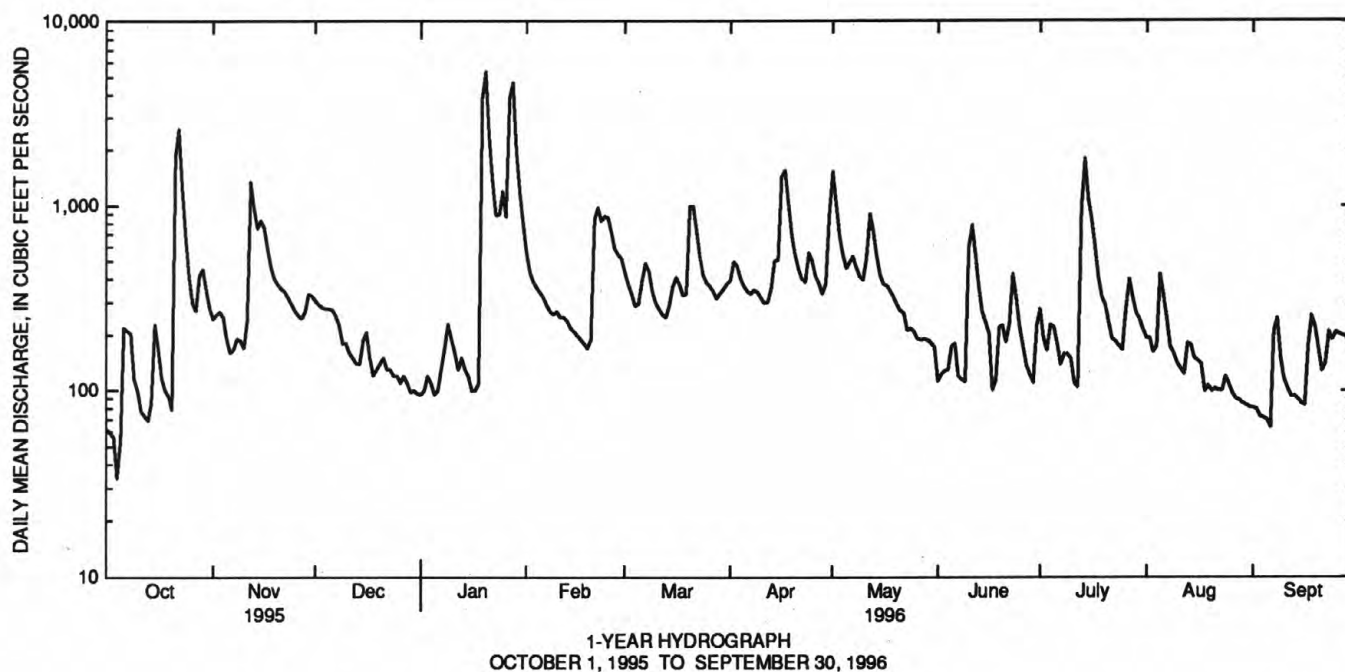
e Estimated.

LEHIGH RIVER BASIN

01447720 TOBYHANNA CREEK NEAR BLAKESLEE, PA--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1962 - 1996	
ANNUAL TOTAL	73838		141529		267	
ANNUAL MEAN	202		387		399	
HIGHEST ANNUAL MEAN					129	
LOWEST ANNUAL MEAN					1973	
HIGHEST DAILY MEAN	2610	Oct 22	5360	Jan 20	5540	Apr 6 1984
LOWEST DAILY MEAN	29	Sep 16	34	Oct 4	22	Sep 25 1964a
ANNUAL SEVEN-DAY MINIMUM	33	Sep 14	75	Aug 31	23	Sep 21 1964
INSTANTANEOUS PEAK FLOW			8420	Jan 19	9190	Sep 27 1985
INSTANTANEOUS PEAK STAGE			11.61	Jan 19	12.33	Sep 27 1985
INSTANTANEOUS LOW FLOW					16	Aug 8 1991
ANNUAL RUNOFF (CFSM)	1.71		3.28		2.26	
ANNUAL RUNOFF (INCHES)	23.28		44.62		30.70	
10 PERCENT EXCEEDS	385		815		533	
50 PERCENT EXCEEDS	150		244		180	
90 PERCENT EXCEEDS	53		100		59	

a Also Aug. 8, 1991.



LEHIGH RIVER BASIN

01447720 TOBYHANNA CREEK NEAR BLAKESLEE, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Water years 1980 to current year.

INSTRUMENTATION.--Temperature probe interfaced with a data collection platform.

REMARKS.--Interruptions in the record were due to malfunctions of the recording instrument.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum, 28.0°C, Aug. 13, 1988; minimum, 0.0°C, many days during winter periods.

EXTREMES FOR CURRENT YEAR--

WATER TEMPERATURE: Maximum, 23.0°C, June 16; minimum recorded, 0.0°C, many days during winter period.

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	15.5	11.0	13.0	10.0	9.0	9.5	---	---	---	---	---	---
2	16.0	12.0	14.5	11.0	10.0	10.5	3.0	2.0	2.5	---	---	---
3	15.5	12.0	14.0	11.5	9.5	11.0	3.0	2.0	2.5	.5	.0	.0
4	16.0	15.0	15.5	9.5	7.0	8.0	3.5	2.5	3.0	.0	.0	.0
5	15.5	14.5	15.0	7.5	6.0	6.5	3.0	2.0	2.5	.0	.0	.0
6	17.5	15.0	16.0	7.0	5.0	6.0	2.5	2.0	2.5	.0	.0	.0
7	17.0	16.0	16.0	6.5	5.0	6.0	2.0	1.5	2.0	.0	.0	.0
8	16.0	14.0	15.5	6.5	4.5	5.5	1.5	1.0	1.5	.0	.0	.0
9	15.5	11.0	13.5	4.5	3.5	4.0	1.5	.5	1.0	.0	.0	.0
10	15.5	11.0	13.0	5.0	3.5	4.5	1.0	.0	.0	.0	.0	.0
11	16.0	12.5	14.0	8.5	4.5	6.0	.0	.0	.0	.0	.0	.0
12	15.5	11.5	13.5	7.5	4.0	5.0	.0	.0	.0	.0	.0	.0
13	16.0	12.0	14.0	4.0	3.5	3.5	.5	.0	.0	.0	.0	.0
14	15.5	13.5	14.5	3.5	1.5	2.5	.5	.0	.0	.0	.0	.0
15	14.5	12.5	13.5	2.5	2.0	2.5	1.5	.5	1.0	.0	.0	.0
16	12.5	11.0	11.5	2.0	1.5	2.0	1.5	1.0	1.5	.5	.0	.0
17	11.5	9.5	10.5	2.0	1.0	1.5	1.5	.5	1.0	2.0	.5	1.0
18	---	---	---	2.0	1.5	2.0	1.5	.0	.5	2.0	1.0	1.5
19	13.5	9.0	11.0	2.5	2.0	2.5	1.0	.0	.5	2.0	.0	1.0
20	---	---	---	3.0	2.0	2.5	.0	.0	.0	.5	.0	.0
21	---	---	---	3.5	2.5	2.5	.0	.0	.0	.5	.0	.0
22	12.0	11.0	11.5	3.0	2.0	2.5	.5	.0	.5	1.0	.0	.5
23	11.5	10.0	11.0	3.0	1.5	2.5	.5	.0	.5	1.0	.5	.5
24	12.0	10.5	11.0	2.5	1.5	2.0	1.0	.5	.5	1.5	.5	1.0
25	11.5	10.0	11.0	2.5	1.0	2.0	1.0	.0	.5	.5	.0	.5
26	11.0	9.5	10.5	3.5	1.5	2.5	.5	.0	.0	1.0	.0	.5
27	11.0	9.5	10.5	4.0	2.5	3.0	.0	.0	.0	2.0	.5	1.0
28	12.0	10.5	11.5	4.5	3.0	4.0	.0	.0	.0	.5	.0	.5
29	10.5	9.5	10.0	3.5	1.5	2.5	.5	.0	.0	.5	.0	.5
30	10.0	9.0	9.5	2.5	1.0	2.0	1.0	.0	.5	1.0	.5	.5
31	9.5	9.0	9.5	---	---	---	1.0	.0	.5	.5	.0	.5
MONTH	17.5	9.0	12.7	11.5	1.0	4.2	3.5	.0	.8	2.0	.0	.3

LEHIGH RIVER BASIN

01447800 LEHIGH RIVER BELOW FRANCIS E. WALTER RESERVOIR NEAR WHITE HAVEN, PA

LOCATION.--Lat 41°06'17", long 75°43'57", Luzerne County, Hydrologic Unit 02040106, on right bank 0.7 mi downstream from Francis E. Walter Reservoir, 2.0 mi upstream from Fawn Run, and 4.0 mi northeast of White Haven.

DRAINAGE AREA.--290 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1957 to current year. Prior to October 1962 published as "below Bear Creek Reservoir", October 1962 to September 1971 published as "below Francis E. Walter Reservoir."

GAGE.--Water-stage recorder. Datum of gage is 1,212.95 ft above sea level (levels by U.S. Army Corps of Engineers).

REMARKS.--Records good except those for estimated daily discharges, which are poor. Flow regulated since February 1961 by Francis E. Walter Reservoir (station 01447780) 0.7 mi upstream. Satellite and landline telemetry at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of August 1955 reached a discharge of 54,200 ft³/s based on slope-area measurement at site 4.9 mi downstream.

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	90	980	792	307	1650	1240	1160	3400	367	506	522	155
2	111	951	659	304	1270	983	1200	3870	225	545	530	136
3	120	932	668	304	1170	981	1180	2650	191	394	593	136
4	96	907	668	e300	1130	791	1060	1890	241	550	482	136
5	96	872	768	e300	e880	680	934	1450	301	626	536	136
6	209	691	780	e320	e600	1020	934	1290	381	513	979	174
7	336	422	616	e320	e740	1300	922	1320	421	503	663	249
8	287	483	539	e350	801	1210	915	1320	573	389	304	357
9	318	482	539	e350	756	934	915	1190	409	318	359	327
10	234	428	535	e350	613	928	807	958	221	320	528	211
11	171	427	387	e410	620	692	739	1050	915	284	328	155
12	141	491	309	364	792	666	759	1910	1270	378	252	145
13	131	2520	313	317	718	731	798	2260	765	372	252	144
14	133	3130	316	290	488	731	842	1770	501	2490	255	145
15	144	2450	397	e260	488	862	1110	1340	519	3420	304	145
16	349	2380	449	e420	435	1020	1380	1080	381	2220	381	145
17	384	1780	451	450	e370	1030	3180	905	186	1900	454	147
18	270	1420	448	333	e360	1030	3850	887	212	1060	266	408
19	191	1370	375	392	e380	930	2630	787	365	761	195	493
20	278	1180	341	1650	584	1720	1860	707	476	772	195	461
21	559	925	343	7530	1400	2570	1600	566	477	768	195	628
22	2010	925	343	9580	2340	1790	1190	487	679	554	195	373
23	4020	918	343	9210	2380	1150	805	606	896	353	274	137
24	3460	820	343	6270	1520	1160	1100	652	793	432	349	241
25	2160	668	343	4510	1620	1490	1310	640	469	368	218	333
26	1690	668	e280	4350	2720	1170	1080	521	346	612	195	333
27	1370	576	e260	1650	2250	866	1020	469	281	1010	195	312
28	1030	527	260	5030	1590	815	1020	362	339	1160	195	274
29	1030	834	275	11000	1390	815	802	303	376	926	195	437
30	1030	1070	309	8980	---	820	1500	310	305	772	212	378
31	1010	---	309	4270	---	837	---	357	---	636	216	---
TOTAL	23458	32227	13758	80471	32055	32962	38602	37307	13881	25912	10817	7851
MEAN	757	1074	444	2596	1105	1063	1287	1203	463	836	349	262
MAX	4020	3130	792	11000	2720	2570	3850	3870	1270	3420	979	628
MIN	90	422	260	260	360	666	739	303	186	284	195	136

e Estimated.

LEHIGH RIVER BASIN

01447800 LEHIGH RIVER BELOW FRANCIS E. WALTER RESERVOIR NEAR WHITE HAVEN, PA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1961 - 1996, BY WATER YEAR (WY) (SINCE REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	437	651	689	642	660	1026	1158	787	526	366	268	343
MAX	1435	1488	1748	2596	1542	2018	3198	1968	1359	1165	1153	1784
(WY)	1978	1986	1974	1996	1981	1977	1993	1989	1972	1973	1969	1987
MIN	68.5	68.1	156	131	197	326	341	313	135	67.1	62.0	43.2
(WY)	1964	1965	1965	1981	1980	1981	1966	1962	1962	1965	1964	1964

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1961 - 1996	
ANNUAL TOTAL	178977		349301			
ANNUAL MEAN	490		954		629	
HIGHEST ANNUAL MEAN					954	
LOWEST ANNUAL MEAN					289	
HIGHEST DAILY MEAN	4020		Oct 23		11000	
LOWEST DAILY MEAN	51		Sep 4		22	
ANNUAL SEVEN-DAY MINIMUM	55		Sep 11		33	
INSTANTANEOUS PEAK FLOW			11500		11700	
INSTANTANEOUS PEAK STAGE			8.79		8.86	
INSTANTANEOUS LOW FLOW					b1.3	
10 PERCENT EXCEEDS	992		1870		1340	
50 PERCENT EXCEEDS	343		580		417	
90 PERCENT EXCEEDS	91		210		112	

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1958 - 1960, BY WATER YEAR (WY) (PRIOR TO REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	378	571	1002	692	678	790	1886	909	425	245	190	371
MAX	502	854	1504	778	1039	926	2536	1134	521	339	270	744
(WY)	1960	1960	1958	1960	1960	1958	1958	1958	1960	1960	1960	1960
MIN	173	347	371	549	467	610	1262	520	310	195	129	135
(WY)	1958	1958	1959	1959	1959	1960	1959	1959	1959	1959	1959	1959

SUMMARY STATISTICS WATER YEARS 1958 - 1960

ANNUAL TOTAL	
ANNUAL MEAN	676
HIGHEST ANNUAL MEAN	807
LOWEST ANNUAL MEAN	478
HIGHEST DAILY MEAN	10700
LOWEST DAILY MEAN	50
ANNUAL SEVEN DAY MINIMUM	63
INSTANTANEOUS PEAK FLOW	c13800
INSTANTANEOUS PEAK STAGE	9.85
ANNUAL RUNOFF (CFSM)	2.33
ANNUAL RUNOFF (INCHES)	31.69
10 PERCENT EXCEEDS	1390
50 PERCENT EXCEEDS	440
90 PERCENT EXCEEDS	141

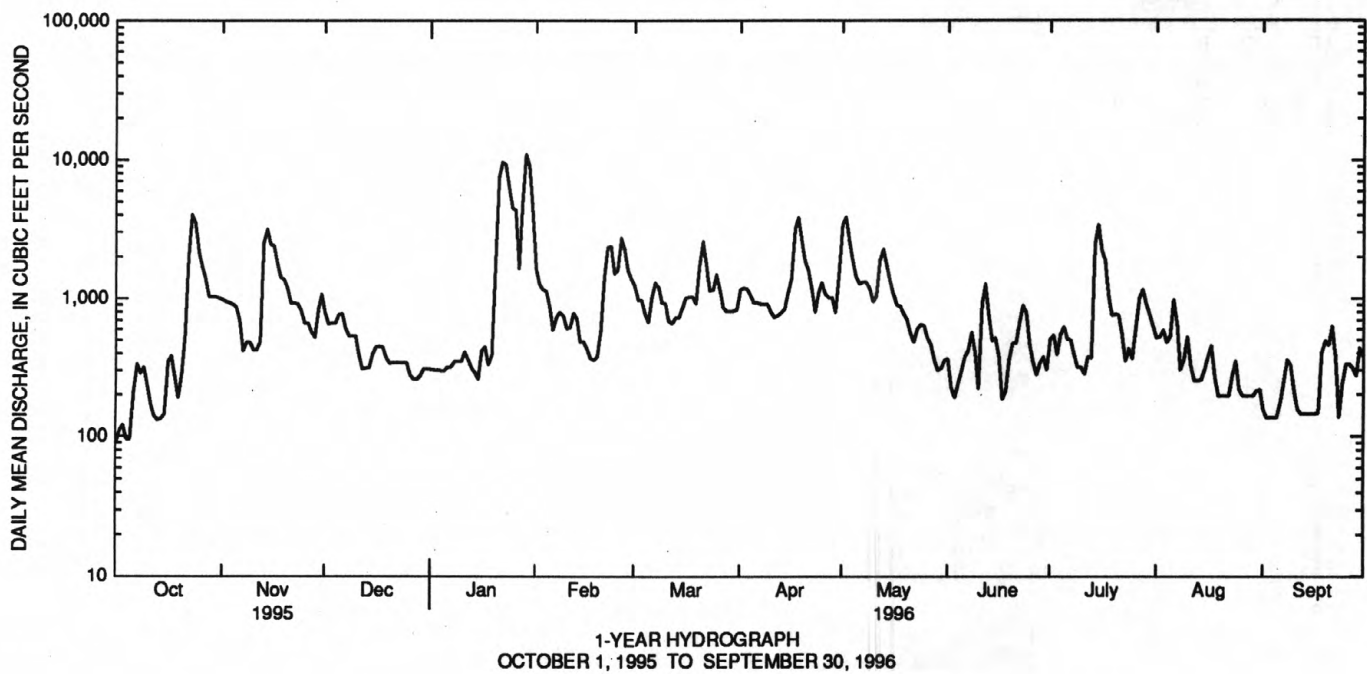
a Also July 22, 23, 1965.

b Result of shutoff at reservoir.

c From rating curve extended above 6,100 ft³/s.

LEHIGH RIVER BASIN

01447800 LEHIGH RIVER BELOW FRANCIS E. WALTER RESERVOIR NEAR WHITE HAVEN, PA--Continued



LEHIGH RIVER BASIN

01447800 LEHIGH RIVER BELOW FRANCIS E. WALTER RESERVOIR NEAR WHITE HAVEN, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Water years 1988 to current year.

INSTRUMENTATION.--Temperature probe interfaced with a data collection platform.

REMARKS.--Interruptions in the record were due to malfunctions of the recording instrument.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum, 31.5°C, July 21, 1988; minimum, 0.0°C, many days during winter periods.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum, 22.0°C, June 16, 25, Aug. 23-26, 29, 30; minimum, 0.0°C, many days during winter period.

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	16.0	13.5	14.0	10.0	9.5	9.5	2.0	1.5	2.0	.0	.0	.0
2	15.5	13.5	14.5	10.0	9.5	10.0	2.5	2.0	2.5	.0	.0	.0
3	15.5	14.0	15.0	11.0	10.0	10.5	2.5	2.0	2.5	.0	.0	.0
4	15.0	14.5	15.0	11.0	10.0	10.5	2.5	2.0	2.5	.0	.0	.0
5	15.5	15.0	15.0	10.0	8.5	9.0	3.0	2.5	2.5	.0	.0	.0
6	17.0	15.5	16.0	8.5	7.0	7.5	2.5	2.0	2.5	.0	.0	.0
7	16.5	16.5	16.5	7.0	5.5	6.5	2.0	1.0	2.0	.0	.0	.0
8	16.5	16.0	16.5	6.5	5.5	6.0	2.0	1.0	1.5	.0	.0	.0
9	16.0	15.0	15.5	5.5	5.0	5.5	1.0	.5	1.0	.0	.0	.0
10	15.5	14.0	14.5	5.0	4.5	4.5	1.0	.5	.5	.0	.0	.0
11	15.5	14.0	14.5	4.5	4.0	4.5	.5	.0	.5	.0	.0	.0
12	15.5	14.0	14.5	5.5	4.0	5.0	.5	.0	.0	.0	.0	.0
13	15.5	14.0	14.5	5.0	4.5	5.0	.5	.0	.0	.0	.0	.0
14	15.0	14.0	14.5	4.5	3.5	4.0	.0	.0	.0	.0	.0	.0
15	15.0	13.5	14.0	3.5	2.5	3.0	.0	.0	.0	.0	.0	.0
16	13.5	12.5	13.0	2.5	2.0	2.5	.0	.0	.0	.0	.0	.0
17	12.5	11.5	12.0	2.5	1.5	2.0	.0	.0	.0	.0	.0	.0
18	11.5	10.5	11.0	2.0	2.0	2.0	.0	.0	.0	.0	.0	.0
19	11.5	10.5	11.0	2.5	2.0	2.0	.0	.0	.0	.5	.0	.5
20	12.0	10.5	11.5	3.0	2.5	3.0	.0	.0	.0	.5	.0	.5
21	12.5	11.5	12.0	3.5	3.0	3.0	.0	.0	.0	.0	.0	.0
22	11.5	11.0	11.5	3.5	3.0	3.0	.0	.0	.0	.0	.0	.0
23	11.5	11.0	11.0	3.0	2.0	2.5	.0	.0	.0	.0	.0	.0
24	11.0	11.0	11.0	2.5	2.0	2.0	.0	.0	.0	.5	.0	.5
25	11.0	11.0	11.0	2.0	1.5	2.0	.0	.0	.0	1.0	.5	.5
26	11.0	11.0	11.0	2.0	1.5	1.5	.0	.0	.0	.5	.0	.5
27	11.0	10.5	11.0	2.5	1.5	2.0	.0	.0	.0	1.0	.0	1.0
28	11.0	10.5	10.5	3.5	2.0	3.0	.0	.0	.0	1.5	.5	1.0
29	11.0	10.5	11.0	3.0	2.5	3.0	.0	.0	.0	.5	.5	.5
30	10.5	10.0	10.5	3.0	2.0	2.5	.0	.0	.0	.5	.5	.5
31	10.0	9.5	10.0	---	---	---	.5	.0	.0	.5	.0	.5
MONTH	17.0	9.5	13.0	11.0	1.5	4.6	3.0	.0	.6	1.5	.0	.2

LEHIGH RIVER BASIN

01448500 DILLDOWN CREEK NEAR LONG POND, PA

LOCATION.--Lat 41°02'08", long 75°32'37", Monroe County, Hydrologic Unit 02040106, on left bank 60 ft upstream from bridge on Schochs Mill Road, 2.8 mi upstream from Mud Run, 4.0 mi northeast of Albrightsville, and 4.4 mi west of Long Pond.

DRAINAGE AREA.--2.39 mi².

PERIOD OF RECORD.--October 1948 to September 1996 (discontinued).

REVISED RECORDS.--WSP 1392: 1949(M), 1950-53.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1,665.07 ft above sea level.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Several measurements of water temperature were made during the year. Satellite telemetry at station.

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)
Oct. 21	1130	100	2.44	Apr. 30	1845	68	2.26
Nov. 12	0030	85	2.36	June 10	0900	50	2.14
Jan. 19	Unknown	*388	*3.47	June 22	2000	60	2.21
Jan. 27	Unknown	Unknown	Unknown	July 13	1345	112	2.50
Apr. 16	0445	68	2.26				

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	.57	3.3	4.8	e1.6	e14	8.1	8.2	26	4.1	4.8	4.1	1.2
2	.55	6.6	4.7	e2.0	e11	7.8	10	15	4.0	3.2	3.3	1.2
3	.53	4.3	4.4	e2.4	e9.0	7.3	8.1	13	4.0	3.2	3.2	1.1
4	.62	3.6	5.3	e1.8	e8.8	6.4	7.1	12	4.2	3.4	3.1	1.2
5	3.0	3.2	4.5	e1.5	e8.4	7.1	7.2	11	4.6	2.7	2.9	1.2
6	7.7	3.1	4.3	e1.7	e7.6	11	6.7	14	3.8	2.3	2.6	1.2
7	1.0	3.9	3.9	e2.2	e7.2	10	6.9	11	3.6	2.2	2.4	9.5
8	.81	4.2	3.7	e3.2	6.8	7.7	7.1	9.7	3.4	3.5	2.3	1.9
9	.71	3.1	3.7	e4.2	7.1	6.7	6.9	8.9	3.8	3.9	2.6	1.4
10	.66	2.9	3.6	e3.5	6.4	6.2	6.5	9.0	20	2.2	2.5	1.2
11	.64	8.4	e3.2	e2.7	6.4	6.2	7.4	18	6.7	1.9	2.1	1.2
12	.61	33	e2.7	e2.3	6.0	6.7	7.4	23	6.5	1.9	2.2	1.2
13	.59	9.1	e2.5	e2.8	5.1	7.3	7.9	12	3.8	43	5.3	1.3
14	3.2	7.8	e2.5	e2.4	4.9	8.7	10	10	3.1	15	2.6	1.2
15	2.2	14	e3.3	e2.2	4.6	9.8	7.7	9.1	2.6	8.1	2.2	1.1
16	1.0	9.0	e4.0	e1.9	4.4	8.0	43	9.8	2.2	7.2	2.3	1.1
17	.88	7.2	e2.6	e1.9	4.3	6.6	19	9.5	2.2	8.2	2.1	4.4
18	.84	6.5	e2.2	e2.2	4.0	6.4	13	8.3	2.3	5.1	1.8	2.5
19	.83	6.6	e2.4	e82	3.7	7.2	12	7.7	3.4	5.5	1.7	1.4
20	.99	6.8	e2.8	e40	5.5	22	11	7.2	3.0	4.6	1.7	1.2
21	39	6.5	e3.2	e30	22	12	9.5	6.9	2.4	3.7	1.9	1.1
22	9.1	6.0	e2.7	e20	12	9.9	8.6	7.1	16	3.8	1.8	2.7
23	3.6	5.1	e2.6	e16	11	8.4	11	6.7	15	3.8	1.6	1.8
24	3.0	4.7	e2.3	e17	17	7.5	17	6.1	4.7	3.3	2.1	1.3
25	2.6	4.5	e2.4	e29	13	7.5	9.6	5.6	4.2	4.9	1.6	1.2
26	2.3	4.4	e2.2	e18	11	7.2	8.9	5.3	3.3	17	1.5	1.1
27	2.5	4.5	e2.2	e60	9.9	6.4	8.2	5.6	3.0	5.6	1.4	1.1
28	13	7.7	e2.1	e35	11	6.2	7.1	5.3	2.7	4.0	1.4	1.5
29	4.5	6.4	e1.7	e26	9.3	8.6	14	5.1	2.6	4.6	1.3	2.8
30	3.6	4.9	e1.7	e21	---	10	33	4.6	11	4.5	1.3	1.3
31	3.4	---	e1.6	e17	---	8.7	---	4.3	---	5.3	1.3	---
TOTAL	114.53	201.3	95.8	453.5	251.4	259.6	340.0	306.8	156.2	192.4	70.2	53.6
MEAN	3.69	6.71	3.09	14.6	8.67	8.37	11.3	9.90	5.21	6.21	2.26	1.79
MAX	39	33	5.3	82	22	22	43	26	20	43	5.3	9.5
MIN	.53	2.9	1.6	1.5	3.7	6.2	6.5	4.3	2.2	1.9	1.3	1.1
CFSM	1.55	2.81	1.29	6.12	3.63	3.50	4.74	4.14	2.18	2.60	.95	.75
IN.	1.78	3.13	1.49	7.06	3.91	4.04	5.29	4.78	2.43	2.99	1.09	.83

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1949 - 1996, BY WATER YEAR (WY)

	MEAN	2.93	4.65	5.92	5.23	4.99	7.61	9.20	6.62	4.28	2.83	2.30	2.20
MAX	16.6	11.5	15.1	14.6	11.5	13.8	25.8	17.1	14.6	13.0	15.5	12.9	
(WY)	1956	1971	1974	1996	1951	1977	1993	1989	1969	1969	1955	1987	
MIN	.35	.51	.64	.42	1.41	2.12	2.75	2.61	1.43	.69	.52	.38	
(WY)	1965	1965	1981	1981	1989	1989	1985	1995	1965	1965	1964	1964	

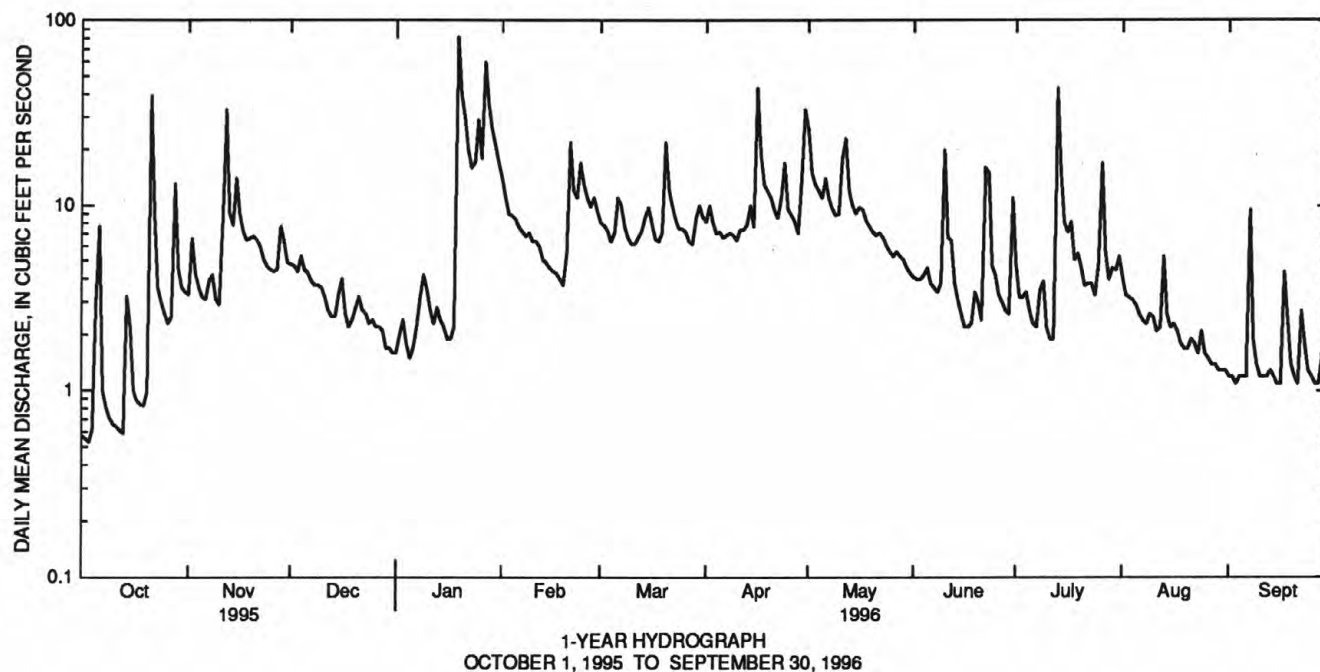
e Estimated.

LEHIGH RIVER BASIN

01448500 DILLDOWN CREEK NEAR LONG POND, PA--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1949 - 1996	
ANNUAL TOTAL	1346.21		2495.33		4.89	
ANNUAL MEAN	3.69		6.82		8.26	
HIGHEST ANNUAL MEAN					1.92	
LOWEST ANNUAL MEAN					153	
HIGHEST DAILY MEAN	39	Oct 21	e82	Jan 19	153	Jun 15 1969
LOWEST DAILY MEAN	.53	Oct 3	.53	Oct 3	.25	Dec 10 1964
ANNUAL SEVEN-DAY MINIMUM	.57	Sep 28	.72	Oct 7	.27	Nov 10 1964
INSTANTANEOUS PEAK FLOW			a388	Jan 19	a630	Jun 14 1969
INSTANTANEOUS PEAK STAGE			3.47	Jan 19	4.00	Jun 14 1969
INSTANTANEOUS LOW FLOW					.10	Dec 10 1964
ANNUAL RUNOFF (CFSM)	1.54		2.85		2.05	
ANNUAL RUNOFF (INCHES)	20.95		38.84		27.82	
10 PERCENT EXCEEDS	7.2		13		9.6	
50 PERCENT EXCEEDS	2.9		4.4		3.2	
90 PERCENT EXCEEDS	.81		1.3		.89	

a From rating curve extended above 300 ft³/s on basis of culvert and flow-over-dam computations of peak flow.
e Estimated.



LEHIGH RIVER BASIN

01449000 LEHIGH RIVER AT LEHIGHTON, PA

LOCATION.--Lat 40°49'45", long 75°42'20", Carbon County, Hydrologic Unit 02040106, on left bank 190 ft downstream from highway bridge at East Weissport, and 0.3 mi upstream from Mahoning Creek.

DRAINAGE AREA.--591 mi².

PERIOD OF RECORD.--October 1945 to September 1948 (monthly discharge only, published in WSP 1302). October 1982 to current year. Gage height records beginning 1935 are contained in reports of the U.S. Weather Bureau. Miscellaneous measurements, water years 1977-78, 1980-81, and annual maximum, 1982.

GAGE.--Water-stage recorder. Datum of gage is 444.26 ft above sea level. Prior to August 1970, at same site at datum 2.0 ft higher. Prior to December 1982, nonrecording gage at highway bridge 190 ft upstream at same datum.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Flow regulated by Francis E. Walter Reservoir (station 01447780) since February 1961. Several measurements of water temperature were made during the year. Satellite telemetry at station.

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	180	1400	1650	637	3380	2400	1960	e5600	908	1200	1120	e380
2	178	1480	1370	634	2740	1980	2450	5570	736	1180	1010	e330
3	201	1450	1320	660	2480	e1900	2130	4410	624	1010	1070	e310
4	210	1360	1330	e580	2290	e1800	2080	3320	618	969	1070	302
5	245	1300	1350	e520	2010	1440	1850	e3000	761	1210	916	306
6	677	1230	1460	e450	1570	1940	1800	e2700	760	1030	1210	305
7	629	867	1280	e470	1250	e2400	1830	2500	796	983	1380	483
8	448	887	1100	e490	1620	e2400	1890	2400	893	986	827	497
9	468	934	1090	e600	1690	e1900	1800	2330	955	951	679	593
10	446	802	e1000	e620	1410	e1800	1710	2030	877	841	979	435
11	321	847	e920	e590	1380	e1600	1540	2180	1130	788	857	349
12	273	3650	e740	e620	1400	1350	1530	e3900	1780	694	655	313
13	242	3180	e740	e610	1510	1490	1640	3880	1530	e2500	789	311
14	282	5020	e800	e600	1120	1540	1860	3310	953	3180	e750	330
15	667	4560	867	e570	1080	1710	1890	2630	932	5230	e640	315
16	474	4130	949	e520	1030	1960	4270	2440	893	3610	e680	308
17	635	3450	917	e680	897	1870	4610	2100	703	3410	e740	463
18	526	2650	881	858	878	1830	5530	1940	721	e2500	e640	546
19	383	2520	858	9190	846	1880	4230	1820	802	e1700	e520	780
20	313	2410	782	8630	1000	3050	3140	1590	967	e1600	e500	587
21	2980	1990	753	8940	2730	4080	2840	1480	922	e1400	e520	720
22	3170	1940	759	10000	3420	3300	2400	1290	1000	e1200	e540	798
23	4230	1830	732	9410	3880	2380	1960	1320	1390	926	e500	456
24	4470	1750	715	8490	3230	2250	2300	1340	1470	902	e580	352
25	2740	1470	706	6770	3290	2310	2350	1300	1100	945	e520	480
26	2230	1420	e640	6150	3770	2340	2170	1170	859	1350	e450	492
27	1920	1350	e560	11600	3640	1780	1900	1090	736	1600	e420	486
28	1730	1260	e540	9560	3000	1620	1890	1060	672	1650	e430	462
29	1600	1430	e540	12300	2580	1930	1890	892	886	1620	e400	621
30	1480	1800	e580	10300	---	1990	3010	853	1170	1430	e400	732
31	1430	---	654	6640	---	1890	---	819	---	1310	e410	---
TOTAL	35778	60367	28583	128689	61121	64110	72450	72264	28544	49905	22202	13842
MEAN	1154	2012	922	4151	2108	2068	2415	2331	951	1610	716	461
MAX	4470	5020	1650	12300	3880	4080	5530	5600	1780	5230	1380	798
MIN	178	802	540	450	846	1350	1530	819	618	694	400	302
CFSM	1.95	3.40	1.56	7.02	3.57	3.50	4.09	3.94	1.61	2.72	1.21	.78
IN.	2.25	3.80	1.80	8.10	3.85	4.04	4.56	4.55	1.80	3.14	1.40	.87

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

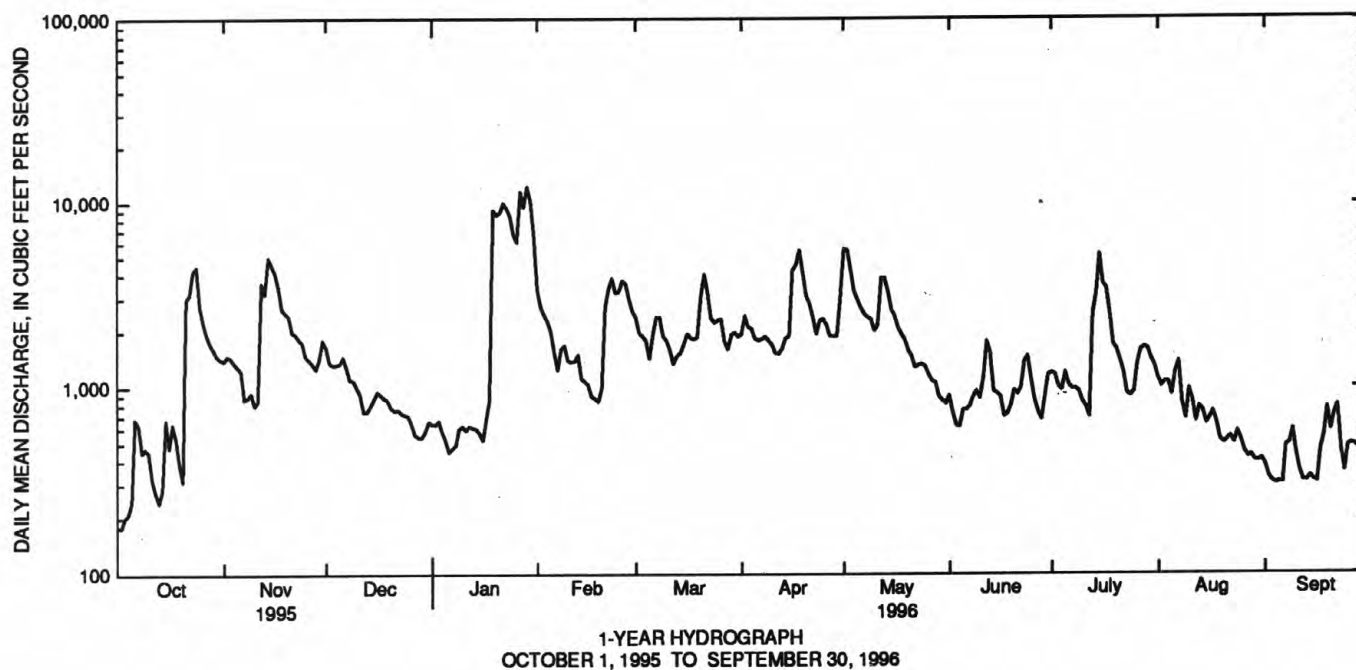
	785	1366	1580	1298	1347	1899	2622	1889	1126	854	555	766
MEAN	785	1366	1580	1298	1347	1899	2622	1889	1126	854	555	766
MAX	2017	2366	3353	4151	2470	3164	6010	4038	1965	1955	1073	3767
(WY)	1991	1986	1984	1996	1984	1986	1993	1989	1989	1984	1990	1987
MIN	238	303	515	532	566	926	895	672	431	246	256	181
(WY)	1983	1985	1990	1989	1987	1989	1995	1995	1991	1991	1995	1995

e Estimated.

LEHIGH RIVER BASIN

01449000 LEHIGH RIVER AT LEHIGHTON, PA--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1983 - 1996	
ANNUAL TOTAL	356587		637855		1339	
ANNUAL MEAN	977		1743		1743	
HIGHEST ANNUAL MEAN					1996	
LOWEST ANNUAL MEAN					1985	
HIGHEST DAILY MEAN	5050	Jan 17	12300	Jan 29	15100	Apr 16 1983
LOWEST DAILY MEAN	144	Sep 16	178	Oct 2	142	Oct 10 1983
ANNUAL SEVEN-DAY MINIMUM	156	Sep 3	331	Oct 1	151	Oct 5 1983
INSTANTANEOUS PEAK FLOW			a22900	Jan 27	a25500	Sep 27 1985
INSTANTANEOUS PEAK STAGE			12.55	Jan 27	18.22	Sep 27 1985
ANNUAL RUNOFF (CFSM)	1.65		2.95		2.27	
ANNUAL RUNOFF (INCHES)	22.45		40.15		30.79	
10 PERCENT EXCEEDS	1890		3410		2740	
50 PERCENT EXCEEDS	763		1240		906	
90 PERCENT EXCEEDS	203		463		304	

a From rating curve extended above 16,000 ft³/s.

LEHIGH RIVER BASIN

01449360 POHOPOCO CREEK AT KRESGEVILLE, PA

LOCATION.--Lat 40°53'51", long 75°30'10", Monroe County, Hydrologic Unit 02040106, on right bank 20 ft downstream from bridge on U.S. Highway 209 at Kresgeville, 0.2 mi downstream from Middle Creek, and 13 mi northeast of Lehighton.

DRAINAGE AREA.--49.9 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1966 to current year.

GAGE.--Water-stage recorder. Datum of gage is 659.72 ft above sea level.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Satellite and landline telemetry at station.

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	1900	*1,730	*8.54	Apr. 16	1530	907	6.62
Jan. 27	1830	1,580	8.23	July 13	1500	541	5.52

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	20	78	92	49	286	152	149	392	81	72	93	32
2	20	119	91	50	251	146	218	325	76	59	83	32
3	18	105	85	53	229	138	183	271	74	57	81	32
4	19	91	84	48	e190	125	179	239	79	66	80	30
5	43	85	80	e47	e170	127	173	211	91	56	79	30
6	89	82	81	e45	e160	159	160	240	73	51	72	30
7	44	83	76	e45	e160	160	167	203	69	48	67	64
8	37	88	73	e50	151	e140	173	188	66	54	64	42
9	31	76	72	e70	154	e130	150	184	66	99	65	36
10	27	72	69	e62	149	e150	142	177	117	77	67	34
11	27	94	e68	e58	148	e150	134	206	84	56	58	32
12	27	395	e68	e54	139	125	128	295	90	52	56	30
13	25	292	e66	e54	120	132	136	244	73	332	85	32
14	36	258	66	e48	116	146	153	223	66	351	65	35
15	50	380	66	e44	111	154	136	204	63	217	58	30
16	37	327	67	e43	105	152	753	199	58	217	56	30
17	32	262	65	e44	100	145	595	187	57	154	55	65
18	31	218	62	e45	95	143	391	170	57	131	51	48
19	29	192	62	854	89	147	310	159	62	130	48	37
20	28	167	e60	1280	101	244	263	146	60	117	46	32
21	227	151	e60	547	228	213	229	139	56	100	45	31
22	331	139	e58	374	185	198	201	136	60	93	46	39
23	147	129	58	299	178	183	189	126	111	92	43	40
24	101	122	58	389	217	168	191	118	69	86	44	33
25	85	114	58	443	215	157	163	109	66	86	42	32
26	75	110	56	341	202	148	157	105	58	186	39	30
27	72	106	e50	972	187	137	152	105	55	123	39	30
28	142	100	e50	1080	186	131	137	101	52	106	39	32
29	103	97	e49	594	165	177	196	96	50	102	37	48
30	87	93	e49	436	---	169	320	90	96	101	35	36
31	82	---	e49	351	---	148	---	85	---	98	34	---
TOTAL	2122	4625	2048	8869	4787	4794	6628	5673	2135	3569	1772	1084
MEAN	68.5	154	66.1	286	165	155	221	183	71.2	115	57.2	36.1
MAX	331	395	92	1280	286	244	753	392	117	351	93	65
MIN	18	72	49	43	89	125	128	85	50	48	34	30
CFM	1.37	3.09	1.32	5.73	3.31	3.10	4.43	3.67	1.43	2.31	1.15	.72
IN.	1.58	3.45	1.53	6.61	3.57	3.57	4.94	4.23	1.59	2.66	1.32	.81

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

	64.6	96.7	127	116	117	160	164	130	95.9	69.4	53.6	55.4
MEAN	64.6	96.7	127	116	117	160	164	130	95.9	69.4	53.6	55.4
MAX	181	203	271	323	185	330	369	270	248	165	193	264
(WY)	1977	1973	1974	1979	1975	1977	1983	1989	1972	1969	1969	1987
MIN	18.9	24.7	22.9	13.9	45.0	60.2	47.9	56.9	36.4	24.4	17.0	15.5
(WY)	1981	1981	1981	1981	1980	1985	1985	1995	1987	1985	1985	1980

e Estimated.

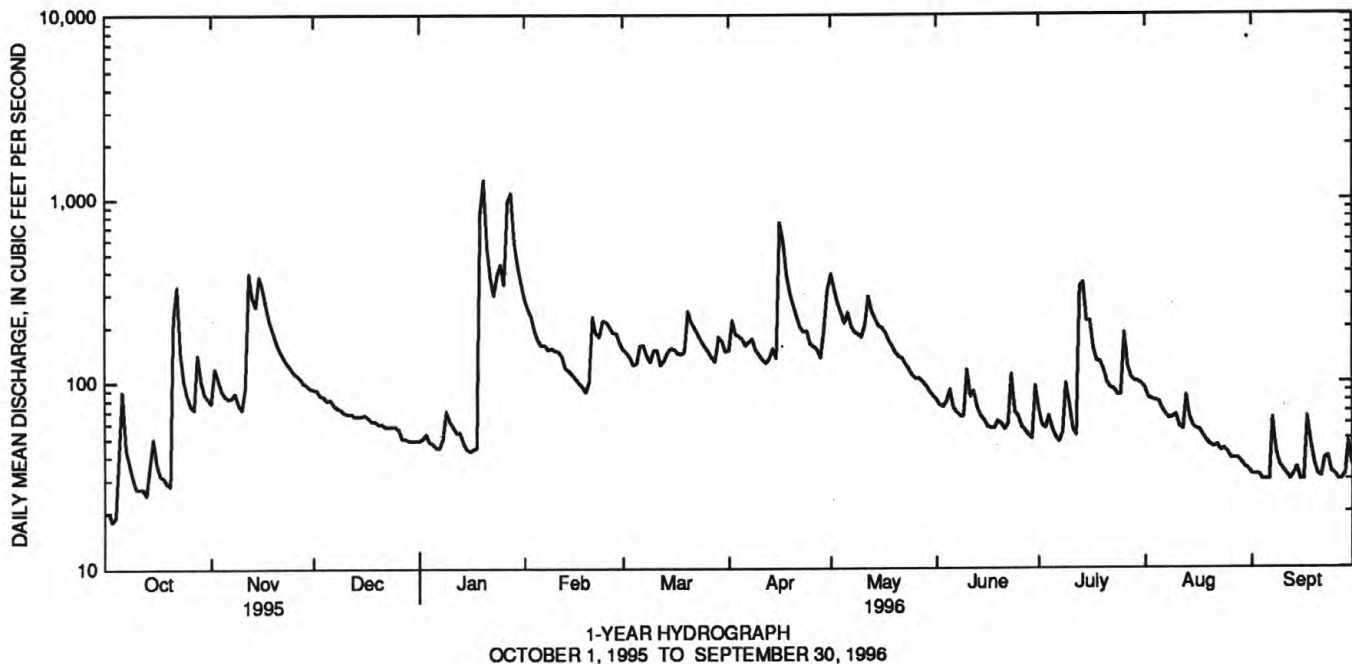
LEHIGH RIVER BASIN

01449360 POHOPOCO CREEK AT KRESGEVILLE, PA-Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1967 - 1996	
ANNUAL TOTAL	29006		48106		104	
ANNUAL MEAN	79.5		131		46.5	
HIGHEST ANNUAL MEAN					149	
LOWEST ANNUAL MEAN					1978	
HIGHEST DAILY MEAN	436	Mar 9	1280	Jan 20	1550	Apr 16 1983
LOWEST DAILY MEAN	18	Sep 3 ^b	18	Oct 3	12	Oct 30 1980
ANNUAL SEVEN-DAY MINIMUM	18	Sep 3	30	Oct 8	13	Oct 29 1980
INSTANTANEOUS PEAK FLOW			a1730	Jan 19	a2080	Jul 29 1969
INSTANTANEOUS PEAK STAGE			8.54	Jan 19	9.21	Jul 29 1969
INSTANTANEOUS LOW FLOW					9.2	Sep 7 1985
ANNUAL RUNOFF (CFSM)	1.59		2.63		2.08	
ANNUAL RUNOFF (INCHES)	21.62		35.86		28.33	
10 PERCENT EXCEEDS	148		241		204	
50 PERCENT EXCEEDS	66		91		75	
90 PERCENT EXCEEDS	24		36		28	

a From rating curve extended above 800 ft³/s.

b Also Sept. 4-9, 16, 20, 21, Oct. 3.



LEHIGH RIVER BASIN

01449360 POHOPOCO CREEK AT KRESGEVILLE, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Water years 1969 to current year.

INSTRUMENTATION.--Temperature probe interfaced with a data collection platform since water year 1986.

REMARKS.--Interruptions in the record were due to malfunctions of the recording instrument.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum, 31.5°C, July 25, 1970; minimum, 0.0°C, many days during winter periods.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum, 19.5°C, July 9, Sept. 7, 9, 10; minimum, 0.0°C, many days during winter period.

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	12.0	9.5	11.0	10.5	9.5	10.0	4.5	3.0	3.5	3.0	2.0	2.5
2	13.5	11.0	12.0	12.5	10.5	11.5	4.5	3.5	4.0	3.0	1.0	2.5
3	14.0	11.5	13.0	13.0	11.5	12.5	5.0	3.0	3.5	1.0	.0	.0
4	15.0	14.0	14.5	11.5	7.0	9.0	6.0	5.0	5.0	.0	.0	.0
5	17.5	14.5	15.0	7.0	5.5	6.5	5.0	3.0	4.0	.5	.0	.0
6	17.5	15.0	16.5	6.0	4.5	5.5	4.5	3.5	4.0	.0	.0	.0
7	17.0	15.0	16.0	6.5	4.5	5.5	3.5	3.0	3.5	.0	.0	.0
8	15.0	13.0	14.0	7.0	5.5	6.5	3.0	1.5	2.0	.0	.0	.0
9	13.0	11.0	12.0	5.5	4.0	4.5	2.0	1.0	1.5	.0	.0	.0
10	13.0	10.5	11.5	5.5	3.5	4.5	1.0	.0	.0	.0	.0	.0
11	14.0	12.0	13.0	11.0	5.0	7.0	.0	.0	.0	.0	.0	.0
12	14.0	11.0	12.5	9.5	5.5	7.0	.0	.0	.0	.0	.0	.0
13	14.5	12.0	13.0	5.5	4.5	5.5	.0	.0	.0	.0	.0	.0
14	15.0	12.5	13.5	5.5	4.0	4.5	.0	.0	.0	.0	.0	.0
15	14.0	11.5	13.0	5.5	4.0	5.0	1.0	.0	.5	.5	.0	.0
16	11.5	9.5	10.0	6.0	5.0	5.5	2.0	.5	1.0	.0	.0	.0
17	10.0	7.5	9.0	6.0	4.0	5.0	3.0	2.0	2.5	1.0	.0	.5
18	10.0	7.5	8.5	6.0	5.0	5.5	2.5	1.0	2.0	1.5	1.0	1.0
19	11.5	8.5	10.0	6.5	6.0	6.0	2.5	.0	1.5	1.5	.0	1.0
20	13.0	10.0	11.0	6.5	5.5	6.0	.0	.0	.0	1.5	.5	1.0
21	16.0	11.5	13.0	7.0	5.5	6.0	.0	.0	.0	3.0	1.5	2.0
22	11.5	9.5	10.5	6.0	4.5	5.0	.5	.0	.5	3.0	1.5	2.5
23	11.0	8.5	10.0	5.0	4.0	4.5	1.5	.5	1.0	4.0	3.0	3.0
24	12.0	9.0	10.5	5.0	4.0	4.5	2.0	1.0	1.5	4.0	3.5	3.5
25	12.0	10.5	11.0	4.0	2.0	3.0	2.0	1.5	2.0	3.5	2.0	2.5
26	10.5	9.5	10.0	4.5	3.0	4.0	1.5	.0	1.0	4.0	1.5	2.5
27	12.5	8.5	9.5	6.0	4.0	5.0	.5	.0	.0	4.5	3.0	4.0
28	14.0	11.5	12.5	7.0	5.5	6.0	1.0	.5	.5	3.5	2.0	3.0
29	11.5	9.0	10.0	6.0	3.5	4.0	1.0	.0	.5	3.5	2.5	3.0
30	9.5	8.0	8.5	3.5	2.0	3.0	.5	.0	.0	4.0	3.0	3.5
31	10.0	9.0	9.5	---	---	---	2.0	.0	1.0	4.0	1.5	3.0
MONTH	17.5	7.5	11.7	13.0	2.0	5.9	6.0	.0	1.5	4.5	.0	1.3

LOCATION.--Lat 40°50'44", long 75°38'46", Carbon County, Hydrologic Unit 02040106, on right bank 0.1 mi upstream from Sawmill Run, 0.4 mi downstream from Beltzville Dam, 1.3 mi upstream from Bull Run, and 2.3 mi northeast of Parryville.

WATER-DISCHARGE RECORDS

REMARKS.--No estimated daily discharges. Records good. Flow regulated entire period of record by Wild Creek Reservoir (station 01449700) and Penn Forest Reservoir (station 01449400), 7.3 mi and 10.0 mi upstream respectively, and Beltzville Lake (station 01449790), reservoir for city of Bethlehem. Diversion upstream from Tunkhannock Creek to Wild Creek Basin since October 1969. Satellite and landline telemetry at station.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	11	118	83	1190	322	369	605	100	189	148	41
2	11	12	97	83	1110	322	450	844	100	161	148	41
3	35	12	97	85	1260	322	377	748	100	73	148	41
4	35	12	117	86	1250	233	322	460	100	73	148	41
5	12	12	128	78	1050	178	322	460	120	73	105	41
6	13	12	128	66	691	270	322	362	119	73	81	41
7	11	12	128	66	282	331	322	278	100	73	81	41
8	11	12	102	66	156	338	249	312	100	59	69	41
9	11	12	86	66	168	265	240	404	100	200	62	41
10	11	12	86	66	224	265	265	356	100	171	62	41
11	11	13	86	79	226	265	226	256	231	65	62	41
12	11	14	86	86	357	265	223	256	200	55	117	41
13	11	183	86	86	260	265	256	340	106	55	179	41
14	11	338	86	86	152	237	256	598	83	553	114	41
15	11	409	86	86	152	222	256	722	68	740	62	41
16	11	440	86	86	134	256	565	542	68	445	62	41
17	11	384	86	86	121	256	1060	321	68	373	62	41
18	11	312	105	86	121	256	1010	242	68	256	62	76
19	11	312	115	124	121	256	714	242	66	233	62	65
20	11	312	115	320	115	382	520	242	68	191	62	45
21	13	312	101	891	313	450	520	242	68	190	62	45
22	12	237	92	1060	371	405	520	242	68	132	62	45
23	11	186	92	1340	261	322	454	242	68	98	62	45
24	11	164	92	1020	321	322	370	184	113	128	62	45
25	11	148	92	1060	322	397	291	152	138	145	62	45
26	11	148	62	1120	558	346	265	152	83	177	62	45
27	11	148	41	846	591	248	265	152	51	194	62	45
28	11	148	41	738	371	196	265	152	51	194	54	45
29	11	148	59	1330	322	225	265	138	51	226	41	45
30	11	148	83	1130	---	251	382	128	51	212	41	45
31	11	---	83	1210	---	251	---	111	---	148	41	---
TOTAL	395	4623	2862	13615	12570	8919	11921	10485	2807	5955	2507	1333
MEAN	12.7	154	92.3	439	433	288	397	338	93.6	192	80.9	44.4
MAX	35	440	128	1340	1260	450	1060	844	231	740	179	76
MIN	11	11	41	66	115	178	223	111	51	55	41	41

MEAN	113	138	198	184	192	258	278	220	148	116	88.6	95.9
MAX	405	302	489	527	459	576	754	538	358	321	491	529
(WY)	1983	1971	1978	1979	1976	1977	1993	1990	1972	1975	1969	1987
MIN	12.7	19.2	14.4	33.3	17.0	16.2	32.5	25.2	48.2	32.4	18.0	29.2
(WY)	1996	1992	1992	1981	1981	1981	1981	1971	1987	1985	1985	1970

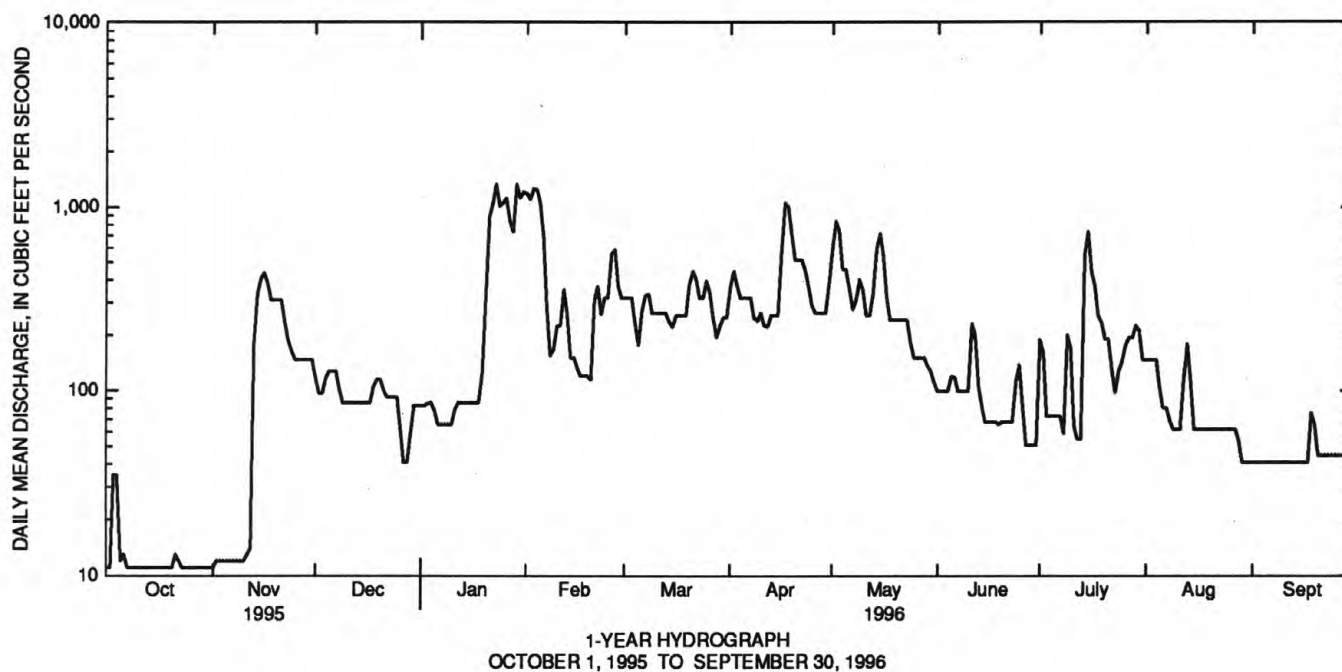
LEHIGH RIVER BASIN

01449800 POHOPOCO CREEK BELOW BELTZVILLE LAKE NEAR PARRYVILLE, PA--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1968 - 1996	
ANNUAL TOTAL	46874		77992		169	
ANNUAL MEAN	128		213		251	
HIGHEST ANNUAL MEAN					60.2	
LOWEST ANNUAL MEAN					1978	
HIGHEST DAILY MEAN	692	Mar 10	1340	Jan 23	1470	Apr 15 1993
LOWEST DAILY MEAN	11	Sep 16 ^{ab}	11	Oct 1 ^a	9.5	Oct 12 1993
ANNUAL SEVEN-DAY MINIMUM	11	Sep 23	11	Oct 7	11	Oct 7 1993
INSTANTANEOUS PEAK FLOW			1460	Jan 27	1740	May 8 1973
INSTANTANEOUS PEAK STAGE			5.53	Jan 27	5.59	May 8 1973
10 PERCENT EXCEEDS	284		456		382	
50 PERCENT EXCEEDS	92		119		106	
90 PERCENT EXCEEDS	11		12		36	

a Also Oct. 2, 7-20, 23-31, Nov. 1.

b Also Sept. 17-20, 23-30.



LEHIGH RIVER BASIN

01449800 POHOPOCO CREEK BELOW BELTZVILLE LAKE NEAR PARRYVILLE, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Water years 1969 to current year.

INSTRUMENTATION.--Temperature probe interfaced with a data collection platform since water year 1986.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum, 26.5°C, several days during July and August 1970; minimum, 0.0°C, Dec. 9, 1969.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum, 18.5°C, Sept. 1; minimum, 1.0°C, Jan. 3, 7, 8.

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	16.5	13.0	14.0	13.0	12.5	12.5	6.5	6.5	6.5	2.0	2.0	2.0
2	17.0	13.5	14.5	13.5	12.5	13.0	6.5	6.0	6.5	2.0	1.5	1.5
3	16.5	13.5	15.0	13.5	11.5	12.5	6.5	6.0	6.0	1.5	1.0	1.5
4	16.5	15.0	15.5	12.0	10.5	11.0	6.5	6.0	6.0	2.0	1.5	1.5
5	17.0	14.5	15.5	12.0	10.5	11.0	6.0	6.0	6.0	2.0	1.5	1.5
6	17.5	13.0	15.5	12.0	10.0	11.0	6.0	6.0	6.0	2.0	1.5	1.5
7	16.0	15.0	15.5	11.0	10.0	10.5	6.0	5.5	6.0	1.5	1.0	1.5
8	16.0	14.5	15.0	11.0	9.5	10.5	5.5	5.5	5.5	2.0	1.0	1.5
9	17.0	14.0	15.0	10.5	9.5	10.0	5.5	5.0	5.5	2.0	1.5	1.5
10	17.0	14.5	15.5	11.0	9.5	10.0	5.0	4.5	5.0	2.0	1.5	1.5
11	17.0	14.5	15.5	11.0	9.5	10.5	4.5	4.5	4.5	2.0	1.5	1.5
12	17.5	14.5	15.5	10.0	8.5	9.0	4.5	4.0	4.5	2.0	1.5	1.5
13	17.5	14.5	15.5	10.0	9.0	9.5	4.5	4.0	4.0	2.0	1.5	2.0
14	16.0	14.5	15.5	10.0	9.5	9.5	4.0	3.5	3.5	2.0	1.5	2.0
15	15.5	14.0	14.5	9.5	9.0	9.0	4.0	3.5	4.0	2.0	1.5	2.0
16	14.5	13.5	14.0	9.0	8.5	9.0	4.0	3.5	3.5	2.0	1.5	1.5
17	16.5	13.5	14.5	8.5	8.5	8.5	3.5	3.5	3.5	2.0	2.0	2.0
18	16.5	14.0	14.5	8.5	8.0	8.5	3.5	3.5	3.5	2.0	2.0	2.0
19	17.0	14.0	15.0	8.0	8.0	8.0	3.5	3.0	3.0	2.0	1.5	2.0
20	16.5	14.0	15.0	8.0	8.0	8.0	3.0	3.0	3.0	2.5	1.5	2.0
21	16.0	13.5	14.5	8.0	7.5	7.5	3.0	3.0	3.0	2.5	2.0	2.5
22	15.5	13.0	14.0	7.5	7.5	7.5	3.0	2.5	3.0	2.0	2.0	2.0
23	15.5	13.0	13.5	7.5	7.5	7.5	3.0	2.5	2.5	2.0	2.0	2.0
24	15.0	12.5	13.5	7.5	7.0	7.5	3.0	2.5	2.5	2.0	2.0	2.0
25	14.0	12.5	13.5	7.0	7.0	7.0	2.5	2.5	2.5	2.0	2.0	2.0
26	14.5	12.5	13.0	7.0	7.0	7.0	2.5	2.0	2.5	2.0	2.0	2.0
27	13.5	12.5	13.0	7.0	7.0	7.0	2.5	2.0	2.0	2.0	2.0	2.0
28	14.5	12.5	13.5	7.0	6.5	7.0	2.5	2.0	2.0	2.5	2.0	2.0
29	13.0	12.0	12.5	7.0	6.5	6.5	2.5	2.0	2.0	2.5	2.5	2.5
30	13.5	12.0	12.5	6.5	6.5	6.5	2.5	2.0	2.0	3.0	2.5	2.5
31	13.5	12.5	13.0	---	---	---	2.0	2.0	2.0	2.5	2.5	2.5
MONTH	17.5	12.0	14.4	13.5	6.5	9.1	6.5	2.0	3.9	3.0	1.0	1.9

WATER TEMPERATURE, DEGREES CELSIUS, 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	2.5	2.5	2.5	3.0	3.0	3.0	5.0	4.5	4.5	---	---	---
2	2.5	2.5	2.5	3.0	2.5	3.0	5.0	5.0	5.0	8.5	8.0	8.5
3	2.5	2.5	2.5	3.0	2.5	3.0	5.0	5.0	5.0	9.5	8.5	9.0
4	2.5	2.5	2.5	3.0	2.5	2.5	5.5	5.0	5.0	10.0	9.5	10.0
5	2.5	2.5	2.5	3.0	2.5	2.5	6.0	5.0	5.5	10.0	9.5	10.0
6	2.5	2.5	2.5	3.0	2.5	3.0	6.0	5.5	5.5	10.5	9.5	10.0
7	2.5	2.5	2.5	3.0	2.5	2.5	---	---	---	10.0	9.5	10.0
8	2.5	2.5	2.5	3.0	2.5	2.5	6.0	5.0	5.5	10.5	10.0	10.0
9	2.5	2.5	2.5	2.5	2.5	2.5	6.0	5.5	5.5	10.5	10.0	10.0
10	2.5	2.5	2.5	2.5	2.0	2.5	6.0	5.5	5.5	10.0	10.0	10.0
11	2.5	2.5	2.5	2.5	2.5	2.5	6.0	5.5	5.5	10.5	9.5	10.0
12	2.5	2.5	2.5	3.0	2.5	2.5	6.5	5.5	6.0	10.0	9.5	10.0
13	2.5	2.5	2.5	3.0	2.5	3.0	6.5	6.0	6.5	---	---	---
14	3.0	2.5	2.5	3.0	3.0	3.0	7.0	6.5	6.5	---	---	---
15	3.0	2.5	2.5	3.5	3.0	3.0	7.0	6.5	6.5	---	---	---
16	2.5	2.5	2.5	3.5	3.0	3.0	7.0	6.5	6.5	---	---	---
17	3.0	2.5	2.5	3.0	3.0	3.0	6.5	6.5	6.5	11.5	10.5	11.0
18	3.0	2.5	2.5	3.5	3.0	3.0	6.5	6.5	6.5	11.0	10.5	11.0
19	2.5	2.5	2.5	3.5	3.0	3.5	7.0	6.5	6.5	11.5	10.5	11.0
20	3.0	2.5	2.5	3.5	3.5	3.5	7.0	6.5	7.0	11.5	10.5	11.0
21	2.5	2.5	2.5	3.5	3.5	3.5	7.0	6.5	6.5	12.0	10.5	11.5
22	2.5	2.5	2.5	3.5	3.5	3.5	7.5	6.5	7.0	12.0	11.0	12.0
23	3.0	2.5	2.5	3.5	3.5	3.5	8.0	6.5	7.0	12.0	11.0	11.5
24	3.0	2.5	3.0	3.5	3.5	3.5	8.0	6.5	7.0	13.0	11.5	12.0
25	3.0	3.0	3.0	3.5	3.5	3.5	8.5	7.5	8.0	12.5	11.5	12.0
26	3.0	3.0	3.0	4.0	3.5	4.0	8.5	7.5	8.0	12.5	11.5	12.0
27	3.0	3.0	3.0	4.0	3.5	4.0	8.5	8.0	8.0	13.0	11.5	12.0
28	3.5	3.0	3.0	4.0	4.0	4.0	9.0	7.5	8.5	12.5	11.5	12.5
29	3.0	3.0	3.0	4.0	4.0	4.0	10.0	8.5	9.5	12.5	11.5	12.0
30	---	---	---	4.5	4.0	4.0	---	---	---	13.5	12.0	12.5
31	---	---	---	5.0	4.0	4.5	---	---	---	13.0	12.0	12.0
MONTH	3.5	2.5	2.6	5.0	2.0	3.2	10.0	4.5	6.4	13.5	8.0	10.9

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE				JULY			AUGUST			SEPTEMBER		
1	13.5	12.0	12.5	14.5	14.0	14.0	16.5	16.0	16.0	18.5	16.0	16.5
2	13.5	12.0	12.5	15.5	14.0	14.5	16.5	16.0	16.5	18.0	16.0	16.5
3	13.5	12.0	13.0	15.0	14.0	14.5	16.5	16.0	16.0	17.5	16.0	16.5
4	12.5	12.0	12.5	14.5	14.0	14.0	16.5	16.0	16.0	17.0	16.5	16.5
5	12.5	12.0	12.5	15.5	14.0	14.5	17.0	16.0	16.5	18.0	16.0	17.0
6	13.5	12.0	13.0	15.5	14.0	15.0	17.0	16.0	16.5	18.0	16.0	17.0
7	13.5	12.5	13.0	16.0	14.0	15.0	17.0	16.0	16.5	17.5	16.5	17.0
8	13.5	12.0	13.0	16.0	14.5	15.0	17.0	16.0	16.5	18.0	16.5	17.0
9	13.5	12.5	13.0	15.5	14.5	15.0	16.0	16.0	16.0	18.0	16.5	17.0
10	13.5	12.5	13.0	15.5	14.5	15.0	17.5	16.0	16.5	18.0	16.5	17.0
11	13.0	13.0	13.0	16.0	14.5	15.0	17.5	15.5	16.0	17.5	16.5	17.0
12	13.5	13.0	13.0	16.5	14.5	15.0	16.5	16.0	16.5	17.5	16.5	17.0
13	14.0	12.5	13.5	16.5	14.0	15.5	18.0	16.5	17.0	17.5	16.5	17.0
14	14.0	13.0	13.5	15.5	11.5	13.0	17.5	16.0	16.5	17.5	16.0	16.5
15	14.5	13.0	13.5	15.5	11.5	13.0	17.0	16.0	16.5	17.5	16.5	16.5
16	14.5	13.0	13.5	16.0	15.0	15.5	17.0	16.0	16.5	17.0	16.5	16.5
17	14.5	13.0	13.5	16.0	15.5	16.0	17.5	16.0	16.5	16.5	16.0	16.5
18	14.0	13.0	13.5	16.5	15.5	16.0	17.5	16.0	16.5	17.0	16.0	16.5
19	14.0	13.0	13.5	16.0	15.5	16.0	17.5	16.0	16.5	17.5	16.0	16.5
20	14.0	13.5	13.5	16.5	15.5	16.0	17.5	16.0	16.5	17.5	16.0	16.5
21	15.0	13.5	14.0	16.5	16.0	16.0	17.0	16.5	16.5	17.5	16.0	16.5
22	14.5	13.5	14.0	16.5	16.0	16.0	17.5	16.5	16.5	16.5	16.0	16.0
23	15.0	13.5	14.0	16.5	16.0	16.0	17.5	16.0	16.5	17.0	15.5	16.0
24	14.5	13.5	14.0	16.5	16.0	16.0	17.5	16.5	17.0	16.5	15.5	16.0
25	15.0	14.0	14.0	16.5	16.0	16.0	17.5	16.5	16.5	17.0	15.5	16.0
26	15.5	13.5	14.5	16.5	16.0	16.0	17.5	16.5	17.0	17.0	15.5	16.0
27	15.5	13.5	14.0	16.5	16.0	16.0	17.5	16.5	17.0	16.5	16.0	16.0
28	15.5	13.5	14.5	16.5	16.0	16.5	17.5	16.0	16.5	16.5	15.5	16.0
29	14.5	13.5	14.0	16.5	16.0	16.5	18.0	16.0	16.5	16.5	15.5	16.0
30	14.5	13.5	14.0	16.5	16.5	16.5	17.5	16.0	16.5	17.0	15.5	16.0
31	---	---	---	16.5	16.0	16.5	18.0	16.0	16.5	---	---	---
MONTH	15.5	12.0	13.4	16.5	11.5	15.3	18.0	15.5	16.5	18.5	15.5	16.5
YEAR	18.5	1.0	9.5									

LEHIGH RIVER BASIN

01450500 AQUASHICOLA CREEK AT PALMERTON, PA

LOCATION.--Lat 40°48'22", long 75°35'54", Carbon County, Hydrologic Unit 02040106, on right bank 1,200 ft upstream from bridge on Sixth Street in Palmerton, and 1.2 mi upstream from mouth.

DRAINAGE AREA.--76.7 mi².

PERIOD OF RECORD.--October 1939 to current year.

REVISED RECORDS.--WSP 1051: 1940-45 (monthly net diversion), Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 389.08 ft above sea level.

REMARKS.--Records good except those for July 13 to September 30, which are fair, and estimated daily discharges, which are poor. Occasional diversion from Pohopoco Creek into Aquashicola Creek upstream of station. Several measurements of water temperature were made during the year.

COOPERATION.--Records of diversion provided by Palmer Water Company.

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	2000	1,590	6.59	Apr. 16	1400	2,020	7.13
Jan. 19	1900	*9,760	*12.64	July 13	1945	1,340	6.24
Jan. 27	2400	3,190	8.35				

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	20	152	120	64	366	222	228	454	86	86	88	37
2	19	188	118	64	313	210	357	381	81	70	81	35
3	19	175	108	68	276	195	355	317	79	65	83	35
4	19	160	108	e56	e230	171	314	278	90	66	74	34
5	52	149	100	e58	e200	170	276	247	109	61	68	34
6	159	141	102	e58	e190	201	241	253	82	55	63	35
7	73	140	93	e58	181	212	244	219	75	52	59	54
8	51	144	86	e66	177	e190	236	205	72	67	58	39
9	40	121	e84	e80	182	e170	206	205	70	169	64	30
10	36	111	e76	e66	171	e160	194	193	118	102	71	29
11	33	115	e76	e62	170	e160	181	250	84	82	58	27
12	31	645	e78	66	159	172	172	483	83	76	54	27
13	30	472	e76	71	132	180	177	400	75	672	98	31
14	37	367	76	65	129	200	172	317	70	752	99	34
15	57	547	83	e58	124	227	163	267	66	374	78	30
16	42	560	85	e56	114	240	1470	248	62	387	75	30
17	37	416	83	59	109	229	994	227	61	280	68	75
18	36	332	74	61	104	215	561	203	63	224	60	62
19	33	286	74	3850	96	206	425	185	69	216	56	44
20	32	246	e70	3090	114	364	351	168	70	195	53	37
21	761	225	e70	873	295	358	300	157	63	160	51	34
22	683	207	71	526	306	309	260	151	60	144	53	44
23	286	191	71	395	303	268	235	138	113	138	49	49
24	201	179	70	548	355	235	213	128	78	124	51	38
25	159	161	68	759	372	214	193	118	76	112	47	36
26	136	156	e64	543	342	197	184	112	63	131	44	35
27	120	149	e62	1580	305	178	173	114	57	106	42	34
28	260	140	e60	2030	290	168	153	108	54	93	43	37
29	237	134	e58	885	251	233	217	104	53	89	41	69
30	198	122	e56	606	---	231	311	97	111	91	39	50
31	169	---	62	466	---	222	---	90	---	88	38	---
TOTAL	4066	7131	2482	17287	6356	6707	9556	6817	2293	5327	1906	1185
MEAN	131	238	80.1	558	219	216	319	220	76.4	172	61.5	39.5
MAX	761	645	120	3850	372	364	1470	483	118	752	99	75
MIN	19	111	56	56	96	160	153	90	53	52	38	27
(†)	-3.6	-3.6	-2.4	-3.4	-2.8	-2.7	-3.5	-2.8	-2.3	-3.6	-2.5	-1.6

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1996, BY WATER YEAR (WY)

	95.3	148	182	169	173	247	241	181	115	103	86.8	88.7
MEAN	95.3	148	182	169	173	247	241	181	115	103	86.8	88.7
MAX	331	379	467	558	325	534	625	480	412	638	468	417
(WY)	1956	1973	1984	1996	1971	1977	1983	1989	1972	1945	1942	1987
MIN	17.2	21.6	38.3	19.4	38.4	86.5	74.7	55.9	38.8	19.8	13.7	15.2
(WY)	1964	1965	1981	1981	1940	1985	1985	1941	1955	1955	1964	1964

† Figures of net diversion, equivalent in cubic feet per second. Includes water diverted from Pohopoco Creek to Aquashicola Creek.

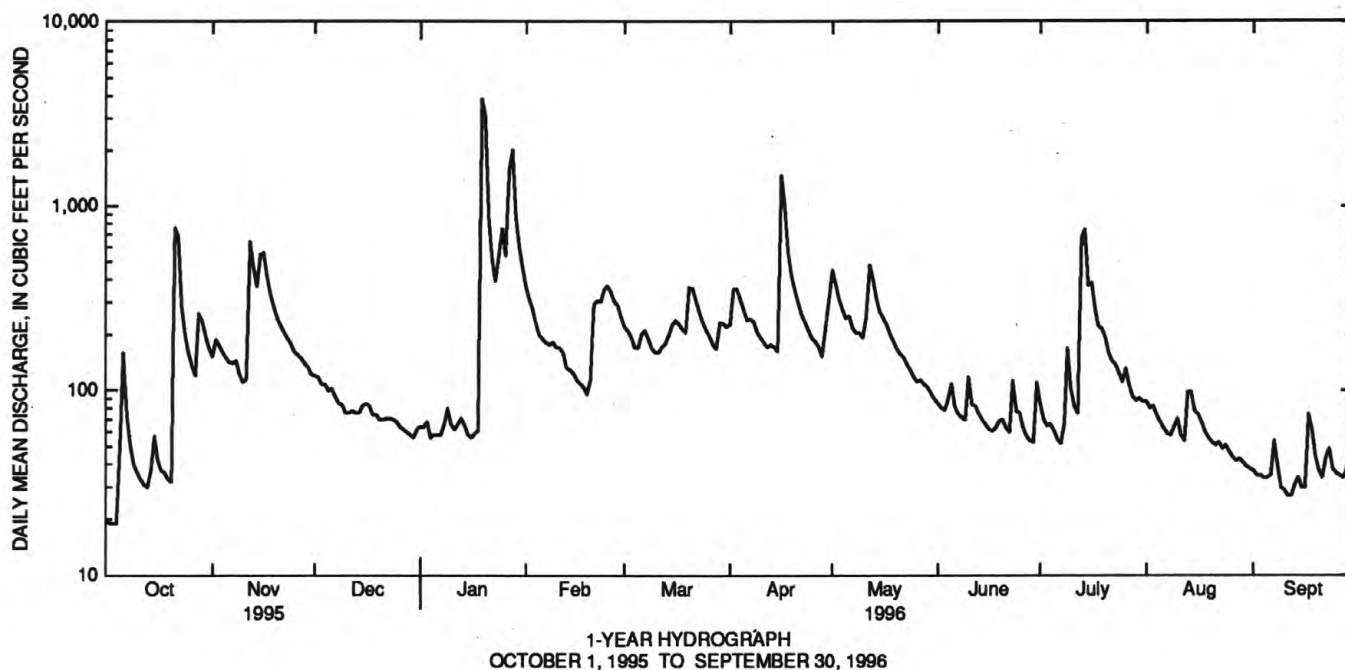
e Estimated.

LEHIGH RIVER BASIN

01450500 AQUASHICOLA CREEK AT PALMERTON, PA--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1940 - 1996	
ANNUAL TOTAL	40919		71113		152	
ANNUAL MEAN	112		194		242	
HIGHEST ANNUAL MEAN					1952	
LOWEST ANNUAL MEAN					69.2	
HIGHEST DAILY MEAN	1190	Mar 9	3850	Jan 19	4680	Jul 10 1945
LOWEST DAILY MEAN	19	Oct 2-4	19	Oct 2-4	9.1	Sep 15 1964
ANNUAL SEVEN-DAY MINIMUM	21	Sep 28	30	Sep 9	10	Sep 10 1964
INSTANTANEOUS PEAK FLOW			a9760	Jan 19	a11700	Jul 10 1945
INSTANTANEOUS PEAK STAGE			12.64	Jan 19	13.63	Jul 10 1945
INSTANTANEOUS LOW FLOW					2.6	Sep 12 1957
10 PERCENT EXCEEDS	218		360		305	
50 PERCENT EXCEEDS	76		114		100	
90 PERCENT EXCEEDS	28		39		36	

a From rating curve extended above 2,300 ft³/s on basis of contracted-opening measurement of peak flow.



LEHIGH RIVER BASIN

01451000 LEHIGH RIVER AT WALNUTPORT, PA

LOCATION.--Lat 40°45'25", long 75°36'12", Northampton County, Hydrologic Unit 02040106, on left bank 0.3 mi upstream from highway bridge at Walnutport, and 0.4 mi upstream from Trout Creek.

DRAINAGE AREA.--889 mi².

PERIOD OF RECORD.--October 1946 to current year.

GAGE.--Water-stage recorder. Datum of gage is 350.27 ft above sea level.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Flow regulated by Wild Creek Reservoir (station 01449700) since January 1941, Penn Forest Reservoir (station 01449400) since October 1958, Francis E. Walter Reservoir (station 01447780) since February 1961, and Beltzville Lake (station 01449790) since February 1971. Several measurements of water temperature were made during the year. Satellite telemetry at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, 20.6 ft, May 23, 1942, from floodmarks, discharge not determined.

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	251	1620	1920	e800	5550	3340	2870	7530	1100	1440	1380	496
2	247	1770	1630	e800	4610	2880	3880	7370	982	1400	1260	448
3	264	1730	1570	e820	4380	2740	3360	6110	858	1110	1270	420
4	346	1610	1560	e860	e3900	2470	3220	4490	860	1070	1290	414
5	412	1530	1580	e860	e3500	2040	2880	3910	1050	1240	1090	420
6	1140	1460	1690	e840	e2900	2670	2740	3520	1010	1070	1200	421
7	818	1170	1550	e800	e2100	3210	2780	3240	1000	987	1500	638
8	646	1160	1330	e820	2180	3150	2840	3090	1060	998	932	634
9	599	1160	1290	e900	2270	e2400	2590	3160	1150	1320	815	685
10	589	1030	e1200	e880	2090	e2300	2530	2800	1120	1100	1030	576
11	479	1030	e1100	e900	2010	2280	2280	2850	1390	854	937	486
12	413	5490	e940	e940	e2000	2030	2210	5320	2160	745	775	440
13	368	4280	e940	e920	e2100	2230	2330	5240	1780	3350	1030	433
14	416	6370	e960	e860	e1700	2310	2560	4790	1130	4680	968	453
15	842	6490	e1000	e820	1530	2490	2530	4100	1050	6180	777	433
16	650	6020	1170	e900	1430	2850	8130	3670	1010	4520	818	422
17	747	4950	1140	e1100	e1300	2720	8060	3040	858	3870	902	668
18	673	3780	1090	e1300	e1200	2660	8240	2690	943	2880	816	767
19	537	3490	1110	e15000	e1100	2640	6220	2540	939	2170	654	910
20	461	3260	e1000	17100	1320	4690	4630	2250	1100	2000	604	740
21	4570	2760	e980	11900	4010	5740	4160	2120	1080	1780	600	781
22	5100	2580	e940	12700	4870	4800	3600	1880	1060	1660	612	894
23	4790	2340	e860	12100	5310	3490	3010	1820	1420	1290	587	682
24	4980	2180	e800	11500	4820	3200	3070	1820	1550	1200	712	505
25	3070	1870	e760	9940	4870	3180	3050	1660	1310	1260	684	578
26	2420	1790	e740	8860	5240	3220	2820	1550	983	1750	576	619
27	2000	1730	e740	17700	5260	2460	2490	1450	788	1950	541	609
28	2270	1610	e740	16200	4280	2200	2470	1430	720	1920	533	594
29	1970	1700	e780	16400	3650	2810	2600	1230	829	1910	509	803
30	1770	2030	e800	13400	---	2910	3900	1140	1340	1770	500	869
31	1670	---	e800	9490	---	2750	---	1070	---	1570	510	---
TOTAL	45508	79990	34710	188410	91480	90860	108050	98880	33630	61044	26412	17838
MEAN	1468	2666	1120	6078	3154	2931	3602	3190	1121	1969	852	595
MAX	5100	6490	1920	17700	5550	5740	8240	7530	2160	6180	1500	910
MIN	247	1030	740	800	1100	2030	2210	1070	720	745	500	414
CFSM	1.65	3.00	1.26	6.84	3.55	3.30	4.05	3.59	1.26	2.22	.96	.67
IN.	1.90	3.35	1.45	7.88	3.83	3.80	4.52	4.14	1.41	2.55	1.11	.75

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1947 - 1996, BY WATER YEAR (WY)

	MEAN	1840	2273	2043	2125	2986	3268	2405	1493	1118	891	943
MAX	4857	3990	5470	6136	4464	6302	8455	6389	5413	4465	5264	5812
(WY)	1956	1973	1984	1979	1951	1977	1993	1989	1972	1947	1955	1987
MIN	194	251	370	223	790	1335	1156	908	489	241	226	179
(WY)	1964	1965	1981	1981	1980	1981	1985	1995	1962	1965	1964	1964

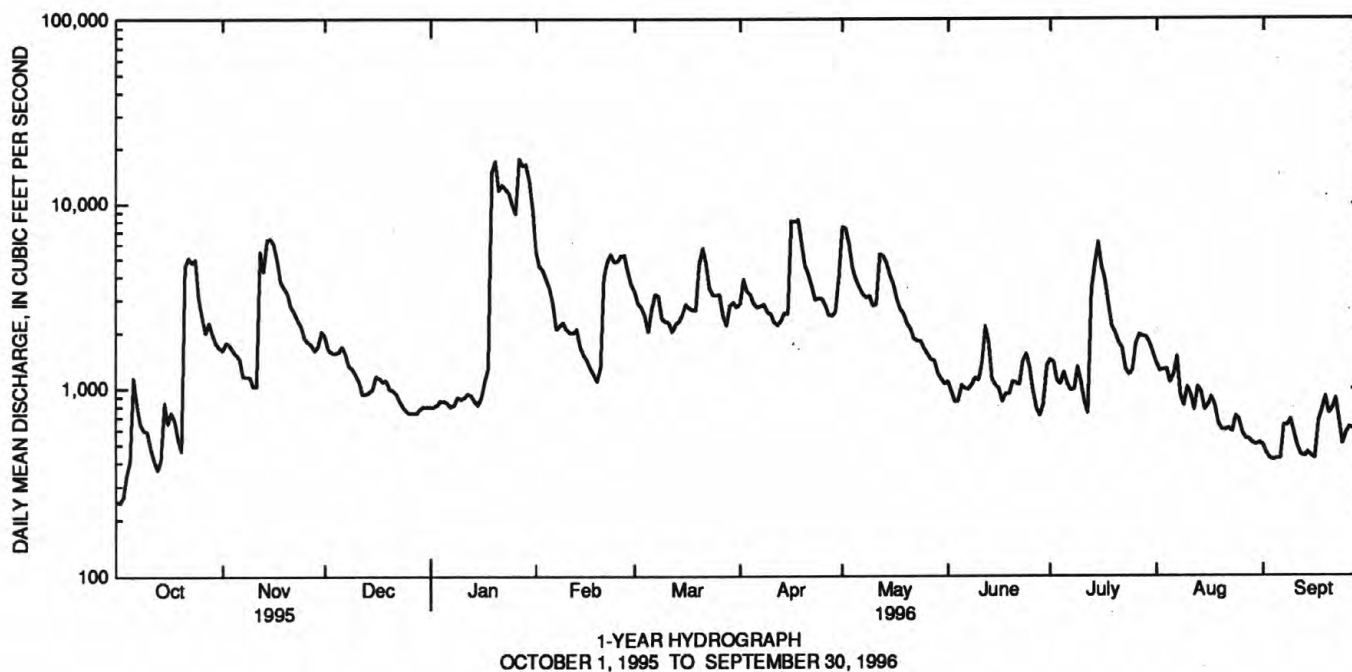
e Estimated.

LEHIGH RIVER BASIN

01451000 LEHIGH RIVER AT WALNUTPORT, PA-Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1947 - 1996	
ANNUAL TOTAL	492076		876812		1876	
ANNUAL MEAN	1348		2396		2892	
HIGHEST ANNUAL MEAN					1952	
LOWEST ANNUAL MEAN					859	
HIGHEST DAILY MEAN	6490	Nov 15	17700	Jan 27	62400	Aug 19 1955
LOWEST DAILY MEAN	215	Sep 16	247	Oct 2	134	Sep 18 1964
ANNUAL SEVEN-DAY MINIMUM	252	Sep 15	447	Aug 31	143	Sep 16 1964
INSTANTANEOUS PEAK FLOW			40100	Jan 19	77800	Aug 19 1955
INSTANTANEOUS PEAK STAGE			12.32	Jan 19	17.68	Aug 19 1955
INSTANTANEOUS LOW FLOW					a57	Jul 27 1965
ANNUAL RUNOFF (CFSM)	1.52		2.69		2.11	
ANNUAL RUNOFF (INCHES)	20.59		36.69		28.67	
10 PERCENT EXCEEDS	2600		4870		3890	
50 PERCENT EXCEEDS	1000		1540		1300	
90 PERCENT EXCEEDS	413		600		416	

a Result of upstream shutoff.



LEHIGH RIVER BASIN

01451500 LITTLE LEHIGH CREEK NEAR ALLENTOWN, PA

LOCATION.--Lat 40°34'56", long 75°29'00", Lehigh County, Hydrologic Unit 02040106, on right bank at downstream side of bridge on Lehigh Parkway in Allentown, 0.8 mi upstream from Cedar Creek, and 2.9 mi upstream from mouth.

DRAINAGE AREA.--80.8 mi².

PERIOD OF RECORD.--October 1945 to current year. Prior to October 1946, published as "at Allentown".

REVISED RECORDS.--WDR PA 73-1: 1946(M), 1951(P), 1955(M), 1956(M), 1958(M), 1962(M), 1963(M), 1965(M), 1969(M), 1971(M). WDR PA-87-1: 1946 to 1986(P).

GAGE.--Water-stage recorder, crest-stage gage, and masonry control. Datum of gage is 253.41 ft above sea level.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Occasional regulation at low flow by fish hatchery upstream. Several measurements of water temperature were made during the year. Satellite telemetry at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 900 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 19	1830	*3,260	*6.30	Apr. 16	1000	1,150	4.26
Jan. 28	0030	2,380	5.53				

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	41	66	66	54	228	151	196	265	109	118	102	64
2	41	77	66	57	215	147	536	195	107	93	91	64
3	41	70	66	60	200	145	280	178	103	88	136	64
4	41	63	64	e56	e190	130	226	173	105	89	106	64
5	170	61	64	e53	e175	135	208	166	128	82	92	62
6	142	60	64	e50	e170	163	197	166	106	79	86	62
7	66	61	64	e49	e160	176	205	159	103	77	81	75
8	54	65	62	e48	e160	159	231	163	100	102	79	66
9	51	61	62	e48	e170	138	197	159	98	268	78	63
10	50	60	60	e50	162	142	199	157	100	110	80	62
11	48	73	57	e51	158	140	187	168	99	88	77	61
12	47	200	58	e52	158	135	173	208	97	81	76	62
13	46	96	58	e52	135	141	167	163	97	373	89	62
14	51	130	58	e52	137	147	162	152	95	277	83	62
15	66	164	58	e51	135	152	157	147	92	156	77	62
16	51	113	59	e49	126	155	784	145	90	136	82	62
17	47	91	62	e48	122	139	397	147	104	111	80	146
18	47	83	62	e48	120	136	273	142	103	104	75	105
19	47	79	62	1230	114	146	235	140	117	121	74	72
20	47	76	57	1230	131	338	218	135	132	109	72	66
21	219	73	62	e340	355	215	206	127	129	98	72	64
22	161	71	59	e200	280	177	194	126	103	95	71	73
23	75	70	58	e170	231	162	186	128	97	95	79	68
24	65	71	58	e320	258	153	177	121	91	93	107	64
25	61	70	58	426	237	148	167	118	94	90	73	62
26	59	69	57	254	202	145	168	116	87	121	70	62
27	61	67	56	937	181	139	168	119	82	106	68	60
28	214	66	56	1060	186	139	160	120	81	91	67	109
29	93	66	55	394	167	222	220	116	79	87	67	144
30	72	66	54	310	---	200	256	116	140	90	66	75
31	68	---	54	272	---	165	---	111	---	142	66	---
TOTAL	2342	2438	1856	8071	5263	4980	7130	4646	3068	3770	2522	2187
MEAN	75.5	81.3	59.9	260	181	161	238	150	102	122	81.4	72.9
MAX	219	200	66	1230	355	338	784	265	140	373	136	146
MIN	41	60	54	48	114	130	157	111	79	77	66	60
CFSM	.94	1.01	.74	3.22	2.25	1.99	2.94	1.85	1.27	1.51	1.01	.90
IN.	1.08	1.12	.85	3.72	2.42	2.29	3.28	2.14	1.41	1.74	1.16	1.01

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

MEAN	66.4	76.5	95.5	107	120	137	145	121	101	87.0	77.6	71.1
MAX	182	177	314	385	325	355	331	315	381	366	192	213
(WY)	1976	1976	1984	1979	1979	1994	1983	1984	1972	1984	1971	1987
MIN	27.3	28.1	25.7	26.6	41.0	43.1	37.1	35.8	29.2	26.5	26.5	28.9
(WY)	1964	1966	1966	1966	1967	1965	1966	1965	1965	1965	1965	1965

e Estimated.

LEHIGH RIVER BASIN

01451500 LITTLE LEHIGH CREEK NEAR ALLENTOWN, PA--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1946 - 1996	
ANNUAL TOTAL	30123		48273		100	
ANNUAL MEAN	82.5		132		203	
HIGHEST ANNUAL MEAN					1984	
LOWEST ANNUAL MEAN					33.8	
HIGHEST DAILY MEAN	679	Mar 9	1230	Jan 19,20	4050	Jul 7 1984
LOWEST DAILY MEAN	39	Sep 4-9a	41	Oct 1-4	23	Dec 20 1965
ANNUAL SEVEN-DAY MINIMUM	39	Sep 3	50	Oct 8	23	Dec 18 1965
INSTANTANEOUS PEAK FLOW			b3260	Jan 19	d11800	Jun 22 1972
INSTANTANEOUS PEAK STAGE			c6.30	Jan 19	11.80	Jun 22 1972
INSTANTANEOUS LOW FLOW			41	Oct 1	f17	Feb 4 1965
ANNUAL RUNOFF (CFSM)	1.02		1.63		1.24	
ANNUAL RUNOFF (INCHES)	13.87		22.22		16.88	
10 PERCENT EXCEEDS	121		215		171	
50 PERCENT EXCEEDS	70		98		79	
90 PERCENT EXCEEDS	44		56		40	

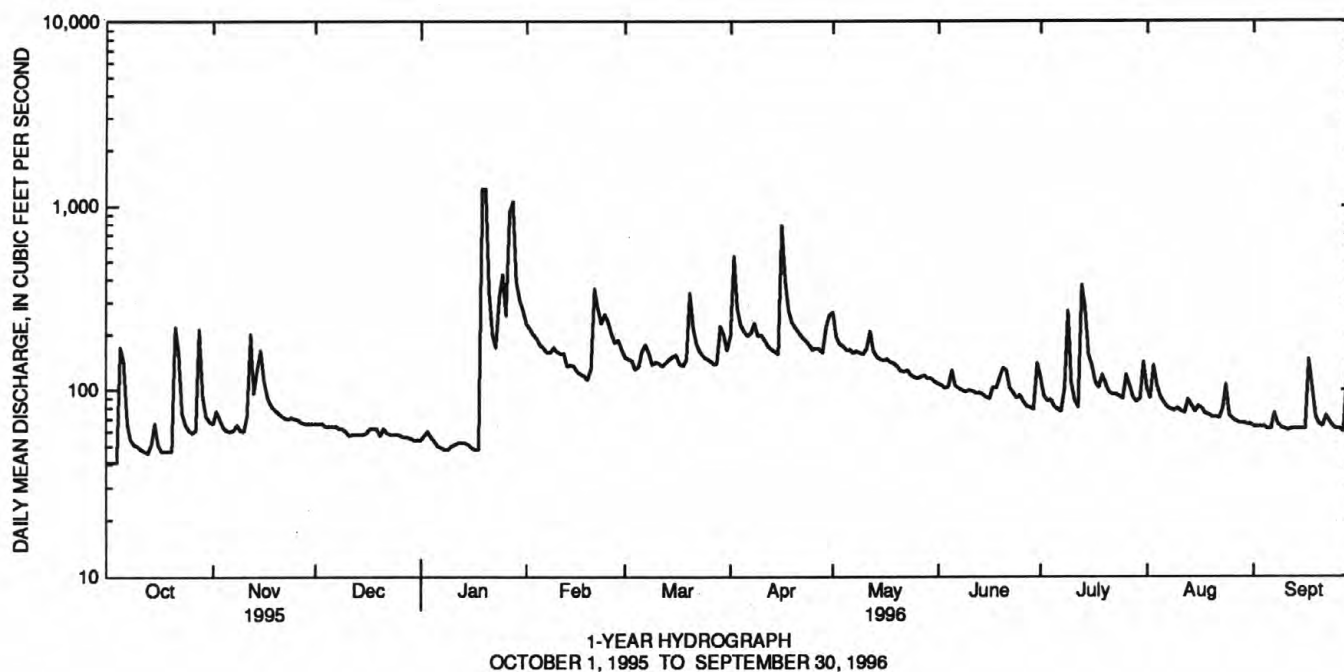
a Also Sept. 12-16.

b From rating curve extended above 820 ft³/s on basis of slope-area measurement at 8.34 ft and at peak flow.

c From crest-stage gage.

d From rating curve extended above 980 ft³/s on basis of slope-area measurement of peak flow.

f Result of upstream shutoff.



LEHIGH RIVER BASIN

01451650 LITTLE LEHIGH CREEK AT TENTH STREET BRIDGE AT ALLENTOWN, PA

LOCATION.--Lat 40°35'47", long 75°28'28", Lehigh County, Hydrologic Unit 02040106, on left bank at bridge on Tenth Street, and 0.9 mi upstream from confluence with Jordan Creek in Allentown, Pa.

DRAINAGE AREA.--98.2 mi².

PERIOD OF RECORD.--October 1986 to current year.

GAGE.--Water-stage recorder. Datum of gage is 245.63 ft above sea level.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Diversion for municipal water supply by city of Allentown. Several measurements of water temperature were made during the year. Satellite telemetry at station.

COOPERATION.--Records of diversion provided by city of Allentown.

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	40	77	78	74	249	194	249	322	137	148	124	74
2	39	105	88	65	237	193	680	229	136	119	108	80
3	41	99	74	68	217	181	340	217	131	114	166	71
4	41	75	74	66	208	174	270	223	139	106	128	68
5	283	71	80	63	191	175	246	201	161	100	108	68
6	208	73	82	62	190	215	242	209	132	102	101	73
7	84	72	73	59	186	231	255	191	125	92	97	95
8	60	79	71	54	186	211	279	204	121	114	95	76
9	52	79	88	59	206	185	240	200	132	343	104	69
10	51	64	68	62	212	181	248	195	125	134	99	66
11	50	76	65	59	198	172	232	226	118	104	93	75
12	48	304	73	59	200	177	221	251	117	94	90	65
13	48	122	65	60	177	189	215	199	115	511	122	67
14	64	197	66	62	175	193	204	187	109	338	98	67
15	81	232	68	61	173	210	201	180	106	228	90	75
16	58	147	84	57	167	208	901	179	103	167	96	66
17	48	120	73	64	165	181	493	181	134	140	94	203
18	50	110	71	59	163	176	322	179	137	139	99	130
19	48	105	71	739	146	190	283	175	146	158	84	83
20	51	93	70	e1800	166	424	268	166	156	144	81	85
21	340	92	74	468	462	260	251	161	153	121	83	68
22	217	93	74	269	328	222	239	158	119	116	82	90
23	95	103	68	218	267	204	230	157	112	119	93	78
24	76	95	67	369	308	191	222	151	123	131	142	84
25	69	98	80	503	276	184	212	150	134	109	85	72
26	62	88	66	287	240	179	212	149	105	156	81	70
27	70	82	63	e1000	227	175	223	149	102	130	86	69
28	278	81	63	e1200	226	177	195	150	99	109	79	157
29	116	88	72	440	207	292	288	149	96	106	77	186
30	85	85	60	338	---	253	323	148	206	125	75	85
31	81	---	59	293	---	212	---	139	---	169	74	---
TOTAL	2934	3205	2228	9037	6353	6409	8784	5775	3829	4786	3034	2615
MEAN	94.6	107	71.9	292	219	207	293	186	128	154	97.9	87.2
MAX	340	304	88	1800	462	424	901	322	206	511	166	203
MIN	39	64	59	54	146	172	195	139	96	92	74	65
(†)	16.4	13.0	14.2	16.3	14.8	15.7	15.6	16.0	17.0	15.8	16.5	15.6

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

	79.2	101	118	133	127	180	181	146	113	112	90.1	107
MEAN	79.2	101	118	133	127	180	181	146	113	112	90.1	107
MAX	114	129	245	292	219	415	355	236	184	174	147	368
(WY)	1994	1994	1994	1996	1996	1994	1994	1989	1989	1994	1994	1987
MIN	48.5	67.2	63.7	53.1	48.9	71.7	64.4	66.7	73.4	83.0	57.1	46.7
(WY)	1993	1992	1992	1992	1992	1992	1992	1992	1995	1991	1991	1995

† Diversion for municipal supply of city of Allentown, equivalent in cubic feet per second.

e Estimated.

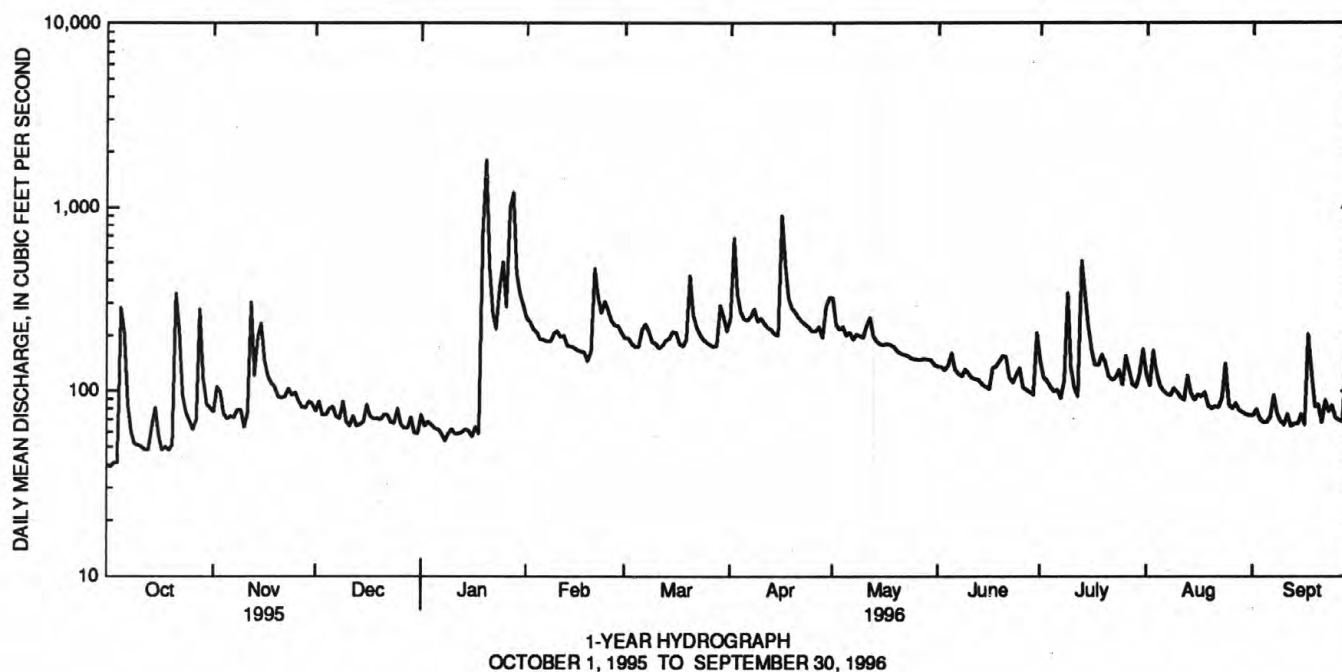
LEHIGH RIVER BASIN

01451650 LITTLE LEHIGH CREEK AT TENTH STREET BRIDGE AT ALLENTOWN, PA--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1987 - 1996	
ANNUAL TOTAL	37100		58989		124	
ANNUAL MEAN	102		161		192	
HIGHEST ANNUAL MEAN					192	
LOWEST ANNUAL MEAN					64.6	
HIGHEST DAILY MEAN	828	Mar 9	ae1800	Jan 20	5200	Sep 9 1987
LOWEST DAILY MEAN	37	Sep 15	39	Oct 2	32	Sep 18 1991
ANNUAL SEVEN-DAY MINIMUM	39	Sep 2	53	Oct 8	39	Sep 12 1991
INSTANTANEOUS PEAK FLOW			ae4000	Jan 19	a7370	Sep 9 1987
INSTANTANEOUS PEAK STAGE			e7.20	Jan 19	9.47	Sep 9 1987
10 PERCENT EXCEEDS	160		268		205	
50 PERCENT EXCEEDS	86		123		98	
90 PERCENT EXCEEDS	48		65		55	

a From rating curve extended above 920 ft³/s.

e Estimated.



LEHIGH RIVER BASIN

01451800 JORDAN CREEK NEAR SCHNECKSVILLE, PA

LOCATION.--Lat 40°39'42", long 75°37'38", Lehigh County, Hydrologic Unit 02040106, on left bank 54 ft downstream from wooden covered bridge at Trexler-Lehigh County Game Preserve, 1.0 mi downstream from Mill Creek, and 1.1 mi southwest of Schnecksville.

DRAINAGE AREA.--53.0 mi².

PERIOD OF RECORD.--February 1966 to current year.

REVISED RECORDS.--WDR PA-90-1: 1989.

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 400 ft above sea level, from topographic map. Prior to Oct. 2, 1973, nonrecording gage at bridge 54 ft upstream at same datum.

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

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 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	1600	1,100	5.56	Jan. 27	2030	2,660	8.02
Jan. 19	1830	*4,730	*10.34				

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	7.4	118	43	e33	194	119	211	196	24	56	53	7.6
2	7.2	161	45	e36	151	108	411	158	21	38	33	7.1
3	6.8	130	38	e37	138	94	339	140	21	49	29	6.8
4	7.2	116	39	e37	e110	82	258	124	24	58	29	6.7
5	68	103	34	e36	94	80	201	106	44	37	25	7.1
6	173	92	38	e34	77	119	158	105	24	29	22	7.0
7	82	90	33	e30	78	134	177	84	20	26	20	22
8	58	93	30	e28	85	135	157	83	18	26	18	11
9	44	70	e29	e26	109	123	134	83	17	65	20	8.8
10	37	59	e28	e25	111	119	e130	73	24	32	25	7.8
11	32	61	e27	e24	e105	107	e120	111	21	25	17	7.9
12	28	314	e25	e24	e100	110	e110	197	23	23	16	8.4
13	25	242	e24	e23	e90	121	e90	146	22	313	40	8.8
14	34	353	e24	e23	e85	129	e80	129	16	285	27	10
15	63	551	e23	e22	e75	143	e70	112	14	368	19	8.2
16	37	418	e22	e22	e70	156	e1000	110	13	285	17	7.5
17	31	288	e22	e22	e65	143	e650	97	13	182	17	63
18	29	210	e21	e22	e65	134	e340	84	15	134	14	46
19	28	166	e20	e20	e65	142	e240	74	29	130	13	21
20	28	130	e20	e20	1640	65	e180	63	38	91	12	15
21	519	110	e20	607	474	349	e140	59	25	69	12	13
22	503	93	e20	362	399	259	e130	63	18	59	12	17
23	265	79	e19	260	350	200	e105	48	18	57	11	24
24	173	72	e19	481	425	159	e95	42	16	48	21	15
25	126	62	e19	635	358	135	82	37	39	40	13	14
26	98	57	e19	417	270	115	78	34	19	88	11	12
27	95	53	e19	1320	207	96	72	40	14	50	9.9	12
28	286	49	e19	1250	189	91	60	37	13	38	9.8	13
29	227	48	e19	551	144	240	125	35	12	35	9.3	33
30	175	44	e27	355	---	212	167	31	102	40	8.5	18
31	133	---	e30	256	---	197	---	27	---	40	8.2	---
TOTAL	3425.6	4432	815	10298	4748	4788	6110	2728	717	2816	591.7	458.7
MEAN	111	148	26.3	332	164	154	204	88.0	23.9	90.8	19.1	15.3
MAX	519	551	45	1660	474	437	1000	197	102	368	53	63
MIN	6.8	44	19	22	65	80	60	27	12	23	8.2	6.7
CFSM	2.08	2.79	.50	6.27	3.09	2.91	3.84	1.66	.45	1.71	.36	.29
IN.	2.40	3.11	.57	7.23	3.33	3.36	4.29	1.91	.50	1.98	.42	.32

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

	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
MEAN	57.1	99.3	126	121	127	162	134	98.2	65.5	42.7	33.5	45.9																			
MAX	184	270	363	404	295	479	391	353	346	126	110	343																			
(WY)	1978	1971	1984	1979	1971	1994	1983	1989	1972	1984	1990	1987																			
MIN	8.37	20.1	18.6	6.85	35.2	41.3	31.0	31.5	9.18	1.68	3.77	3.69																			
(WY)	1973	1979	1981	1981	1980	1985	1985	1995	1966	1966	1980	1980																			

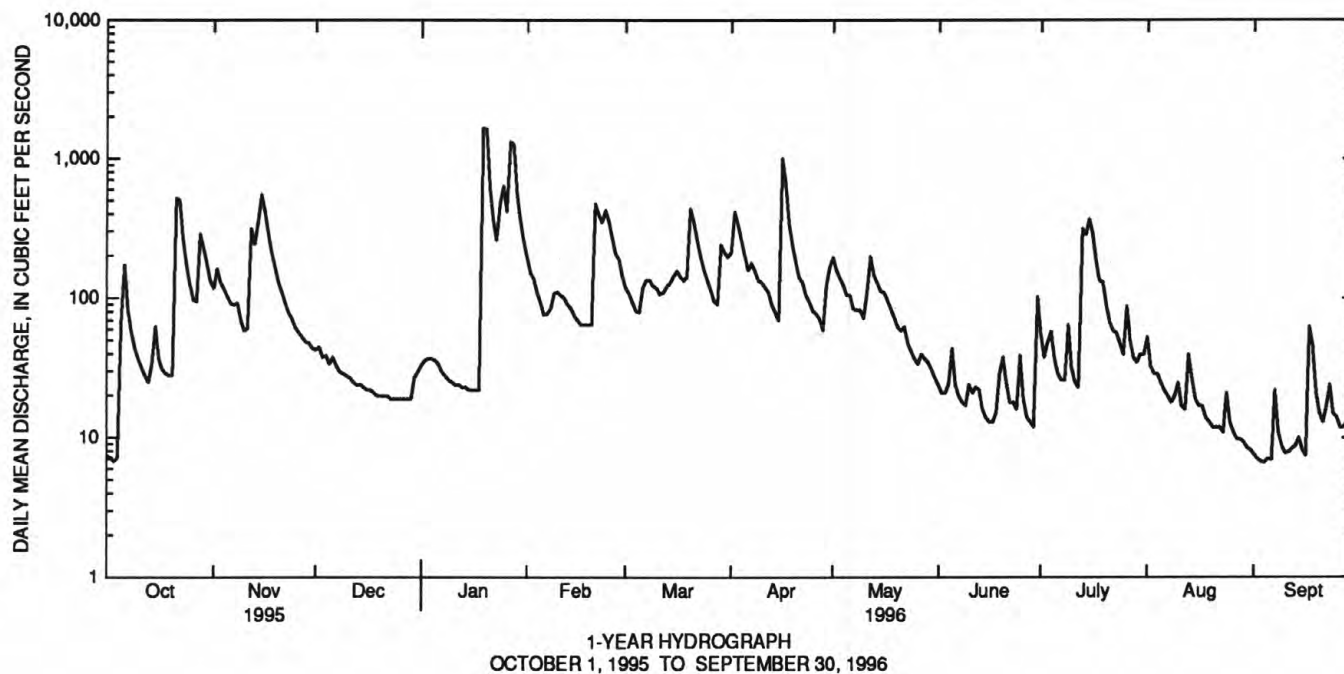
e Estimated.

LEHIGH RIVER BASIN

01451800 JORDAN CREEK NEAR SCHNECKSVILLE, PA--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1966 - 1996	
ANNUAL TOTAL	24803.3		41928.0		92.4	
ANNUAL MEAN	68.0		115		148	
HIGHEST ANNUAL MEAN					1978	
LOWEST ANNUAL MEAN					43.9	
HIGHEST DAILY MEAN	1040	Mar 9	1660	Jan 19	2800	Sep 9 1987
LOWEST DAILY MEAN	4.0	Sep 8	6.7	Sep 4	.60	Jul 26 1966
ANNUAL SEVEN-DAY MINIMUM	4.2	Sep 3	7.2	Aug 31	1.0	Jul 13 1966
INSTANTANEOUS PEAK FLOW			a4730	Jan 19	b7100	Jun 22 1972
INSTANTANEOUS PEAK STAGE			10.34	Jan 19	c12.32	Jun 22 1972
INSTANTANEOUS LOW FLOW					.40	Jul 26 1966
ANNUAL RUNOFF (CFSM)	1.28		2.16		1.74	
ANNUAL RUNOFF (INCHES)	17.41		29.43		23.69	
10 PERCENT EXCEEDS	152		266		205	
50 PERCENT EXCEEDS	34		56		47	
90 PERCENT EXCEEDS	8.7		13		10	

- a From rating curve extended above 1,300 ft³/s on basis of contracted-opening measurement of peak flow.
b From rating curve extended above 680 ft³/s on basis of contracted-opening measurement of peak flow.
c From floodmark.



LEHIGH RIVER BASIN

01452000 JORDAN CREEK AT ALLENTOWN, PA

LOCATION.--Lat 40°37'23", long 75°28'58", Lehigh County, Hydrologic Unit 02040106, on right bank 200 ft upstream from bridge on State Highway 145, 0.5 mi northwest of city limits of Allentown, and 2.5 mi upstream from mouth.

DRAINAGE AREA.--75.8 mi².

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

REVISED RECORDS.--WDR PA-76-1: 1970(M), 1971.

GAGE.--Water-stage recorder and rubble masonry control. Crest raised 1 ft in August 1958 and further modified filling in square notches on sides and notching center of dam at 17:1 slope in August 1974. Datum of gage is 259.82 ft above sea level (Pennsylvania Department of Transportation datum).

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

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 23, 1942, reached a stage of approximately 7.1 ft, from flood-marks 650 ft downstream.

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	Unknown	Unknown	Unknown	Jan. 28	0130	5,710	7.15
Jan. 20	0230	*6,950	*7.68	Apr. 16	1300	2,220	5.48

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	9.6	140	54	41	282	151	224	263	38	93	69	11
2	9.4	178	59	46	237	136	535	210	35	55	51	10
3	9.3	168	52	47	182	121	444	184	33	61	41	10
4	9.8	144	52	45	157	91	327	166	37	81	41	e9.0
5	42	128	47	39	122	99	250	147	56	53	37	e9.0
6	212	115	48	35	e110	128	195	141	41	41	33	e9.0
7	113	107	e47	30	e105	157	188	123	33	35	30	e15
8	79	120	e48	25	e120	144	203	116	31	35	28	e22
9	59	91	e42	e24	e145	118	159	112	30	80	27	e12
10	49	76	e40	e24	e145	122	162	106	30	49	33	e10
11	41	82	e38	e23	e130	122	143	109	34	36	28	10
12	34	341	e37	e23	e125	127	133	241	30	31	24	9.8
13	31	303	e36	e23	e115	138	123	187	36	275	38	10
14	31	384	e35	e23	e110	150	115	169	28	346	45	9.4
15	70	716	e34	e22	e95	158	103	151	25	441	29	9.4
16	51	569	e34	e22	e90	186	1410	144	22	351	25	10
17	38	372	e33	e22	e85	167	925	137	30	231	24	58
18	35	272	e32	e22	e80	161	466	118	23	179	23	65
19	33	212	e32	1130	77	151	321	108	30	166	20	34
20	e32	169	e31	4700	106	450	253	94	54	133	18	22
21	e700	143	e31	1070	576	410	209	85	37	100	17	18
22	692	120	e30	518	585	309	173	88	30	85	17	21
23	330	102	e30	363	505	236	152	74	26	83	17	27
24	221	93	e30	570	584	188	132	65	28	74	21	22
25	167	79	e30	1010	554	161	116	57	42	63	23	18
26	130	73	e30	614	404	142	111	52	31	98	17	16
27	108	69	e30	1880	312	117	105	56	23	82	15	14
28	285	64	e30	3380	285	107	89	56	20	58	14	25
29	271	63	e32	974	e210	229	140	52	18	51	14	32
30	208	59	35	536	---	247	186	48	89	55	12	29
31	164	---	37	382	---	226	---	42	---	58	11	---
TOTAL	4264.1	5552	1176	17663	6633	5449	8092	3701	1020	3579	842	576.6
MEAN	138	185	37.9	570	229	176	270	119	34.0	115	27.2	19.2
MAX	700	716	59	4700	585	450	1410	263	89	441	69	65
MIN	9.3	59	30	22	77	91	89	42	18	31	11	9.0
CFSM	1.81	2.44	.50	7.52	3.02	2.32	3.56	1.58	.45	1.52	.36	.25
IN.	2.09	2.72	.58	8.67	3.26	2.67	3.97	1.82	.50	1.76	.41	.28

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

	MEAN	62.8	113	147	149	163	212	174	121	76.7	55.3	52.7	61.8
MAX	304	321	513	570	354	791	551	438	517	255	326	449	
(WY)	1956	1971	1984	1996	1951	1994	1983	1989	1972	1945	1955	1987	
MIN	3.93	8.62	20.7	8.45	34.3	55.0	38.0	22.3	5.89	1.21	1.81	2.83	
(WY)	1964	1965	1981	1981	1980	1985	1985	1965	1965	1966	1966	1964	

e Estimated.

LEHIGH RIVER BASIN

01452000 JORDAN CREEK AT ALLENTOWN, PA--Continued

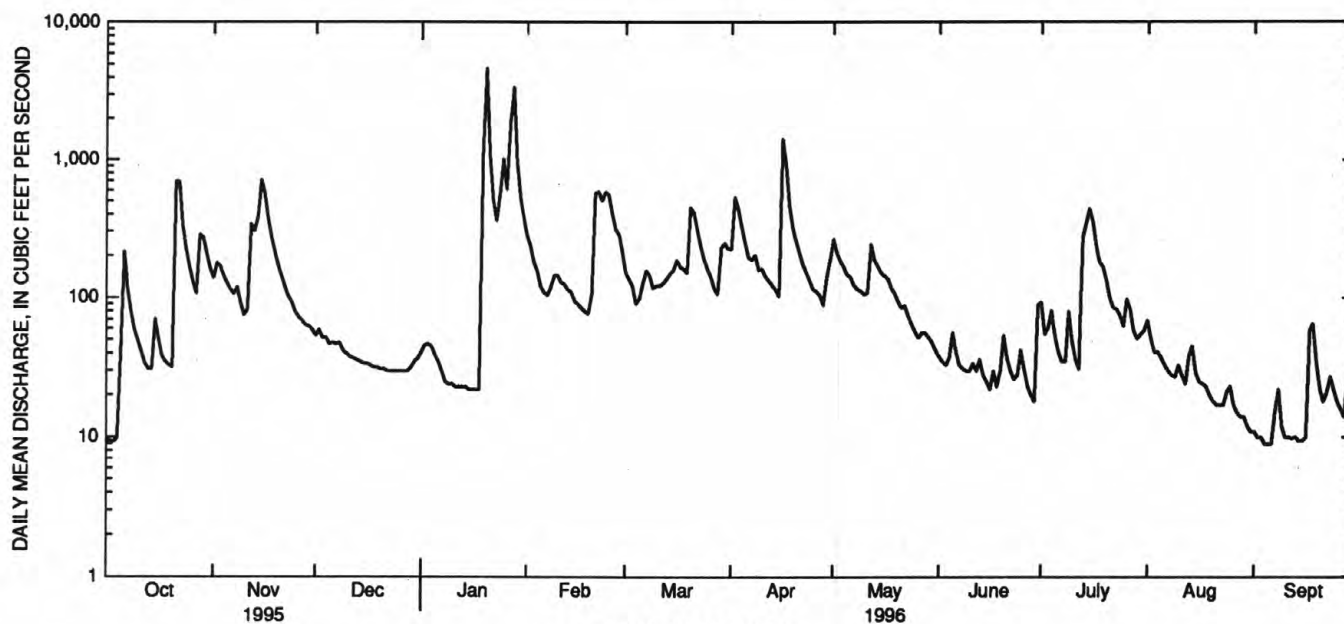
SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1945 - 1996	
ANNUAL TOTAL	32993.9		58547.7		115	
ANNUAL MEAN	90.4		160		203	1984
HIGHEST ANNUAL MEAN					44.9	1965
LOWEST ANNUAL MEAN					6650	Sep 9 1987
HIGHEST DAILY MEAN	1890	Mar 9	4700	Jan 20	.00	Jul 7 1966
LOWEST DAILY MEAN	7.6	Sep 16	e9.0	Sep 4-6	.06	Jul 9 1966
ANNUAL SEVEN-DAY MINIMUM	8.0	Sep 10	a9.8	Sep 10		
INSTANTANEOUS PEAK FLOW			b6950	Jan 20	b16200	Jun 23 1972
INSTANTANEOUS PEAK STAGE			7.68	Jan 20	c11.61	Jun 23 1972
ANNUAL RUNOFF (CFSM)	1.19		2.11		1.52	
ANNUAL RUNOFF (INCHES)	16.19		28.73		20.69	
10 PERCENT EXCEEDS	193		333		250	
50 PERCENT EXCEEDS	47		73		61	
90 PERCENT EXCEEDS	9.7		21		12	

a Computed using estimated daily discharges.

b From rating curve extended above 6,100 ft³/s, on basis of slope-area measurement of peak flow.

c From floodmark.

e Estimated.



1-YEAR HYDROGRAPH
OCTOBER 1, 1995 TO SEPTEMBER 30, 1996

LEHIGH RIVER BASIN

01452500 MONOCACY CREEK AT BETHLEHEM, PA

LOCATION.--Lat 40°38'28", long 75°22'47", Northampton County, Hydrologic Unit 02040106, on right bank 40 ft downstream from highway bridge at entrance to Monocacy Park at Bethlehem, and 2.1 mi upstream from mouth.

DRAINAGE AREA.--44.5 mi².

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

GAGE.--Water-stage recorder. Concrete control since July 17, 1969. Datum of gage is 247.24 ft above sea level (levels by U.S. Army Corps of Engineers). Prior to May 15, 1962, nonrecording gage at site 40 ft upstream at same datum.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Some regulation at low flow since April 1954 by mill upstream. Several measurements of water temperature were made during the year. Satellite telemetry at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 10, 1945, reached a stage of 9.74 ft, from floodmarks, discharge, 5,200 ft³/s, by slope-area measurement.

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	1200	401	3.68	Jan. 28	0030	781	4.47
Jan. 19	1530	*799	*4.50	Apr. 16	0830	503	3.92
Jan. 20	1600	317	3.47	July 13	1330	341	3.53
Jan. 24	1930	349	3.55				

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	19	40	35	27	114	82	106	129	56	62	e52	31
2	18	53	34	e26	102	80	205	113	56	55	50	29
3	18	45	33	e23	e85	77	167	106	54	66	51	28
4	18	41	33	e21	e75	70	145	100	54	58	47	30
5	72	39	33	e18	e65	71	128	93	61	53	45	31
6	67	37	35	e18	e60	82	115	97	51	49	44	32
7	32	39	35	e18	e70	84	115	90	52	49	45	45
8	28	41	34	e18	74	80	117	88	52	51	43	32
9	26	36	35	e19	e78	e65	104	88	65	54	44	31
10	23	36	e33	e19	e85	e60	100	84	68	48	43	30
11	22	47	e29	e17	e80	e65	94	96	58	46	42	29
12	22	112	e27	e18	e75	73	90	135	56	46	43	30
13	23	76	e27	e20	e60	75	88	115	54	184	e48	30
14	27	102	e28	e19	e65	76	85	107	52	110	44	30
15	33	130	31	e18	e65	80	82	99	51	117	43	29
16	24	112	32	e18	e65	84	348	97	50	91	42	29
17	22	91	32	e19	e60	79	238	95	56	79	41	66
18	23	77	31	e23	e55	79	174	91	56	73	40	46
19	23	67	e27	e330	e55	76	145	86	57	78	38	35
20	23	59	e25	e280	65	90	127	80	57	65	38	32
21	163	54	e23	203	132	81	114	78	57	60	38	31
22	117	49	e24	156	122	77	105	74	64	58	37	37
23	68	46	e26	115	119	75	99	70	68	62	37	33
24	51	43	e27	185	135	73	93	66	56	59	34	32
25	42	40	e25	218	129	74	88	63	60	56	33	31
26	36	39	e23	159	114	72	86	61	52	61	33	30
27	35	37	e24	384	103	69	83	62	50	56	32	e32
28	91	36	e25	401	99	69	78	61	49	52	32	e34
29	57	36	e25	242	88	104	102	61	48	52	32	e38
30	50	36	e24	175	---	95	126	59	87	51	31	e35
31	44	---	e25	141	---	91	---	58	---	56	33	---
TOTAL	1317	1696	900	3348	2494	2408	3747	2702	1707	2057	1255	1008
MEAN	42.5	56.5	29.0	108	86.0	77.7	125	87.2	56.9	66.4	40.5	33.6
MAX	163	130	35	401	135	104	348	135	87	184	52	66
MIN	18	36	23	17	55	60	78	58	48	46	31	28
CFSM	.95	1.27	.65	2.43	1.93	1.75	2.81	1.96	1.28	1.49	.91	.76
IN.	1.10	1.42	.75	2.80	2.08	2.01	3.13	2.26	1.43	1.72	1.05	.84

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1949 - 1996, BY WATER YEAR (WY)

	MEAN	38.3	46.0	54.0	58.7	64.6	75.0	75.2	58.5	50.7	44.8	40.4	38.8
MAX	93.3	110	119	201	163	216	181	129	142	141	88.2	106	
(WY)	1976	1973	1978	1979	1979	1994	1994	1984	1972	1984	1984	1987	
MIN	8.90	10.0	6.88	7.14	21.0	21.3	18.6	16.2	15.0	11.6	10.6	9.51	
(WY)	1966	1966	1966	1966	1992	1965	1966	1965	1965	1966	1965	1965	

e Estimated.

LEHIGH RIVER BASIN

01452500 MONOCACY CREEK AT BETHLEHEM, PA--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1949 - 1996	
ANNUAL TOTAL	16448		24639		53.7	
ANNUAL MEAN	45.1		67.3		89.7	
HIGHEST ANNUAL MEAN					15.5	
LOWEST ANNUAL MEAN					1200	
HIGHEST DAILY MEAN	e220	Jan 20	401	Jan 28	5.2	Jan 26 1978
LOWEST DAILY MEAN	a18	Sep 7 ^b	e17	Jan 11	5.9	Jan 1 1966
ANNUAL SEVEN-DAY MINIMUM	19	Sep 28	c18	Jan 5	5.9	Dec 27 1965
INSTANTANEOUS PEAK FLOW			d799	Jan 19	d3490	Jan 25 1979
INSTANTANEOUS PEAK STAGE			4.50	Jan 19	8.19	Jan 25 1979
INSTANTANEOUS LOW FLOW			a18	Oct 1-5	3.0	Jan 9 1966
ANNUAL RUNOFF (CFSM)	1.01		1.51		1.21	
ANNUAL RUNOFF (INCHES)	13.75		20.60		16.39	
10 PERCENT EXCEEDS	75		115		97	
50 PERCENT EXCEEDS	37		56		42	
90 PERCENT EXCEEDS	21		25		21	

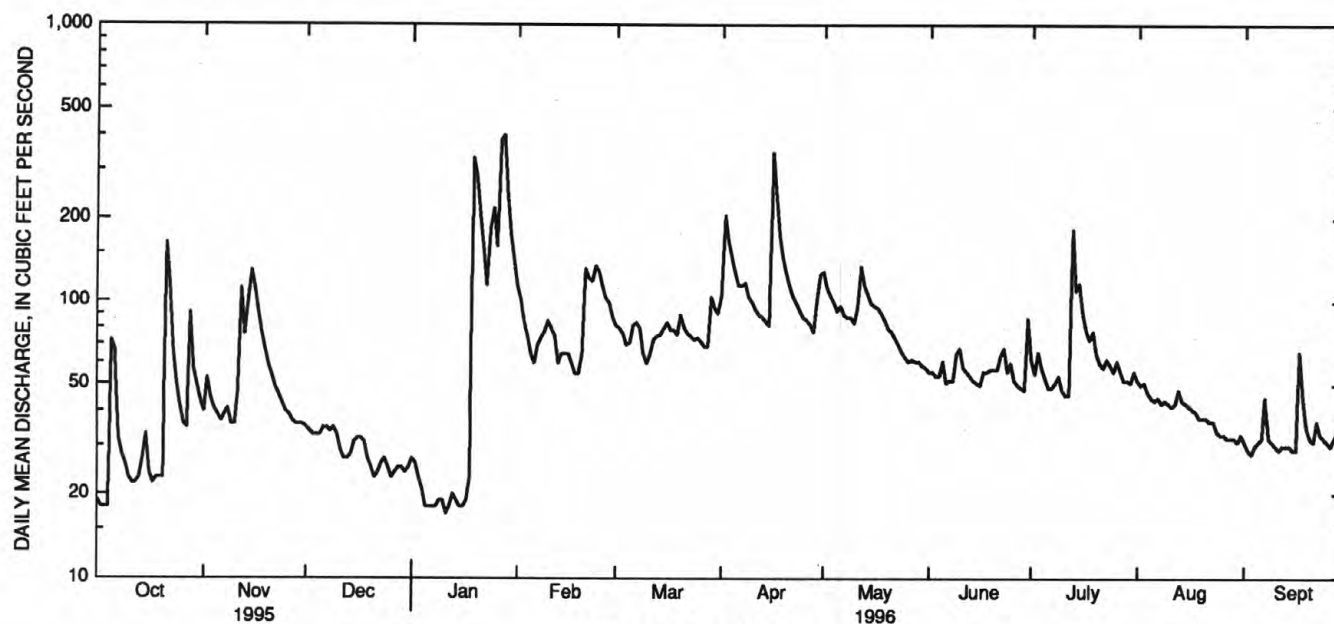
a Lowest recorded value; could have been lower during ice affected record in January.

b Also Sept. 8, 12, 15, Oct. 1-5

c Computed using estimated daily discharges.

d From rating curve extended above 440 ft³/s on basis of slope-area measurement at gage height 5.47 and at peak flow.

e Estimated.



1-YEAR HYDROGRAPH
OCTOBER 1, 1995 TO SEPTEMBER 30, 1996

LEHIGH RIVER BASIN

01453000 LEHIGH RIVER AT BETHLEHEM, PA

LOCATION.--Lat 40°36'55", long 75°22'45", Lehigh County, Hydrologic Unit 02040106, on left bank 110 ft upstream from bridge on New Street at Bethlehem, and 1,800 ft upstream from Monocacy Creek. Records include flow of Monocacy Creek.

DRAINAGE AREA.--1,279 mi² (includes that of Monocacy Creek). At site used prior to Oct. 1, 1928, 1,229 mi².

PERIOD OF RECORD.--October 1902 to January 1905, May 1909 to current year. Monthly discharge only for some periods, published in WSP 1302. Published as "at South Bethlehem" prior to October 1913.

REVISED RECORDS.--WSP 261: 1903-5. WSP 321: 1910-11. WSP 1051: Drainage area. WSP 1141: 1929-34(M). WSP 1302: 1914(M), 1916(M), 1918, 1921, 1927-28. WSP 1432: 1903, 1919(M), 1920-21, 1929, 1933.

GAGE.--Water-stage recorder. Datum of gage is 210.94 ft above sea level. Prior to October 1928, nonrecording gage at New Street bridge 120 ft downstream at same datum. Oct. 1, 1928, to Sept. 30, 1962, water-stage recorder at site 4,250 ft downstream at datum 2.49 ft lower. Oct. 1, 1963, to Dec. 14, 1975, water-stage recorder at site 40 ft downstream at same datum.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Flow regulated by Wild Creek Reservoir (station 01449700) since January 1941, Penn Forest Reservoir (station 01449400) since October 1958, Francis E. Walter Reservoir (station 01447780) since February 1961, and Beltzville Lake (station 01449790) since February 1971. Satellite telemetry at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Feb. 28, 1902 reached a stage of 24.9 ft, from floodmark, present site and datum, discharge, about 88,000 ft³/s.

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	429	2390	2590	1270	7030	4120	3830	8390	1640	2340	2200	817
2	410	2650	2280	1280	5830	3740	6330	8320	1610	2120	1890	758
3	411	2690	2140	1300	5350	3490	5040	7400	1440	1910	1900	691
4	487	2410	2120	1140	4880	3200	4540	5530	1410	1780	1910	679
5	1290	2260	2130	1060	4380	2850	4010	4880	1690	1780	1710	690
6	2110	2160	2230	989	3690	3290	3740	4400	1600	1710	1640	702
7	1450	1930	2140	e830	2820	4070	3730	4110	1530	1530	2010	923
8	1170	1850	1910	e770	2940	3980	4000	3890	1530	1510	1560	1060
9	930	1770	1810	e850	3110	3340	3510	3960	1700	2290	1300	981
10	913	1630	1730	e800	3060	3110	3470	3710	1660	1850	1510	961
11	821	1610	e1480	e820	2910	3070	3180	3580	1850	1410	1480	829
12	692	6160	e1420	e850	2940	2850	3020	6300	2590	1260	1260	724
13	626	4970	1370	e900	2850	3010	3060	6190	2470	3940	1520	696
14	684	7580	1400	947	2460	3170	3200	5590	1810	6110	1600	717
15	1160	8010	1510	939	2320	3300	3210	4960	1580	7540	1290	712
16	1140	7480	1720	843	2160	3660	10400	4500	1520	6100	1240	678
17	1000	6270	1710	858	1990	3520	10400	3910	1550	4890	1320	1400
18	1010	4780	1600	1100	1910	3440	9780	3470	1550	4020	1340	1440
19	868	4340	e1630	12600	1780	3370	7720	3290	1520	3180	1120	1310
20	759	4030	1340	29500	1950	5600	5960	3010	1750	2910	977	1210
21	4070	3580	1330	13900	5180	6740	5240	2850	1730	2580	953	1080
22	7500	3330	1450	14200	6360	6060	4570	2680	1590	2410	984	1350
23	5380	3090	1440	12900	6490	4700	3970	2530	1910	2090	986	1270
24	5800	2950	1420	13400	6550	4070	3740	2500	2150	1880	1130	893
25	3890	2650	1420	12600	6400	3850	3850	2340	2120	1870	1160	830
26	3180	2490	1320	10400	6020	4110	3660	2220	1630	2270	967	942
27	2730	2420	1080	18200	6510	3310	3330	2150	1320	2620	886	925
28	3700	2260	1200	24700	5410	2990	3200	2120	1190	2510	858	1190
29	3100	2320	1130	19700	4600	3890	3580	1950	1170	2480	839	1460
30	2700	2580	1090	15800	---	4200	4570	1790	2080	2470	804	1320
31	2500	---	1230	11600	---	3800	---	1680	---	2340	789	---
TOTAL	62910	104640	50370	227046	119880	117900	141840	124200	50890	85700	41133	29238
MEAN	2029	3488	1625	7324	4134	3803	4728	4006	1696	2765	1327	975
MAX	7500	8010	2590	29500	7030	6740	10400	8390	2590	7540	2200	1460
MIN	410	1610	1080	770	1780	2850	3020	1680	1170	1260	789	678
CFSM	1.59	2.73	1.27	5.73	3.23	2.97	3.70	3.13	1.33	2.16	1.04	.76
IN.	1.83	3.04	1.47	6.60	3.49	3.43	4.13	3.61	1.48	2.49	1.20	.85

e Estimated.

LEHIGH RIVER BASIN

01453000 LEHIGH RIVER AT BETHLEHEM, PA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1941 - 1996, BY WATER YEAR (WY) (SINCE REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	1555	2346	2856	2671	2765	3841	3957	3103	2067	1654	1342	1373
MAX	5778	5294	6991	7898	5820	7708	10180	7041	7272	6362	6192	6907
(WY)	1956	1952	1984	1979	1951	1977	1993	1989	1972	1945	1955	1987
MIN	406	474	514	286	1132	1632	1428	1053	681	366	405	334
(WY)	1964	1965	1981	1981	1980	1981	1985	1941	1965	1965	1964	1964

SUMMARY STATISTICS FOR 1995 CALENDAR YEAR FOR 1996 WATER YEAR WATER YEARS 1941 - 1996

ANNUAL TOTAL	702926	1155747	
ANNUAL MEAN	1926	3158	2459
HIGHEST ANNUAL MEAN			3973
LOWEST ANNUAL MEAN			1165
HIGHEST DAILY MEAN	9460	Mar 9	29500
LOWEST DAILY MEAN	381	Sep 16	410
ANNUAL SEVEN-DAY MINIMUM	444	Sep 15	732
INSTANTANEOUS PEAK FLOW			44900
INSTANTANEOUS PEAK STAGE			16.68
INSTANTANEOUS LOW FLOW			400
ANNUAL RUNOFF (CFSM)	1.51	2.47	1.92
ANNUAL RUNOFF (INCHES)	20.44	33.62	26.12
10 PERCENT EXCEEDS	3600	6170	4860
50 PERCENT EXCEEDS	1520	2180	1770
90 PERCENT EXCEEDS	644	891	685

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1903-1904, 1909-1940, BY WATER YEAR (WY) (PRIOR TO REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	1532	1827	2184	2346	2430	4134	3815	2280	1753	1530	1239	1214
MAX	4808	5660	5287	5287	5913	11920	7547	3681	4255	5182	4599	6407
(WY)	1903	1927	1939	1915	1915	1936	1940	1924	1928	1935	1933	1933
MIN	308	370	470	677	668	1887	1499	1020	832	572	428	374
(WY)	1911	1910	1931	1925	1934	1911	1915	1926	1921	1912	1910	1932

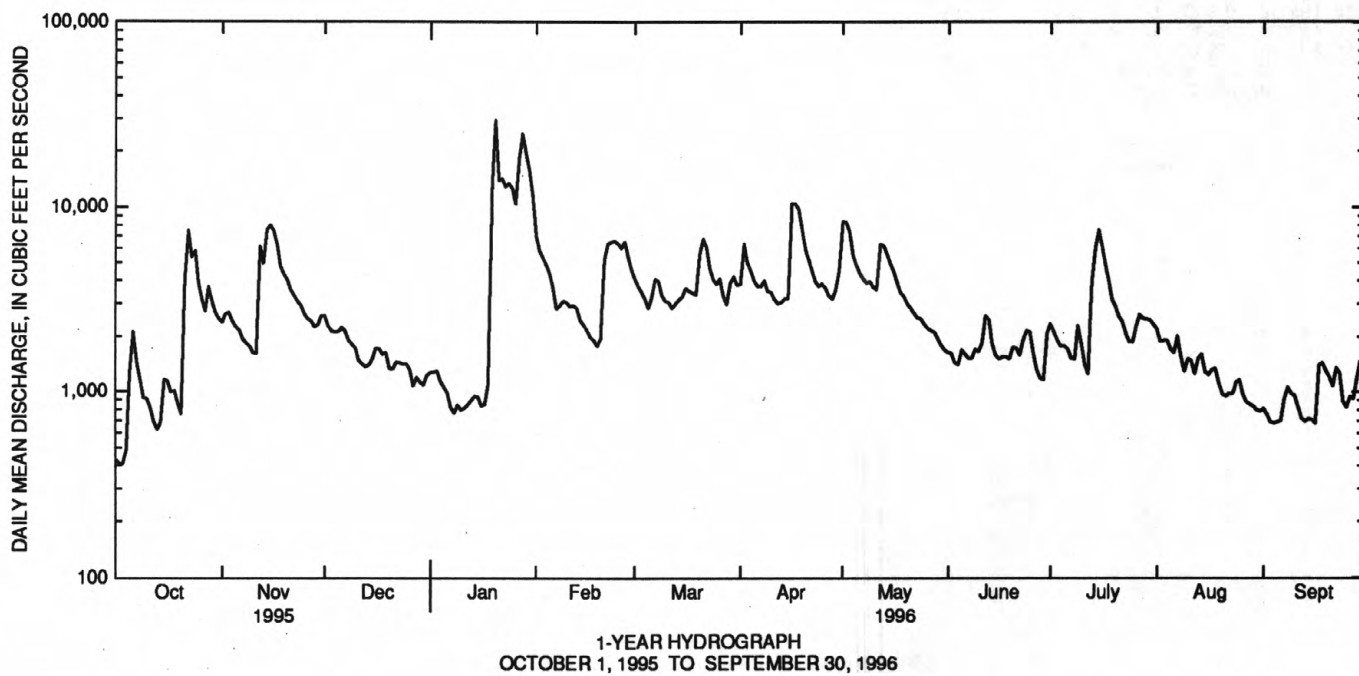
SUMMARY STATISTICS WATER YEARS 1903 - 1904 1909 - 1940

ANNUAL MEAN	2189	
HIGHEST ANNUAL MEAN	3600	1928
LOWEST ANNUAL MEAN	1262	1931
HIGHEST DAILY MEAN	47900	Aug 24 1933
LOWEST DAILY MEAN	160	Oct 15 1910
ANNUAL SEVEN-DAY MINIMUM	260	Oct 13 1910
INSTANTANEOUS PEAK FLOW	64800	Aug 24 1933
INSTANTANEOUS PEAK STAGE	18.70	Aug 24 1933
INSTANTANEOUS LOW FLOW	160	Oct 15 1910
ANNUAL RUNOFF (CFSM)	1.71	
ANNUAL RUNOFF (INCHES)	23.25	
10 PERCENT EXCEEDS	4420	
50 PERCENT EXCEEDS	1500	
90 PERCENT EXCEEDS	548	

- a From rating curve extended above 48,000 ft³/s.
b From floodmark, present site and datum.

LEHIGH RIVER BASIN

01453000 LEHIGH RIVER AT BETHLEHEM, PA--Continued



LEHIGH RIVER BASIN

01454700 LEHIGH RIVER AT GLENDON, PA

LOCATION.--Lat 40°40'09", long 75°14'12", Northampton County, Hydrologic Unit 02040106, on right bank 140 ft upstream from highway bridge in Hugh Moore Parkway at Glendon, 1.9 mi upstream from mouth, and 2.0 mi southwest of Easton.

DRAINAGE AREA.--1,359 mi².

PERIOD OF RECORD.--October 1966 to current year.

REVISED RECORDS.--WDR PA-72-1: 1971(M).

GAGE.--Water-stage recorder. Datum of gage is 164.30 ft above sea level.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Flow regulated by Francis E. Walter Reservoir (station 01447780), Penn Forest Reservoir (station 01449400), Wild Creek Reservoir (station 01449700), and since February 1971, by Beltzville Lake (station 01449790) about 60 mi upstream.

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	525	2580	2790	1350	8350	4920	4560	9710	1850	2730	2550	920
2	503	2910	2460	1370	6960	4480	8070	9690	1830	2390	2140	864
3	503	2970	2270	1390	6310	4130	6110	8690	1630	2190	2290	808
4	555	2580	2250	1220	5850	3770	5480	6550	1600	2050	2230	797
5	1620	2400	2260	1150	5320	3400	4870	5850	2000	1950	1930	802
6	2650	2290	2370	1070	4470	3880	4500	5320	1810	1890	1800	812
7	1600	2080	2280	e1000	3490	4910	4540	4960	1690	1670	2180	1050
8	1260	1970	2030	e920	3510	4780	4890	4690	1660	1640	1840	1180
9	990	1860	1920	e900	3800	4000	4240	4740	1930	3000	1470	1070
10	968	1720	1820	e900	3740	3680	4190	4450	1950	2150	1640	1070
11	897	1670	1580	e900	3530	3610	3830	4290	2070	1560	1660	941
12	777	6820	1510	e900	3560	3370	3620	7290	2900	1370	1410	840
13	724	5690	1450	e1000	3420	3530	3670	7220	2810	5040	1660	834
14	817	8160	1490	1300	2970	3740	3820	6550	2090	7410	1830	853
15	1360	8880	1590	1280	2750	3890	3810	5920	1740	8570	1450	821
16	1270	8270	1820	1180	2560	4320	13300	5400	1660	7210	1370	741
17	1050	6980	1810	1170	2350	4120	12200	4740	1760	5800	1450	1700
18	1080	5450	1700	1440	2240	4020	11300	4130	1780	4840	1490	1750
19	959	4910	1720	12900	2100	3920	9070	3900	1720	3860	1250	1380
20	858	4550	1470	38800	2280	6530	7090	3560	1980	3450	1100	1310
21	4470	4050	1400	17900	6130	7760	6290	3360	1960	2990	1070	1120
22	8760	3720	1530	15400	7510	7030	5570	3140	1810	2760	1090	1490
23	5860	3410	1530	14800	7620	5580	4880	2930	2200	2440	1090	1430
24	6300	3260	1490	15500	7790	4810	4580	2900	2380	2130	1330	1000
25	4440	2900	1490	14900	7550	4530	4650	2660	2500	2090	1290	910
26	3520	2660	1410	12100	6930	4840	4400	2520	1860	2530	1090	1020
27	2980	2580	1170	18800	7650	3890	3980	2430	1490	3040	1000	1010
28	4540	2410	1270	28300	6410	3500	3810	2380	1320	2840	976	1310
29	3550	2470	1210	20100	5520	4760	4450	2220	1290	2810	952	2100
30	2980	2750	1170	17300	---	5090	5740	2040	2460	2840	911	1470
31	2700	---	1290	13600	---	4530	---	1910	---	2790	898	---
TOTAL	71066	114950	53550	260840	142670	139320	171510	146140	57730	100030	46437	33403
MEAN	2292	3832	1727	8414	4920	4494	5717	4714	1924	3227	1498	1113
MAX	8760	8880	2790	38800	8350	7760	13300	9710	2900	8570	2550	2100
MIN	503	1670	1170	900	2100	3370	3620	1910	1290	1370	898	741

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

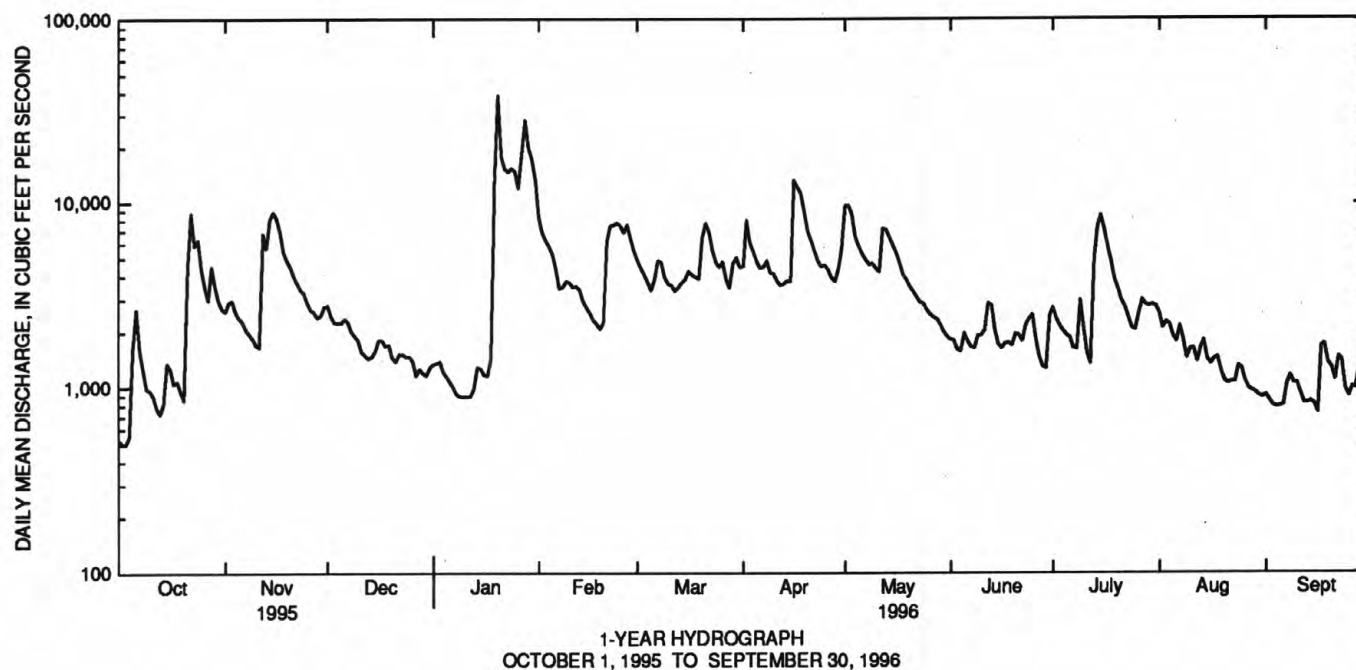
	1948	2760	3389	3090	3256	4309	4586	3522	2578	1942	1527	1705
MEAN	1948	2760	3389	3090	3256	4309	4586	3522	2578	1942	1527	1705
MAX	5272	5438	7790	8414	5385	8344	10810	8542	7607	4641	4179	7920
(WY)	1977	1971	1984	1996	1976	1977	1993	1989	1972	1984	1969	1987
MIN	771	835	633	405	1278	1805	1639	1502	1104	811	711	660
(WY)	1981	1985	1981	1981	1980	1981	1985	1995	1987	1991	1980	1983

e Estimated.

LEHIGH RIVER BASIN

01454700 LEHIGH RIVER AT GLENDON, PA--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1967 - 1996	
ANNUAL TOTAL	773453		1337646		2881	
ANNUAL MEAN	2119		3655		3997	1984
HIGHEST ANNUAL MEAN					1594	1985
LOWEST ANNUAL MEAN					44300	Jun 23 1972
HIGHEST DAILY MEAN	11500	Mar 9	38800	Jan 20	330	Jan 31 1981 ^a
LOWEST DAILY MEAN	482	Sep 16	503	Oct 2-3	349	Jan 26 1981
ANNUAL SEVEN-DAY MINIMUM	539	Sep 16	843	Aug 31	b60600	Jun 23 1972
INSTANTANEOUS PEAK FLOW			b39900	Jan 20	24.86	Jun 23 1972
INSTANTANEOUS PEAK STAGE			20.50	Jan 20		
10 PERCENT EXCEEDS	4180		7210		5730	
50 PERCENT EXCEEDS	1600		2460		2090	
90 PERCENT EXCEEDS	723		1000		900	

^a Also Feb. 1, 1981.^b From rating curve extended above 36,000 ft³/s.

LOCATION.--Lat 40°41'12", long 75°12'32", Northampton County, Hydrologic Unit 02040106, near bridge on U.S. Highway 611 in Easton.

PERIOD OF RECORD.--October 1961 to current year.

SPECIFIC CONDUCTANCE: October 1963 to current year.
pH: November 1972 to current year.
WATER TEMPERATURE: October 1961 to current year.
DISSOLVED OXYGEN: June 1966 to current year.

REMARKS.--Beginning with the 1978 water year, no data were recorded during the months of October through March. Interruptions in the record were due to malfunctions of the recording instrument.

SPECIFIC CONDUCTANCE: Maximum, 581 microsiemens, Aug. 19, 1963; minimum, 70 microsiemens, Nov. 14, 1970.
pH: Maximum, 8.7, July 18, 19, 1991; minimum, 6.0, Mar. 16, 1978.
WATER TEMPERATURE: Maximum, 30.5°C, July 29, 1970, July 21, 1980; minimum, 0.0°C, many days during winter periods.
DISSOLVED OXYGEN: Maximum, 15.7 mg/L, Apr. 14, 1986; minimum, 0.0 mg/L, Aug. 4, 1966.

DAY	MAX	MIN	MEAN		MAX	MIN	MEAN		MAX	MIN	MEAN		MAX	MIN	MEAN		
OCTOBER					NOVEMBER					DECEMBER					JANUARY		
1	405	391	396		---	---	---		---	---	---		---	---	---		
2	400	388	394		---	---	---		---	---	---		---	---	---		
3	399	387	393		---	---	---		---	---	---		---	---	---		
4	421	395	407		---	---	---		---	---	---		---	---	---		
5	430	402	418		---	---	---		---	---	---		---	---	---		
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	430	387	402		---	---	---		---	---	---		---	---	---		

LEHIGH RIVER BASIN

01454720 LEHIGH RIVER AT EASTON, PA--Continued

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25° CELSIUS, 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	---	---	---	---	---	---	193	168	187	179	126	144
2	---	---	---	---	---	---	188	172	177	131	121	125
3	---	---	---	---	---	---	193	175	185	134	124	128
4	---	---	---	---	---	---	195	189	192	157	133	146
5	---	---	---	---	---	---	195	191	193	162	155	157
6	---	---	---	---	---	---	195	190	192	170	160	165
7	---	---	---	---	---	---	194	186	190	171	164	168
8	---	---	---	---	---	---	190	181	186	176	166	171
9	---	---	---	---	---	---	198	190	195	181	169	175
10	---	---	---	---	---	---	198	192	196	189	179	181
11	---	---	---	---	---	---	210	195	200	196	188	191
12	---	---	---	---	---	---	220	209	214	201	148	173
13	---	---	---	---	---	---	221	214	218	150	137	144
14	---	---	---	---	---	---	214	200	207	150	144	146
15	---	---	---	---	---	---	203	192	197	156	144	150
16	---	---	---	---	---	---	194	132	159	160	149	154
17	---	---	---	---	---	---	141	134	138	168	156	159
18	---	---	---	---	---	---	140	126	132	179	168	172
19	---	---	---	---	---	---	146	134	141	180	174	178
20	---	---	---	---	---	---	165	144	153	198	180	189
21	---	---	---	---	---	---	169	161	164	213	196	206
22	---	---	---	---	---	---	179	163	169	221	213	217
23	---	---	---	---	---	---	197	171	180	232	221	228
24	---	---	---	---	---	---	198	187	195	236	227	231
25	---	---	---	---	---	---	187	175	181	237	229	233
26	---	---	---	---	---	---	180	174	179	239	231	235
27	---	---	---	185	163	173	190	179	184	236	229	233
28	---	---	---	203	183	186	191	183	187	253	232	243
29	---	---	---	206	182	196	189	176	183	251	243	247
30	---	---	---	201	186	192	189	166	178	264	249	258
31	---	---	---	201	192	197	---	---	---	279	259	269
MONTH	---	---	---	206	163	189	221	126	182	279	121	188

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	292	273	283	249	217	234	233	215	228	388	378	382
2	293	286	289	244	217	233	252	229	245	380	362	369
3	297	283	291	246	234	240	260	248	253	376	362	370
4	320	291	306	251	237	244	263	240	249	388	372	380
5	315	295	308	269	246	263	253	240	247	415	381	401
6	301	279	288	261	251	255	275	252	264	430	410	418
7	290	274	281	270	251	261	277	246	270	420	408	415
8	291	281	286	278	266	271	246	236	241	408	366	390
9	290	262	284	274	233	250	294	245	268	366	338	349
10	268	255	261	258	240	252	322	294	307	356	348	353
11	283	255	270	277	248	260	312	287	295	361	351	354
12	267	205	248	304	277	291	287	277	282	383	361	373
13	209	202	205	304	211	260	309	283	294	402	381	393
14	227	207	216	211	141	159	306	285	292	418	397	409
15	271	227	255	175	138	150	299	283	289	416	400	409
16	282	268	274	162	136	147	320	296	305	401	391	399
17	277	270	273	172	162	165	325	316	322	391	352	378
18	294	270	283	185	167	172	316	296	307	356	310	334
19	301	289	296	210	185	195	300	290	295	339	323	329
20	297	275	288	215	206	211	329	298	312	341	320	329
21	276	267	271	216	208	212	354	329	344	333	318	323
22	276	265	269	219	213	216	366	352	359	339	319	331
23	279	254	271	226	217	221	368	360	365	319	291	303
24	254	223	238	260	225	246	367	345	357	310	279	287
25	229	221	225	276	259	270	345	333	339	367	310	341
26	261	225	247	269	256	264	339	321	328	386	367	378
27	284	256	270	260	210	231	350	330	337	386	373	380
28	317	283	297	213	207	211	370	350	362	373	345	367
29	319	308	314	212	204	209	380	369	374	351	299	316
30	319	246	290	216	205	209	382	375	378	330	300	317
31	---	---	---	219	208	215	391	375	385	---	---	---
MONTH	320	202	273	304	136	226	391	215	306	430	279	363

LEHIGH RIVER BASIN

01454720 LEHIGH RIVER AT EASTON, PA--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	8.1	7.8	7.9	---	---	---	---	---	---	---	---	---
2	8.2	7.7	7.9	---	---	---	---	---	---	---	---	---
3	8.2	7.8	8.0	---	---	---	---	---	---	---	---	---
4	8.2	7.7	7.9	---	---	---	---	---	---	---	---	---
5	7.9	7.4	7.6	---	---	---	---	---	---	---	---	---
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	8.2	7.4	7.9	---	---	---	---	---	---	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	---	---	---	---	---	---	7.5	7.4	7.4	7.3	7.2	7.2
2	---	---	---	---	---	---	7.5	7.3	7.4	7.3	7.1	7.2
3	---	---	---	---	---	---	7.5	7.3	7.4	7.3	7.1	7.2
4	---	---	---	---	---	---	7.5	7.4	7.5	7.2	7.1	7.1
5	---	---	---	---	---	---	7.5	7.3	7.4	7.3	7.1	7.2
6	---	---	---	---	---	---	7.6	7.4	7.5	7.3	7.1	7.2
7	---	---	---	---	---	---	7.6	7.4	7.5	---	---	---
8	---	---	---	---	---	---	7.5	7.4	7.4	7.3	7.1	7.2
9	---	---	---	---	---	---	7.5	7.4	7.5	7.4	7.3	7.3
10	---	---	---	---	---	---	7.6	7.5	7.5	7.5	7.3	7.3
11	---	---	---	---	---	---	7.7	7.5	7.6	7.5	7.4	7.4
12	---	---	---	---	---	---	7.7	7.5	7.6	7.5	7.3	7.4
13	---	---	---	---	---	---	7.6	7.4	7.5	7.4	7.1	7.3
14	---	---	---	---	---	---	7.6	7.4	7.5	7.2	7.0	7.1
15	---	---	---	---	---	---	7.6	7.3	7.5	7.2	7.1	7.2
16	---	---	---	---	---	---	7.6	7.1	7.3	7.2	7.1	7.2
17	---	---	---	---	---	---	7.2	7.1	7.1	7.3	7.0	7.2
18	---	---	---	---	---	---	7.2	7.1	7.2	7.4	7.2	7.3
19	---	---	---	---	---	---	7.3	7.1	7.2	7.4	7.2	7.3
20	---	---	---	---	---	---	7.4	7.2	7.3	7.5	7.1	7.3
21	---	---	---	---	---	---	7.4	7.1	7.3	7.5	7.3	7.4
22	---	---	---	---	---	---	7.5	7.2	7.3	7.3	7.1	7.2
23	---	---	---	---	---	---	7.5	7.1	7.4	7.4	7.1	7.3
24	---	---	---	---	---	---	7.5	7.4	7.4	7.4	7.2	7.3
25	---	---	---	---	---	---	7.5	7.3	7.4	7.4	7.2	7.3
26	---	---	---	---	---	---	7.5	7.4	7.5	7.4	7.3	7.3
27	---	---	---	7.5	7.4	7.5	7.6	7.3	7.4	7.5	7.3	7.4
28	---	---	---	7.5	7.5	7.5	7.6	7.4	7.5	7.4	7.4	7.4
29	---	---	---	7.5	7.5	7.5	7.7	7.4	7.5	7.5	7.4	7.4
30	---	---	---	7.5	7.4	7.4	7.5	7.3	7.4	7.7	7.4	7.5
31	---	---	---	7.5	7.4	7.5	---	---	---	7.7	7.5	7.7
MONTH	---	---	---	7.5	7.4	7.5	7.7	7.1	7.4	7.7	7.0	7.3

LEHIGH RIVER BASIN

01454720 LEHIGH RIVER AT EASTON, PA--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
FEBRUARY			MARCH			APRIL			MAY			
1	---	---	---	---	---	---	9.5	8.5	9.0	13.0	12.0	12.5
2	---	---	---	---	---	---	8.5	8.0	8.5	13.5	12.5	13.0
3	---	---	---	---	---	---	9.0	8.0	8.5	13.0	12.0	12.5
4	---	---	---	---	---	---	10.0	8.5	9.5	12.5	12.0	12.5
5	---	---	---	---	---	---	10.0	9.0	9.5	14.5	12.5	13.5
6	---	---	---	---	---	---	9.5	8.5	9.0	14.5	13.5	14.0
7	---	---	---	---	---	---	9.0	8.0	8.5	13.5	12.5	13.0
8	---	---	---	---	---	---	8.0	7.5	8.0	14.0	12.5	13.5
9	---	---	---	---	---	---	8.0	7.0	7.5	14.0	13.5	13.5
10	---	---	---	---	---	---	7.5	6.5	7.0	14.5	13.0	13.5
11	---	---	---	---	---	---	9.5	7.0	8.0	16.0	14.0	15.0
12	---	---	---	---	---	---	12.5	9.5	10.5	16.0	14.0	15.0
13	---	---	---	---	---	---	13.0	12.0	12.5	14.0	12.5	13.0
14	---	---	---	---	---	---	13.0	11.5	12.0	13.0	11.5	12.5
15	---	---	---	---	---	---	11.5	10.0	10.5	13.5	12.0	13.0
16	---	---	---	---	---	---	10.5	9.0	9.5	13.0	12.5	12.5
17	---	---	---	---	---	---	9.0	8.0	8.5	13.5	12.0	12.5
18	---	---	---	---	---	---	9.5	8.0	8.5	15.5	13.5	14.5
19	---	---	---	---	---	---	10.5	9.5	10.0	18.0	15.5	16.5
20	---	---	---	---	---	---	11.5	10.0	10.5	21.0	18.0	19.5
21	---	---	---	---	---	---	13.0	11.5	12.0	21.5	20.0	21.0
22	---	---	---	---	---	---	14.5	12.5	13.5	21.0	20.0	20.5
23	---	---	---	---	---	---	16.5	14.0	15.0	20.0	18.5	19.5
24	---	---	---	---	---	---	16.0	14.5	15.5	19.5	18.5	19.0
25	---	---	---	---	---	---	14.5	13.5	13.5	19.5	18.0	19.0
26	---	---	---	---	---	---	13.5	13.0	13.5	19.0	17.0	18.0
27	---	---	---	9.0	8.0	8.5	14.0	13.0	13.5	17.0	16.0	16.5
28	---	---	---	8.0	6.0	7.0	14.0	12.5	13.5	16.0	15.0	15.5
29	---	---	---	6.0	5.5	5.5	14.0	13.0	13.5	15.5	15.0	15.0
30	---	---	---	7.5	5.0	6.5	13.0	12.5	13.0	16.0	14.5	15.0
31	---	---	---	9.5	7.5	8.5	---	---	---	17.0	15.5	16.0
MONTH	---	---	---	9.5	5.0	7.2	16.5	6.5	10.7	21.5	11.5	15.2

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	18.5	17.0	17.5	21.0	19.5	20.5	21.5	20.0	21.0	23.5	22.0	22.5
2	19.5	18.5	19.0	23.0	21.0	22.0	23.0	21.5	22.0	24.0	21.5	22.5
3	19.5	18.0	19.0	23.0	22.5	23.0	23.0	22.0	22.5	24.0	22.0	23.0
4	18.5	18.0	18.0	22.5	21.0	21.5	22.0	21.0	21.5	24.0	22.5	23.0
5	19.5	18.5	19.0	22.0	21.0	21.5	23.0	21.5	22.0	24.0	22.5	23.5
6	20.5	19.5	20.0	22.5	21.0	22.0	24.0	23.0	23.5	24.0	23.0	23.0
7	21.5	20.0	21.0	23.5	22.5	23.0	24.5	24.0	24.0	23.5	22.5	23.0
8	23.0	21.5	22.5	24.5	23.5	24.0	25.0	24.0	24.5	24.0	22.5	23.5
9	23.5	23.0	23.0	24.5	23.0	24.0	24.5	23.0	24.0	24.5	23.0	23.5
10	23.5	23.0	23.0	24.5	23.5	24.0	23.5	22.5	23.0	24.5	23.0	24.0
11	23.5	23.0	23.0	24.0	23.0	23.5	23.0	22.5	22.5	24.0	23.5	23.5
12	23.0	22.5	22.5	23.5	22.5	23.0	22.5	21.0	22.0	23.5	22.5	22.5
13	23.0	21.5	22.0	22.5	21.5	22.0	21.0	20.0	20.5	22.5	21.5	21.5
14	24.0	22.5	23.0	21.5	20.0	21.0	21.0	20.0	20.5	21.5	20.5	21.0
15	25.0	23.5	24.0	21.0	20.5	21.0	22.5	21.0	22.0	20.5	19.5	20.0
16	25.0	24.5	24.5	22.0	20.5	21.0	23.0	22.0	22.5	20.0	19.5	19.5
17	24.5	24.0	24.5	23.0	22.0	22.5	24.0	22.5	23.0	19.5	18.0	18.5
18	24.0	23.0	23.5	23.5	22.5	23.0	23.5	22.5	23.0	18.0	17.5	18.0
19	23.0	21.5	22.5	23.5	22.5	23.0	24.0	23.0	23.5	18.5	17.5	18.0
20	21.5	20.0	20.5	23.0	22.0	22.5	24.5	23.0	23.5	19.0	18.0	18.5
21	22.0	20.0	21.0	22.5	21.0	22.0	23.5	22.5	23.0	19.5	18.0	18.5
22	23.0	22.0	22.5	22.5	21.0	21.5	24.0	22.5	23.0	19.0	18.5	18.5
23	24.0	23.0	23.5	21.0	20.0	20.0	24.5	22.5	23.5	18.5	17.0	17.5
24	23.5	23.0	23.5	21.5	19.5	20.5	24.5	23.5	24.0	17.0	16.0	16.5
25	24.0	22.5	23.0	23.0	21.5	22.0	24.5	23.0	24.0	17.0	15.5	16.5
26	23.5	22.5	23.0	23.5	23.0	23.0	25.0	23.5	24.0	17.5	16.0	16.5
27	23.5	22.5	23.0	23.5	23.0	23.0	25.0	23.0	24.0	17.5	16.5	17.0
28	24.0	22.5	23.0	23.0	21.5	22.5	24.0	23.0	23.5	18.0	17.0	17.5
29	23.0	22.5	23.0	23.0	21.5	22.0	24.0	22.0	23.0	18.5	18.0	18.0
30	22.5	20.0	21.0	21.5	20.0	20.5	24.0	22.0	23.0	18.0	17.5	17.5
31	---	---	---	20.5	19.5	20.0	24.0	22.0	23.0	---	---	---
MONTH	25.0	17.0	21.9	24.5	19.5	22.1	25.0	20.0	22.9	24.5	15.5	20.2

LEHIGH RIVER BASIN

01454720 LEHIGH RIVER AT EASTON, PA--Continued

OXYGEN, DISSOLVED (MG/L), 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	11.5	9.3	10.3	---	---	---	---	---	---	---	---	---
2	11.7	9.2	10.3	---	---	---	---	---	---	---	---	---
3	11.6	9.3	10.2	---	---	---	---	---	---	---	---	---
4	11.5	8.8	9.7	---	---	---	---	---	---	---	---	---
5	10.2	8.0	8.7	---	---	---	---	---	---	---	---	---
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	11.7	8.0	9.8	---	---	---	---	---	---	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	---	---	---	---	---	---	12.7	12.1	12.3	10.5	10.1	10.3
2	---	---	---	---	---	---	12.1	11.8	12.0	10.4	10.2	10.3
3	---	---	---	---	---	---	12.0	11.7	11.9	11.2	10.2	10.6
4	---	---	---	---	---	---	11.7	11.4	11.5	12.3	11.2	11.7
5	---	---	---	---	---	---	11.7	11.1	11.4	13.3	12.3	12.9
6	---	---	---	---	---	---	12.4	11.7	12.1	13.9	13.0	13.4
7	---	---	---	---	---	---	12.3	11.8	12.0	14.4	13.3	14.1
8	---	---	---	---	---	---	12.9	12.3	12.6	13.3	10.9	12.0
9	---	---	---	---	---	---	12.6	11.9	12.1	10.9	10.2	10.4
10	---	---	---	---	---	---	11.9	11.5	11.7	10.8	10.4	10.5
11	---	---	---	---	---	---	11.7	10.8	11.2	10.4	8.9	9.8
12	---	---	---	---	---	---	13.3	11.7	12.5	8.9	6.5	7.4
13	---	---	---	---	---	---	14.5	13.3	13.9	10.7	7.8	9.7
14	---	---	---	---	---	---	14.1	12.1	13.0	11.0	10.5	10.8
15	---	---	---	---	---	---	12.1	11.3	11.5	11.0	10.8	10.9
16	---	---	---	---	---	---	11.4	10.4	10.8	10.8	9.4	10.1
17	---	---	---	---	---	---	11.8	11.1	11.5	9.4	8.0	8.7
18	---	---	---	---	---	---	12.1	11.6	11.9	8.0	7.4	7.6
19	---	---	---	---	---	---	11.9	11.1	11.3	7.6	7.3	7.4
20	---	---	---	---	---	---	12.6	11.9	12.2	8.1	7.5	7.8
21	---	---	---	---	---	---	13.6	12.6	13.0	9.3	8.1	8.4
22	---	---	---	---	---	---	14.3	13.5	14.0	11.7	9.3	10.6
23	---	---	---	---	---	---	14.2	12.6	13.6	11.7	8.9	9.9
24	---	---	---	---	---	---	12.6	10.3	11.1	10.9	9.1	10.1
25	---	---	---	---	---	---	10.3	9.7	9.9	10.9	6.8	9.5
26	---	---	---	---	---	---	10.5	9.8	10.1	7.1	6.2	6.6
27	---	---	---	12.7	12.1	12.4	10.8	10.2	10.5	8.8	7.1	7.9
28	12.9	---	---	12.9	12.5	12.7	10.6	9.6	10.4	11.3	8.8	10.1
29	---	---	---	13.2	12.7	12.9	9.6	7.9	8.5	13.1	11.3	12.3
30	---	---	---	13.4	13.1	13.3	10.5	8.8	9.8	13.1	11.1	12.6
31	---	---	---	13.1	12.7	12.9	---	---	---	11.1	9.6	10.4
MONTH	---	---	---	13.4	12.1	12.8	14.5	7.9	11.7	14.4	6.2	10.2

LEHIGH RIVER BASIN

01454720 LEHIGH RIVER AT EASTON, PA--Continued

OXYGEN, DISSOLVED (MG/L), 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	10.4	9.5	9.9	8.7	8.2	8.5	8.7	8.4	8.5	9.5	7.8	8.4
2	10.4	9.5	9.8	8.6	7.9	8.3	8.7	8.2	8.4	9.8	8.0	8.7
3	9.8	9.0	9.4	8.3	7.8	8.0	8.4	8.0	8.2	9.9	8.0	8.7
4	9.3	8.4	8.9	8.2	7.9	8.0	8.7	8.0	8.3	9.4	7.8	8.4
5	9.3	8.7	9.1	9.0	8.2	8.6	8.9	8.1	8.5	9.5	7.7	8.5
6	9.8	9.1	9.6	8.9	8.3	8.7	8.7	7.9	8.3	8.8	7.7	8.0
7	9.3	8.6	9.0	8.6	8.0	8.3	8.4	7.8	8.0	8.3	7.1	7.6
8	8.9	8.3	8.6	8.5	7.5	7.9	8.6	7.7	8.0	8.3	6.9	7.5
9	8.5	7.9	8.2	7.8	7.3	7.5	7.9	7.4	7.7	8.3	7.2	7.7
10	8.0	7.7	7.9	8.1	7.4	7.8	8.3	7.4	7.8	8.6	7.2	7.7
11	8.3	7.6	7.9	8.9	7.8	8.3	8.4	7.7	8.0	8.0	7.2	7.5
12	8.3	7.8	8.1	9.0	8.1	8.4	8.1	7.6	7.8	8.0	7.2	7.5
13	8.5	8.0	8.2	8.6	7.8	8.1	8.3	7.4	7.9	8.1	7.4	7.6
14	8.5	7.7	8.1	8.6	7.8	8.3	8.6	8.0	8.3	8.5	7.4	7.9
15	8.3	7.5	7.8	8.6	7.9	8.4	8.5	7.9	8.1	9.1	7.9	8.4
16	8.5	7.5	7.9	8.6	8.2	8.5	8.3	7.7	7.9	9.3	8.2	8.6
17	8.4	7.4	7.7	8.2	8.1	8.1	8.4	7.7	7.9	8.8	8.1	8.3
18	8.0	7.1	7.5	8.4	8.1	8.2	8.4	7.7	8.0	8.8	8.3	8.5
19	8.2	7.1	7.6	8.2	7.8	7.9	8.9	7.8	8.2	9.3	8.5	8.8
20	8.7	7.9	8.3	8.3	7.7	8.0	8.8	7.4	8.2	9.3	8.7	8.9
21	8.9	8.1	8.5	8.5	7.9	8.3	8.5	7.7	8.1	9.4	8.5	8.9
22	8.3	7.6	7.9	8.6	8.1	8.4	8.8	7.8	8.2	8.8	8.5	8.6
23	7.9	7.4	7.6	9.1	8.5	8.8	8.9	7.6	8.2	9.3	8.4	8.8
24	8.2	7.6	7.9	9.3	8.6	9.0	8.0	7.5	7.8	9.9	8.9	9.3
25	8.0	7.7	7.8	8.7	8.2	8.5	8.4	7.0	7.7	9.9	9.0	9.4
26	8.6	7.8	8.2	8.5	8.0	8.2	8.8	7.4	7.9	10.1	8.9	9.4
27	8.6	8.0	8.2	8.5	8.0	8.3	8.8	7.5	8.0	9.7	9.0	9.2
28	8.6	7.9	8.2	8.7	8.3	8.4	8.8	7.4	8.0	9.6	8.8	9.2
29	8.5	7.8	8.1	8.4	8.2	8.3	9.0	7.6	8.2	8.9	8.4	8.7
30	8.3	7.8	8.1	8.7	8.3	8.5	9.1	7.5	8.1	9.6	8.4	9.0
31	---	---	---	8.8	8.5	8.7	9.4	7.4	8.2	---	---	---
MONTH	10.4	7.1	8.3	9.3	7.3	8.3	9.4	7.0	8.1	10.1	6.9	8.5

LEHIGH RIVER BASIN

LAKES AND RESERVOIRS IN LEHIGH RIVER BASIN

01447780 FRANCIS E. WALTER RESERVOIR (formerly published as Bear Creek Reservoir).--Lat 41°06'45", long 75°43'15", Luzerne County, Hydrologic Unit 02040106, at dam on Lehigh River, 2,200 ft downstream from Bear Creek, and 5.0 mi northeast of White Haven. DRAINAGE AREA, 289 mi². PERIOD OF RECORD, February 1961 to current year. GAGE, water-stage recorder (U.S. Army Corps of Engineers datum).

REMARKS.--Reservoir formed by an earthfill embankment covered with a rock shell, with concrete spillway at elevation 1,450.0 ft. Storage began Feb. 17, 1961; reservoir first reached conservation pool in June 1961. Total capacity (elevation 1,450.0 ft) is 110,700 acre-ft of which 108,700 acre-ft is controlled storage above elevation 1,300.0 ft, (conservation pool). Dead storage is 2,000 acre-ft. Flow regulated by three gates and low-flow by-pass system. Reservoir is used for flood control and recreation. Satellite telemetry at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 62,100 acre-ft, Sept. 28, 1985, elevation, 1,417.08 ft; minimum contents (after establishment of conservation pool), 980 acre-ft, July 6, 1982, elevation, 1,287.70 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 41,220 acre-ft, Jan. 21, elevation, 1,397.55 ft; minimum contents, 1,310 acre-ft, Feb. 6, elevation, 1,293.39 ft.

01449400 PENN FOREST RESERVOIR.--Lat 40°55'45", long 75°33'45", Carbon County, Hydrologic Unit 02040106, at dam on Wild Creek, 0.7 mi upstream from hatchery, 2.6 mi upstream from Wild Creek Dam, 4.4 mi upstream from mouth, and 10.0 mi northeast of Palmerton. DRAINAGE AREA, 16.5 mi². PERIOD OF RECORD, October 1958 to current year. GAGE, water-stage recorder. Datum of gage is sea level (levels by city of Bethlehem).

REMARKS.--Reservoir formed by an earthfill dam with ungated concrete spillway at elevation 1,000.00 ft (capacity, 19,980 acre-ft). Storage began October 1958. Reservoir is used for municipal water supply. Regulation by valves on pipe through dam. Figures given herein represent total contents and include diversion since October 1969 from Tunkhannock Creek Basin to Wild Creek Basin.

COOPERATION.--Records provided by city of Bethlehem.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 20,800 acre-ft, Apr. 16, 1983, elevation, 1,001.69 ft; minimum contents, 0 acre-ft, many days during 1996 water year, elevation, 890.60 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 4,060 acre-ft, Nov. 6, elevation, 947.97 ft; minimum contents, 0 acre-ft, many days, elevation, 890.60 ft.

01449700 WILD CREEK RESERVOIR.--Lat 40°53'50", long 75°33'50", Carbon County, Hydrologic Unit 02040106, at dam on Wild Creek, 1.6 mi upstream from mouth, 2.4 mi south of hatchery, and 7.5 mi northeast of Palmerton. DRAINAGE AREA, 22.2 mi². PERIOD OF RECORD, January 1941 to current year. GAGE, nonrecording gage. Datum of gage is sea level (levels by city of Bethlehem).

REMARKS.--Reservoir formed by earthfill dam with concrete ungated spillway at elevation 820.00 ft. Storage began January 27, 1941; reservoir first reached minimum contents pool elevation in February 1941. Total capacity at elevation 820.00 ft is 12,500 acre-ft of which 12,000 acre-ft is controlled storage. Reservoir is used for municipal water supply. Regulation by valves on pipe through dam. Figures given herein represent usable contents and include diversion since October 1969 from Tunkhannock Creek Basin to Wild Creek Basin.

COOPERATION.--Records provided by city of Bethlehem.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 12,880 acre-ft, May 23, 1942, elevation, 822.93 ft; minimum contents (after first filling), 2,680 acre-ft, Nov. 15, 1966, elevation, 774.10 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 12,330 acre-ft, Jan. 20, elevation, 821.10 ft; minimum contents 7,470 acre-ft, Oct. 27, elevation 801.96 ft.

01449790 BELTZVILLE LAKE.--Lat 40°50'56", long 75°38'19", Carbon County, Hydrologic Unit 02040106, at dam on Pohopoco Creek, 0.4 mi upstream from gaging station on Pohopoco Creek, 0.6 mi upstream from Sawmill Run, and 2.3 mi northeast of Parryville. DRAINAGE AREA, 96.3 mi². PERIOD OF RECORD, February 1971 to current year. GAGE, water-stage recorder (U.S. Army Corps of Engineers datum).

REMARKS.--Lake formed by an earth and rockfill dam with ungated, partially lined spillway at an elevation of 651.00 ft. Storage began Feb. 8, 1971. Capacity at elevation 651.00 ft is 68,300 acre-ft. Ordinary minimum contents (conservation) pool elevation is 628.00 ft, capacity, 41,250 acre-ft. Dead storage is 1,390 acre-ft. Lake is used for recreation, flood control, low-flow augmentation, and water supply. Figures given herein represent total contents. Regulation is accomplished by a multi-level water-quality outlet system, and two flood-control gates.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 49,730 acre-ft, Jan. 29, 1976, elevation, 636.30 ft; minimum contents, 15,110 acre-ft, Mar. 31, 1983, elevation, 588.79 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 49,410 acre-ft, Jan. 29, elevation, 635.97 ft; minimum contents, 31,940 acre-ft, Oct. 4, elevation, 617.12 ft.

LEHIGH RIVER BASIN

LAKES AND RESERVOIRS IN LEHIGH RIVER BASIN--Continued

MONTHEND ELEVATION, IN FEET ABOVE SEA LEVEL, AND CONTENTS AT 2400 HRS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

Date	Elevation (feet)	Contents (acre- feet)	Change in contents (equivalent in ft ³ /s)	Elevation (feet)	Contents (acre- feet)	Change in contents (equivalent in ft ³ /s)
<u>01447780 Francis E. Walter Reservoir</u>				<u>01449400 Penn Forest Reservoir</u>		
Sept. 30	1,300.81	2,080	--	934.58	2,140	--
Oct. 31	1,326.50	5,350	+ 53.2	944.85	3,540	+ 22.8
Nov. 30	1,301.06	1,890	- 58.1	943.20	3,290	- 4.2
Dec. 31	1,301.26	1,910	+ 0.3	942.30	3,160	- 2.1
CAL YR 1995	--	--	- 0.2	--	--	- 10.0
Jan. 31	1,308.37	2,610	+ 11.4	935.10	2,190	- 15.8
Feb. 29	1,306.82	2,440	- 3.0	929.85	1,640	- 9.6
Mar. 31	1,306.49	2,410	- 0.5	913.51	559	- 17.6
Apr. 31	1,319.58	4,130	+ 28.9	897.50	0	- 9.4
May 31	1,306.64	2,420	- 27.8	892.74	0	0
June 30	1,303.25	2,080	- 5.7	--	0	0
July 31	1,303.78	2,130	+ 0.8	--	0	0
Aug. 31	1,299.51	1,760	- 6.0	--	0	0
Sept. 30	1,307.25	2,490	+ 12.3	--	0	0
WTR YR 1996	--	--	+ 0.6	--	--	- 2.9
<u>01449700 Wild Creek Reservoir</u>				<u>01449790 Beltzville Lake</u>		
Sept. 30	807.72	8,800	--	617.17	31,980	--
Oct. 31	803.76	7,890	-14.8	623.44	37,070	+ 82.8
Nov. 30	819.00	11,800	+65.7	628.02	41,270	+ 70.6
Dec. 31	819.64	11,930	+ 2.1	627.90	41,150	- 2.0
CAL YR 1995	--	--	0	--	--	+ 0.6
Jan. 31	821.00	12,300	+ 6.0	634.69	47,960	+111.
Feb. 29	820.50	12,150	- 2.6	628.03	41,280	-116.
Mar. 31	820.36	12,110	- 0.7	628.33	41,560	+ 4.6
Apr. 30	820.46	12,140	+ 0.5	628.54	41,760	+ 3.4
May 31	820.16	12,050	- 1.5	627.98	41,230	- 8.6
June 30	819.93	11,990	- 1.0	628.38	41,610	+ 6.4
July 31	820.18	12,050	+ 1.0	628.08	41,330	- 4.6
Aug. 31	818.31	11,610	- 7.2	627.91	41,160	- 2.8
Sept. 30	814.96	10,690	-15.5	627.94	41,190	+ 0.5
WTR YR 1996	--	--	+ 2.6	--	--	+ 12.7

DELAWARE RIVER BASIN

01457500 DELAWARE RIVER AT RIEGELSVILLE, N.J.

LOCATION.--Lat 40°35'36", long 75°11'17", Warren County, N.J., Hydrologic Unit 02040105, just upstream of suspension bridge at Riegelsville, 600 ft upstream from Musconetcong River (flow of which is included in the records for this station since Oct. 1, 1931). Datum of gage is 125.12 ft above sea level. Water-quality samples are collected from the bridge and do not include flow of the Musconetcong River.

DRAINAGE AREA.--6,328 mi².

PERIOD OF RECORD.--Water years 1934, 1943, 1950, 1960-79, 1991 to current year.

REMARKS.--For February 20, dissolved ammonia as N (00608) was not used in the calculation to determine the sum of dissolved solid constituents (70301). Dissolved ammonia is generally a small percentage of the sum of dissolved solid constituents.

COOPERATION.--Field data and samples for laboratory analyses provided by the New Jersey Department of Environmental Protection. Analyses of fecal coliform by the MPN method, enterococcus bacteria by the membrane filtration method, dissolved nitrite, total ammonia, dissolved ammonia, and BOD performed by the New Jersey Department of Health, Public Health and Environmental Laboratories.

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 (μS/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)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, EC BROTH (MPN) (31615)	ENTERO-COCCI ME, MF WATER TOTAL (COL / 100 ML) (31649)	HARD-NESS TOTAL (MG/L AS CaCO3) (00900)	
NOV 1995													
29...	1200	10500	163	7.7	4.5	757	10.9	85	E1.0	110	<10	53	
FEB 1996													
20...	1100	8180	207	--	2.5	763	13.4	98	--	--	--	74	
APR													
09...	1145	15400	170	8.1	7.5	754	11.3	95	<1.0	50	<10	53	
JUN													
19...	1100	8070	159	7.6	22.0	758	7.7	89	E1.8	270	60	56	
AUG													
06...	1130	6720	181	8.2	24.0	760	7.6	91	<1.0	20	20	64	
DATE		CALCIUM DIS-SOLVED (MG/L AS Ca) (00915)	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 LAB (MG/L AS CaCO3) (90410)	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)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)
NOV 1995													
29...	14	4.4	8.4	1.1	32	16	13	<0.1	4.5	88	85	<1	
FEB 1996													
20...	19	6.4	10	1.4	47	19	17	<0.1	5.3	120	112	5	
APR													
09...	14	4.4	9.1	1.0	36	15	15	<0.1	2.8	90	87	<1	
JUN													
19...	15	4.5	7.5	1.4	38	14	12	<0.1	3.8	80	85	9	
AUG													
06...	17	5.2	8.7	1.4	45	17	13	<0.1	3.5	94	97	4	
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 TOTAL (MG/L AS N) (00610)	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)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	NITRO-GEN, DIS-SOLVED (MG/L AS N) (00602)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)
NOV 1995													
29...	0.007	0.91	<0.03	<0.03	0.16	0.14	1.1	1.0	0.04	0.03	2.2	0.2	
FEB 1996													
20...	--	1.40	--	--	0.14	0.20	1.5	1.6	0.05	0.05	2.0	0.3	
APR													
09...	0.007	0.87	<0.03	<0.03	0.20	0.31	1.1	1.2	0.03	0.03	2.0	0.4	
JUN													
19...	0.016	0.92	0.05	0.05	0.40	0.32	1.3	1.2	0.09	0.07	2.8	0.7	
AUG													
06...	0.007	0.87	0.08	<0.03	0.19	0.08	1.1	0.95	0.02	0.02	2.6	0.4	

DELAWARE RIVER BASIN

01457500 DELAWARE RIVER AT RIEGELSVILLE, N.J.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L) (00340)	ARSENIC TOTAL (µG/L) AS AS) (01002)	BERYL- LIUM, TOTAL RECOV- ERABLE (µG/L) AS BE) (01012)	BORON, TOTAL RECOV- ERABLE (µG/L) AS B) (01022)	CADMIUM TOTAL RECOV- ERABLE (µG/L) AS CD) (01027)	CHRO- MIUM, TOTAL RECOV- ERABLE (µG/L) AS CR) (01034)	COPPER, TOTAL RECOV- ERABLE (µG/L) AS CU) (01042)
NOV 1995 29...	1200	13	<1	<10	20	<1	<1	3
JUN 1996 19...	1100	<10	<1	<10	50	<1	<1	2

DATE	IRON, TOTAL RECOV- ERABLE (µG/L) AS FE) (01045)	LEAD, TOTAL RECOV- ERABLE (µG/L) AS PB) (01051)	MANGA- NESE, TOTAL RECOV- ERABLE (µG/L) AS MN) (01055)	MERCURY TOTAL RECOV- ERABLE (µG/L) AS HG) (71900)	NICKEL, TOTAL RECOV- ERABLE (µG/L) AS NI) (01067)	SELE- NIUM, TOTAL RECOV- ERABLE (µG/L) AS SE) (01147)	ZINC, TOTAL RECOV- ERABLE (µG/L) AS ZN) (01092)
NOV 1995 29...	90	<1	30	<0.1	2	<1	30
JUN 1996 19...	210	1	70	<0.1	<1	<1	10

TOHICKON CREEK BASIN

01459350 NOCKAMIXON RESERVOIR NEAR OTTSVILLE, PA

LOCATION.--Lat 40°28'13", long 75°11'10", Bucks County, Hydrologic Unit 02040105, at dam on Tohickon Creek, 6.2 mi upstream from gaging station on Tohickon Creek, 1.3 mi east of Ottsville, and 2.9 mi upstream from Mink Run.

DRAINAGE AREA.-- 73.3 mi².

PERIOD OF RECORD.--December 1973 to current year.

GAGE.--Water stage recorder. Datum of gage is sea level (levels by Pennsylvania Department of Environmental Protection).

REMARKS.--Reservoir formed by earthfill dam with concrete spillway at elevation 395.0 ft. Storage began December 1973. Total capacity is 66,500 acre-ft at elevation 410 ft. Reservoir is used primarily for recreation, but can be used for water supply and flood control.

COOPERATION.--Records furnished by Pennsylvania Department of Environmental Protection.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 44,380 acre-ft, Jan. 20, 1979, elevation, 397.85 ft; minimum contents (after first filling), 15,900 acre-ft, around Dec. 31, 1975, elevation, 372.78 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents 42,490 acre-ft, Apr. 26, elevation, 396.60 ft; minimum contents, 39,220 acre-ft, Oct. 2, elevation, 394.30 ft.

MONTHEND ELEVATION IN FEET ABOVE SEA LEVEL, AND CONTENTS AT 2400 HRS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

Date	Elevation (feet)	Contents (acre- feet)	Change in contents (equivalent in ft ³ /s)
<u>01459350 Nockamixon Reservoir</u>			
Sept. 30	394.30	39,220	--
Oct. 31	395.10	40,340	+18.2
Nov. 30	395.00	40,200	- 2.4
Dec. 31	394.80	39,920	- 4.6
CAL YR 1995	--	--	- 0.7
Jan. 31	395.30	40,620	+11.4
Feb. 29	395.45	40,820	+ 3.5
Mar. 31	395.60	41,030	+ 3.4
Apr. 30	396.60	42,490	+24.5
May 31	395.40	40,750	-28.3
June 30	394.80	39,920	-13.9
July 31	394.80	39,920	0
Aug. 31	395.20	40,480	+ 9.1
Sept. 30	395.60	41,030	+ 9.2
WTR YR 1996	--	--	+24.9

TOHICKON CREEK BASIN

01459500 TOHICKON CREEK NEAR PIPERSVILLE, PA

LOCATION.--Lat 40°26'01", long 75°07'01", Bucks County, Hydrologic Unit 02040105, on right bank at highway bridge 1.5 mi northeast of Pipersville, and 4.5 mi upstream from mouth.

DRAINAGE AREA.--97.4 mi².

PERIOD OF RECORD.--July 1935 to current year.

REVISED RECORDS.--WDR PA-75-1: 1974.

GAGE.--Water-stage recorder. Datum of gage is 258.96 ft above sea level.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Flow regulated since December 1973 by Nockamixon Reservoir about 6.2 mi upstream. Several measurements of water temperature were made during the year.

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	5.8	117	55	e65	e180	125	367	771	22	101	499	23
2	5.3	274	56	e100	e170	110	2510	381	20	79	258	20
3	4.9	316	52	e250	e160	109	863	213	19	58	141	18
4	4.7	494	50	e140	e160	89	364	153	20	49	158	16
5	182	390	49	e65	e160	85	227	122	25	35	131	14
6	1090	38	52	e70	e150	338	163	119	23	28	88	13
7	514	32	49	e75	e150	810	182	114	22	25	61	e13
8	206	66	45	e85	e200	583	374	121	21	23	46	e50
9	106	35	48	e85	e300	412	336	130	20	26	42	e250
10	68	29	e50	e80	e500	e340	410	131	25	26	49	e60
11	49	45	e60	e75	e360	e300	322	242	24	27	39	e23
12	38	1310	55	e70	e300	e260	212	773	32	25	33	e19
13	32	635	42	e70	e200	237	149	377	44	777	63	e23
14	48	429	33	e65	e170	265	121	197	53	790	61	e30
15	405	715	e60	e60	e170	230	96	125	42	345	e50	e25
16	294	430	e100	e60	e160	228	2370	106	33	178	e32	e23
17	144	244	e200	e60	e150	172	1160	112	28	112	e24	e600
18	90	e160	e150	e100	e140	131	411	101	30	72	e24	e300
19	64	e150	e130	e3000	e130	161	241	90	33	76	e23	e110
20	51	e140	e120	e2500	e160	918	168	78	76	87	e23	e60
21	1790	e120	e110	e1000	e700	529	134	68	85	62	e22	e40
22	1350	e110	e100	e500	e500	302	109	65	67	44	21	e100
23	409	e95	e90	e400	e400	191	100	58	81	40	19	e300
24	199	e95	e85	e650	e360	133	99	47	56	37	247	e170
25	123	e80	e80	e1000	e300	107	76	37	46	32	166	e100
26	83	e75	e75	e550	e220	93	68	30	35	54	96	e70
27	65	e70	e70	e2000	e200	71	64	27	26	46	62	e40
28	516	e60	e65	e1000	e200	67	52	26	23	39	44	e30
29	537	59	e60	e600	171	605	75	26	19	33	35	e250
30	251	58	e60	e320	---	800	336	27	71	33	30	e120
31	145	---	e60	e250	---	475	---	25	---	429	26	---
TOTAL	8869.7	6871	2311	15345	7121	9276	12159	4892	1121	3788	2613	2910
MEAN	286	229	74.5	495	246	299	405	158	37.4	122	84.3	97.0
MAX	1790	1310	200	3000	700	918	2510	773	85	790	499	600
MIN	4.7	29	33	60	130	67	52	25	19	23	19	13

e Estimated.

TOHICKON CREEK BASIN

01459500 TOHICKON CREEK NEAR PIPERSVILLE, PA--Continued

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

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	76.3	183	221	249	199	312	246	188	79.8	78.0	52.7	78.4
MAX	286	553	566	916	436	867	707	579	314	602	232	430
(WY)	1996	1976	1978	1979	1984	1994	1983	1984	1989	1984	1978	1989
MIN	5.87	24.7	19.5	16.4	28.3	43.1	36.9	29.1	11.4	8.85	4.12	4.03
(WY)	1983	1974	1981	1977	1974	1976	1985	1986	1977	1980	1983	1980

SUMMARY STATISTICS FOR 1995 CALENDAR YEAR FOR 1996 WATER YEAR WATER YEARS 1974 - 1996

ANNUAL TOTAL	45398.9			77276.7			164			1984		
ANNUAL MEAN	124			211			78.7			1981		
HIGHEST ANNUAL MEAN							300					
LOWEST ANNUAL MEAN												
HIGHEST DAILY MEAN	3790			Mar 9			e3000			6810		
LOWEST DAILY MEAN	2.4			Aug 26-28			a4.7			1.6		
ANNUAL SEVEN-DAY MINIMUM	2.5			Aug 25			17			1.7		
INSTANTANEOUS PEAK FLOW							12600			b16200		
INSTANTANEOUS PEAK STAGE							10.06			11.32		
10 PERCENT EXCEEDS	275						500			405		
50 PERCENT EXCEEDS	48						91			47		
90 PERCENT EXCEEDS	3.1						25			6.9		

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1936 - 1973, BY WATER YEAR (WY) (PRIOR TO REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	43.4	138	183	190	235	300	217	121	79.0	54.0	66.8	54.3
MAX	367	601	464	501	572	795	612	430	413	288	515	513
(WY)	1956	1973	1973	1949	1971	1936	1952	1948	1972	1938	1955	1960
MIN	1.46	3.51	11.5	37.8	42.5	133	35.2	15.9	4.64	1.68	1.12	1.21
(WY)	1965	1965	1966	1966	1947	1949	1946	1955	1965	1957	1957	1957

SUMMARY STATISTICS WATER YEARS 1936 - 1973

ANNUAL MEAN	140											
HIGHEST ANNUAL MEAN	240						1973					
LOWEST ANNUAL MEAN	45.8						1965					
HIGHEST DAILY MEAN	6820						Sep 12 1960					
LOWEST DAILY MEAN	.10						Sep 24 1941c					
ANNUAL SEVEN DAY MINIMUM	.47						Jul 24 1955					
INSTANTANEOUS PEAK FLOW	b16000						Aug 18 1955					
INSTANTANEOUS PEAK STAGE	11.26						Aug 18 1955					
INSTANTANEOUS LOW FLOW	.05						Sep 24 1941					
ANNUAL RUNOFF (CFSM)	1.43											
ANNUAL RUNOFF (INCHES)	19.48											
10 PERCENT EXCEEDS	325											
50 PERCENT EXCEEDS	37											
90 PERCENT EXCEEDS	3.8											

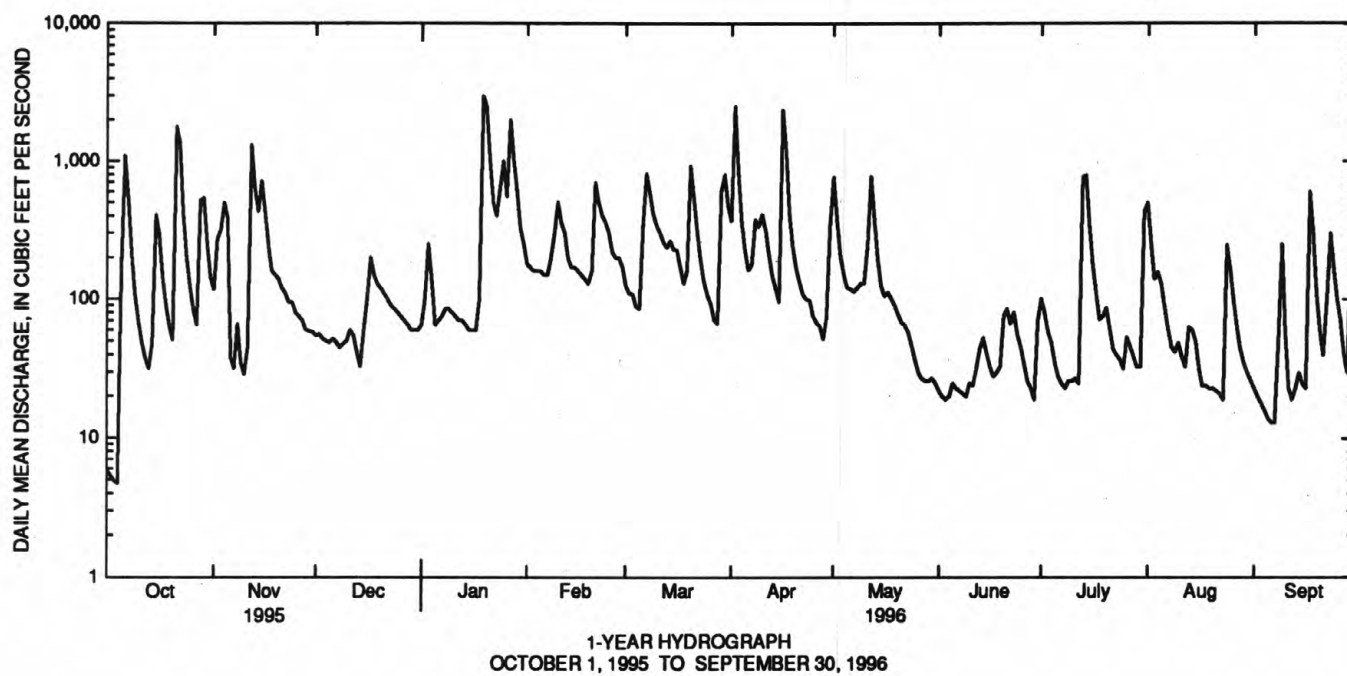
a Computed using estimated daily discharges.

b From rating curve extended above 3,600 ft³/s on basis of slope-area measurement at gage height 10.48 ft.

c Also Sept. 29, Oct. 6, 1941.

e Estimated.

01459500 TOHICKON CREEK NEAR PIPERSVILLE, PA--Continued



DELAWARE RIVER BASIN

01461000 DELAWARE RIVER AT LUMBERVILLE, PA

LOCATION.--Lat 40°24'27", long 75°02'16", Bucks County, Hydrologic Unit 02040105, at pedestrian bridge at Lumberville, 1.4 mi upstream of Lockatong Creek.

DRAINAGE AREA.--6,598 mi².

PERIOD OF RECORD.--Water years 1976 to current year.

REMARKS.--For February 21, dissolved ammonia as N (00608) was not used in the calculation to determine the sum of dissolved solid constituents (70301). Dissolved ammonia is generally a small percentage of the sum of dissolved solid constituents.

COOPERATION.--Field data and samples for laboratory analyses provided by New Jersey Department of Environmental Protection. Analyses of fecal coliform bacteria by the MPN method, enterococcus bacteria by the membrane filtration method, dissolved nitrite, total ammonia, dissolved ammonia, and BOD performed by the New Jersey Department of Health, Public Health and Environmental Laboratories.

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 (μS/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 (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (MG/L) (00301)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L) (00310)	COLI- FORM, FECAL, EC BROTH (MPN) (31615)	ENTERO- COCCI ME, MF WATER TOTAL (COL / 100 ML) (31649)	HARD- NESS TOTAL (MG/L AS CAC03) (00900)
DEC 1995												
05...	1045	9260	164	7.9	4.5	766	12.4	95	<1.0	50	30	51
FEB 1996												
21...	0945	18700	201	7.8	3.0	758	12.7	95	--	--	--	60
APR												
10...	1100	16000	175	8.4	7.0	750	12.7	106	E1.6	<20	10	57
JUN												
24...	1200	7680	188	7.8	22.0	758	7.6	87	E2.2	790	150	68
AUG												
06...	1200	6510	184	8.0	23.5	765	8.8	103	<1.0	50	30	65

DATE	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	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 LAB AS CAC03) (90410)	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)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDED (MG/L) (00530)
DEC 1995												
05...	13	4.6	8.5	1.1	37	16	13	<0.1	4.0	94	86	4
FEB 1996												
21...	15	5.5	12	1.4	38	16	21	<0.1	5.9	114	105	38
APR												
10...	15	4.8	9.9	1.0	38	15	17	<0.1	3.0	92	92	1
JUN												
24...	18	5.6	8.7	1.4	45	17	13	<0.1	4.8	110	100	31
AUG												
06...	17	5.5	9.4	1.5	47	17	13	<0.1	3.6	104	100	4

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 TOTAL (MG/L AS N) (00610)	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)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	NITRO- GEN DIS- SOLVED (MG/L AS N) (00602)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C) (00689)
DEC 1995												
05...	0.006	0.83	<0.03	<0.03	0.17	0.14	1.0	0.97	0.06	0.03	2.2	0.4
FEB 1996												
21...	--	1.20	--	--	0.40	0.30	1.6	1.5	0.09	0.05	3.3	1.0
APR												
10...	0.006	0.90	<0.03	<0.03	0.20	0.16	1.1	1.1	0.03	0.02	1.9	0.4
JUN												
24...	0.015	1.10	<0.03	<0.03	0.30	0.17	1.4	1.3	0.04	0.02	2.8	0.3
AUG												
06...	0.006	0.99	<0.03	0.06	0.30	0.15	1.3	1.1	0.03	0.02	2.7	0.3

DELAWARE RIVER BASIN

01461000 DELAWARE RIVER AT LUMBERVILLE, PA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L) (00340)	ARSENIC TOTAL (µG/L) AS AS) (01002)	BERYL- LIUM, TOTAL RECOV- ERABLE (µG/L) AS BE) (01012)	BORON, TOTAL RECOV- ERABLE (µG/L) AS B) (01022)	CADMIUM TOTAL RECOV- ERABLE (µG/L) AS CD) (01027)	CHRO- MIUM, TOTAL RECOV- ERABLE (µG/L) AS CR) (01034)	COPPER, TOTAL RECOV- ERABLE (µG/L) AS CU) (01042)
DEC 1995 05...	1045	<10	<1	<10	20	<1	<1	1
JUN 1996 24...	1200	24	<1	<10	60	<1	2	4

DATE	IRON, TOTAL RECOV- ERABLE (µG/L) AS FE) (01045)	LEAD, TOTAL RECOV- ERABLE (µG/L) AS PB) (01051)	MANGA- NESE, TOTAL RECOV- ERABLE (µG/L) AS MN) (01055)	MERCURY TOTAL RECOV- ERABLE (µG/L) AS HG) (71900)	NICKEL, TOTAL RECOV- ERABLE (µG/L) AS NI) (01067)	SELE- NIUM, TOTAL (µG/L) AS SE) (01147)	ZINC, TOTAL RECOV- ERABLE (µG/L) AS ZN) (01092)
DEC 1995 05...	70	<1	30	<0.1	1	<1	20
JUN 1996 24...	250	2	30	<0.1	2	<1	20

DELAWARE RIVER BASIN

01463500 DELAWARE RIVER AT TRENTON, N.J.

LOCATION.--Lat 40°13'18", long 74°46'42", Mercer County, N.J., Hydrologic Unit 02040105, on left bank 450 ft upstream from Calhoun Street Bridge at Trenton, 0.5 mi upstream from Assunpink Creek, and at mile 134.5.

DRAINAGE AREA.--6,780 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February 1913 to current year. October 1912 to February 1913 monthly discharge only, published in WSP 1302. Gage-height records collected in this vicinity since 1904 are contained in reports of the National Weather Service.

REVISED RECORDS.--WSP 951: Drainage area. WSP 1302: 1913-20. WSP 1382: 1924, 1928.

GAGE.--Water-stage recorder. Datum of gage is sea level. Prior to Sept. 30, 1965, at datum 7.77 ft higher. Feb. 24, 1913, to Oct. 2, 1928, nonrecording gage on downstream side of highway bridge at site 450 ft downstream.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Diurnal fluctuations at medium and low flow caused by powerplants on tributary streams. Flow regulated by Lakes Wallenpaupack and Hopatcong, and by Pepacton, Cannonsville, Swinging Bridge, Toronto, Cliff Lake, Neversink, Wild Creek, and Merrill Creek Reservoirs and smaller reservoirs. Diversion from Pepacton, Cannonsville, and Neversink Reservoirs. Diversion to Bradshaw and Merrill Creek Reservoirs and to Delaware and Raritan Canal. Water diverted just above station by borough of Morrisville, Pa, and city of Trenton, N.J. for municipal supply. Satellite gage height and water-quality telemetry at station. Information on the above reservoirs can be found in the annual Water Data Report NJ-96-1.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 11, 1903, reached an elevation of about 28.5 ft above sea level, estimated discharge, 295,000 ft³/s. Maximum elevation since 1957, 30.6 ft above sea level, Mar. 8, 1904, from floodmark, due to ice jam.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 50,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 23	0645	51,100	14.35	Apr. 17	1045	73,100	16.17
Jan. 20	2345	*179,000	*22.20	May 2	0930	55,500	14.72
Jan. 28	1530	117,000	19.10				

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	2800	12600	12600	4820	36700	22700	15300	41800	6810	8600	12000	3960
2	2560	12800	11800	4530	29200	20200	26400	53800	6310	7710	10300	3420
3	2580	14000	10700	4890	25900	17900	22900	44200	5960	8020	9430	3090
4	2560	13000	9740	4770	22600	16200	19800	36200	5480	8170	9970	3040
5	3180	12800	9380	5220	20000	14600	17400	30800	6290	7890	7910	3120
6	12400	11100	10400	4660	16800	15700	15900	27600	6890	6970	7460	3370
7	12500	9900	10500	e5030	16100	19800	14500	26500	6200	6700	7470	3570
8	8130	10300	9920	e5140	14800	19800	16000	25500	5840	6260	7880	4850
9	6250	9360	9550	e5380	15400	16400	16100	23400	5830	7230	6700	5120
10	4880	8910	8840	e5670	16000	14200	16600	21500	5930	7850	6200	5190
11	3960	8640	7140	e6150	15600	13000	15400	21200	6900	7070	6670	4930
12	3270	21100	5980	e6190	15300	12900	14000	29000	13300	5980	5980	4190
13	2740	32700	6410	e6430	13500	13500	13000	39800	15700	12100	5430	3500
14	2760	34200	6770	e5600	11800	13600	13300	39200	15500	28300	6160	3390
15	6180	36200	6270	e5100	11200	14900	21700	34000	15500	35400	6470	3470
16	6510	40400	7200	e4500	10700	17000	41600	28600	12000	29700	5360	3430
17	6200	37600	8170	e5300	9970	19000	66100	25300	10800	28100	4640	4960
18	6370	29800	7540	e6100	9570	17400	59900	22200	9950	25200	4970	6260
19	4880	24900	6930	44400	8580	16400	46200	19600	9790	20300	4840	8420
20	3970	22100	6980	116000	8060	22900	36900	17600	10300	17400	4400	11600
21	14300	20300	6740	129000	15200	27000	30400	16200	9780	15000	4020	8400
22	34700	18600	6500	60400	26000	28700	25700	15600	9920	13300	3990	6890
23	45800	17400	6680	45500	31600	24700	22800	14700	12700	11500	3620	6270
24	29400	15300	6120	41600	32900	20800	21300	13700	8900	10900	4620	5420
25	20600	13600	5080	49600	34200	18200	21700	12600	8100	9830	5030	5670
26	15500	12200	4910	45900	33500	17000	21000	11400	7810	10000	4500	5850
27	12500	11300	4940	49400	30500	16500	19800	9470	6840	13600	4530	5320
28	16800	10700	5060	107000	26900	15800	17900	8850	6190	14800	4250	5280
29	17300	10600	5760	95600	24200	18000	16700	8220	5650	12200	4110	7380
30	17500	10700	5570	67000	---	19700	22400	7930	6600	10700	3620	8500
31	15100	---	4970	50500	---	17000	---	7380	---	14000	3990	---
TOTAL	344180	543110	235150	997380	582780	561500	728700	733850	263770	420780	186520	157860
MEAN	11100	18100	7585	32170	20100	18110	24290	23670	8792	13570	6017	5262
MAX	45800	40400	12600	129000	36700	28700	66100	53800	15700	35400	12000	11600
MIN	2560	8640	4910	4500	8060	12900	13000	7380	5480	5980	3620	3040

e Estimated.

DELAWARE RIVER BASIN

01463500 DELAWARE RIVER AT TRENTON, N.J.--Continued

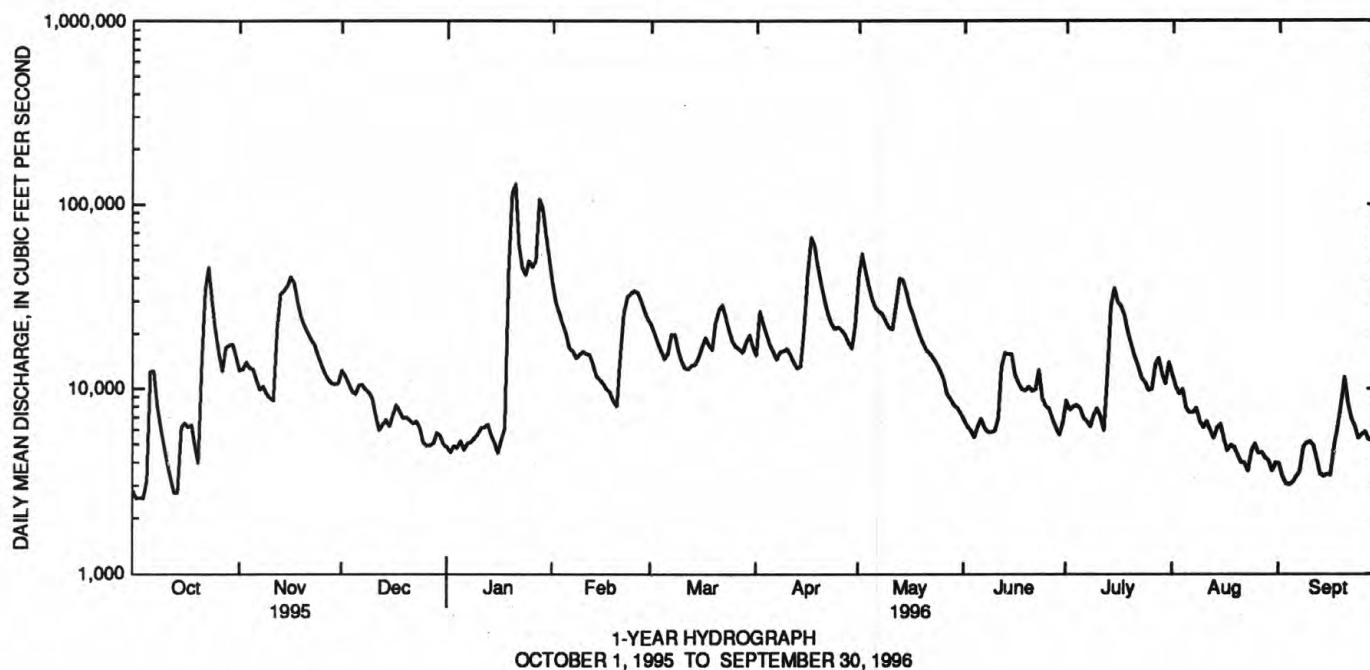
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1913 - 1996, BY WATER YEAR (WY)

MEAN	6819	10520	12460	12430	12810	20630	22450	14150	9020	7104	5958	5759
MAX	28710	27340	31070	34950	27550	60840	52680	31690	33460	25720	30290	22490
(WY)	1956	1928	1974	1979	1951	1936	1940	1989	1972	1928	1955	1933
MIN	1632	1868	2037	2539	3500	7715	6828	5074	2572	1548	1808	1762
(WY)	1942	1915	1923	1981	1920	1981	1985	1995	1965	1965	1965	1932

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1913 - 1996	
ANNUAL TOTAL	3304730		5755580			
ANNUAL MEAN	9054		15730		11660	
HIGHEST ANNUAL MEAN					19810	
LOWEST ANNUAL MEAN					4708	
HIGHEST DAILY MEAN	46700	Mar 10	129000	Jan 21	279000	Aug 20 1955
LOWEST DAILY MEAN	2420	Sep 21	2560	Oct 2, 4	1240	Oct 31 1914
ANNUAL SEVEN-DAY MINIMUM	2600	Aug 22	3370	Sep 1	1310	Oct 31 1914
INSTANTANEOUS PEAK FLOW			179000	Jan 20	a329000	Aug 20 1955
INSTANTANEOUS PEAK STAGE			22.20	Jan 20	b28.60	Aug 20 1955
INSTANTANEOUS LOW FLOW			2930	Sep 4	1180	Oct 31 1963
10 PERCENT EXCEEDS	17900		32800		24600	
50 PERCENT EXCEEDS	6670		11100		7880	
90 PERCENT EXCEEDS	2900		4650		3010	

a From rating curve extended above 230,000 ft³/s, maximum flow since 1692.

b From high-water mark in gage house.



DELAWARE RIVER BASIN

01463500 DELAWARE RIVER AT TRENTON, N.J.--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1944 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1963 to current year. Recorded as once daily during years 1964 to 1968, 1979.
 pH: June 1968 to current year. Recorded as once daily during 1979.
 WATER TEMPERATURE: October 1944 to current year. Recorded as once daily during years 1945 to 1953, 1962, 1964, 1979.
 DISSOLVED OXYGEN: October 1962 to current year. Recorded as once daily during 1979.
 SUSPENDED-SEDIMENT DISCHARGE: September 1949 to September 1981.

INSTRUMENTATION.--

TEMPERATURE MONITOR (graphic recorder at gage house, in situ system):

October 1953 to September 1961.

TEMPERATURE / DISSOLVED-OXYGEN MONITOR:

October 1962 to September 1965: graphic recorder; only dissolved-oxygen concentration recorded during water year 1964. October 1965 to May 1968: digital recorder.

WATER-QUALITY MONITOR (continuous pumping system, measurements recorded hourly):

June 1968 to August 1975: water withdrawn from raw-water intake within Trenton Water Filtration Plant, Trenton, N.J. November 1975 to November 1978: water withdrawn from river through PVC pipe to gage house outside Trenton Water Filtration Plant, Trenton, N.J. February 1980 to September 1986: water withdrawn from raw-water intake within Trenton Water Filtration Plant, Trenton, N.J.

WATER-QUALITY MONITOR (in situ system, measurements recorded hourly):

October 1986 to September 1995: probes located inside raw-water intake of Trenton Water Filtration Plant, Trenton, N.J. October 1995 to current year: monitor suspended within stilling well of Morrisville Water Filtration Plant, Morrisville, Pa., 1600 feet upstream from the gage house.

REMARKS.--The water-quality monitor was moved from the Trenton Water Filtration Plant to the Morrisville Water Filtration Plant and became the official record on Oct. 1, 1995. The Trenton and Morrisville monitors were run simultaneously from July 10 to Oct. 2, 1995. The differences in the daily maximum, minimum and mean specific conductance, pH, water temperature, and dissolved-oxygen concentration recorded at the two water-quality monitor locations were tested for statistical significance by using nonparametric statistics. At a significance level of less than 0.01, the median difference significantly exceeded the precision of the published data for the daily minimum and mean dissolved-oxygen concentrations, the daily maximum water temperature, and the daily minimum and maximum pH. The measurements at the Morrisville Water Filtration Plant were made by two different sondes (multi-parameter sensor). The effect of alternating the sondes on the recorded data was also tested by using nonparametric statistics. Results show that alternating the sondes had no significant effect on the recorded measurements.

Missing continuous water-quality records are the result of instrument malfunction, or of interruption of flow through the filtration plant. For Feb. 21, 1995, dissolved ammonia as N (00608) was not used in the calculation to determine the sum of dissolved-solid constituents (70301). Dissolved ammonia is generally a small percentage of the sum of dissolved-solid constituents. Unpublished records of suspended-sediment discharge for the period Oct. 1, 1981, to Mar. 31, 1982, are available at the U.S. Geological Survey office in West Trenton, NJ.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 377 microsiemens, Feb. 12, 1985; minimum, 63 microsiemens, July 7, 1984.

pH: Maximum, 10.3, Aug. 9, 10, 1983; minimum, 5.3, June 22, 1972.

WATER TEMPERATURE: Maximum, 34.0°C, June 18, 1957; minimum, 0.0°C, on many days during winter periods.

DISSOLVED OXYGEN: Maximum, 20.0 mg/L, Feb. 11, 1989; minimum recorded, 4.0 mg/L, Nov. 9, 1972, Sept. 9, 1995, but may have been lower during instrument malfunction, July 29-Aug. 21, 1995.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 252 microsiemens, Aug. 25, minimum, 87 microsiemens, Jan. 28, 29.

pH: Maximum, 9.6, Apr. 13, June 2, 4; minimum, 6.8, Oct. 23.

WATER TEMPERATURE: Maximum, 28.0°C, Aug. 23; minimum, 0.0°C, on many days during the winter months.

DISSOLVED OXYGEN: Maximum, 15.5 mg/L, June 1; minimum recorded, 4.9 mg/L, June 9, but may have been lower during period of instrument malfunction, July 10 to Aug. 1.

COOPERATION.--Field data and samples for laboratory analysis provided by the staff of the N.J. Department of Environmental Protection. Analyses for fecal coliform bacteria by the MPN method, Enterococcus bacteria by the membrane filtration method, dissolved nitrite, total ammonia, dissolved ammonia, and BOD were performed by the N.J. Department of Health, Public Health and Environmental Laboratories.

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 (μS/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	TUR- BID- ITY (NTU) (00076)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L) (00310)
NOV 1995										
30...	1100	10600	159	8.0	3.5	0.70	754	11.5	88	<1.2
FEB 1996										
21...	1200	16100	214	87.9	4.0	8.5	764	13.0	99	--
APR										
10...	1300	16500	186	8.6	6.5	1.4	754	12.7	104	82.3
JUN										
17...	1200	9470	159	7.5	23.5	3.0	763	7.3	86	81.4
AUG										
07...	1100	7600	186	8.1	26.0	1.0	766	8.5	104	81.1

DELAWARE RIVER BASIN

01463500 DELAWARE RIVER AT TRENTON, N.J.--Continued

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

DATE	COLIFORM, FECAL, EC BROTH (MPN) (31615)	ENTEROCOCCI ME, MF WATER TOTAL (COL / 100 ML) (31649)	HARDNESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNESIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	POTASSIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKALINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)
NOV 1995 30...	<20	<100	58	15	5.0	8.6	1.1	37	14
FEB 1996 21...	--	--	75	19	6.8	12	1.6	48	19
APR 10...	130	10	58	15	4.9	9.7	1.1	38	15
JUN 17...	170	20	49	13	4.1	6.9	1.2	34	12
AUG 07...	<20	100	65	17	5.5	8.9	1.5	49	17
DATE	CHLORIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUORIDE, 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)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L) (70301)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)	NITROGEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITROGEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)
NOV 1995 30...	13	<0.1	4.6	78	88	<1	0.006	0.92	0.05
FEB 1996 21...	20	<0.1	6.2	148	120	--	--	1.50	--
APR 10...	16	<0.1	3.4	96	92	2	0.005	0.92	0.04
JUN 17...	12	<0.1	3.5	78	77	18	0.008	0.79	<0.03
AUG 07...	14	<0.1	3.6	98	101	3	0.027	0.89	<0.03
DATE	NITROGEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITROGEN, AMMONIA + ORGANIC DIS-SOLVED (MG/L AS N) (00623)	NITROGEN, TOTAL (MG/L AS N) (00600)	NITROGEN, DIS-SOLVED (MG/L AS N) (00602)	PHOSPHORUS TOTAL (MG/L AS P) (00665)	PHOSPHORUS, DIS-SOLVED (MG/L AS P) (00666)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)
NOV 1995 30...	<0.03	0.17	0.16	1.1	1.1	0.07	0.03	2.5	0.2
FEB 1996 21...	--	0.30	0.20	1.8	1.7	0.06	0.04	2.3	0.8
APR 10...	<0.03	0.30	0.19	1.2	1.1	0.02	0.01	2.2	0.3
JUN 17...	<0.03	0.50	0.19	1.3	0.98	0.09	0.04	2.7	0.6
AUG 07...	<0.03	0.30	<0.20	1.2	--	0.05	0.02	2.6	0.4
DATE	TIME	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L) (00340)	ARSENIC TOTAL (MG/L AS AS) (01002)	BERYLLIUM, TOTAL RECOVERABLE (MG/L AS BE) (01012)	BORON, TOTAL RECOVERABLE (MG/L AS B) (01022)	CADMIUM, TOTAL RECOVERABLE (MG/L AS CD) (01027)	CHROMIUM, TOTAL RECOVERABLE (MG/L AS CR) (01034)	COPPER, TOTAL RECOVERABLE (MG/L AS CU) (01042)	
NOV 1995 30...	1100	--	--	--	--	--	--	2	
FEB 1996 21...	1200	--	--	--	--	--	--	2	
APR 10...	1300	--	--	--	--	--	--	2	
JUN 17...	1200	<10	<1	<10	60	<1	<1	3	
AUG 07...	1100	--	--	--	--	--	--	2	

DELAWARE RIVER BASIN

01463500 DELAWARE RIVER AT TRENTON, N.J.--Continued

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

DATE	IRON, TOTAL RECOV- ERABLE (µG/L AS FE) (01045)	LEAD, TOTAL RECOV- ERABLE (µG/L AS PB) (01051)	MANGA- NESE, TOTAL RECOV- ERABLE (µG/L AS MN) (01055)	MERCURY TOTAL RECOV- ERABLE (µG/L AS HG) (71900)	NICKEL, TOTAL RECOV- ERABLE (µG/L AS NI) (01067)	SELE- NIUM, TOTAL (µG/L AS SE) (01147)	ZINC, TOTAL RECOV- ERABLE (µG/L AS ZN) (01092)
NOV 1995							
30...	--	2	--	<0.1	1	--	30
FEB 1996							
21...	--	3	--	<0.1	2	--	30
APR							
10...	--	<1	--	<0.1	1	--	40
JUN							
17...	320	2	90	<0.1	<1	<1	20
AUG							
07...	--	<1	--	<0.1	1	--	<10

DATE	ALPHA BHC TOTAL (µG/L) (39337)	BETA BENZENE HEXA- CHLOR- IDE TOTAL (µG/L) (39338)	DELTA BENZENE HEXA- CHLOR- IDE TOTAL (µG/L) (34259)	ALDRIN, TOTAL (µG/L) (39330)	CHLOR- DANE, TECH- NICAL TOTAL (µG/L) (39350)	CHLOR- DANE CIS WATER WHOLE TOTAL (µG/L) (39062)	CHLOR- DANE TRANS WATER WHOLE TOTAL (µG/L) (39065)	P,P' DDD, TOTAL (µG/L) (39310)	P,P' DDE, TOTAL (µG/L) (39320)
NOV 1995									
30...	<0.03	<0.03	<0.09	<0.04	<0.1	<0.1	<0.1	<0.1	<0.04
FEB 1996									
21...	<0.03	<0.03	<0.09	<0.04	<0.1	<0.1	<0.1	<0.1	<0.04
APR									
10...	<0.03	<0.03	<0.09	<0.04	<0.1	<0.1	<0.1	<0.1	<0.04
JUN									
17...	<0.03	<0.03	<0.09	<0.04	<0.1	<0.1	<0.1	<0.1	<0.04
AUG									
07...	<0.03	<0.03	<0.09	<0.04	<0.1	<0.1	<0.1	<0.1	<0.04

DATE	P,P' DDT, TOTAL (µG/L) (39300)	DI- ELDRIN TOTAL (µG/L) (39380)	ENDO- SULFAN- I WATER WHOLE REC (µG/L) (34361)	ENDO- SULFAN II TOTAL (µG/L) (34356)	ENDO- SULFAN SULFATE TOTAL (µG/L) (34351)	ENDRIN WATER UNFLTRD REC (µG/L) (39390)	ENDRIN ALDE- HYDE TOTAL (µG/L) (34366)	HEPTA- CHLOR, TOTAL (µG/L) (39410)	HEPTA- CHLOR EPOXIDE TOTAL (µG/L) (39420)
NOV 1995									
30...	<0.1	<0.02	<0.1	<0.04	<0.6	<0.06	<0.2	<0.03	<0.8
FEB 1996									
21...	<0.1	<0.02	<0.1	<0.04	<0.6	<0.06	<0.2	<0.03	<0.8
APR									
10...	<0.1	<0.02	<0.1	<0.04	<0.6	<0.06	<0.2	<0.03	<0.8
JUN									
17...	<0.1	<0.02	<0.1	<0.04	<0.6	<0.06	<0.2	<0.03	<0.8
AUG									
07...	<0.1	<0.02	<0.1	<0.04	<0.6	<0.06	<0.2	<0.03	<0.8

DELAWARE RIVER BASIN

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25° 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	228	224	226	152	145	150	164	150	158	189	180	186
2	227	223	225	158	152	154	150	143	145	195	187	192
3	228	224	226	166	158	162	149	143	147	217	195	201
4	229	223	226	164	161	163	156	148	152	214	204	209
5	223	207	218	163	154	160	---	---	---	223	209	217
6	228	192	208	157	154	156	---	---	---	211	207	210
7	226	185	196	160	157	159	153	149	151	221	211	216
8	200	194	199	169	160	165	---	---	---	225	221	224
9	207	200	204	170	163	166	153	148	150	225	222	224
10	208	205	206	172	169	170	157	148	152	222	213	216
11	215	207	209	171	164	168	173	156	161	230	214	224
12	231	215	222	174	134	151	180	173	175	232	213	221
13	241	231	237	174	111	137	187	180	185	213	198	203
14	246	241	244	111	103	107	187	180	183	198	194	195
15	244	216	233	121	107	114	183	176	179	195	185	190
16	239	223	233	121	109	115	193	179	184	192	183	186
17	237	228	232	109	108	109	194	184	189	203	192	197
18	236	204	221	116	109	113	193	181	185	204	191	201
19	204	197	200	124	116	120	191	183	187	202	124	176
20	211	202	207	127	124	125	184	174	181	223	99	152
21	211	142	188	131	127	129	185	178	182	99	90	94
22	198	131	165	131	127	129	192	180	184	---	---	---
23	131	100	110	130	129	129	191	186	189	110	106	109
24	109	99	103	134	129	131	191	178	183	118	110	114
25	116	109	111	139	134	138	189	179	183	133	115	127
26	130	116	123	141	139	140	195	189	193	124	117	120
27	140	130	136	147	141	145	196	193	194	124	115	120
28	150	137	142	151	147	149	195	191	193	131	87	104
29	160	149	156	151	149	150	193	184	189	92	87	89
30	161	144	154	158	149	153	184	178	182	98	89	94
31	145	136	140	---	---	---	183	179	181	109	98	103
MONTH	246	99	190	174	103	142	196	143	176	232	87	170

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	121	109	115	129	125	127	169	162	166	---	---	---
2	133	121	128	136	128	130	167	140	154	110	92	98
3	137	132	134	145	136	139	164	158	160	98	92	95
4	145	137	139	145	142	143	164	161	163	107	98	103
5	152	145	148	150	145	148	165	160	162	---	---	---
6	161	152	158	160	150	154	167	163	165	---	---	---
7	167	158	163	168	160	164	168	164	167	---	---	---
8	172	161	167	165	159	163	172	168	170	---	---	---
9	177	169	173	166	160	162	173	167	170	---	---	---
10	188	177	182	168	163	166	169	166	167	---	---	---
11	180	170	174	180	164	173	169	165	167	---	---	---
12	176	171	173	187	175	183	173	169	170	134	117	126
13	178	171	176	182	178	180	176	173	175	132	100	112
14	184	175	181	188	180	185	181	176	179	115	93	98
15	196	182	188	185	174	179	178	129	157	105	93	97
16	208	189	200	175	170	173	---	---	---	116	104	111
17	201	184	197	177	154	165	---	---	---	127	116	120
18	208	196	201	157	153	154	---	---	---	128	121	125
19	207	200	203	160	157	159	---	---	---	129	124	126
20	218	206	210	162	149	154	---	---	---	136	128	132
21	229	205	215	164	138	152	---	---	---	142	136	138
22	227	164	202	138	126	131	---	---	---	143	140	141
23	164	140	146	130	125	127	---	---	---	148	143	145
24	140	130	135	138	128	131	---	---	---	152	148	151
25	132	120	129	144	138	141	---	---	---	156	148	153
26	120	116	117	150	144	146	---	---	---	156	151	154
27	121	115	118	151	144	147	---	---	---	164	153	159
28	123	115	119	147	143	145	---	---	---	177	162	171
29	129	122	126	154	146	149	---	---	---	184	175	180
30	---	---	---	169	154	164	---	---	---	185	183	184
31	---	---	---	170	162	166	---	---	---	200	184	191
MONTH	229	109	163	188	125	155	181	129	166	200	92	135

DELAWARE RIVER BASIN

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25° 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	204	199	201	222	192	209	160	130	152	244	231	239
2	215	204	209	220	205	210	170	158	165	232	231	231
3	218	214	215	205	198	200	172	165	168	242	231	235
4	220	211	216	198	186	190	172	165	168	247	242	245
5	228	216	222	193	189	192	188	171	176	247	243	245
6	232	228	231	199	189	192	191	188	189	251	247	249
7	231	225	228	200	198	199	198	188	191	251	247	249
8	233	227	230	199	189	193	198	189	193	251	232	246
9	235	229	233	197	191	195	194	182	185	232	218	226
10	233	228	230	209	197	202	190	182	184	219	202	213
11	235	227	232	205	192	195	202	190	196	202	197	199
12	---	---	---	198	192	194	204	193	198	202	196	199
13	---	---	---	231	159	190	197	189	193	207	195	200
14	144	123	137	192	135	166	221	197	210	227	206	215
15	123	114	118	135	117	125	225	207	216	242	227	234
16	133	123	128	121	113	117	208	204	206	243	239	241
17	145	132	140	120	110	117	217	205	212	239	212	224
18	160	143	153	116	108	112	234	217	227	244	221	229
19	173	160	167	123	113	116	234	223	229	245	210	231
20	174	163	169	138	123	129	227	222	225	210	155	174
21	181	174	178	140	135	137	229	221	224	159	155	157
22	177	166	172	144	140	142	233	229	232	168	158	161
23	174	158	165	151	142	147	242	233	239	188	167	175
24	184	165	176	158	151	155	243	236	241	196	188	193
25	190	184	188	165	153	160	252	241	249	197	190	194
26	191	187	189	175	164	170	---	---	---	190	183	185
27	189	181	184	175	159	170	---	---	---	193	185	187
28	190	185	188	159	135	145	---	---	---	199	193	197
29	193	190	192	142	135	138	228	219	222	195	186	191
30	233	174	198	150	142	147	232	228	231	208	174	194
31	---	---	---	162	122	145	244	232	238	---	---	---
MONTH	235	114	189	231	108	164	252	130	206	251	155	212

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	8.7	7.6	8.2	7.5	7.5	7.5	8.2	8.0	8.1	8.5	8.1	8.3
2	8.8	7.6	8.2	7.5	7.5	7.5	8.1	8.0	8.1	8.4	8.0	8.2
3	8.8	7.7	8.2	7.5	7.4	7.5	8.2	8.1	8.1	8.4	7.8	8.2
4	8.5	7.6	7.9	7.6	7.5	7.5	8.2	8.0	8.1	8.6	8.1	8.3
5	7.7	7.4	7.5	7.6	7.6	7.6	---	---	---	8.6	8.2	8.4
6	7.4	7.2	7.3	7.6	7.5	7.6	---	---	---	8.6	8.1	8.3
7	7.3	7.2	7.3	7.6	7.6	7.6	8.2	8.1	8.1	8.3	8.0	8.2
8	7.4	7.3	7.3	7.6	7.6	7.6	---	---	---	8.0	7.9	8.0
9	7.9	7.3	7.5	7.7	7.6	7.7	8.0	8.0	8.0	8.0	7.9	7.9
10	8.3	7.4	7.7	7.7	7.6	7.7	8.1	8.0	8.0	8.0	7.9	7.9
11	8.4	7.6	7.9	7.7	7.6	7.7	8.1	8.0	8.1	8.2	7.9	8.1
12	8.5	7.6	7.9	7.6	7.3	7.4	8.2	8.1	8.1	8.3	8.1	8.2
13	8.5	7.6	8.0	7.5	7.3	7.4	8.1	8.0	8.1	8.2	8.1	8.2
14	8.2	7.6	7.8	7.3	7.2	7.3	8.1	8.0	8.1	8.3	8.1	8.2
15	7.8	7.4	7.6	7.4	7.3	7.3	8.1	7.9	8.0	8.4	8.2	8.3
16	7.8	7.5	7.7	7.4	7.3	7.4	8.0	7.9	8.0	8.5	8.2	8.3
17	8.1	7.6	7.8	7.3	7.3	7.3	8.1	8.0	8.1	8.5	8.3	8.4
18	8.0	7.7	7.8	7.4	7.3	7.3	8.2	8.0	8.1	8.6	8.3	8.4
19	8.2	7.6	7.8	7.4	7.4	7.4	8.2	8.1	8.1	8.4	7.6	8.1
20	8.2	7.6	7.8	7.4	7.4	7.4	8.3	8.2	8.2	8.0	7.2	7.7
21	7.7	7.1	7.4	7.5	7.4	7.4	8.2	8.1	8.2	7.6	7.3	7.4
22	7.4	7.1	7.2	7.8	7.4	7.6	8.3	8.1	8.2	---	---	---
23	7.1	6.8	6.9	7.9	7.8	7.8	8.4	8.2	8.3	7.6	7.5	7.6
24	7.0	6.9	6.9	8.0	7.9	7.9	8.4	8.2	8.3	7.6	7.5	7.5
25	7.1	7.0	7.0	8.0	7.9	8.0	8.4	8.1	8.3	7.7	7.5	7.6
26	7.2	7.1	7.2	8.1	8.0	8.0	8.4	8.2	8.3	7.6	7.6	7.6
27	7.3	7.2	7.3	8.1	8.0	8.1	8.5	8.2	8.3	7.7	7.6	7.6
28	7.3	7.2	7.2	8.2	8.1	8.1	8.5	8.2	8.4	7.7	7.4	7.6
29	7.4	7.3	7.3	8.2	8.1	8.2	8.4	8.2	8.3	7.4	7.3	7.4
30	7.4	7.3	7.3	8.2	8.1	8.2	8.4	8.2	8.3	7.5	7.4	7.4
31	7.5	7.2	7.3	---	---	---	8.5	8.1	8.3	7.6	7.5	7.5
MONTH	8.8	6.8	7.6	8.2	7.2	7.6	8.5	7.9	8.2	8.6	7.2	8.0

DELAWARE RIVER BASIN

01463500 DELAWARE RIVER AT TRENTON, NJ--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
FEBRUARY			MARCH			APRIL			MAY			
1	7.6	7.5	7.5	7.7	7.5	7.6	8.6	7.7	8.2	---	---	---
2	7.6	7.5	7.6	7.6	7.6	7.6	8.2	7.6	7.8	7.6	7.4	7.5
3	7.7	7.6	7.7	7.7	7.6	7.6	8.1	7.7	7.9	7.5	7.4	7.5
4	7.7	7.6	7.6	7.7	7.7	7.7	8.9	7.9	8.4	7.5	7.4	7.5
5	7.7	7.6	7.7	7.8	7.7	7.7	8.8	7.9	8.4	7.6	7.4	7.5
6	7.7	7.7	7.7	7.7	7.6	7.7	9.2	7.9	8.7	7.6	7.5	7.6
7	7.8	7.7	7.8	7.7	7.7	7.7	9.0	8.1	8.6	7.7	7.5	7.6
8	7.8	7.7	7.8	7.7	7.7	7.7	9.1	8.0	8.6	7.7	7.5	7.6
9	7.8	7.7	7.7	7.8	7.7	7.7	9.0	8.1	8.5	7.7	7.6	7.6
10	7.8	7.7	7.8	7.8	7.7	7.8	9.2	8.0	8.7	7.9	7.6	7.7
11	7.8	7.7	7.8	7.9	7.7	7.8	9.4	8.2	9.0	7.9	7.5	7.7
12	7.9	7.8	7.8	7.9	7.8	7.9	9.5	8.4	9.1	7.6	7.5	7.5
13	7.9	7.7	7.8	7.9	7.7	7.8	9.6	8.7	9.3	7.6	7.5	7.5
14	7.8	7.7	7.8	8.0	7.7	7.9	9.4	8.7	9.1	7.5	7.2	7.3
15	7.8	7.8	7.8	8.0	7.8	7.9	9.2	8.0	8.7	7.4	7.2	7.3
16	7.9	7.7	7.8	8.2	7.8	8.0	---	---	---	7.3	7.2	7.3
17	7.9	7.9	7.9	8.0	7.8	7.9	---	---	---	7.4	7.2	7.3
18	7.9	7.9	7.9	8.2	7.7	7.9	---	---	---	7.4	7.3	7.4
19	7.9	7.9	7.9	8.0	7.7	7.9	---	---	---	7.7	7.3	7.5
20	7.9	7.9	7.9	7.8	7.6	7.7	---	---	---	7.7	7.3	7.5
21	7.9	7.7	7.9	7.6	7.5	7.6	---	---	---	8.2	7.3	7.7
22	7.9	7.6	7.8	7.6	7.5	7.5	---	---	---	8.4	7.5	8.0
23	7.7	7.6	7.6	7.7	7.5	7.6	---	---	---	8.7	7.5	8.1
24	7.6	7.6	7.6	8.0	7.5	7.8	---	---	---	8.5	7.6	8.1
25	7.6	7.5	7.6	8.3	7.6	7.9	---	---	---	8.7	7.7	8.3
26	7.6	7.6	7.6	8.6	7.7	8.1	---	---	---	8.5	7.7	8.2
27	7.6	7.5	7.6	8.9	7.7	8.3	---	---	---	8.5	7.9	8.3
28	7.6	7.6	7.6	8.6	7.8	8.2	---	---	---	8.6	8.0	8.3
29	7.7	7.6	7.7	8.1	7.6	7.8	---	---	---	8.7	8.2	8.4
30	---	---	---	8.5	7.6	8.0	---	---	---	9.0	8.4	8.7
31	---	---	---	8.8	7.7	8.3	---	---	---	9.4	8.8	9.1
MONTH	7.9	7.5	7.7	8.9	7.5	7.8	9.6	7.6	8.6	9.4	7.2	7.8

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	9.5	9.1	9.3	8.1	7.9	8.0	7.8	7.6	7.7	8.7	8.0	8.4
2	9.6	9.2	9.4	8.1	7.7	7.9	8.0	7.7	7.8	8.8	8.1	8.5
3	9.4	9.0	9.3	8.3	7.9	8.0	7.9	7.7	7.8	8.8	8.1	8.5
4	9.6	8.7	9.2	8.1	7.9	8.0	7.9	7.6	7.7	8.6	8.2	8.4
5	9.4	8.9	9.2	8.5	7.8	8.1	8.1	7.6	7.8	8.7	8.1	8.4
6	9.2	8.8	9.1	8.8	8.0	8.4	8.3	7.8	8.0	8.5	8.1	8.2
7	9.3	8.5	8.9	8.7	8.1	8.4	8.4	8.0	8.2	8.5	7.9	8.2
8	9.2	8.5	9.0	8.6	7.9	8.3	8.5	8.1	8.3	8.4	7.9	8.1
9	9.0	8.6	8.8	8.7	7.9	8.3	8.4	8.1	8.3	8.5	7.8	8.2
10	8.9	8.2	8.6	8.1	7.5	7.8	8.5	7.8	8.2	8.6	7.9	8.3
11	8.6	8.0	8.3	9.2	7.8	8.3	8.6	8.1	8.4	8.2	7.9	8.0
12	---	---	---	8.5	7.9	8.3	8.4	8.0	8.2	8.1	7.8	7.9
13	---	---	---	8.2	7.5	7.8	8.1	7.8	7.9	8.2	7.8	7.9
14	8.3	7.6	7.9	7.6	7.4	7.5	8.5	7.9	8.2	8.4	7.8	8.1
15	8.0	7.4	7.6	7.4	7.3	7.3	8.5	8.1	8.3	8.4	7.9	8.2
16	8.1	7.4	7.7	7.4	7.2	7.3	8.6	8.0	8.3	8.4	7.9	8.2
17	8.3	7.5	7.8	7.4	7.3	7.3	8.6	8.1	8.4	8.1	7.8	7.9
18	8.1	7.5	7.7	7.6	7.3	7.4	8.7	8.2	8.5	8.0	7.8	7.9
19	7.9	7.6	7.7	7.7	7.5	7.6	8.7	8.2	8.5	8.1	7.9	8.0
20	7.9	7.5	7.7	7.9	7.6	7.8	8.8	8.3	8.5	7.9	7.7	7.8
21	8.1	7.8	7.9	8.2	7.7	7.9	8.7	8.4	8.5	8.0	7.7	7.8
22	8.3	7.8	8.0	7.9	7.7	7.9	8.7	8.2	8.5	7.8	7.7	7.7
23	7.9	7.6	7.7	8.0	7.8	7.9	8.6	8.1	8.4	8.0	7.7	7.8
24	8.0	7.6	7.8	8.4	7.8	8.1	8.5	8.0	8.2	8.0	7.8	7.9
25	8.3	7.9	8.1	8.5	7.9	8.2	8.5	7.8	8.1	8.0	7.8	7.9
26	8.7	8.1	8.4	8.5	8.0	8.2	---	---	---	8.1	7.9	8.0
27	9.1	8.4	8.7	8.5	8.0	8.2	---	---	---	8.1	7.9	8.0
28	9.2	8.6	8.9	8.2	7.9	8.1	---	---	---	8.1	7.9	8.0
29	9.3	8.8	9.0	8.0	7.8	7.9	8.6	8.0	8.3	8.2	7.9	8.0
30	9.0	7.6	8.4	7.9	7.8	7.9	8.8	8.0	8.4	8.1	7.8	7.9
31	---	---	---	7.9	7.5	7.7	8.7	8.1	8.4	---	---	---
MONTH	9.6	7.4	8.4	9.2	7.2	7.9	8.8	7.6	8.2	8.8	7.7	8.1

DELAWARE RIVER BASIN

01463500 DELAWARE RIVER AT TRENTON, NJ--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	19.0	17.0	18.0	11.5	11.0	11.0	4.5	4.0	4.0	2.5	1.5	2.0
2	19.5	17.5	18.5	12.0	11.0	11.5	4.0	3.5	4.0	3.0	2.5	2.5
3	20.0	18.5	19.0	13.0	12.0	12.5	4.5	3.5	4.0	2.5	1.5	2.0
4	20.0	19.5	19.5	13.0	11.0	12.0	5.0	4.5	5.0	1.5	.0	.5
5	20.0	19.5	19.5	11.0	9.5	10.5	---	---	---	.5	.0	.0
6	20.5	19.5	20.0	10.0	8.5	9.0	---	---	---	.0	.0	.0
7	20.5	19.0	19.5	8.5	8.0	8.0	4.0	3.5	4.0	.0	.0	.0
8	19.0	18.5	19.0	8.0	7.5	8.0	---	---	---	.0	.0	.0
9	18.5	17.5	18.0	7.5	6.0	7.0	3.0	2.0	2.5	.0	.0	.0
10	18.5	16.5	17.5	6.5	6.0	6.0	2.0	.5	1.0	.0	.0	.0
11	18.5	17.0	18.0	8.5	6.0	7.0	.5	.0	.0	.0	.0	.0
12	19.0	17.0	18.0	9.0	7.5	8.0	.0	.0	.0	.5	.0	.0
13	19.0	17.5	18.5	7.5	6.5	7.0	.0	.0	.0	.0	.0	.0
14	18.5	18.0	18.0	6.5	6.0	6.0	.5	.0	.0	.0	.0	.0
15	18.0	16.5	17.5	6.0	5.0	5.5	1.5	.5	1.0	.0	.0	.0
16	16.5	14.5	15.5	5.0	5.0	5.0	2.0	1.5	1.5	.0	.0	.0
17	14.5	13.5	14.0	5.0	4.5	4.5	2.5	1.5	2.0	.0	.0	.0
18	14.0	13.0	13.5	4.5	4.5	4.5	1.5	1.5	1.5	.0	.0	.0
19	14.5	13.0	13.5	5.0	4.5	5.0	1.5	.0	1.0	2.0	.0	.5
20	15.5	13.5	14.5	5.5	5.0	5.0	.0	.0	.0	1.5	.0	.5
21	16.5	15.0	16.0	6.0	5.0	5.5	.0	.0	.0	.5	.0	.5
22	15.0	13.5	14.0	6.0	5.0	5.5	.5	.0	.0	---	---	---
23	13.5	12.5	13.0	5.5	5.0	5.0	1.5	.0	1.0	1.5	1.0	1.5
24	13.0	12.0	12.5	5.0	5.0	5.0	2.0	1.5	1.5	2.0	1.5	2.0
25	13.0	12.5	13.0	5.0	4.5	4.5	2.0	1.5	1.5	2.5	2.0	2.0
26	13.0	12.0	12.5	4.5	4.0	4.0	1.5	.5	1.0	2.0	1.5	1.5
27	12.5	11.5	12.0	4.5	4.0	4.0	.5	.0	.5	3.0	1.5	2.5
28	13.5	12.5	13.0	5.5	4.5	5.0	1.0	.0	.5	3.0	1.5	2.5
29	13.0	12.5	13.0	5.5	4.5	4.5	1.0	.5	.5	2.0	1.5	1.5
30	12.5	12.0	12.0	4.5	4.0	4.5	1.0	.5	1.0	2.0	1.5	2.0
31	12.0	11.5	11.5	---	---	---	1.5	.5	1.0	2.0	1.5	2.0
MONTH	20.5	11.5	15.9	13.0	4.0	6.7	5.0	.0	1.4	3.0	.0	.9

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	1.5	1.0	1.5	5.0	4.0	4.0	8.5	7.5	8.0	---	---	---
2	1.0	1.0	1.0	4.0	3.0	3.0	8.5	7.5	8.0	12.0	11.0	11.5
3	1.0	.5	.5	3.5	3.0	3.0	9.0	7.5	8.5	11.5	11.5	11.5
4	.5	.0	.0	3.0	2.0	2.5	9.5	8.5	9.0	11.5	11.5	11.5
5	.5	.0	.0	4.0	2.0	3.0	9.5	8.5	9.0	12.5	11.0	11.5
6	.5	.0	.0	4.0	3.5	4.0	9.0	8.0	8.5	12.5	12.0	12.0
7	.5	.0	.5	4.0	3.0	4.0	9.0	8.0	8.5	12.5	11.5	12.0
8	1.5	.5	1.0	3.0	2.0	2.5	9.0	7.5	8.5	12.5	11.5	12.0
9	2.5	1.5	2.0	2.0	1.0	1.0	8.5	7.0	7.5	13.0	12.5	12.5
10	3.0	2.0	2.5	1.5	.0	1.0	7.5	6.5	7.0	14.0	12.5	13.0
11	3.0	2.5	3.0	2.5	.5	1.5	9.0	7.0	8.0	15.5	13.5	14.5
12	3.0	2.0	2.5	3.5	2.0	3.0	11.0	8.5	9.5	15.0	14.0	14.5
13	2.0	1.0	1.0	4.5	2.5	4.0	12.5	10.5	11.5	14.5	12.5	13.5
14	1.5	.5	1.0	6.0	4.0	5.0	12.0	11.5	12.0	12.5	11.5	12.0
15	2.0	1.5	1.5	6.5	5.5	6.0	11.5	10.0	10.5	12.0	11.0	11.5
16	2.0	.5	1.0	7.0	6.0	6.5	---	---	---	11.5	11.5	11.5
17	1.5	.0	.5	7.0	5.5	6.0	---	---	---	13.0	11.5	12.5
18	2.0	1.0	1.5	6.5	5.0	5.5	---	---	---	14.0	12.5	13.0
19	2.0	1.0	1.5	6.5	5.5	6.0	---	---	---	16.5	14.0	15.0
20	3.0	2.0	2.5	6.5	6.0	6.5	---	---	---	19.0	16.0	17.5
21	4.0	3.0	3.5	6.0	5.5	6.0	---	---	---	21.5	18.5	20.0
22	4.0	3.5	4.0	6.0	5.5	5.5	---	---	---	21.5	20.0	21.0
23	3.5	3.0	3.5	5.5	5.0	5.0	---	---	---	21.5	20.0	21.0
24	4.5	3.5	4.0	6.0	4.0	5.0	---	---	---	21.0	20.0	20.5
25	5.5	4.0	4.5	7.5	5.0	6.0	---	---	---	20.5	19.0	20.0
26	5.0	4.5	4.5	8.5	7.0	7.5	---	---	---	20.0	18.0	18.5
27	5.0	4.5	5.0	8.5	7.0	8.0	---	---	---	18.0	17.0	17.5
28	5.5	4.5	5.0	8.0	6.5	7.0	---	---	---	17.0	16.0	16.5
29	5.0	4.5	5.0	6.5	5.5	6.0	---	---	---	16.0	15.5	16.0
30	---	---	---	6.5	5.0	6.0	---	---	---	17.0	15.0	16.0
31	---	---	---	8.0	6.0	7.0	---	---	---	18.0	16.0	17.0
MONTH	5.5	.0	2.2	8.5	.0	4.7	12.5	6.5	8.9	21.5	11.0	14.9

DELAWARE RIVER BASIN

01463500 DELAWARE RIVER AT TRENTON, NJ--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	19.5	17.0	18.5	22.0	20.5	21.5	22.5	21.0	21.5	26.0	24.0	25.0
2	20.5	18.0	19.5	23.5	21.5	22.5	23.5	21.5	22.5	26.5	23.5	25.0
3	19.5	18.5	19.0	24.0	23.0	23.5	23.0	22.5	23.0	27.0	24.0	25.5
4	21.0	18.5	19.5	23.5	22.5	23.0	23.5	22.0	22.5	26.5	25.0	25.5
5	22.0	20.0	21.0	24.0	22.0	22.5	25.0	23.0	24.0	26.5	24.5	25.5
6	22.0	20.5	21.0	24.5	22.5	23.5	26.0	24.0	25.0	26.0	24.5	25.0
7	23.5	20.5	22.0	25.5	23.5	24.5	26.5	25.0	25.5	26.0	24.0	25.0
8	25.0	22.0	23.5	26.0	24.5	25.0	27.0	25.5	26.0	26.5	25.0	25.5
9	25.0	23.5	24.5	27.0	24.5	26.0	26.0	24.5	25.5	27.0	25.0	26.0
10	25.0	24.0	24.5	26.0	25.0	25.5	26.5	24.0	25.0	27.0	25.5	26.5
11	25.0	24.0	24.5	26.0	24.0	25.0	25.5	24.0	25.0	26.0	24.5	25.5
12	---	---	---	25.0	24.0	24.5	24.5	22.5	23.5	24.5	23.0	24.0
13	---	---	---	24.0	22.0	23.0	22.5	21.0	21.5	23.0	22.5	23.0
14	25.0	23.5	24.5	22.5	21.5	22.0	23.5	21.0	22.0	23.0	21.0	22.0
15	25.0	23.0	24.5	21.5	21.5	21.5	25.0	22.5	23.5	22.5	20.5	21.5
16	25.0	23.5	24.5	22.5	21.0	22.0	25.0	23.0	24.0	22.0	20.5	21.0
17	25.0	23.5	24.5	23.5	21.5	22.5	26.0	23.0	24.5	20.5	18.5	19.5
18	24.5	23.5	24.0	23.5	22.5	23.0	26.5	24.0	25.5	19.0	18.0	18.5
19	24.0	21.5	23.0	24.0	23.0	23.5	27.0	24.5	25.5	19.5	18.0	18.5
20	22.0	21.0	21.5	24.0	22.5	23.0	26.5	24.5	25.5	19.5	18.0	18.5
21	23.5	21.5	22.5	23.5	22.0	23.0	25.5	24.5	25.0	19.0	18.0	18.5
22	23.5	22.5	23.0	23.5	21.5	22.0	26.5	24.0	25.5	19.0	18.0	18.5
23	23.5	22.0	23.0	21.5	21.0	21.5	28.0	25.5	26.5	18.0	17.0	17.5
24	24.0	22.0	23.0	23.0	21.0	21.5	27.5	26.0	27.0	17.0	16.5	17.0
25	24.5	23.5	24.0	23.5	22.0	23.0	27.5	25.0	26.5	17.5	16.0	16.5
26	24.5	23.0	23.5	24.0	22.5	23.5	---	---	---	18.0	16.0	17.0
27	24.5	22.5	23.5	24.5	23.0	23.5	---	---	---	18.0	17.0	17.5
28	25.5	23.5	24.0	24.0	22.5	23.5	---	---	---	18.5	17.0	18.0
29	24.5	23.5	24.0	24.0	22.5	23.0	27.0	24.5	25.5	18.5	17.5	18.0
30	23.5	20.5	22.0	22.5	21.5	22.0	27.0	24.0	25.5	18.5	17.0	17.5
31	---	---	---	21.5	21.0	21.0	27.0	24.5	25.5	---	---	---
MONTH	25.5	17.0	22.7	27.0	20.5	23.1	28.0	21.0	24.6	27.0	16.0	21.4

OXYGEN DISSOLVED (MG/L), 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	12.1	8.6	10.1	12.0	11.8	11.9	12.8	12.2	12.5	14.0	13.3	13.6
2	12.1	8.5	10.0	11.8	11.4	11.6	13.1	12.7	12.9	13.5	13.0	13.2
3	12.2	8.3	9.9	11.4	11.1	11.2	13.2	12.8	13.0	13.4	12.6	13.0
4	10.5	8.0	8.9	11.5	11.0	11.3	12.8	12.5	12.7	14.4	13.1	13.8
5	8.6	7.6	8.0	12.0	11.5	11.8	---	---	---	14.8	14.0	14.4
6	7.8	7.6	7.7	12.3	11.8	12.1	---	---	---	15.2	14.3	14.7
7	7.8	7.6	7.7	12.4	12.2	12.3	13.2	12.8	13.0	14.9	14.2	14.5
8	8.6	7.8	8.1	12.3	12.0	12.2	---	---	---	14.2	13.7	14.0
9	9.8	8.2	8.9	12.8	12.2	12.6	13.8	13.3	13.5	14.0	13.7	13.8
10	11.8	8.6	9.9	13.2	12.7	13.0	14.0	13.5	13.8	14.1	13.9	14.0
11	12.1	10.2	10.9	13.0	12.1	12.8	14.6	14.0	14.3	14.0	13.6	13.9
12	12.3	10.1	11.0	12.1	11.4	11.7	14.8	14.6	14.7	13.7	13.4	13.6
13	12.6	10.0	11.1	12.4	11.9	12.2	14.8	14.7	14.7	13.4	13.1	13.3
14	11.7	10.0	10.5	12.6	12.4	12.5	14.7	14.2	14.4	13.8	13.1	13.5
15	10.6	9.8	10.1	12.6	12.5	12.6	14.2	13.7	14.0	13.9	13.5	13.6
16	11.3	10.1	10.8	12.9	12.6	12.8	13.7	13.3	13.5	13.9	13.5	13.8
17	12.5	11.0	11.7	13.2	12.9	13.1	13.4	13.1	13.3	14.2	13.8	14.0
18	12.7	11.6	12.1	13.2	13.1	13.1	13.5	13.2	13.4	14.2	13.8	14.0
19	13.1	11.8	12.3	13.1	12.9	13.0	13.4	13.2	13.3	13.9	12.8	13.4
20	13.0	11.5	12.1	12.9	12.6	12.8	13.8	13.4	13.6	13.5	13.1	13.3
21	11.5	10.3	10.8	12.6	12.3	12.5	14.0	13.7	13.8	13.8	13.1	13.6
22	11.5	10.8	11.0	12.5	12.0	12.3	13.9	13.7	13.8	---	---	---
23	11.7	11.3	11.5	12.3	12.0	12.2	13.7	13.4	13.6	14.0	13.8	13.9
24	12.0	11.7	11.9	12.4	12.2	12.3	13.5	13.2	13.4	13.9	13.5	13.7
25	11.9	11.8	11.9	12.6	12.3	12.4	13.6	13.1	13.4	13.8	13.5	13.6
26	12.1	11.8	12.0	12.6	12.4	12.5	13.7	13.2	13.5	14.2	13.8	14.1
27	12.2	11.9	12.1	12.6	12.3	12.4	14.0	13.6	13.8	14.3	13.5	14.0
28	12.0	11.5	11.6	12.3	12.1	12.2	14.1	13.7	13.9	13.9	13.2	13.6
29	11.7	11.5	11.6	12.4	12.0	12.2	14.1	13.7	13.9	13.9	13.3	13.6
30	12.3	11.7	12.1	12.5	12.2	12.4	14.2	13.6	13.9	13.9	13.1	13.5
31	12.4	11.9	12.2	---	---	---	14.2	13.6	13.9	13.7	13.4	13.6
MONTH	13.1	7.6	10.7	13.2	11.0	12.3	14.8	12.2	13.6	15.2	12.6	13.8

DELAWARE RIVER BASIN

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

OXYGEN DISSOLVED (MG/L), 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	14.2	13.5	13.8	13.6	13.1	13.3	13.3	11.7	12.4	---	---	---
2	---	---	---	13.4	13.2	13.4	12.1	11.6	11.8	10.2	10.1	10.2
3	---	---	---	13.4	13.3	13.3	12.4	11.6	12.1	10.2	10.1	10.1
4	---	---	---	13.8	13.4	13.7	13.5	11.8	12.5	10.3	10.0	10.2
5	---	---	---	13.8	13.2	13.6	13.3	11.6	12.3	---	---	---
6	---	---	---	13.2	12.8	13.0	14.3	11.7	13.0	---	---	---
7	---	---	---	13.0	12.8	12.9	13.0	11.8	12.5	---	---	---
8	---	---	---	13.6	13.0	13.3	14.4	11.7	13.0	---	---	---
9	14.3	14.0	14.2	14.3	13.6	14.0	13.2	12.0	12.7	---	---	---
10	14.1	13.9	14.1	14.6	14.2	14.4	14.4	12.1	13.2	---	---	---
11	13.9	13.6	13.8	14.5	13.9	14.3	15.2	12.3	13.6	---	---	---
12	14.0	13.6	13.8	14.0	13.4	13.8	15.2	11.9	13.5	---	---	---
13	---	---	---	13.7	13.1	13.4	15.0	11.4	13.0	---	---	---
14	---	---	---	13.2	12.6	13.0	13.8	10.8	12.2	---	---	---
15	---	---	---	12.7	12.3	12.5	13.2	11.0	12.0	10.9	10.6	10.8
16	---	---	---	12.7	12.1	12.4	---	---	---	10.7	10.4	10.6
17	---	---	---	12.8	12.1	12.5	---	---	---	10.7	10.3	10.5
18	---	---	---	13.3	12.6	12.9	---	---	---	10.4	10.0	10.2
19	---	---	---	12.7	12.1	12.5	---	---	---	10.4	9.5	10.0
20	14.9	14.5	14.7	12.1	11.8	11.9	---	---	---	10.0	9.0	9.5
21	14.5	14.0	14.2	12.1	11.9	12.0	---	---	---	9.9	8.4	9.1
22	14.2	14.0	14.1	12.4	12.1	12.3	---	---	---	10.1	8.4	9.2
23	14.4	14.2	14.4	12.8	12.4	12.6	---	---	---	10.7	8.4	9.5
24	14.2	13.8	14.1	13.5	12.7	13.0	---	---	---	10.9	8.5	9.7
25	13.9	13.5	13.7	13.5	12.4	12.9	---	---	---	11.5	8.5	9.9
26	13.7	13.5	13.6	13.2	12.0	12.6	---	---	---	10.5	8.5	9.5
27	13.6	13.2	13.5	13.6	11.8	12.6	---	---	---	11.4	8.7	9.9
28	13.4	13.1	13.3	13.2	11.9	12.6	---	---	---	11.5	9.0	10.2
29	13.3	13.1	13.2	12.9	12.0	12.5	---	---	---	12.0	9.5	10.7
30	---	---	---	13.8	12.4	13.0	---	---	---	13.5	9.6	11.5
31	---	---	---	13.9	12.3	13.0	---	---	---	14.9	9.7	12.2
MONTH	14.9	13.1	13.9	14.6	11.8	13.0	15.2	10.8	12.7	14.9	8.4	10.2

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	15.5	9.8	12.7	9.8	8.0	8.8	---	---	---	10.4	7.7	9.0
2	15.1	9.8	12.5	9.7	8.7	9.1	9.2	8.5	8.8	10.6	7.8	9.0
3	12.3	9.2	10.2	9.9	8.2	9.0	8.9	8.4	8.6	11.2	7.6	9.3
4	13.5	7.6	10.6	9.4	8.3	8.9	9.0	8.3	8.5	10.0	7.9	9.0
5	11.8	8.5	10.3	10.5	8.5	9.4	9.2	8.2	8.6	10.4	7.9	9.1
6	11.5	7.3	9.4	11.4	8.7	10.0	9.4	8.1	8.7	8.9	7.8	8.3
7	11.2	6.4	8.6	11.0	8.5	9.7	9.4	8.1	8.7	9.6	7.6	8.5
8	10.9	6.4	8.6	10.2	8.0	9.0	9.7	8.0	8.8	9.2	7.5	8.3
9	8.4	4.9	6.8	10.6	7.8	9.0	8.9	7.9	8.5	9.7	7.4	8.4
10	8.8	5.3	6.9	---	---	---	9.7	7.9	8.8	9.6	7.5	8.5
11	8.3	5.2	6.6	---	---	---	9.8	8.1	8.9	8.3	7.4	7.9
12	---	---	---	---	---	---	8.9	8.2	8.6	8.6	7.5	8.0
13	---	---	---	---	---	---	9.0	8.3	8.6	8.9	7.7	8.2
14	9.2	6.9	8.0	---	---	---	9.8	8.5	9.1	9.3	7.9	8.6
15	8.9	7.7	8.2	---	---	---	10.1	8.3	9.2	9.6	8.1	8.8
16	9.0	7.7	8.3	---	---	---	10.0	8.2	9.0	9.4	8.2	8.7
17	9.2	7.7	8.3	---	---	---	10.0	8.0	8.9	8.6	8.3	8.4
18	8.8	7.6	8.1	---	---	---	10.2	8.0	9.0	9.0	8.4	8.7
19	8.2	7.7	8.0	---	---	---	10.3	7.7	8.9	9.2	8.5	8.9
20	8.5	7.9	8.2	---	---	---	10.5	8.0	9.1	9.3	8.6	8.9
21	9.5	8.0	8.6	---	---	---	10.2	7.9	9.0	9.7	8.7	9.1
22	9.2	8.1	8.5	---	---	---	10.6	8.1	9.3	9.2	8.6	8.9
23	8.4	7.6	7.9	---	---	---	10.6	7.9	9.2	9.4	8.6	9.0
24	8.3	7.5	7.9	---	---	---	9.7	7.6	8.5	9.7	8.9	9.3
25	8.9	7.9	8.4	---	---	---	10.1	7.4	8.6	9.8	9.0	9.4
26	9.8	8.1	8.9	---	---	---	---	---	---	9.9	9.1	9.5
27	10.9	8.3	9.5	---	---	---	---	---	---	9.8	9.1	9.4
28	11.3	8.3	9.7	---	---	---	---	---	---	9.6	9.0	9.2
29	11.5	8.2	9.9	---	---	---	10.1	7.6	8.7	9.4	8.7	9.0
30	9.7	8.0	8.5	---	---	---	10.6	7.9	9.1	9.7	8.6	9.1
31	---	---	---	---	---	---	10.3	8.0	9.1	---	---	---
MONTH	15.5	4.9	8.9	11.4	7.8	9.2	10.6	7.4	8.8	11.2	7.4	8.8

NESHAMINY CREEK BASIN

01464645 NORTH BRANCH NESHAMINY CREEK BELOW LAKE GALENA NEAR NEW BRITAIN, PA

LOCATION.--Lat 40°18'44", long 75°12'25", Bucks County, Hydrologic Unit 02040201, on left bank 0.3 mi downstream from Lake Galena (Peace Valley Reservoir), 1.5 mi west of New Britain, 2.0 mi north of Chalfont on Callowhill Road, and 4.0 mi west of Doylestown.

DRAINAGE AREA.--16.2 mi².

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

GAGE.--Water-stage recorder. Elevation of gage is 280 ft above sea level, from topographic map.

REMARKS.--No estimated daily discharges. Records fair. Flow regulated by Lake Galena (Peace Valley Reservoir). Several measurements of water temperature were made during the year. Satellite telemetry at station.

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	20	70	22	19	75	24	73	23	23	22	59	22
2	19	72	21	21	33	23	347	22	23	24	42	21
3	18	70	21	22	26	22	150	22	24	22	32	22
4	20	70	21	21	26	22	92	22	24	20	29	22
5	26	70	21	21	26	23	124	22	23	21	23	23
6	40	69	21	21	26	38	120	22	23	22	24	22
7	37	69	21	32	26	108	28	23	23	21	22	22
8	29	69	21	38	25	123	27	22	23	22	22	21
9	25	68	21	37	23	76	28	21	23	23	22	24
10	24	67	21	33	23	54	61	22	22	24	22	23
11	23	78	21	30	24	45	99	24	25	23	22	26
12	23	85	21	30	23	43	118	39	23	23	24	24
13	21	74	20	29	22	47	116	34	23	32	22	26
14	24	79	21	28	22	46	72	26	22	69	23	25
15	68	110	21	28	22	41	36	22	23	306	22	25
16	53	184	22	27	22	36	175	23	22	136	23	24
17	38	185	22	26	21	31	153	23	24	68	22	24
18	30	177	22	25	21	27	118	24	25	39	21	27
19	31	180	22	102	21	33	101	23	24	30	22	27
20	35	185	22	49	23	93	118	22	23	26	22	24
21	194	141	22	57	29	71	30	24	23	24	24	24
22	201	72	21	52	25	54	26	23	23	22	23	30
23	97	69	21	45	32	42	26	23	22	22	23	27
24	64	68	21	118	45	34	25	26	23	21	26	24
25	49	60	21	224	46	29	23	24	23	23	23	26
26	42	59	21	132	39	26	22	21	24	23	23	26
27	58	27	21	436	33	24	22	20	22	22	22	25
28	79	22	21	395	30	23	21	21	23	21	23	24
29	74	22	20	169	27	60	24	24	23	23	24	24
30	71	22	19	117	---	77	26	21	24	23	24	23
31	70	---	19	109	---	55	---	22	---	42	23	---
TOTAL	1603	2593	652	2493	836	1450	2401	730	695	1239	778	727
MEAN	51.7	86.4	21.0	80.4	28.8	46.8	80.0	23.5	23.2	40.0	25.1	24.2
MAX	201	185	22	436	75	123	347	39	25	306	59	30
MIN	18	22	19	19	21	22	21	20	22	20	21	21

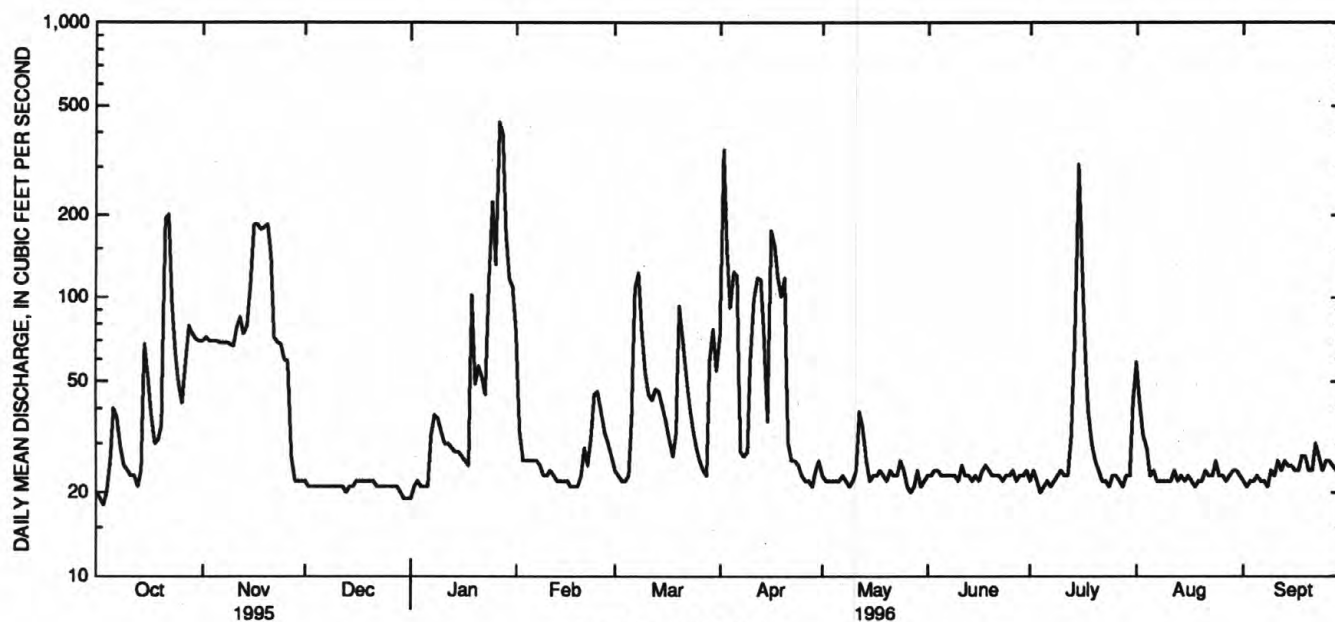
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1986 - 1996, BY WATER YEAR (WY)

MEAN	16.9	24.7	48.6	38.3	25.6	40.8	32.8	23.9	17.5	16.5	13.4	14.8
MAX	51.7	86.4	99.3	80.4	58.8	123	80.0	75.1	44.3	55.3	41.7	48.7
(WY)	1996	1996	1994	1996	1988	1994	1996	1989	1989	1988	1994	1989
MIN	3.91	5.85	17.5	6.62	5.36	4.75	4.68	6.55	5.38	4.92	4.97	3.63
(WY)	1989	1992	1995	1986	1989	1988	1988	1986	1986	1990	1987	1988

NESHAMINY CREEK BASIN

01464645 NORTH BRANCH NESHAMINY CREEK BELOW LAKE GALENA NEAR NEW BRITAIN, PA--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1986 - 1996	
ANNUAL TOTAL	11442		16197		26.7	
ANNUAL MEAN	31.3		44.3		44.3	
HIGHEST ANNUAL MEAN					1996	
LOWEST ANNUAL MEAN					13.1	
HIGHEST DAILY MEAN	201	Oct 22	436	Jan 27	878	Dec 5 1993
LOWEST DAILY MEAN	16	Mar 26, May 11	18	Oct 3	3.1	Dec 22 1989
ANNUAL SEVEN-DAY MINIMUM	17	Mar 25	20	Dec 26	3.1	Dec 22 1989
INSTANTANEOUS PEAK FLOW			a872	Jan 27	a1280	Sep 20 1989
INSTANTANEOUS PEAK STAGE			3.80	Jan 27	4.39	Dec 5 1993
10 PERCENT EXCEEDS	65		92		66	
50 PERCENT EXCEEDS	22		24		12	
90 PERCENT EXCEEDS	19		21		4.5	

a From rating curve extended above 270 ft³/s.

1-YEAR HYDROGRAPH
OCTOBER 1, 1995 TO SEPTEMBER 30, 1996

NESHAMINY CREEK BASIN

01464720 NORTH BRANCH NESHAMINY CREEK AT CHALFONT, PA

LOCATION.--Lat 40°17'17", long 75°12'15", Bucks County, Hydrologic Unit 02040201, on right bank 250 ft upstream from Route 202 bridge in Chalfont, and 0.6 mi upstream from mouth.

DRAINAGE AREA.--31.5 mi².

PERIOD OF RECORD.--December 1990 to current year.

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

REMARKS.--Records good except those for estimated daily discharges, which are poor. Diversion for municipal supply by Forest Park Water Company upstream of gage. Flow regulated by Lake Galena (Peace Valley Reservoir) 1.8 mi upstream, drainage area 15.8 mi², normal pool capacity 6,539 ac-ft. Several measurements of water temperature were made during the year. Satellite telemetry at station.

COOPERATION.--Records of diversion provided by Forest Park Water Company.

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	6.6	81	19	13	e100	27	174	83	12	37	86	9.5
2	4.6	108	19	27	50	27	628	35	11	18	45	7.3
3	3.6	95	17	39	40	26	198	34	13	16	28	8.0
4	3.2	82	16	27	35	22	126	31	16	14	23	7.1
5	110	76	14	20	e35	24	141	26	24	12	16	9.0
6	140	69	16	e22	e35	104	135	27	16	11	15	9.0
7	42	77	15	e38	e32	253	56	25	13	9.7	14	11
8	23	90	14	e42	e29	204	72	26	11	10	14	34
9	13	71	17	e34	e44	119	59	30	11	11	16	70
10	9.2	66	17	e30	48	84	110	26	10	10	15	19
11	8.7	142	e16	e28	45	72	120	50	13	10	13	16
12	8.4	410	13	25	35	74	126	100	19	9.5	14	12
13	6.1	126	12	25	26	80	121	47	27	187	55	17
14	51	140	13	23	26	71	83	31	14	137	22	17
15	235	168	13	22	25	61	41	25	12	587	15	12
16	67	185	29	e21	23	49	505	28	9.9	150	15	11
17	34	176	29	20	23	39	203	27	13	75	13	147
18	21	167	22	20	e20	33	142	24	24	39	11	74
19	19	168	22	e2000	e21	62	114	23	e40	38	11	29
20	24	168	22	591	40	205	127	21	30	27	11	20
21	509	137	19	256	148	111	45	18	19	18	11	17
22	273	76	17	109	83	79	36	17	14	15	11	59
23	132	70	17	82	70	57	31	16	19	15	10	37
24	81	74	16	302	89	43	30	19	13	14	30	22
25	56	61	17	349	72	35	22	15	12	15	14	21
26	38	58	17	175	53	29	23	12	11	19	11	18
27	55	26	e15	984	44	25	22	14	9.0	15	9.4	15
28	176	19	13	637	45	25	18	14	9.6	12	10	14
29	105	21	12	226	33	154	31	17	11	12	12	31
30	85	19	12	e150	---	117	77	14	60	15	10	18
31	78	---	12	e140	---	79	---	13	---	173	10	---
TOTAL	2417.4	3226	522	6477	1369	2390	3616	888	516.5	1731.2	590.4	790.9
MEAN	78.0	108	16.8	209	47.2	77.1	121	28.6	17.2	55.8	19.0	26.4
MAX	509	410	29	2000	148	253	628	100	60	587	86	147
MIN	3.2	19	12	13	20	22	18	12	9.0	9.5	9.4	7.1
(†)	1.9	0.1	0.0	0.0	0.0	0.3	0.0	0.0	24.0	7.1	5.4	5.9
(‡)	+1.1	-34.8	-8.9	+44.1	+3.2	+2.8	-12.0	+2.0	+3.0	+4.3	-6.9	+1.8

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

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
MEAN	25.0	45.4	73.6	89.5	34.5	103	62.4	20.5	15.1	22.2	27.6	15.4
MAX	78.0	108	176	209	47.2	222	121	32.7	37.2	55.8	67.5	26.4
(WY)	1996	1996	1994	1996	1996	1994	1996	1991	1992	1996	1994	1996
MIN	7.20	8.50	16.3	46.8	14.2	34.3	11.8	11.1	5.92	7.89	4.82	5.86
(WY)	1992	1992	1995	1992	1992	1992	1995	1995	1995	1992	1995	1992

† Diversion by Forest Park Water Company, equivalent in cubic feet per second.

‡ Change in contents, equivalent in cubic feet per second, in Lake Galena.

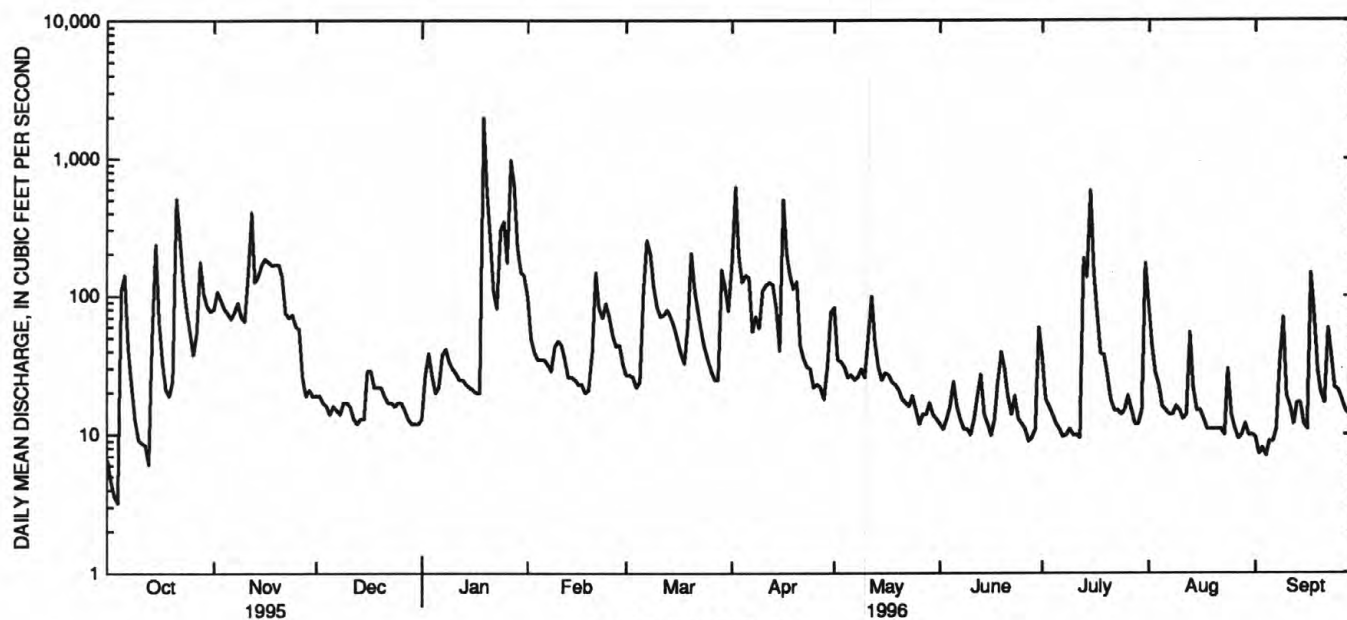
e Estimated.

NESHAMINY CREEK BASIN

01464720 NORTH BRANCH NESHAMINY CREEK AT CHALFONT, PA--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1991 - 1996	
ANNUAL TOTAL	11801.5		24534.4		45.7	
ANNUAL MEAN	32.3		67.0		67.4	
HIGHEST ANNUAL MEAN					18.6	
LOWEST ANNUAL MEAN					2350	
HIGHEST DAILY MEAN	509	Oct 21	e2000	Jan 19	Dec 5	1993
LOWEST DAILY MEAN	3.1	Aug 25, Sep 20	3.2	Oct 4	Aug 18	1991
ANNUAL SEVEN-DAY MINIMUM	3.4	Jun 29	8.6	Aug 31	Aug 12	1991
INSTANTANEOUS PEAK FLOW			a8130	Jan 19	Jan 19	1996
INSTANTANEOUS PEAK STAGE			9.04	Jan 19	Jan 19	1996
INSTANTANEOUS LOW FLOW					2.0	Aug 30 1995
10 PERCENT EXCEEDS	81		143		95	
50 PERCENT EXCEEDS	13		26		17	
90 PERCENT EXCEEDS	4.0		11		4.9	

a From rating curve extended above 590 ft³/s.
e Estimated.



1-YEAR HYDROGRAPH
OCTOBER 1, 1995 TO SEPTEMBER 30, 1996

NESHAMINY CREEK BASIN

REVISION OF RECORDS FOR A DISCONTINUED STATION

01464750 NESHAMINY CREEK NEAR RUSHLAND, PA

LOCATION.--Lat 40°15'27", long 75°02'03", Bucks County, Hydrologic Unit 02040201, on left bank at bridge on Rushland Road at Rushland, 2,000 ft upstream from confluence with Little Neshaminy Creek.

DRAINAGE AREA.--91.0 mi².

PERIOD OF RECORD.--December 1986 to September 1992 (discontinued).

GAGE.--Water-stage recorder. Elevation of gage is 160 ft above sea level, from topographic map.

REVISIONS.--The annual maximum discharge reported for water years 1987-1992 has been revised as shown in the following table. They supersede previously published figures.

<u>Water Year</u>	<u>Date</u>	<u>Discharge ft³/s</u>	<u>Gage Height</u>
1987	July 2, 1987	4,200	10.33
1988	July 27, 1988	4,480	10.66
1989	Sep. 20, 1989	5,940	12.33
1990	May 30, 1990	4,690	10.91
1991	Aug. 20, 1991	2,410	8.02
1992	June 5, 1992	2,160	7.64

NESHAMINY CREEK BASIN

01465500 NESHAMINY CREEK NEAR LANGHORNE, PA

LOCATION.--Lat 40°10'26", long 74°57'26", Bucks County, Hydrologic Unit 02040201, on left bank at bridge on State Highway 213, 0.3 mi downstream from Mill Creek, and 1.7 mi west of Langhorne.

DRAINAGE AREA.--210 mi².

PERIOD OF RECORD.--October 1934 to current year.

REVISED RECORDS.--WSP 1332: 1949. WSP 1432: 1936-37. WDR PA-83-1: 1982(P).

GAGE.--Water-stage recorder. Datum of gage is 40.57 ft above sea level.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Some regulation at low flow by mills above station. Flow regulated by upstream reservoirs on Little Neshaminy Creek, Robin Run, Pine Run, North Branch Neshaminy Creek, and Core Creek (combined flood control capacity, about 9,560 acre-ft). Occasional regulation by Springfield Lake, capacity, 2,000 acre-ft, completed in 1934; no significant regulation except during period May 1934 to January 1944, when the lake was filling, and in September 1949, July 1954, July through October 1957, and September, October 1961. Interceptor sewer installed along left bank during May and June 1966. Several measurements of water temperature were made during the year. Satellite telemetry at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Aug. 23, 1933 reached a stage of 17.3 ft. from floodmark, discharge, 30,000 ft³/s, from rating curve extended as explained in footnotes on next page.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than a base discharge of 4,500 ft³/s and maximum(*):

<u>Date</u>	<u>Time</u>	<u>Discharge</u> (ft ³ /s)	<u>Gage height</u> (ft)	<u>Date</u>	<u>Time</u>	<u>Discharge</u> (ft ³ /s)	<u>Gage height</u> (ft)
Oct. 21	1930	6,000	8.83	Apr. 2	0600	5,350	8.25
Nov. 12	0700	7,400	9.87	Apr. 16	1600	6,140	8.95
Jan. 19	2400	*17,300	*14.99	June 12	2115	11,400	12.30
Jan. 27	2100	7,950	10.25	July 13	1615	5,210	8.12
Mar. 7	2100	4,570	7.51				

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	56	284	206	154	503	260	535	1200	128	685	661	76
2	51	597	212	221	404	257	3330	441	122	289	297	72
3	46	516	191	597	346	266	1040	370	119	253	227	69
4	41	340	183	414	316	236	642	415	133	511	216	68
5	593	278	172	251	e320	229	529	329	182	243	184	64
6	1290	255	177	e250	e320	792	480	313	169	188	158	67
7	325	264	176	e280	e300	2110	464	306	128	164	145	96
8	177	468	162	e320	e280	1630	793	315	120	174	135	231
9	124	309	169	e300	e360	695	527	357	110	210	130	332
10	99	255	191	e280	655	505	972	374	105	160	162	166
11	81	282	e140	e270	460	459	711	327	109	139	135	107
12	71	4250	e130	e260	424	493	531	1110	2420	121	120	95
13	64	884	e130	e260	e280	496	479	432	2290	2680	829	91
14	104	725	142	e250	e260	430	427	320	743	1020	375	142
15	1900	1230	158	e240	268	390	348	275	266	900	214	116
16	405	627	297	e240	250	359	3100	276	189	619	170	88
17	217	518	493	e230	e230	311	1360	312	232	341	157	1880
18	160	458	330	e230	e210	290	709	282	642	265	140	950
19	130	460	282	6260	e200	303	548	266	1060	353	123	333
20	117	425	257	6850	237	1660	497	237	1050	441	114	217
21	2900	393	e240	1880	1570	643	440	210	385	235	109	171
22	1720	323	e220	805	858	458	344	188	296	193	125	342
23	513	268	208	610	575	375	320	171	315	189	109	512
24	327	288	198	1520	552	323	339	162	221	186	315	237
25	251	278	190	2140	486	296	284	151	195	167	195	192
26	207	248	e180	818	372	276	266	141	172	210	126	166
27	179	240	e170	3530	326	250	265	137	149	217	106	147
28	2200	202	e160	3020	322	243	242	142	139	160	97	137
29	671	207	e150	1020	307	1410	245	155	131	140	99	330
30	368	226	e150	730	---	916	446	190	776	149	88	235
31	297	---	e150	630	---	506	---	144	---	1070	83	---
TOTAL	15684	16098	6214	34860	11991	17867	21213	10048	13096	12672	6144	7729
MEAN	506	537	200	1125	413	576	707	324	437	409	198	258
MAX	2900	4250	493	6850	1570	2110	3330	1200	2420	2680	829	1880
MIN	41	202	130	154	200	229	242	137	105	121	83	6

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1935 - 1996, BY WATER YEAR (WY)

MEAN	121	245	356	416	461	542	439	283	200	190	169	149
MAX	629	1169	1190	1509	1074	1246	1455	862	882	1161	1694	885
(WY)	1980	1973	1984	1979	1939	1936	1983	1989	1989	1938	1955	1971
MIN	13.8	23.2	34.3	47.2	115	105	89.8	54.5	33.7	21.8	15.1	15.4
(WY)	1958	1937	1966	1981	1947	1985	1985	1963	1965	1957	1966	1951

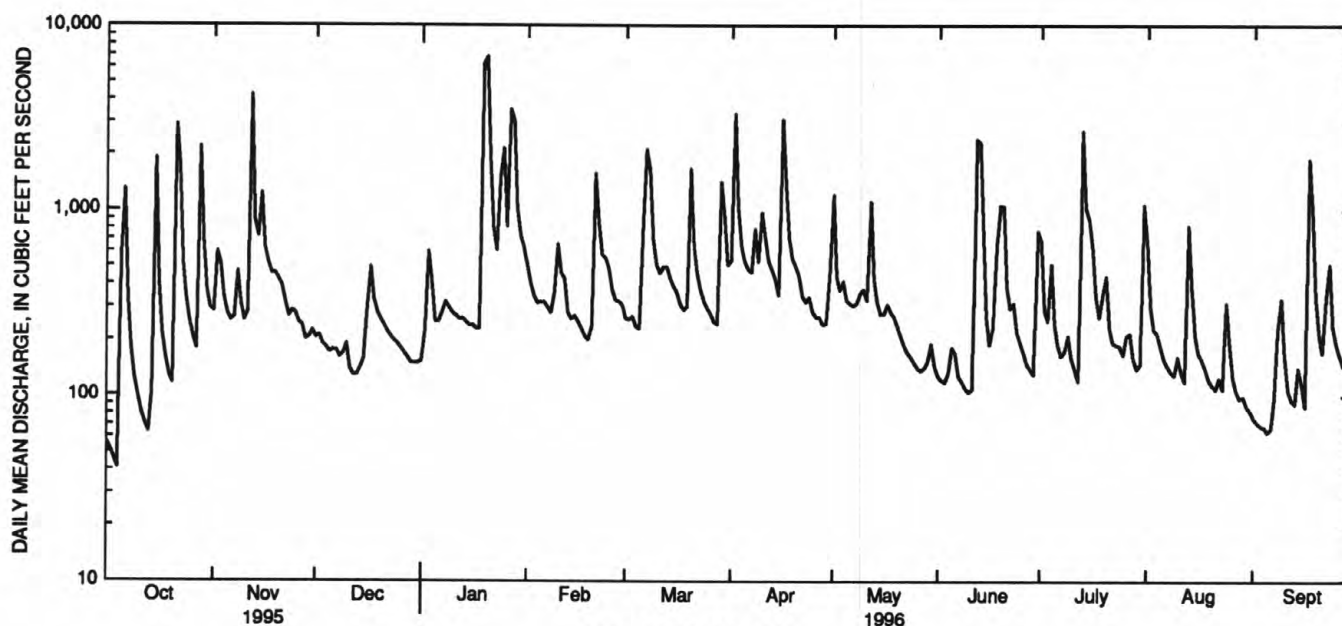
e Estimated.

NESHAMINY CREEK BASIN

01465500 NESHAMINY CREEK NEAR LANGHORNE, PA--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1935 - 1996	
ANNUAL TOTAL	84204		173616		297	
ANNUAL MEAN	231		474		565	
HIGHEST ANNUAL MEAN					121	
LOWEST ANNUAL MEAN					1973	
HIGHEST DAILY MEAN	4250	Nov 12	6850	Jan 20	a27300	Aug 19 1955
LOWEST DAILY MEAN	25	Aug 21	41	Oct 4	2.9	Sep 8 1957
ANNUAL SEVEN-DAY MINIMUM	29	Aug 18	71	Aug 31	8.2	Aug 26 1944
INSTANTANEOUS PEAK FLOW			a17300	Jan 19	a49300	Aug 19 1955
INSTANTANEOUS PEAK STAGE			14.99	Jan 19	b22.84	Aug 19 1955
INSTANTANEOUS LOW FLOW			40	Oct 4,5	1.9	Sep 8 1957
10 PERCENT EXCEEDS	426		926		577	
50 PERCENT EXCEEDS	133		267		139	
90 PERCENT EXCEEDS	41		121		31	

- a From rating curve extended above 4,700 ft³/s, on basis of contracted-opening measurement at gage height 15.94 ft, and slope-area measurement of peak flow.
- b From floodmark.



1-YEAR HYDROGRAPH
OCTOBER 1, 1995 TO SEPTEMBER 30, 1996

POQUESSING CREEK BASIN

01465798 POQUESSING CREEK AT GRANT AVENUE, PHILADELPHIA, PA

LOCATION.--Lat 40°03'25", long 74°59'08", Philadelphia County, Hydrologic Unit 02040202, on right bank 600 ft upstream from Interstate Highway 95, 3,000 ft upstream from mouth, and in northeast Philadelphia.

DRAINAGE AREA.--21.4 mi².

PERIOD OF RECORD.--July 1965 to current year. Records for 1971-74 published in WDR PA-81-1.

REVISED RECORD.--WDR PA-86-1: 1985.

GAGE.--Water-stage recorder and concrete low-water control. Datum of gage is 2.68 ft above sea level.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Several measurements of water temperature were made during the year. Flow occasionally affected by tide.

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	1315	1,690	7.82	July 13	0545	1,350	7.24
Oct. 28	0545	1,630	7.73	July 31	1400	2,970	9.59
Jan. 19	1545	2,620	9.16	Aug. 13	0730	1,950	8.23
June 12	2300	1,580	7.65	Sept. 8	2200	*4,590	*a11.38
June 19	1730	1,480	7.48	Sept. 17	0615	1,310	7.17

a From outside gage.

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	e3.6	11	13	14	e18	16	142	45	11	28	57	10
2	e3.4	48	11	66	17	24	153	22	11	16	19	12
3	e3.2	12	8.7	64	e14	23	28	45	29	17	15	9.9
4	e3.0	8.6	8.5	17	e13	17	23	22	20	45	14	9.7
5	e150	7.8	8.3	11	e12	24	21	20	13	12	13	9.4
6	e30	7.7	15	9.5	e14	137	20	62	11	11	12	21
7	7.0	41	8.6	6.3	e16	196	48	23	10	11	12	24
8	5.6	25	8.0	e6.0	27	53	44	75	10	13	11	610
9	4.3	9.1	37	e6.5	68	27	66	61	9.8	17	22	140
10	3.9	7.6	19	e7.0	28	23	83	24	12	11	13	20
11	3.7	64	9.5	e6.5	22	22	29	41	10	9.7	10	15
12	3.4	226	8.3	e9.0	19	22	23	45	189	11	18	14
13	3.4	16	8.3	e14	16	20	21	19	155	529	408	17
14	42	71	11	e14	e14	19	21	18	15	30	25	14
15	93	41	16	e13	e15	29	20	17	12	36	18	12
16	7.3	14	105	e12	e14	19	305	41	11	58	34	22
17	5.0	11	24	e12	e14	18	39	21	99	15	19	428
18	4.5	13	14	e20	e13	17	25	19	36	13	14	53
19	4.2	25	e11	1140	e12	74	23	18	287	156	13	19
20	8.6	11	e9.5	87	34	90	21	16	43	19	13	15
21	466	11	e8.5	49	172	25	20	15	34	13	12	14
22	22	9.0	e9.0	33	34	19	19	14	15	12	12	82
23	9.4	9.7	e9.5	23	24	18	34	14	17	16	12	31
24	7.6	17	e9.0	107	29	17	38	13	12	12	178	16
25	6.0	9.3	e9.5	42	20	16	18	13	13	13	15	18
26	5.8	8.6	e9.0	e14	18	16	27	13	10	131	13	13
27	16	8.3	e8.5	e150	18	16	29	13	10	16	12	12
28	437	8.1	e8.5	e30	27	30	17	13	9.8	12	13	19
29	16	32	e9.0	e20	17	234	20	38	10	12	14	116
30	9.5	15	9.3	e19	---	33	124	14	265	20	11	16
31	8.3	---	10	e18	---	22	---	12	---	526	10	---
TOTAL	1392.7	797.8	453.5	2039.8	759	1316	1501	826	1389.6	1840.7	1062	1812.0
MEAN	44.9	26.6	14.6	65.8	26.2	42.5	50.0	26.6	46.3	59.4	34.3	60.4
MAX	466	226	105	1140	172	234	305	75	287	529	408	610
MIN	3.0	7.6	8.0	6.0	12	16	17	12	9.8	9.7	10	9.4

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

	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
MEAN	21.2	27.7	32.4	35.8	34.5	39.6	37.9	34.2	30.8	40.7	31.9	27.1																				
MAX	44.9	112	79.2	136	105	98.0	104	74.2	84.7	112	130	82.4																				
(WY)	1966	1973	1978	1979	1979	1994	1983	1989	1989	1989	1971	1975																				
MIN	7.05	5.03	6.73	4.34	10.3	9.17	8.91	10.6	5.94	7.07	4.22	3.93																				
(WY)	1966	1966	1981	1981	1980	1985	1985	1977	1966	1966	1995	1970																				

e Estimated.

POQUESSING CREEK BASIN

01465798 POQUESSING CREEK AT GRANT AVENUE, PHILADELPHIA, PA--Continued

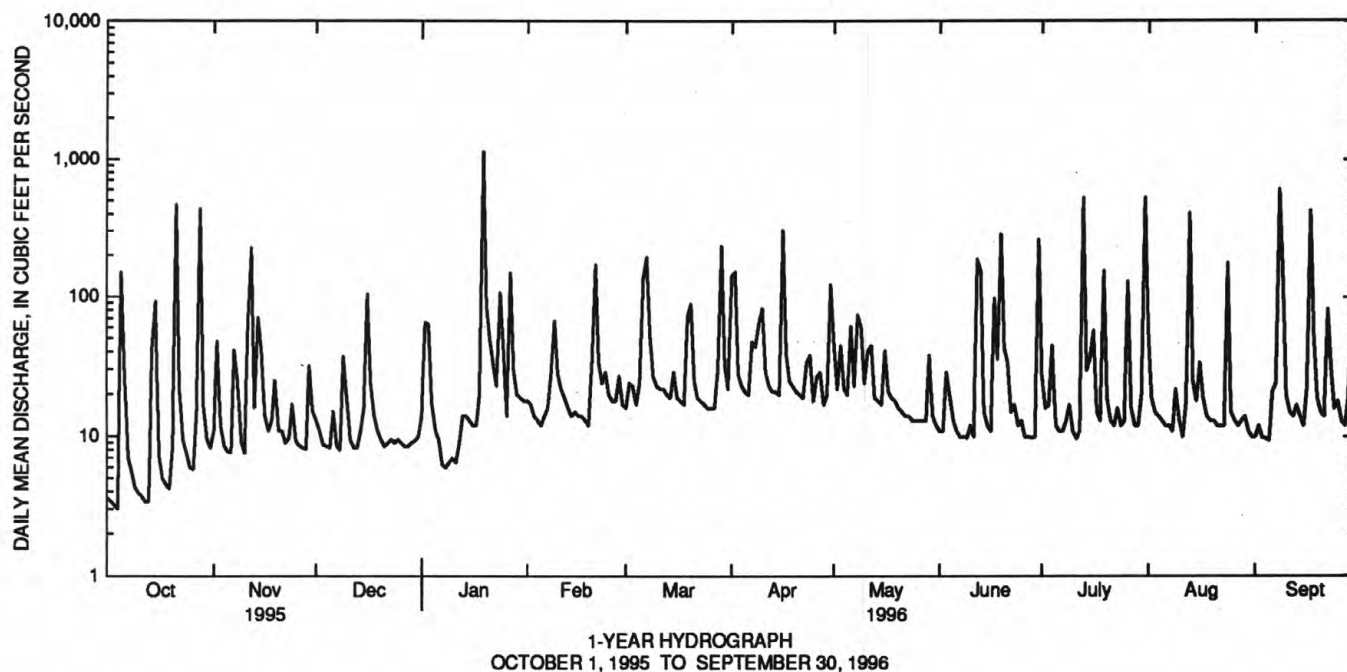
SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1965 - 1996	
ANNUAL TOTAL	7032.9		15190.1		33.0	
ANNUAL MEAN	19.3		41.5		52.3	
HIGHEST ANNUAL MEAN					1979	
LOWEST ANNUAL MEAN					16.3	
HIGHEST DAILY MEAN	466	Oct 21	1140	Jan 19	2170	Jul 28 1982
LOWEST DAILY MEAN	1.2	Sep 5	e3.0	Oct 4	1.2	Sep 5 1995
ANNUAL SEVEN-DAY MINIMUM	1.4	Sep 1	4.5	Oct 7	1.4	Sep 1 1995
INSTANTANEOUS PEAK FLOW			a4590	Sep 8	a9400	Jul 28 1982
INSTANTANEOUS PEAK STAGE			b11.38	Sep 8	c15.35	Jul 28 1982
10 PERCENT EXCEEDS	32		77		61	
50 PERCENT EXCEEDS	9.0		16		12	
90 PERCENT EXCEEDS	3.3		8.5		4.5	

a From rating curve extended above 550 ft³/s, on basis of slope-area measurement of peak flow.

b From outside gage.

c From floodmark.

e Estimated.



PENNYPACK CREEK BASIN

01467048 PENNYPACK CREEK AT LOWER RHAWN STREET BRIDGE, PHILADELPHIA, PA

LOCATION.--Lat 40°03'00", long 75°01'59", Philadelphia County, Hydrologic Unit 02040202, on left bank at downstream side of footbridge pier, 400 ft downstream from Lower Rhawn Street bridge, and 0.8 mi upstream from Wooden Bridge Run in Philadelphia.

DRAINAGE AREA.--49.8 mi².

PERIOD OF RECORD.--June 1965 to current year. Records for 1971-74 published in WDR PA-81-1.

REVISED RECORDS: WDR PA-81-1: 1974. WDR PA-89-1: 1988.

GAGE.--Water-stage recorder. Datum of gage is 21.27 ft above sea level.

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

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

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 9	1730	1,810	6.38	July 31	1330	1,900	6.50
Jan. 19	2145	4,770	9.52	Sept. 9	0115	*5,200	*9.88
June 13	0200	1,900	6.50	Sept. 17	0530	1,970	6.59
June 19	2245	2,470	7.21				

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	e27	49	38	38	86	66	243	194	48	108	115	34
2	e21	40	36	108	81	79	513	76	46	65	65	33
3	e16	38	39	140	e70	79	127	e110	61	95	56	33
4	e17	36	e40	e50	e64	65	111	e75	67	126	54	33
5	401	117	e36	e38	e57	e65	103	e85	65	52	51	34
6	109	50	e50	e34	e62	e160	97	e190	46	48	49	45
7	35	38	37	e30	e67	e320	152	e75	43	46	47	68
8	32	36	36	e28	80	e480	178	e150	41	70	45	734
9	25	638	e32	e26	71	e220	178	e120	40	78	56	948
10	24	143	e30	e24	73	e100	241	e77	68	58	57	67
11	23	70	e29	e23	81	e94	117	114	46	41	42	53
12	23	230	e28	e23	74	92	102	199	166	46	50	48
13	22	81	34	e24	64	90	96	78	446	881	589	78
14	165	61	36	e25	67	85	90	73	58	119	76	56
15	332	55	45	e27	65	81	86	69	47	84	57	44
16	39	64	170	e30	62	96	698	135	42	114	69	60
17	27	56	79	e38	61	77	153	90	168	61	53	939
18	152	48	51	56	59	74	115	76	212	58	47	201
19	440	46	50	2070	56	72	106	71	694	281	45	78
20	51	43	53	523	95	305	100	66	255	78	43	65
21	39	50	121	138	338	160	95	63	114	55	42	59
22	35	51	41	110	106	82	92	60	67	51	46	215
23	33	42	38	99	88	77	110	58	90	60	41	108
24	32	40	36	353	95	73	119	57	56	53	369	64
25	540	38	37	222	80	72	83	53	57	49	51	62
26	157	49	36	105	76	71	101	52	49	222	43	54
27	50	64	41	626	74	67	85	52	46	56	41	52
28	43	44	35	266	91	82	72	54	45	47	46	60
29	40	47	34	129	71	526	84	101	43	46	40	250
30	79	39	34	113	---	124	251	60	538	71	37	60
31	113	---	35	102	---	95	---	50	---	601	35	---
TOTAL	3142	2403	1437	5618	2414	4129	4698	2783	3764	3820	2457	4635
MEAN	101	80.1	46.4	181	83.2	133	157	89.8	125	123	79.3	154
MAX	540	638	170	2070	338	526	698	199	694	881	589	948
MIN	16	36	28	23	56	65	72	50	40	41	35	33
CFSM	2.04	1.61	.93	3.64	1.67	2.67	3.14	1.80	2.52	2.47	1.59	3.10
IN.	2.35	1.80	1.07	4.20	1.80	3.08	3.51	2.08	2.81	2.85	1.84	3.46

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

	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	
MEAN	57.7	78.3	93.5	101	97.7	121	123	102	85.1	90.7	72.1	70.7																					
MAX	151	300	213	334	252	273	338	194	245	257	163	176																					
(WY)	1980	1973	1984	1979	1979	1994	1983	1978	1989	1975	1967	1971																					
MIN	20.3	17.5	21.1	14.0	35.5	33.5	32.5	42.5	21.4	23.7	15.7	17.4																					
(WY)	1966	1966	1981	1981	1969	1985	1985	1995	1995	1966	1966	1970																					

e Estimated.

PENNYPACK CREEK BASIN

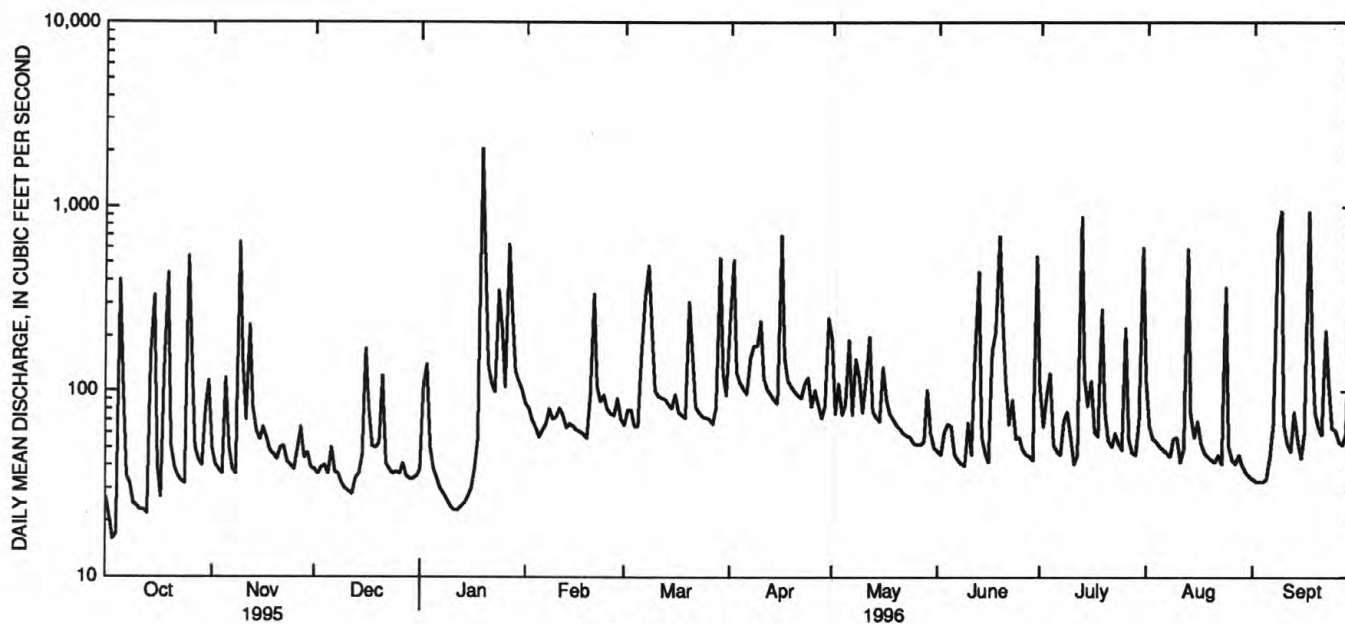
01467048 PENNYPACK CREEK AT LOWER RHAWN STREET BRIDGE, PHILADELPHIA, PA--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1965 - 1996	
ANNUAL TOTAL	20482		41300		91.5	
ANNUAL MEAN	56.1		113		165	
HIGHEST ANNUAL MEAN					43.2	
LOWEST ANNUAL MEAN					3040	
HIGHEST DAILY MEAN	702	Sep 17	2070	Jan 19		Sep 27 1985
LOWEST DAILY MEAN	12	Jul 5	e16	Oct 3	8.4	Sep 12 1966
ANNUAL SEVEN-DAY MINIMUM	13	Aug 19	a25	Jan 9	9.3	Sep 7 1966
INSTANTANEOUS PEAK FLOW			b5200	Sep 9	b9770	Jul 28 1982
INSTANTANEOUS PEAK STAGE			9.88	Sep 9	13.15	Jul 28 1982
INSTANTANEOUS LOW FLOW			16	Oct 4	6.0	Oct 11 1966
ANNUAL RUNOFF (CFSM)	1.13		2.27		1.84	
ANNUAL RUNOFF (INCHES)	15.30		30.85		24.97	
10 PERCENT EXCEEDS	84		221		173	
50 PERCENT EXCEEDS	37		64		50	
90 PERCENT EXCEEDS	17		35		21	

a Computed using estimated daily discharges.

b From rating curve extended above 3,900 ft³/s, on basis of slope-area measurement of peak flow.

e Estimated.



1-YEAR HYDROGRAPH
OCTOBER 1, 1995 TO SEPTEMBER 30, 1996

FRANKFORD CREEK BASIN

01467087 FRANKFORD CREEK AT CASTOR AVENUE, PHILADELPHIA, PA

LOCATION.--Lat 40°00'57", long 75°05'50", Philadelphia County, Hydrologic Unit 02040203, on left bank at upstream side of Castor Avenue bridge, and 2.8 mi upstream from mouth in northeast Philadelphia.

DRAINAGE AREA.--30.4 mi².

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 6.58 ft above sea level.

REMARKS.--Records good except those for estimated daily discharges and Oct. 1 to July 30, which are fair. Several measurements of water temperature were made during the year. Satellite telemetry at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 19	1400	3,520	6.20	July 31	1115	*6,780	*9.05
June 17	1900	3,790	6.43	Aug. 13	0615	4,220	6.81
July 4	0130	5,250	7.73	Aug. 24	0215	5,940	8.34
July 19	0930	5,030	7.54	Sept. 8	1915	4,860	7.38

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	5.5	20	20	19	31	50	306	45	23	33	48	14
2	5.9	61	19	80	36	60	117	30	21	30	25	14
3	8.0	15	18	53	e31	40	64	57	30	56	22	13
4	7.9	13	18	e20	e24	38	59	32	25	385	20	13
5	401	13	15	e18	e24	56	54	33	24	58	18	13
6	55	12	19	e16	e28	188	49	98	19	45	35	33
7	21	51	18	e14	32	243	102	33	18	49	18	19
8	17	22	16	e13	47	55	77	76	18	97	17	834
9	15	12	e15	e12	75	40	112	67	20	44	41	88
10	11	12	e13	e11	40	37	101	31	54	47	19	22
11	8.3	217	e13	e11	40	37	62	87	20	28	17	18
12	5.2	167	e19	e12	39	34	57	48	181	36	32	e15
13	6.1	20	e13	e13	35	31	52	35	50	650	e472	e48
14	333	108	e14	e14	38	32	45	29	19	37	24	e27
15	116	32	27	e16	39	59	42	28	18	34	20	e15
16	13	42	117	e18	39	32	418	99	18	53	52	e13
17	11	23	27	22	39	47	52	32	222	23	19	e700
18	8.9	22	21	31	37	58	39	31	52	23	17	e130
19	8.6	28	22	937	36	226	38	33	401	343	16	e28
20	51	18	21	28	69	80	42	33	55	46	16	24
21	348	18	20	20	138	33	36	35	63	18	16	23
22	19	17	20	10	59	31	44	29	39	15	17	173
23	12	18	18	8.0	55	27	86	27	56	19	16	35
24	12	26	18	122	61	28	46	23	46	15	e308	25
25	12	16	17	29	52	28	30	24	44	15	21	25
26	11	17	16	19	51	28	71	24	38	205	18	23
27	88	17	16	234	50	30	30	25	30	25	17	21
28	389	18	17	38	67	54	27	25	26	16	139	62
29	17	40	17	27	54	361	41	67	28	16	16	164
30	15	20	16	25	---	48	253	24	315	16	15	22
31	13	---	17	25	---	46	---	23	---	837	15	---
TOTAL	2044.4	1115	673	1915.0	1366	2157	2552	1283	1973	3314	1546	2654
MEAN	65.9	37.2	21.7	61.8	47.1	69.6	85.1	41.4	65.8	107	49.9	88.5
MAX	401	217	117	937	138	361	418	99	401	837	472	834
MIN	5.2	12	13	8.0	24	27	27	23	18	15	15	13
CFSM	2.17	1.22	.71	2.03	1.55	2.29	2.80	1.36	2.16	3.52	1.64	2.91
IN.	2.50	1.36	.82	2.34	1.67	2.64	3.12	1.57	2.41	4.06	1.89	3.25

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1982 - 1996, BY WATER YEAR (WY)

	MEAN	25.8	37.8	34.1	33.6	34.1	50.0	52.5	50.3	40.8	58.7	38.5	43.3
MAX	65.9	81.7	90.9	61.8	80.4	91.4	143	98.4	111	116	61.8	88.5	
(WY)	1996	1987	1984	1996	1988	1994	1983	1989	1989	1989	1990	1996	
MIN	8.20	17.7	15.5	10.6	17.4	11.7	14.4	20.8	11.3	22.8	5.66	9.67	
(WY)	1993	1985	1989	1985	1992	1985	1985	1986	1995	1994	1995	1994	

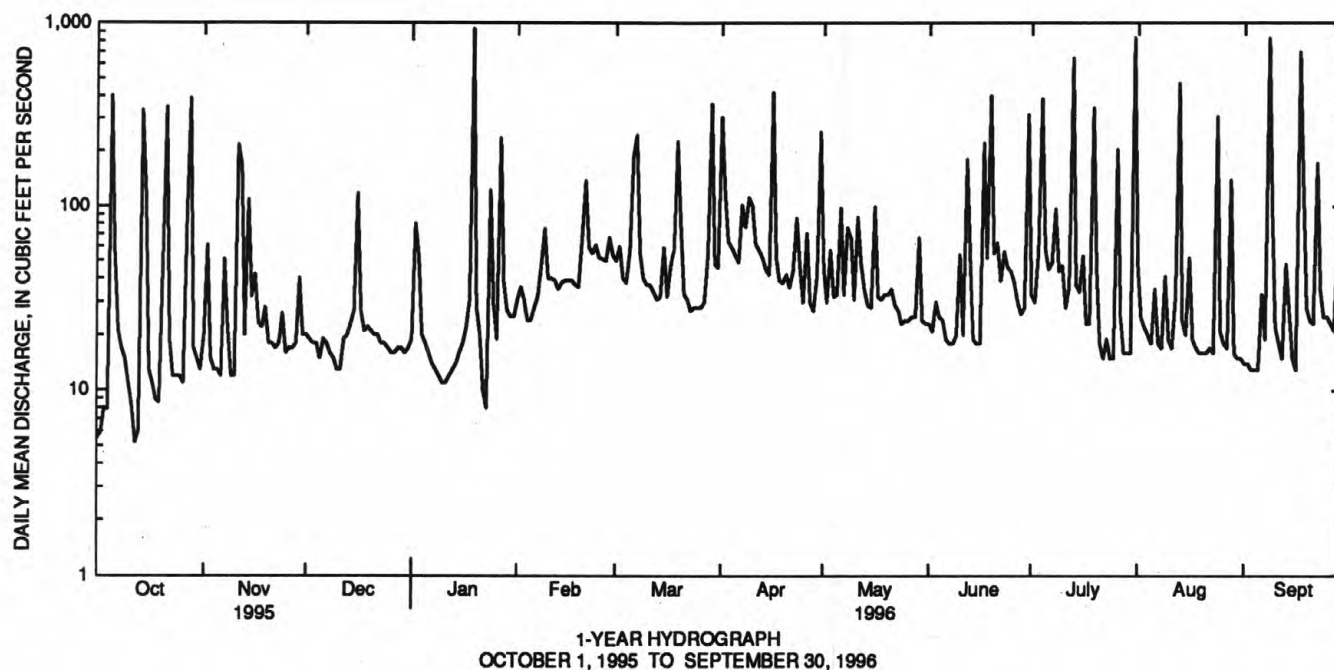
e Estimated.

FRANKFORD CREEK BASIN

01467087 FRANKFORD CREEK AT CASTOR AVENUE, PHILADELPHIA, PA--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1982 - 1996	
ANNUAL TOTAL	10118.9		22592.4		41.7	
ANNUAL MEAN	27.7		61.7		61.7	
HIGHEST ANNUAL MEAN					22.2	
LOWEST ANNUAL MEAN					1570	
HIGHEST DAILY MEAN	528	Sep 17	937	Jan 19		Sep 27 1985
LOWEST DAILY MEAN	2.1	Sep 16	5.2	Oct 12	2.1	Sep 16 1995
ANNUAL SEVEN-DAY MINIMUM	3.4	Aug 21	12	Oct 7	2.7	Jan 11 1988
INSTANTANEOUS PEAK FLOW			6780	Jul 31	a10300	Jul 31 1985
INSTANTANEOUS PEAK STAGE			9.05	Jul 31	11.82	Jul 31 1985
INSTANTANEOUS LOW FLOW			1.0	Oct 13	.60	Aug 31 1994
ANNUAL RUNOFF (CFSM)	.91		2.03		1.37	
ANNUAL RUNOFF (INCHES)	12.38		27.65		18.64	
10 PERCENT EXCEEDS	50		116		80	
50 PERCENT EXCEEDS	13		28		16	
90 PERCENT EXCEEDS	5.1		14		7.5	

a From rating curve extended above 8,000 ft³/s, on basis of slope-area measurements of peak flow.



DELAWARE RIVER BASIN

01467200 DELAWARE RIVER AT BENJAMIN FRANKLIN BRIDGE AT PHILADELPHIA, PA

LOCATION.--Lat 39°57'14", long 75°08'16", Philadelphia County, Hydrologic Unit 02040202, on right bank at river end of pier 12, 150 ft upstream from Ben Franklin bridge, and at Philadelphia.

DRAINAGE AREA.--7,993 mi².

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

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: November 1963 to current year.

pH: October 1967 to current year.

WATER TEMPERATURE: November 1960 to current year.

DISSOLVED OXYGEN: October 1961 to current year.

INSTRUMENTATION.--Water-quality monitor interfaced with a data collection platform.

REMARKS.--Prior to July 1988, located on edge of pier 11 about 300 ft downstream of pier 12. Further information on this station is given in U.S. Geological Survey Water-Supply Paper 1809-0. Data collection discontinued during the winter months. Other interruptions in the record were due to malfunctions of the recording instrument.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 1,450 microsiemens, Nov. 20, 1964; minimum, 65 microsiemens, Sept. 15, 1979.

pH: Maximum, 8.7, Oct. 14, 1979; minimum, 4.7, Dec. 29, 1978.

WATER TEMPERATURE: Maximum, 31.0°C, July 13-15, 1966; minimum, 0.0°C, many days during winter periods.

DISSOLVED OXYGEN: Maximum, 14.1 mg/L, Dec. 14, 1962; minimum, 0.0 mg/L, on many days.

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25° 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	414	303	355	182	168	174	---	---	---	---	---	---
2	416	307	354	185	173	179	---	---	---	---	---	---
3	435	311	361	196	176	186	---	---	---	---	---	---
4	435	315	369	198	186	194	---	---	---	---	---	---
5	---	---	---	199	192	194	---	---	---	---	---	---
6	---	---	---	198	193	195	---	---	---	---	---	---
7	---	---	---	205	193	198	---	---	---	---	---	---
8	---	---	---	201	195	199	---	---	---	---	---	---
9	---	---	---	204	196	200	---	---	---	---	---	---
10	---	---	---	208	199	203	---	---	---	---	---	---
11	---	---	---	214	204	209	---	---	---	---	---	---
12	318	277	296	---	---	---	---	---	---	---	---	---
13	318	278	296	---	---	---	---	---	---	---	---	---
14	328	279	300	---	---	---	---	---	---	---	---	---
15	302	271	287	---	---	---	---	---	---	---	---	---
16	289	267	277	---	---	---	---	---	---	---	---	---
17	291	259	273	---	---	---	---	---	---	---	---	---
18	297	264	279	---	---	---	---	---	---	---	---	---
19	296	266	279	---	---	---	---	---	---	---	---	---
20	307	270	285	---	---	---	---	---	---	---	---	---
21	307	260	284	---	---	---	---	---	---	---	---	---
22	279	249	257	154	145	150	---	---	---	---	---	---
23	259	214	246	161	148	154	---	---	---	---	---	---
24	242	195	219	163	155	159	---	---	---	---	---	---
25	218	171	197	165	157	161	---	---	---	---	---	---
26	202	165	182	169	161	164	---	---	---	---	---	---
27	199	158	174	172	165	168	---	---	---	---	---	---
28	182	154	163	174	168	171	---	---	---	---	---	---
29	159	150	154	187	172	176	---	---	---	---	---	---
30	170	155	160	185	175	180	---	---	---	---	---	---
31	176	162	169	---	---	---	---	---	---	---	---	---
MONTH	435	150	259	214	145	181	---	---	---	---	---	---

DELAWARE RIVER BASIN

01467200 DELAWARE RIVER AT BENJAMIN FRANKLIN BRIDGE AT PHILADELPHIA, PA--Continued

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25° CELSIUS, 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	---	---	---	---	---	---	194	182	187	173	162	166
2	---	---	---	---	---	---	192	183	187	172	159	167
3	---	---	---	---	---	---	199	185	193	168	130	151
4	---	---	---	---	---	---	200	188	194	146	118	129
5	---	---	---	---	---	---	197	183	192	129	119	124
6	---	---	---	---	---	---	195	184	190	132	121	127
7	---	---	---	---	---	---	199	185	192	136	127	130
8	---	---	---	---	---	---	198	192	195	149	134	140
9	---	---	---	---	---	---	206	190	197	149	140	144
10	---	---	---	---	---	---	206	197	200	153	146	149
11	---	---	---	---	---	---	208	201	203	158	148	154
12	---	---	---	---	---	---	---	---	---	164	153	156
13	---	---	---	---	---	---	---	---	---	164	152	159
14	---	---	---	---	---	---	---	---	---	165	155	159
15	---	---	---	---	---	---	---	---	---	158	129	145
16	---	---	---	---	---	---	---	---	---	143	125	133
17	---	---	---	---	---	---	---	---	---	131	120	126
18	---	---	---	---	---	---	---	---	---	132	122	127
19	---	---	---	---	---	---	---	---	---	138	126	132
20	---	---	---	---	---	---	---	---	---	141	132	136
21	---	---	---	---	---	---	---	---	---	147	138	142
22	---	---	---	---	---	---	---	---	---	151	142	147
23	---	---	---	---	---	---	---	---	---	154	147	151
24	---	---	---	---	---	---	---	---	---	160	151	154
25	---	---	---	---	---	---	155	144	149	160	155	158
26	---	---	---	---	---	---	158	148	155	165	158	162
27	---	---	---	---	---	---	168	155	162	169	162	166
28	---	---	---	173	164	169	169	162	165	179	166	172
29	---	---	---	181	169	174	171	165	168	186	176	180
30	---	---	---	181	172	177	173	167	170	188	180	184
31	---	---	---	191	177	183	---	---	---	193	184	189
MONTH	---	---	---	191	164	176	208	144	182	193	118	150

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	196	187	192	206	193	199	191	180	184	262	250	257
2	200	191	195	208	195	202	189	181	186	268	255	262
3	203	192	199	210	197	205	192	179	186	270	259	265
4	206	197	202	211	203	206	191	178	185	274	262	268
5	209	199	204	211	205	208	190	178	184	275	266	271
6	212	203	208	217	208	213	192	180	185	---	---	---
7	216	208	212	221	213	218	195	182	187	---	---	---
8	223	214	218	226	217	221	196	185	189	---	---	---
9	230	219	224	230	222	226	197	187	191	---	---	---
10	235	223	228	234	227	231	199	189	194	---	---	---
11	239	227	232	234	229	232	202	194	198	---	---	---
12	240	232	236	235	229	232	207	197	201	---	---	---
13	242	236	239	237	213	228	210	195	200	---	---	---
14	242	232	238	226	211	216	207	198	203	---	---	---
15	243	232	238	218	196	211	210	202	208	---	---	---
16	244	220	234	213	177	194	217	206	212	---	---	---
17	245	211	230	193	156	176	223	212	218	---	---	---
18	237	189	214	175	148	159	225	218	221	---	---	---
19	231	177	207	160	143	150	228	215	223	---	---	---
20	210	164	184	150	143	147	230	221	225	---	---	---
21	195	164	175	150	142	147	232	223	228	---	---	---
22	184	163	172	152	141	146	234	223	230	---	---	---
23	179	164	170	154	143	149	238	225	231	---	---	---
24	179	165	171	156	147	152	240	223	231	---	---	---
25	179	172	176	160	152	156	245	223	231	---	---	---
26	185	175	182	163	156	160	245	227	235	---	---	---
27	192	181	188	167	160	164	251	229	241	281	261	270
28	200	189	195	173	164	169	255	238	246	281	257	270
29	203	196	200	177	168	172	257	241	250	270	242	258
30	207	193	201	182	174	177	258	243	251	261	234	250
31	---	---	---	185	179	182	262	246	255	---	---	---
MONTH	245	163	205	237	141	189	262	178	213	281	234	263

DELAWARE RIVER BASIN

01467200 DELAWARE RIVER AT BENJAMIN FRANKLIN BRIDGE AT PHILADELPHIA, PA--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	7.2	7.1	7.1	7.0	6.9	7.0	---	---	---	---	---	---
2	7.2	7.1	7.1	7.0	6.9	6.9	---	---	---	---	---	---
3	7.2	7.0	7.1	7.0	6.9	7.0	---	---	---	---	---	---
4	7.2	7.1	7.1	7.1	7.0	7.1	---	---	---	---	---	---
5	---	---	---	7.2	7.1	7.1	---	---	---	---	---	---
6	---	---	---	7.2	7.1	7.1	---	---	---	---	---	---
7	---	---	---	7.2	7.1	7.1	---	---	---	---	---	---
8	---	---	---	7.2	7.1	7.1	---	---	---	---	---	---
9	---	---	---	7.2	7.1	7.2	---	---	---	---	---	---
10	---	---	---	7.2	7.1	7.1	---	---	---	---	---	---
11	---	---	---	7.2	7.1	7.2	---	---	---	---	---	---
12	7.1	7.1	7.1	---	---	---	---	---	---	---	---	---
13	7.1	7.1	7.1	---	---	---	---	---	---	---	---	---
14	7.1	7.0	7.1	---	---	---	---	---	---	---	---	---
15	7.1	7.0	7.1	---	---	---	---	---	---	---	---	---
16	7.2	7.0	7.1	---	---	---	---	---	---	---	---	---
17	7.3	7.1	7.2	---	---	---	---	---	---	---	---	---
18	7.3	7.1	7.2	---	---	---	---	---	---	---	---	---
19	7.3	7.1	7.2	---	---	---	---	---	---	---	---	---
20	7.3	7.1	7.2	---	---	---	---	---	---	---	---	---
21	7.2	7.1	7.1	---	---	---	---	---	---	---	---	---
22	7.3	7.1	7.2	---	---	---	---	---	---	---	---	---
23	7.3	7.1	7.2	7.2	7.2	7.2	---	---	---	---	---	---
24	7.2	7.1	7.1	7.2	7.2	7.2	---	---	---	---	---	---
25	7.1	7.0	7.1	7.2	7.2	7.2	---	---	---	---	---	---
26	7.0	6.9	7.0	7.2	7.2	7.2	---	---	---	---	---	---
27	7.0	6.9	6.9	7.2	7.2	7.2	---	---	---	---	---	---
28	6.9	6.8	6.9	7.3	7.2	7.2	---	---	---	---	---	---
29	6.9	6.8	6.9	7.3	7.2	7.2	---	---	---	---	---	---
30	7.0	6.9	6.9	7.2	7.2	7.2	---	---	---	---	---	---
31	7.0	6.9	7.0	---	---	---	---	---	---	---	---	---
MONTH	7.3	6.8	7.1	7.3	6.9	7.1	---	---	---	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	---	---	---	---	---	---	7.5	7.4	7.4	7.1	6.9	7.0
2	---	---	---	---	---	---	7.4	7.3	7.3	7.1	7.0	7.0
3	---	---	---	---	---	---	7.4	7.3	7.4	7.1	6.9	7.0
4	---	---	---	---	---	---	7.4	7.3	7.4	6.9	6.8	6.9
5	---	---	---	---	---	---	7.4	7.2	7.3	6.9	6.9	6.9
6	---	---	---	---	---	---	7.3	7.2	7.2	6.9	6.8	6.9
7	---	---	---	---	---	---	7.2	7.2	7.2	6.9	6.9	6.9
8	---	---	---	---	---	---	7.3	7.2	7.2	7.0	6.9	6.9
9	---	---	---	---	---	---	7.3	7.2	7.2	7.1	7.0	7.0
10	---	---	---	---	---	---	7.4	7.2	7.3	7.1	7.0	7.1
11	---	---	---	---	---	---	7.4	7.3	7.4	7.1	7.0	7.1
12	---	---	---	---	---	---	---	---	---	7.1	7.1	7.1
13	---	---	---	---	---	---	---	---	---	7.4	7.1	7.3
14	---	---	---	---	---	---	---	---	---	7.3	7.2	7.3
15	---	---	---	---	---	---	---	---	---	7.3	7.0	7.2
16	---	---	---	---	---	---	---	---	---	7.1	6.9	7.0
17	---	---	---	---	---	---	---	---	---	7.0	6.9	7.0
18	---	---	---	---	---	---	---	---	---	7.0	7.0	7.0
19	---	---	---	---	---	---	---	---	---	7.0	7.0	7.0
20	---	---	---	---	---	---	---	---	---	7.1	7.0	7.0
21	---	---	---	---	---	---	---	---	---	7.2	7.1	7.1
22	---	---	---	---	---	---	---	---	---	7.2	7.1	7.1
23	---	---	---	---	---	---	---	---	---	7.2	7.1	7.1
24	---	---	---	---	---	---	---	---	---	7.2	7.1	7.1
25	---	---	---	---	---	---	7.0	6.9	7.0	7.2	7.1	7.1
26	---	---	---	---	---	---	7.1	7.0	7.0	7.2	7.0	7.1
27	---	---	---	---	---	---	7.1	7.0	7.0	7.1	7.0	7.1
28	---	---	---	7.3	7.2	7.3	7.1	7.0	7.0	7.1	7.0	7.0
29	---	---	---	7.3	7.2	7.3	7.0	7.0	7.0	7.0	6.9	7.0
30	---	---	---	7.4	7.3	7.3	7.0	6.9	7.0	7.0	6.9	7.0
31	---	---	---	7.5	7.3	7.4	---	---	---	7.0	6.9	7.0
MONTH	---	---	---	7.5	7.2	7.3	7.5	6.9	7.2	7.4	6.8	7.0

DELAWARE RIVER BASIN

01467200 DELAWARE RIVER AT BENJAMIN FRANKLIN BRIDGE AT PHILADELPHIA, PA--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	7.0	6.9	7.0	6.6	6.6	6.6	6.9	6.8	6.8	7.0	6.9	6.9
2	7.0	7.0	7.0	6.6	6.6	6.6	6.9	6.8	6.8	7.0	6.9	6.9
3	7.0	6.9	7.0	6.6	6.6	6.6	6.8	6.8	6.8	7.0	6.9	7.0
4	7.0	6.9	6.9	6.6	6.6	6.6	6.8	6.7	6.8	7.0	6.9	7.0
5	7.0	6.9	7.0	6.7	6.6	6.6	6.8	6.7	6.8	7.0	6.9	7.0
6	7.0	6.9	7.0	6.8	6.6	6.7	6.8	6.7	6.8	---	---	---
7	7.1	7.0	7.0	6.8	6.7	6.8	6.8	6.7	6.7	---	---	---
8	7.2	7.0	7.1	6.9	6.7	6.8	6.8	6.7	6.8	---	---	---
9	7.2	7.1	7.1	6.9	6.8	6.8	6.8	6.7	6.8	---	---	---
10	7.2	7.1	7.1	7.0	6.9	6.9	6.8	6.7	6.8	---	---	---
11	7.2	7.0	7.1	7.1	6.9	6.9	6.9	6.8	6.8	---	---	---
12	7.2	7.0	7.1	7.0	6.9	6.9	6.9	6.8	6.8	---	---	---
13	7.2	7.0	7.1	7.0	6.8	6.9	7.0	6.8	6.9	---	---	---
14	7.1	7.0	7.0	7.0	6.8	7.0	7.0	6.9	6.9	---	---	---
15	7.0	7.0	7.0	7.0	6.9	6.9	7.0	6.9	6.9	---	---	---
16	7.0	6.9	7.0	7.0	6.9	6.9	7.0	6.8	6.9	---	---	---
17	6.9	6.8	6.9	6.9	6.8	6.9	7.0	6.8	6.9	---	---	---
18	6.8	6.7	6.8	6.8	6.7	6.8	6.9	6.8	6.9	---	---	---
19	6.7	6.6	6.7	6.7	6.7	6.7	7.0	6.8	6.9	---	---	---
20	6.7	6.6	6.6	6.7	6.6	6.7	6.9	6.9	6.9	---	---	---
21	6.6	6.6	6.6	6.8	6.7	6.7	6.9	6.9	6.9	---	---	---
22	6.6	6.5	6.6	6.7	6.7	6.7	6.9	6.8	6.9	---	---	---
23	6.6	6.5	6.6	6.8	6.7	6.7	6.9	6.8	6.9	---	---	---
24	6.6	6.4	6.5	6.9	6.8	6.8	6.9	6.8	6.8	---	---	---
25	6.6	6.5	6.5	6.9	6.8	6.9	6.9	6.8	6.8	---	---	---
26	6.6	6.5	6.6	6.9	6.8	6.9	6.9	6.8	6.9	---	---	---
27	6.6	6.5	6.6	6.9	6.8	6.9	6.9	6.8	6.9	7.0	6.9	7.0
28	6.7	6.6	6.6	7.0	6.8	6.9	6.9	6.8	6.9	7.0	6.9	6.9
29	6.6	6.6	6.6	7.0	6.8	6.9	6.9	6.8	6.9	6.9	6.7	6.8
30	6.6	6.6	6.6	6.9	6.8	6.9	6.9	6.8	6.9	6.8	6.7	6.7
31	---	---	---	6.9	6.8	6.9	7.0	6.9	6.9	---	---	---
MONTH	7.2	6.4	6.8	7.1	6.6	6.8	7.0	6.7	6.9	7.0	6.7	6.9

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	20.5	20.5	20.5	13.5	13.5	13.5	---	---	---	---	---	---
2	21.0	20.5	20.5	14.0	13.5	14.0	---	---	---	---	---	---
3	21.0	20.5	20.5	14.0	14.0	14.0	---	---	---	---	---	---
4	21.0	20.5	21.0	14.0	13.0	13.5	---	---	---	---	---	---
5	---	---	---	13.0	12.5	13.0	---	---	---	---	---	---
6	---	---	---	13.0	12.0	12.5	---	---	---	---	---	---
7	---	---	---	12.5	12.0	12.5	---	---	---	---	---	---
8	---	---	---	12.5	11.5	12.0	---	---	---	---	---	---
9	---	---	---	12.5	11.0	11.5	---	---	---	---	---	---
10	---	---	---	12.0	11.0	11.5	---	---	---	---	---	---
11	---	---	---	12.0	11.0	11.5	---	---	---	---	---	---
12	20.5	20.5	20.5	---	---	---	---	---	---	---	---	---
13	21.0	20.5	20.5	---	---	---	---	---	---	---	---	---
14	21.0	20.5	21.0	---	---	---	---	---	---	---	---	---
15	21.0	20.5	20.5	---	---	---	---	---	---	---	---	---
16	20.5	19.5	20.0	---	---	---	---	---	---	---	---	---
17	19.5	19.5	19.5	---	---	---	---	---	---	---	---	---
18	19.5	19.0	19.0	---	---	---	---	---	---	---	---	---
19	19.0	18.5	19.0	---	---	---	---	---	---	---	---	---
20	19.0	18.5	19.0	---	---	---	---	---	---	---	---	---
21	19.0	18.5	19.0	---	---	---	---	---	---	---	---	---
22	18.5	17.0	18.0	---	---	---	---	---	---	---	---	---
23	17.5	16.0	16.5	6.0	5.5	5.5	---	---	---	---	---	---
24	16.5	15.5	16.0	6.0	5.5	6.0	---	---	---	---	---	---
25	16.0	14.5	15.5	6.0	5.5	6.0	---	---	---	---	---	---
26	15.0	14.5	15.0	6.0	5.5	6.0	---	---	---	---	---	---
27	15.0	14.5	14.5	6.0	6.0	6.0	---	---	---	---	---	---
28	15.0	14.5	15.0	6.5	6.0	6.5	---	---	---	---	---	---
29	14.5	14.0	14.5	6.5	6.0	6.0	---	---	---	---	---	---
30	14.0	14.0	14.0	6.0	6.0	6.0	---	---	---	---	---	---
31	14.0	13.5	13.5	---	---	---	---	---	---	---	---	---
MONTH	21.0	13.5	18.0	14.0	5.5	9.9	---	---	---	---	---	---

DELAWARE RIVER BASIN

01467200 DELAWARE RIVER AT BENJAMIN FRANKLIN BRIDGE AT PHILADELPHIA, PA--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
	FEBRUARY			MARCH			APRIL			MAY		
1	---	---	---	---	---	---	8.5	8.0	8.0	15.5	15.0	15.5
2	---	---	---	---	---	---	8.5	8.0	8.0	15.0	14.0	15.0
3	---	---	---	---	---	---	8.5	8.0	8.0	14.5	13.0	14.0
4	---	---	---	---	---	---	9.5	8.5	9.0	13.5	13.0	13.0
5	---	---	---	---	---	---	9.5	9.0	9.0	13.5	13.0	13.5
6	---	---	---	---	---	---	9.5	9.0	9.0	13.5	13.5	13.5
7	---	---	---	---	---	---	9.5	9.0	9.0	13.5	13.0	13.5
8	---	---	---	---	---	---	9.5	9.0	9.0	13.5	13.0	13.5
9	---	---	---	---	---	---	9.5	9.0	9.0	13.5	13.5	13.5
10	---	---	---	---	---	---	9.0	8.5	9.0	14.0	13.5	13.5
11	---	---	---	---	---	---	9.0	8.5	9.0	14.5	14.0	14.0
12	---	---	---	---	---	---	---	---	---	14.5	14.5	14.5
13	---	---	---	---	---	---	---	---	---	15.0	14.5	14.5
14	---	---	---	---	---	---	---	---	---	15.0	14.5	15.0
15	---	---	---	---	---	---	---	---	---	15.0	14.5	14.5
16	---	---	---	---	---	---	---	---	---	14.5	13.5	14.0
17	---	---	---	---	---	---	---	---	---	14.0	13.0	13.5
18	---	---	---	---	---	---	---	---	---	14.0	13.5	13.5
19	---	---	---	---	---	---	---	---	---	14.5	13.5	14.0
20	---	---	---	---	---	---	---	---	---	15.5	14.5	15.0
21	---	---	---	---	---	---	---	---	---	16.5	15.5	16.0
22	---	---	---	---	---	---	---	---	---	17.0	16.0	16.5
23	---	---	---	---	---	---	---	---	---	18.0	17.0	17.5
24	---	---	---	---	---	---	---	---	---	19.5	17.5	18.5
25	---	---	---	---	---	---	14.0	13.0	13.5	20.0	18.0	19.0
26	---	---	---	---	---	---	15.0	14.0	14.5	20.5	19.0	19.5
27	---	---	---	---	---	---	15.5	14.5	15.0	20.5	19.0	19.5
28	---	---	---	7.5	7.0	7.0	15.5	15.0	15.5	20.0	19.0	19.5
29	---	---	---	7.5	7.0	7.0	15.5	15.5	15.5	19.5	19.0	19.5
30	---	---	---	8.0	7.0	7.5	16.0	15.5	15.5	19.5	19.0	19.0
31	---	---	---	8.5	7.5	8.0	---	---	---	19.5	19.0	19.0
MONTH	---	---	---	8.5	7.0	7.4	16.0	8.0	10.9	20.5	13.0	15.6
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	19.5	19.0	19.5	23.5	23.0	23.5	24.0	23.5	23.5	26.0	25.5	26.0
2	19.5	19.0	19.5	23.5	23.5	23.5	24.0	23.5	24.0	26.0	25.5	26.0
3	19.5	19.0	19.5	23.5	23.5	23.5	24.0	24.0	24.0	26.0	25.5	26.0
4	19.5	19.0	19.5	23.5	23.0	23.0	24.0	24.0	24.0	26.0	26.0	26.0
5	20.0	19.5	19.5	23.0	23.0	23.0	24.5	24.0	24.0	26.0	26.0	26.0
6	20.5	19.5	20.0	23.5	23.0	23.0	24.5	24.0	24.5	---	---	---
7	20.5	20.0	20.0	24.0	23.5	23.5	25.0	24.0	24.5	---	---	---
8	21.0	20.5	20.5	24.0	23.5	24.0	25.0	24.5	24.5	---	---	---
9	21.5	21.0	21.0	---	---	---	25.0	24.5	25.0	---	---	---
10	22.0	21.5	21.5	24.5	24.5	24.5	25.0	24.5	25.0	---	---	---
11	22.5	22.0	22.0	25.0	24.5	24.5	25.0	24.5	25.0	---	---	---
12	22.5	22.0	22.5	24.5	24.0	24.5	25.0	24.5	25.0	---	---	---
13	23.5	22.5	23.0	24.0	24.0	24.0	24.5	24.0	24.5	---	---	---
14	24.0	23.0	23.5	25.0	24.0	24.5	24.5	24.0	24.0	---	---	---
15	24.5	23.5	24.0	25.0	24.5	24.5	24.5	24.0	24.5	---	---	---
16	25.0	24.0	24.5	25.0	23.5	24.0	24.5	24.5	24.5	---	---	---
17	25.0	24.5	24.5	24.5	23.5	23.5	25.0	24.5	24.5	---	---	---
18	25.0	24.5	25.0	24.0	23.5	23.5	25.0	24.5	25.0	---	---	---
19	25.0	24.5	24.5	24.0	23.5	23.5	25.5	25.0	25.0	---	---	---
20	24.5	24.5	24.5	24.0	23.5	23.5	25.0	25.0	25.0	---	---	---
21	25.0	24.5	24.5	24.0	23.5	23.5	25.0	25.0	25.0	---	---	---
22	25.0	24.5	24.5	23.5	23.5	23.5	25.5	25.0	25.0	---	---	---
23	24.5	24.5	24.5	23.5	23.5	23.5	25.5	25.0	25.5	---	---	---
24	24.5	24.0	24.5	23.5	23.0	23.5	25.5	25.5	25.5	---	---	---
25	24.5	24.5	24.5	24.0	23.5	23.5	25.5	25.0	25.5	---	---	---
26	24.5	23.5	24.0	24.0	23.5	24.0	26.0	25.5	25.5	---	---	---
27	24.0	23.5	24.0	24.0	23.5	24.0	26.0	25.5	26.0	20.0	19.5	20.0
28	24.0	24.0	24.0	24.0	23.5	24.0	26.0	25.5	25.5	20.0	19.5	20.0
29	24.0	23.5	24.0	24.0	23.5	24.0	26.0	25.5	25.5	19.5	19.0	19.5
30	24.0	23.0	23.5	24.0	23.5	23.5	26.0	25.5	26.0	19.5	19.0	19.0
31	---	---	---	24.0	23.5	23.5	26.0	25.5	26.0	---	---	---
MONTH	25.0	19.0	22.7	25.0	23.0	23.7	26.0	23.5	24.9	26.0	19.0	23.2

DELAWARE RIVER BASIN

01467200 DELAWARE RIVER AT BENJAMIN FRANKLIN BRIDGE AT PHILADELPHIA, PA--Continued

OXYGEN, DISSOLVED (MG/L), 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	6.7	5.5	6.1	8.3	7.9	8.1	---	---	---	---	---	---
2	6.8	5.6	6.2	8.1	7.7	7.9	---	---	---	---	---	---
3	7.0	5.7	6.3	7.9	7.7	7.8	---	---	---	---	---	---
4	6.7	5.8	6.2	8.5	7.8	8.2	---	---	---	---	---	---
5	---	---	---	8.7	8.2	8.4	---	---	---	---	---	---
6	---	---	---	8.8	8.4	8.6	---	---	---	---	---	---
7	---	---	---	8.9	8.2	8.5	---	---	---	---	---	---
8	---	---	---	8.6	8.0	8.4	---	---	---	---	---	---
9	---	---	---	8.7	8.0	8.4	---	---	---	---	---	---
10	---	---	---	8.7	8.1	8.4	---	---	---	---	---	---
11	---	---	---	8.7	8.0	8.5	---	---	---	---	---	---
12	6.7	5.9	6.3	---	---	---	---	---	---	---	---	---
13	6.8	5.9	6.3	---	---	---	---	---	---	---	---	---
14	6.8	5.8	6.2	---	---	---	---	---	---	---	---	---
15	6.4	5.8	6.0	---	---	---	---	---	---	---	---	---
16	7.1	6.1	6.6	---	---	---	---	---	---	---	---	---
17	7.4	6.4	6.9	---	---	---	---	---	---	---	---	---
18	7.5	6.3	6.9	---	---	---	---	---	---	---	---	---
19	7.5	6.5	7.0	---	---	---	---	---	---	---	---	---
20	7.6	6.4	7.0	---	---	---	---	---	---	---	---	---
21	7.4	6.5	6.9	---	---	---	---	---	---	---	---	---
22	8.0	6.8	7.6	---	---	---	---	---	---	---	---	---
23	8.2	7.7	7.9	11.6	11.4	11.5	---	---	---	---	---	---
24	8.0	7.7	7.8	11.6	11.4	11.5	---	---	---	---	---	---
25	8.1	7.6	7.9	11.5	11.3	11.4	---	---	---	---	---	---
26	8.1	7.7	8.0	11.4	11.1	11.3	---	---	---	---	---	---
27	8.1	7.6	7.9	11.2	10.8	11.1	---	---	---	---	---	---
28	7.9	7.6	7.7	10.9	10.7	10.8	---	---	---	---	---	---
29	8.2	7.7	8.0	11.1	10.9	11.0	---	---	---	---	---	---
30	8.2	7.9	8.1	11.0	10.8	10.9	---	---	---	---	---	---
31	8.5	7.9	8.1	---	---	---	---	---	---	---	---	---
MONTH	8.5	5.5	7.1	11.6	7.7	9.5	---	---	---	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	---	---	---	---	---	---	11.3	10.8	11.0	9.0	8.2	8.5
2	---	---	---	---	---	---	11.1	10.8	10.9	9.2	8.6	8.9
3	---	---	---	---	---	---	11.0	10.6	10.8	9.4	8.9	9.1
4	---	---	---	---	---	---	10.7	10.3	10.6	9.4	9.0	9.2
5	---	---	---	---	---	---	10.5	10.1	10.3	9.2	9.0	9.1
6	---	---	---	---	---	---	10.4	10.0	10.2	9.2	8.8	8.9
7	---	---	---	---	---	---	10.3	9.9	10.1	9.2	8.7	9.0
8	---	---	---	---	---	---	10.2	9.9	10.0	9.3	8.9	9.0
9	---	---	---	---	---	---	10.5	9.9	10.1	9.1	8.7	8.8
10	---	---	---	---	---	---	10.5	9.9	10.3	9.0	8.6	8.8
11	---	---	---	---	---	---	10.6	10.3	10.5	9.1	8.5	8.9
12	---	---	---	---	---	---	---	---	---	8.9	8.7	8.8
13	---	---	---	---	---	---	---	---	---	8.8	8.5	8.7
14	---	---	---	---	---	---	---	---	---	8.6	8.1	8.3
15	---	---	---	---	---	---	---	---	---	8.6	8.1	8.3
16	---	---	---	---	---	---	---	---	---	8.7	8.2	8.4
17	---	---	---	---	---	---	---	---	---	8.9	8.3	8.6
18	---	---	---	---	---	---	---	---	---	9.0	8.4	8.7
19	---	---	---	---	---	---	---	---	---	8.9	8.5	8.7
20	---	---	---	---	---	---	---	---	---	8.7	8.3	8.5
21	---	---	---	---	---	---	---	---	---	8.5	8.1	8.2
22	---	---	---	---	---	---	---	---	---	8.3	8.0	8.1
23	---	---	---	---	---	---	---	---	---	8.2	7.8	8.0
24	---	---	---	---	---	---	---	---	---	8.0	7.7	7.8
25	---	---	---	---	---	---	9.3	8.9	9.2	7.7	7.2	7.5
26	---	---	---	---	---	---	9.2	8.8	9.0	7.2	6.9	7.0
27	---	---	---	---	---	---	9.0	8.6	8.7	7.0	6.3	6.6
28	---	---	---	11.8	11.4	11.6	8.7	8.4	8.6	6.9	6.1	6.5
29	---	---	---	11.6	11.2	11.4	8.8	8.4	8.7	6.7	6.2	6.4
30	---	---	---	11.3	11.0	11.2	8.6	8.3	8.5	6.3	6.1	6.2
31	---	---	---	11.2	10.9	11.1	---	---	---	6.4	6.1	6.2
MONTH	---	---	---	11.8	10.9	11.3	11.3	8.3	9.9	9.4	6.1	8.2

DELAWARE RIVER BASIN

01467200 DELAWARE RIVER AT BENJAMIN FRANKLIN BRIDGE AT PHILADELPHIA, PA--Continued

OXYGEN, DISSOLVED (MG/L), 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	6.6	6.1	6.4	3.5	3.0	3.3	5.6	5.0	5.2	5.6	5.0	5.3
2	6.7	6.2	6.4	3.4	2.8	3.1	5.4	4.7	5.0	5.7	5.1	5.4
3	6.6	6.1	6.3	3.2	2.6	2.9	5.3	4.6	4.9	5.8	5.2	5.5
4	6.5	6.0	6.2	3.4	2.7	3.0	5.3	4.4	4.8	5.7	5.2	5.4
5	6.5	5.9	6.2	3.6	2.8	3.2	5.1	4.4	4.8	5.7	5.0	5.2
6	6.7	6.0	6.4	3.7	3.1	3.2	5.0	4.5	4.8	5.4	4.4	4.8
7	7.1	6.3	6.7	3.4	3.2	3.3	5.2	4.5	4.8	---	---	---
8	7.5	6.6	7.0	3.6	3.3	3.4	5.2	4.6	4.9	---	---	---
9	7.6	6.8	7.2	3.7	3.5	3.6	5.2	4.6	4.9	---	---	---
10	7.4	6.9	7.2	5.0	3.6	4.2	5.3	4.6	4.8	---	---	---
11	7.3	6.5	7.0	5.7	4.1	4.8	5.7	4.7	5.1	---	---	---
12	6.7	6.1	6.5	5.7	4.5	5.2	5.6	4.8	5.1	---	---	---
13	6.2	5.6	5.9	5.7	4.7	5.1	5.6	4.7	5.2	---	---	---
14	5.6	4.4	5.1	5.9	5.0	5.6	5.5	4.9	5.2	---	---	---
15	4.8	4.0	4.3	5.9	5.4	5.6	5.6	4.7	5.2	---	---	---
16	4.2	3.8	4.0	6.4	5.5	5.9	5.6	4.9	5.1	---	---	---
17	4.0	3.4	3.7	6.4	5.7	6.1	5.4	4.7	5.0	---	---	---
18	3.5	2.8	3.1	6.4	6.1	6.2	5.2	4.6	4.9	---	---	---
19	3.5	2.5	2.9	6.2	5.8	5.9	5.3	4.8	5.0	---	---	---
20	3.6	2.3	3.0	5.9	5.5	5.7	5.1	4.7	5.0	---	---	---
21	3.6	2.3	3.0	5.9	5.4	5.7	5.1	4.8	5.0	---	---	---
22	3.4	2.5	3.0	6.0	5.5	5.8	5.1	4.8	4.9	---	---	---
23	3.4	2.9	3.1	5.9	5.1	5.5	5.2	4.8	5.0	---	---	---
24	3.5	2.9	3.2	6.0	5.2	5.6	5.2	4.8	4.9	---	---	---
25	3.6	3.0	3.3	6.2	5.3	5.7	5.2	4.7	4.9	---	---	---
26	3.9	3.2	3.5	6.0	5.3	5.7	5.3	4.8	5.0	---	---	---
27	4.0	3.4	3.6	6.2	5.3	5.7	5.2	4.9	5.1	6.1	5.3	5.6
28	4.1	3.4	3.7	6.5	5.3	5.9	5.2	4.8	5.0	6.3	5.4	5.9
29	3.9	3.4	3.6	6.5	5.6	6.0	5.1	4.8	5.0	6.5	5.8	6.1
30	4.0	3.4	3.6	6.2	5.4	5.8	5.3	4.8	5.1	6.8	5.9	6.3
31	---	---	---	5.9	5.1	5.5	5.5	4.9	5.2	---	---	---
MONTH	7.6	2.3	4.8	6.5	2.6	4.9	5.7	4.4	5.0	6.8	4.4	5.5

SCHUYLKILL RIVER BASIN

01468500 SCHUYLKILL RIVER AT LANDINGVILLE, PA

LOCATION.--Lat 40°37'45", long 76°07'30", Schuylkill County, Hydrologic Unit 02040203, on left bank 10 ft upstream from highway bridge on SR 2011 at Landingville, 0.1 mi upstream from Mahannon Creek, and 5.0 mi downstream from West Branch Schuylkill River.

DRAINAGE AREA.--133 mi².

PERIOD OF RECORD.--August 1947 to April 1953, October 1963 to September 1965, August 1973 to current year.

REVISED RECORDS.--WDR PA-75-1: 1973(P), 1974(P).

GAGE.--Water-stage recorder. Datum of gage is 470.64 ft above sea level. Prior to Aug. 27, 1947, nonrecording gage 10 ft downstream at same datum.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Several measurements of water temperature were made during the year. Satellite telemetry at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in June 1972 reached a stage of 17.36 ft, discharge, 14,000 ft³/s.

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	1400	2,020	7.22	Jan. 24	1800	1,650	6.61
Nov. 12	0130	2,270	7.62	Jan. 27	1815	*6,410	*12.91
Nov. 15	0430	1,820	6.90	Apr. 16	0630	1,770	6.81
Jan. 20	0500	4,400	10.59	June 11	2100	2,380	7.78

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	69	140	265	130	783	522	431	816	161	248	170	93
2	68	212	273	140	679	494	488	703	155	207	157	88
3	60	178	259	149	618	455	423	613	151	224	278	88
4	70	169	259	e130	545	398	408	567	181	224	253	88
5	172	163	238	e110	481	388	395	504	191	187	249	103
6	152	155	245	e103	432	461	366	470	152	173	201	89
7	97	159	223	e95	400	467	418	410	143	165	187	183
8	86	164	211	e86	389	410	395	404	136	163	175	112
9	81	143	e200	e80	402	367	374	394	196	257	207	100
10	69	135	e190	e75	367	346	361	369	398	165	189	92
11	66	303	e175	e70	359	338	342	470	624	154	167	173
12	65	1300	e170	e66	336	343	324	591	777	148	161	106
13	64	681	e160	e70	294	349	325	501	478	483	243	172
14	193	672	e155	e75	282	356	346	459	399	332	174	126
15	304	1480	183	e90	263	415	332	426	405	365	157	108
16	138	951	209	e70	243	431	1410	407	297	355	163	107
17	102	713	197	e85	228	406	1000	389	278	284	155	340
18	93	611	180	e110	220	380	783	360	306	252	141	235
19	86	557	e170	2470	205	416	656	330	338	294	134	172
20	84	e511	e165	3050	257	836	583	309	302	242	124	151
21	923	e447	e160	1500	829	691	523	308	272	209	124	140
22	480	e416	157	1050	729	610	458	283	233	196	130	151
23	279	e384	152	834	754	554	439	255	217	189	120	143
24	205	e362	151	1190	894	494	471	239	241	177	136	127
25	173	e337	147	1150	856	448	377	214	287	183	117	121
26	155	e310	142	924	762	402	360	204	203	224	112	115
27	145	e293	136	3870	670	357	356	222	185	170	107	110
28	255	e276	131	3180	689	346	325	208	173	158	106	161
29	189	e271	128	1690	581	508	405	202	165	230	101	220
30	169	e251	126	1210	---	449	668	187	390	220	97	148
31	153	---	128	953	---	417	---	174	---	189	94	---
TOTAL	5245	12744	5685	24805	14547	13854	14542	11988	8434	7067	4929	4162
MEAN	169	425	183	800	502	447	485	387	281	228	159	139
MAX	923	1480	273	3870	894	836	1410	816	777	483	278	340
MIN	60	135	126	66	205	338	324	174	136	148	94	88
CFSM	1.27	3.19	1.38	6.02	3.77	3.36	3.64	2.91	2.11	1.71	1.20	1.04
IN.	1.47	3.56	1.59	6.94	4.07	3.87	4.07	3.35	2.36	1.98	1.38	1.16

STATISTICS OF MONTHLY MEAN DATA FOR PERIOD OF DAILY RECORD, BY WATER YEAR (WY)

	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983
MEAN	172	270	340	341	326	444	447	367	231	175	133	155
MAX	760	569	805	887	620	929	1079	811	562	471	248	475
(WY)	1977	1952	1951	1979	1981	1977	1993	1989	1982	1984	1994	1975
MIN	28.5	52.5	62.4	41.2	124	164	157	127	77.1	54.2	57.2	55.6
(WY)	1964	1965	1981	1981	1980	1985	1985	1965	1965	1965	1949	1964

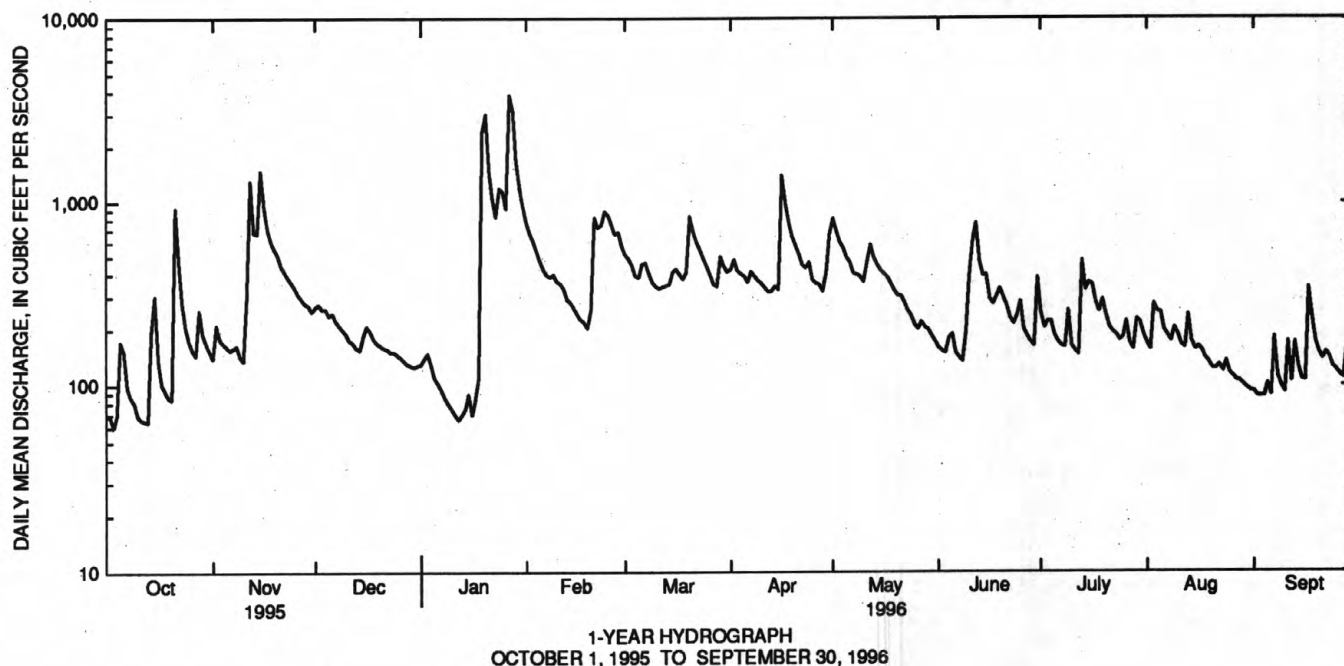
e Estimated.

SCHUYLKILL RIVER BASIN

01468500 SCHUYLKILL RIVER AT LANDINGVILLE, PA--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		PERIOD OF DAILY RECORD	
ANNUAL TOTAL	82693		128002		280	
ANNUAL MEAN	227		350		441	
HIGHEST ANNUAL MEAN					1952	
LOWEST ANNUAL MEAN					122	
HIGHEST DAILY MEAN	1480	Nov 15	3870	Jan 27	4660	Apr 16 1983
LOWEST DAILY MEAN	52	Sep 1,2	60	Oct 3	21	Nov 4 1963
ANNUAL SEVEN-DAY MINIMUM	54	Aug 30	a74	Jan 10	23	Oct 25 1963
INSTANTANEOUS PEAK FLOW			b6410	Jan 27	bc8570	Nov 25 1950
INSTANTANEOUS PEAK STAGE			12.91	Jan 27	13.60	Apr 16 1983
INSTANTANEOUS LOW FLOW			57	Oct 3	19	Oct 30 1963
ANNUAL RUNOFF (CFSM)	1.70		2.63		2.11	
ANNUAL RUNOFF (INCHES)	23.13		35.80		28.64	
10 PERCENT EXCEEDS	408		674		565	
50 PERCENT EXCEEDS	183		240		196	
90 PERCENT EXCEEDS	69		103		76	

- a Computed using estimated daily discharges.
b From rating curve extended above 5,000 ft³/s.
c Gage height, 13.29 ft.



SCHUYLKILL RIVER BASIN

01469500 LITTLE SCHUYLKILL RIVER AT TAMAQUA, PA

LOCATION.--Lat 40°48'25", long 75°58'20", Schuylkill County, Hydrologic Unit 02040203, on left bank at pumping plant of Panther Valley Water Co., 0.6 mi upstream from Tamaqua, and 0.8 mi upstream from Panther Creek.

DRAINAGE AREA.--42.9 mi².

PERIOD OF RECORD.--October 1919 to current year. June 1916 to September 1919, gage heights and discharge measurements only, in reports of Water Supply Commission of Pennsylvania.

REVISED RECORDS.--WSP 756: Drainage area. WSP 971: 1942. WSP 1302: 1922, 1926-30. WSP 1432: 1920-21, 1933.

GAGE.--Water-stage recorder and broad-crested weir. Datum of gage is 817.48 ft above sea level. Prior to June 21, 1929, nonrecording gage at site 3,600 ft downstream at datum 28.64 ft lower.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Flow regulated by Still Creek Reservoir (station 01469200) 6.5 mi upstream. Several measurements of water temperature were made during the year. Satellite telemetry at station.

COOPERATION.--Records of diversion and change in contents of Still Creek Reservoir provided by the Borough of Tamaqua.

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	9.1	48	95	33	307	185	153	367	42	154	95	23
2	8.6	71	94	36	214	167	179	305	39	118	86	22
3	8.2	67	89	44	187	150	154	253	38	108	88	21
4	10	58	90	e39	153	126	142	217	38	105	91	21
5	24	53	83	e39	126	122	140	186	46	90	85	22
6	33	52	84	e38	113	151	128	170	39	79	74	22
7	21	54	77	e40	104	156	140	145	36	71	67	54
8	18	59	71	e50	102	135	141	132	35	69	61	40
9	14	53	73	e80	106	113	130	139	35	77	63	30
10	12	47	68	e46	98	103	119	130	147	59	64	25
11	11	96	e64	e37	94	100	112	167	143	51	54	25
12	10	530	e64	39	88	99	108	283	204	47	48	24
13	10	331	e64	e44	73	101	110	220	163	204	74	31
14	33	293	60	e35	71	109	127	195	126	176	60	30
15	73	477	61	33	66	126	115	174	105	133	49	25
16	34	367	62	31	60	136	476	160	90	114	51	23
17	25	279	59	33	55	125	442	144	115	99	49	75
18	21	230	53	32	53	120	322	127	131	86	42	80
19	19	205	e54	1040	48	139	252	114	120	95	38	56
20	19	185	e54	1320	67	357	212	102	111	84	35	44
21	377	170	e52	960	293	304	183	95	96	68	34	39
22	246	162	47	642	251	253	159	90	84	64	39	39
23	130	148	44	363	261	212	155	78	76	62	34	38
24	96	136	43	385	330	180	198	72	79	57	34	36
25	78	123	e41	438	332	158	148	65	97	60	31	33
26	65	114	e40	346	293	142	133	59	72	129	28	29
27	58	107	e38	1100	248	122	126	62	61	94	27	28
28	87	105	e37	1220	255	112	112	61	54	72	26	35
29	66	106	35	914	214	180	138	57	51	113	25	58
30	54	98	e35	592	---	173	243	51	196	119	23	40
31	49	---	33	435	---	154	---	45	---	105	23	---
TOTAL	1718.9	4824	1864	10484	4662	4810	5297	4465	2669	2962	1598	1068
MEAN	55.4	161	60.1	338	161	155	177	144	89.0	95.5	51.5	35.6
MAX	377	530	95	1320	332	357	476	367	204	204	95	80
MIN	8.2	47	33	31	48	99	108	45	35	47	23	21
(†)	3.6	3.3	3.2	3.5	4.1	4.4	4.3	4.6	4.4	3.6	3.8	4.0

† Diversion from Still Creek Reservoir, equivalent in cubic feet per second.

e Estimated.

SCHUYLKILL RIVER BASIN

01469500 LITTLE SCHUYLKILL RIVER AT TAMAQUA, PA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1933 - 1996, BY WATER YEAR (WY) (SINCE REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	49.1	82.8	102	90.0	94.1	141	144	109	65.8	52.1	40.3	44.2
MAX	317	242	288	338	241	365	475	315	430	394	226	259
(WY)	1977	1952	1974	1996	1951	1936	1993	1989	1972	1947	1933	1933
MIN	5.82	7.81	12.2	8.57	26.6	42.5	46.6	21.1	14.6	8.87	6.25	6.46
(WY)	1964	1942	1981	1981	1934	1985	1985	1941	1941	1965	1944	1964

SUMMARY STATISTICS FOR 1995 CALENDAR YEAR FOR 1996 WATER YEAR WATER YEARS 1933 - 1996

ANNUAL TOTAL	23659.2	46421.9	
ANNUAL MEAN	64.8	127	84.5
HIGHEST ANNUAL MEAN			155
LOWEST ANNUAL MEAN			33.8
HIGHEST DAILY MEAN	530	Nov 12	1320
LOWEST DAILY MEAN	8.1	Sep 11	8.2
ANNUAL SEVEN-DAY MINIMUM	8.6	Sep 6	14
INSTANTANEOUS PEAK FLOW			2200
INSTANTANEOUS PEAK STAGE			6.27
INSTANTANEOUS LOW FLOW			
10 PERCENT EXCEEDS	128		253
50 PERCENT EXCEEDS	47		84
90 PERCENT EXCEEDS	13		30

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1920 - 1932, BY WATER YEAR (WY) (PRIOR TO REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	73.0	96.5	101	78.7	103	188	143	112	74.4	57.0	33.7	37.7
MAX	227	308	241	266	344	410	227	208	209	185	81.5	152
(WY)	1928	1927	1928	1924	1925	1920	1928	1924	1922	1928	1927	1924
MIN	6.67	6.74	7.99	13.3	25.7	88.5	72.6	32.8	27.3	14.5	10.3	6.66
(WY)	1931	1931	1931	1931	1931	1931	1926	1926	1921	1923	1923	1932

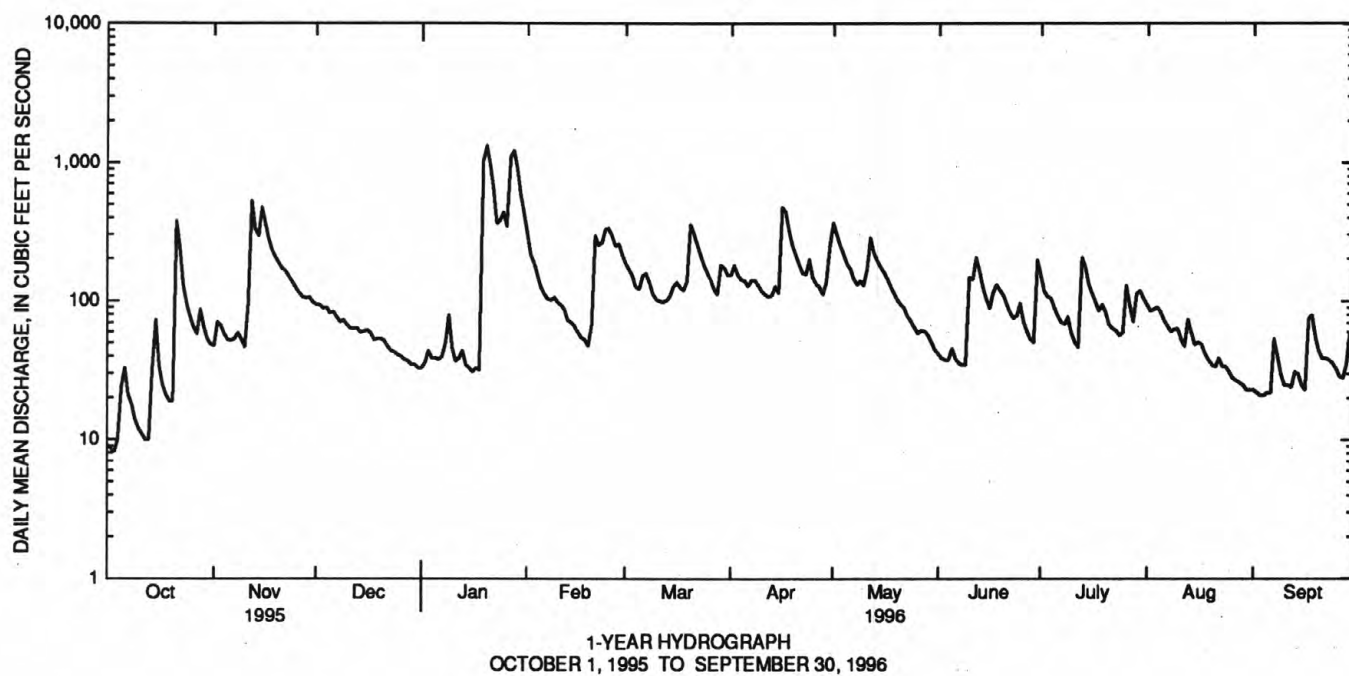
SUMMARY STATISTICS WATER YEARS 1920 - 1932

ANNUAL TOTAL		
ANNUAL MEAN	91.5	
HIGHEST ANNUAL MEAN	145	1928
LOWEST ANNUAL MEAN	42.3	1931
HIGHEST DAILY MEAN	3600	Sep 30 1924
LOWEST DAILY MEAN	3.0	Dec 23 1930
ANNUAL SEVEN DAY MINIMUM	3.8	Dec 14 1930
INSTANTANEOUS PEAK FLOW	5000	Sep 30 1924
INSTANTANEOUS LOW FLOW	1.8	Dec 18 1931
ANNUAL RUNOFF (CFSM)	2.13	
ANNUAL RUNOFF (INCHES)	28.97	
10 PERCENT EXCEEDS	201	
50 PERCENT EXCEEDS	54	
90 PERCENT EXCEEDS	12	

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

SCHUYLKILL RIVER BASIN

01469500 LITTLE SCHUYLKILL RIVER AT TAMAQUA, PA--Continued



SCHUYLKILL RIVER BASIN

01470500 SCHUYLKILL RIVER AT BERNE, PA

LOCATION.--Lat 40°31'21", long 75°59'55", Berks County, Hydrologic Unit 02040203, on right bank 50 ft upstream from bridge on Township Route 558 at Berne, 0.5 mi upstream from Mill Creek, and 6.5 mi downstream from Little Schuylkill River.

DRAINAGE AREA.--355 mi².

PERIOD OF RECORD.--August 1947 to current year.

GAGE.--Water-stage recorder. Datum of gage is 310.65 ft above sea level.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Some regulation at low flow by mine pumpage and by Still Creek Reservoir (station 01469200) about 25 mi upstream. Several measurements of water temperature were made during the year. Satellite telemetry at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,400 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 21	1730	5,240	8.43	Jan. 24	2200	4,680	8.15
Nov. 12	0600	5,430	8.52	Jan. 27	2130	20,600	13.90
Jan. 19	2230	*22,000	*14.31	Apr. 16	0915	4,960	8.29

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	124	414	637	319	2220	1530	1290	e1980	409	879	561	228
2	127	541	647	333	1870	1390	1660	e1860	383	664	498	222
3	125	573	614	383	1670	1290	1460	e1800	362	693	565	219
4	123	502	611	e340	1430	1110	1350	e1630	371	756	795	215
5	264	462	570	e300	e1280	1030	1270	e1510	495	601	651	233
6	550	436	576	e230	e1140	1240	1150	e1410	381	526	557	221
7	271	418	547	e170	e1020	1360	1200	e1330	345	486	506	439
8	217	495	515	e150	1000	1250	1270	e1170	329	499	473	329
9	188	423	e490	e150	1050	1100	1110	e1070	322	665	484	268
10	166	383	e450	e170	1020	1020	1110	1010	984	494	546	239
11	155	410	e410	e220	988	968	1030	1100	924	e420	447	325
12	148	3690	e380	e240	974	982	980	1940	2530	e400	418	259
13	142	2200	e360	e255	816	1020	945	1630	1470	e1300	623	296
14	234	1880	e380	e270	780	1050	971	1470	1040	1540	518	361
15	716	3780	464	e280	748	1160	924	1310	1090	1290	433	261
16	395	2880	491	e220	689	1390	3910	1210	795	1480	416	241
17	274	2050	496	e200	633	1260	3350	1130	688	1150	428	715
18	235	1640	452	e400	620	1190	2490	1020	876	953	378	754
19	216	1430	440	9480	558	1110	2030	939	849	975	348	523
20	200	1270	e420	11600	594	2670	e1700	851	850	855	326	425
21	2200	1160	e380	4720	2350	2380	e1510	798	729	687	314	372
22	1970	1090	e370	3240	2360	2020	e1570	784	601	615	333	376
23	1000	1020	e370	2350	2400	1750	e1520	693	553	590	313	406
24	709	951	e370	3000	2740	1530	e1480	640	510	542	369	331
25	578	875	e360	3750	2710	1350	e1450	e572	818	494	315	313
26	485	827	e340	2800	2380	1220	e1410	e547	548	719	286	287
27	438	785	e330	10200	2050	1050	e1390	e578	477	579	265	272
28	708	735	e335	10800	2020	970	e1500	e535	440	489	264	290
29	592	717	e325	5190	1740	1430	e1970	e498	431	620	254	722
30	497	670	382	3600	---	1460	e2110	e462	1000	764	240	471
31	451	---	421	2810	---	1320	---	435	---	631	234	---
TOTAL	14498	34707	13933	78170	41850	41600	47110	33912	21600	23356	13158	10613
MEAN	468	1157	449	2522	1443	1342	1570	1094	720	753	424	354
MAX	2200	3780	647	11600	2740	2670	3910	1980	2530	1540	795	754
MIN	123	383	325	150	558	968	924	435	322	400	234	215
CFSM	1.32	3.26	1.27	7.10	4.07	3.78	4.42	3.08	2.03	2.12	1.20	1.00
IN.	1.52	3.64	1.46	8.19	4.39	4.36	4.94	3.55	2.26	2.45	1.38	1.11

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1947 - 1996, BY WATER YEAR (WY)

	405	705	914	819	886	1181	1153	888	566	383	341	353
MEAN	405	705	914	819	886	1181	1153	888	566	383	341	353
MAX	1896	1631	2408	2547	1735	2525	3319	2689	3410	1240	1594	1381
(WY)	1977	1971	1984	1979	1981	1994	1993	1989	1972	1984	1955	1987
MIN	75.7	120	125	88.4	290	462	424	325	148	113	119	94.6
(WY)	1964	1965	1981	1981	1980	1985	1985	1965	1965	1965	1957	1964

e Estimated.

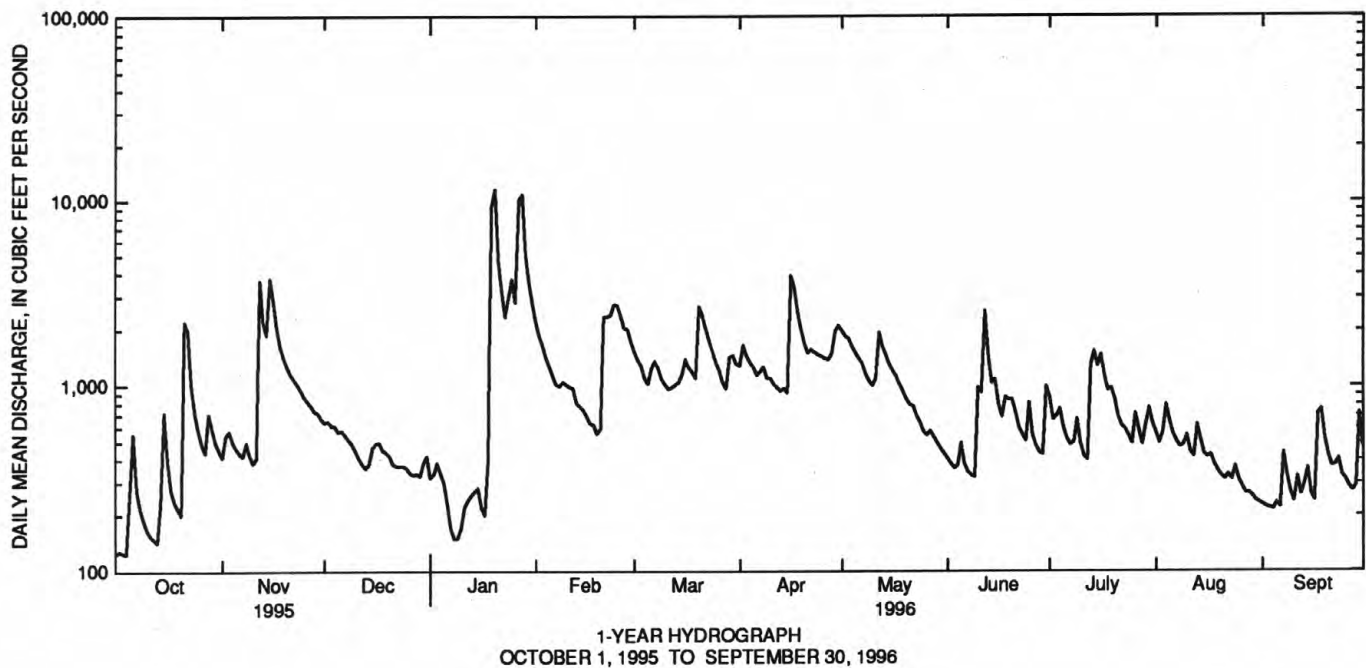
SCHUYLKILL RIVER BASIN

01470500 SCHUYLKILL RIVER AT BERNE, PA--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1947 - 1996	
ANNUAL TOTAL	197510		374507		715	
ANNUAL MEAN	541		1023		1182	
HIGHEST ANNUAL MEAN					1952	
LOWEST ANNUAL MEAN					1965	
HIGHEST DAILY MEAN	3780	Nov 15	11600	Jan 20	26000	Jun 23 1972
LOWEST DAILY MEAN	99	Sep 4	123	Oct 4	40	Sep 2 1949
ANNUAL SEVEN-DAY MINIMUM	101	Sep 2	179	Oct 8	65	Oct 19 1963
INSTANTANEOUS PEAK FLOW			a22000	Jan 19	a42800	Jun 22 1972
INSTANTANEOUS PEAK STAGE			14.31	Jan 19	b19.90	Jun 22 1972
INSTANTANEOUS LOW FLOW			122	Oct 1,3,4	31	Sep 2 1949
ANNUAL RUNOFF (CFSM)	1.52		2.88		2.01	
ANNUAL RUNOFF (INCHES)	20.70		39.24		27.37	
10 PERCENT EXCEEDS	1030		2020		1480	
50 PERCENT EXCEEDS	404		643		450	
90 PERCENT EXCEEDS	145		260		160	

a From rating curve extended above 20,800 ft³/s.

b From floodmark in gage shelter.



SCHUYLKILL RIVER BASIN

01470779 TULPEHOCKEN CREEK NEAR BERNVILLE, PA

LOCATION.--Lat 40°24'48", long 76°10'19", Berks County, Hydrologic Unit, 02040203, on left bank 30 ft downstream from bridge at Kricks Mill, 0.4 mi upstream from Mill Creek, and 3.5 mi west of Bernville.

DRAINAGE AREA.--66.5 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--November 1974 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 311.26 ft above sea level (Pennsylvania Department of Transportation datum).

REMARKS.--Records good except those for estimated daily discharges, which are poor. Satellite telemetry at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 1972 reached a stage of about 9.5 ft, from information by local resident, discharge about 6,000 ft³/s.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 950 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 19	2030	*3,780	*7.95	Jan. 27	1830	2,480	6.86

REVISIONS.--The peak discharges and annual maximum (*) reported for water years 1972, 1975-83, 1988, 1990, 1993 and 1994 have been revised as shown in the following table. They supercede previously published figures.

Water Year	Date	Discharge (ft ³ /s)	Gage height (ft)	Water Year	Date	Discharge (ft ³ /s)	Gage height (ft)
1975	09-26-75	*1,740	*6.06	1989	05-06-89	*2,410	*6.79
	06-28-75	1,200	5.33		05-16-89	1,520	5.79
1976	01-26-76	*3,860	*8.01		06-23-89	1,070	5.13
	06-30-76	2,760	7.12	1990	11-16-89	*2,340	*6.72
	07-30-76	1,070	5.13		01-30-90	1,150	5.25
1978	01-26-78	*4,690	*8.63	1993	11-23-92	*2,180	*6.56
	03-14-78	2,100	6.47		03-04-93	1,280	5.46
	03-26-78	2,260	6.64		04-16-93	1,200	5.33
1979	01-24-79	*7,140	*10.16	1994	11-28-93	*4,840	*8.74
	01-21-79	1,910	6.26		12-05-93	2,500	6.88
	02-25-79	1,830	6.17		03-22-94	1,190	5.32
	02-26-79	3,440	7.69		03-23-94	1,200	5.33
1982	02-23-82	*1,860	*6.20		03-27-94	1,400	5.62
1983	04-16-83	*2,790	*7.15		06-07-94	2,540	6.92
1988	05-19-88	*2,930	*7.27				

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	30	58	88	67	276	168	192	187	97	88	132	55
2	29	61	87	74	e240	166	284	157	95	80	120	53
3	29	58	86	78	e220	160	217	150	93	99	116	51
4	35	58	86	e70	e200	152	205	146	96	96	116	50
5	72	60	82	e63	e180	155	199	140	103	91	111	48
6	67	65	83	e60	e170	175	189	144	90	76	107	67
7	48	57	81	e57	e160	206	203	134	88	71	104	105
8	47	62	79	e55	e170	e190	196	135	87	74	103	79
9	46	54	e76	e53	e200	e160	189	143	90	83	112	74
10	45	52	e70	e50	204	e150	195	137	125	90	112	71
11	45	60	e60	e50	204	e150	179	150	140	92	103	68
12	44	228	e60	e50	195	e160	171	197	273	99	100	67
13	43	124	e55	e52	e160	158	166	153	148	221	123	77
14	53	252	e65	e60	e150	152	162	143	126	170	107	52
15	75	403	e75	e75	e160	152	161	137	114	263	101	42
16	45	241	85	e90	e150	154	471	140	106	171	101	43
17	47	189	85	e65	e140	144	269	136	103	153	97	113
18	37	163	81	e80	e130	141	235	130	106	145	92	77
19	35	147	84	1400	e140	153	217	126	181	366	89	55
20	34	134	e80	1270	155	295	205	121	151	213	87	48
21	e200	124	e65	454	263	229	194	117	161	182	89	45
22	e140	115	e60	340	228	208	183	100	119	169	88	52
23	e90	110	e65	287	222	196	176	113	111	163	84	57
24	76	112	e68	476	228	186	169	103	103	151	81	49
25	61	102	e67	457	210	180	164	105	106	146	80	59
26	65	99	e65	320	198	171	161	104	95	151	78	62
27	65	96	e60	1290	189	164	156	109	91	140	74	62
28	89	93	e55	859	194	163	150	107	87	134	60	69
29	71	94	e50	460	174	237	176	115	81	140	60	105
30	67	90	e55	377	---	199	190	106	111	167	57	78
31	56	---	59	327	---	185	---	100	---	144	56	---
TOTAL	1886	3561	2217	9466	5510	5459	6024	4085	3477	4428	2940	1933
MEAN	60.8	119	71.5	305	190	176	201	132	116	143	94.8	64.4
MAX	200	403	88	1400	276	295	471	197	273	366	132	113
MIN	29	52	50	50	130	141	150	100	81	71	56	42
CFM	.91	1.78	1.08	4.59	2.86	2.65	3.02	1.98	1.74	2.15	1.43	.97
IN.	1.06	1.99	1.24	5.30	3.08	3.05	3.37	2.29	1.95	2.48	1.64	1.08

e Estimated.

SCHUYLKILL RIVER BASIN

01470779 TULPEHOCKEN CREEK NEAR BERNVILLE, PA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1975 - 1996, BY WATER YEAR (WY)

MEAN	81.3	98.8	115	133	132	168	153	117	100	90.1	69.1	68.7
MAX	250	172	253	385	264	468	367	277	208	216	129	181
(WY)	1977	1990	1984	1979	1979	1994	1993	1989	1982	1984	1976	1975
MIN	39.0	38.7	41.4	33.6	48.6	67.5	58.8	60.7	50.2	37.7	35.2	29.7
(WY)	1982	1982	1982	1981	1992	1981	1985	1985	1985	1991	1981	1991

SUMMARY STATISTICS

FOR 1995 CALENDAR YEAR

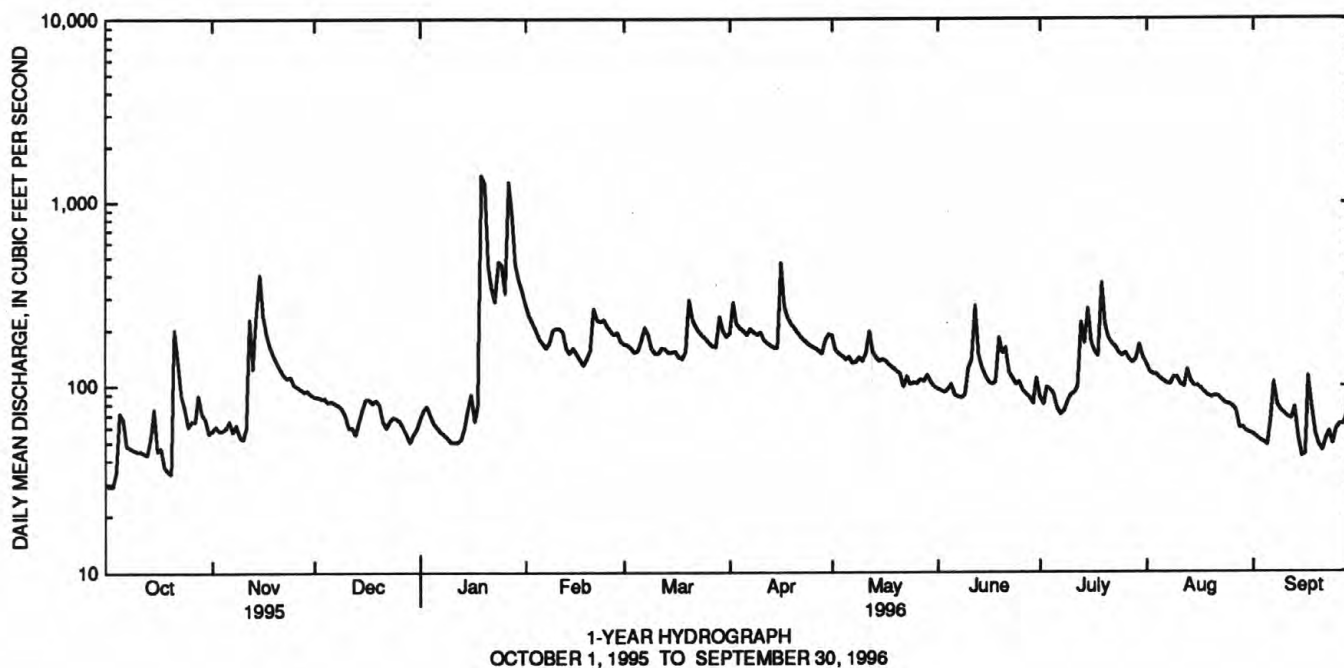
FOR 1996 WATER YEAR

WATER YEARS 1975 - 1996

ANNUAL TOTAL	31021	50986	
ANNUAL MEAN	85.0	139	109
HIGHEST ANNUAL MEAN			164
LOWEST ANNUAL MEAN			55.7
HIGHEST DAILY MEAN	483	Jan 20	1400
LOWEST DAILY MEAN	29	Oct 2,3	29
ANNUAL SEVEN-DAY MINIMUM	31	Sep 28	44
INSTANTANEOUS PEAK FLOW		a3780	Jan 19
INSTANTANEOUS PEAK STAGE		7.95	Jan 19
INSTANTANEOUS LOW FLOW		27	Oct 3
ANNUAL RUNOFF (CFSM)	1.28	2.09	1.64
ANNUAL RUNOFF (INCHES)	17.35	28.52	22.33
10 PERCENT EXCEEDS	140	217	184
50 PERCENT EXCEEDS	69	107	85
90 PERCENT EXCEEDS	38	55	45

a From rating curve extended above 740 ft³/s, on basis of contracted-opening measurement at gage height 8.01 ft.

b Revised.



SCHUYLKILL RIVER BASIN

01470779 TULPEHOCKEN CREEK NEAR BERNVILLE, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Water years 1978 to current year.

INSTRUMENTATION.--Temperature recorder since October 1977. Temperature probe interfaced with a data collection platform since 1986 water year.

REMARKS.--Interruptions in the record were due to malfunctions of the equipment.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum, 27.0°C, July 21, 1985, July 22, 1987; minimum, 0.0°C, many days during winter periods.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum, 22.0°C, July 9; minimum, 0.0°C, several days during winter period.

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	16.0	13.0	14.5	12.0	11.5	11.5	7.0	4.5	5.5	5.5	3.5	4.5
2	17.5	14.0	15.5	14.0	12.0	13.0	7.0	6.0	6.5	5.5	3.0	4.5
3	17.5	14.5	16.0	15.5	14.0	14.5	7.0	5.0	6.0	3.0	2.0	2.5
4	18.0	16.5	17.5	14.0	8.5	10.5	8.0	7.0	7.5	2.0	.0	.5
5	17.5	17.0	17.5	8.5	6.5	7.0	7.0	5.5	6.0	.5	.0	.0
6	20.0	17.5	18.5	8.0	6.0	7.0	6.0	5.0	5.5	.5	.0	.0
7	19.5	17.5	19.0	8.0	6.5	7.0	5.5	5.0	5.0	.0	.0	.0
8	17.5	15.0	16.5	8.5	7.0	7.5	5.0	3.5	4.0	.0	.0	.0
9	15.0	13.5	14.0	7.0	4.5	6.0	4.5	3.0	3.5	.0	.0	.0
10	15.0	13.0	14.0	6.0	4.5	5.5	3.0	.5	1.5	.0	.0	.0
11	16.5	14.0	15.0	10.0	6.0	8.0	.5	.0	.0	.0	.0	.0
12	16.5	14.5	15.0	9.5	6.5	8.0	.5	.0	.0	.0	.0	.0
13	17.0	14.5	15.5	6.5	6.0	6.0	2.0	.0	1.0	.0	.0	.0
14	17.0	15.0	16.5	6.5	5.0	6.0	2.5	1.5	1.5	.0	.0	.0
15	17.0	13.5	15.5	7.0	5.5	6.5	5.0	2.5	3.5	.0	.0	.0
16	13.5	10.5	12.0	7.5	6.0	7.0	5.0	3.5	4.5	.0	.0	.0
17	11.5	9.5	10.5	7.5	6.0	7.0	5.0	4.0	4.5	.0	.0	.0
18	12.5	10.0	11.0	8.0	7.0	7.5	4.0	3.0	3.5	3.0	.0	1.0
19	13.5	10.5	12.0	8.5	8.0	8.0	4.0	.0	2.0	5.5	.0	2.5
20	---	---	---	9.0	8.0	8.5	.5	.0	.0	4.0	.0	2.0
21	---	---	---	9.0	8.0	8.5	1.0	.0	.5	4.5	3.0	4.0
22	---	---	---	8.0	5.5	6.5	2.5	1.0	1.5	5.5	3.5	4.5
23	---	---	---	7.0	5.0	6.0	3.0	1.5	2.5	6.0	4.5	5.0
24	14.0	11.5	12.5	7.0	6.0	7.0	3.5	2.5	3.0	6.0	3.5	5.0
25	14.0	12.0	13.0	6.0	4.5	5.5	3.5	2.5	3.0	4.5	3.0	3.5
26	12.0	10.5	11.5	6.5	5.0	5.5	2.5	1.0	1.5	6.0	3.0	4.5
27	12.0	11.0	11.5	8.0	6.0	7.0	1.5	.0	.5	6.0	2.5	4.0
28	14.0	12.0	13.5	9.0	8.0	8.5	2.5	1.5	2.0	5.0	2.0	3.5
29	13.5	10.5	12.0	8.0	5.5	6.0	2.5	1.5	2.0	5.5	4.5	5.0
30	10.5	9.0	10.0	5.5	3.5	4.5	1.5	.0	1.0	6.5	5.0	5.5
31	11.5	10.5	11.0	---	---	---	3.5	1.5	2.0	6.0	4.5	5.5
MONTH	20.0	9.0	14.1	15.5	3.5	7.6	8.0	.0	2.9	6.5	.0	2.2

SCHUYLKILL RIVER BASIN

01470853 FURNACE CREEK AT ROBESONIA, PA

LOCATION.--Lat 40°20'24", long 76°08'37", Berks County, Hydrologic Unit 02040202, on left bank 500 ft upstream from Furnace Street in Robesonia.

DRAINAGE AREA.--4.18 mi².

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

REVISED RECORDS.--WDR PA-87-1: 1986 (P).

GAGE.--Water-stage recorder. Elevation of gage is 520 ft above sea level, from topographic map. Prior to Mar. 27, 1986, 760 ft downstream at different datum.

REMARKS.--Records poor. Several measurements of water temperature were made during the year.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 100 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 19	1415	178	2.45	Apr. 16	0145	102	2.01
Jan. 27	1545	171	2.41	July 19	0820	*266	a2.89

a Maximum gage height, 4.72 ft, Jan. 19, from peak indicator, (ice jam).

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	1.6	2.9	5.0	4.3	e15	16	17	16	6.2	6.6	6.9	2.9
2	1.5	6.4	5.4	5.4	e14	15	22	13	6.0	5.7	6.0	2.8
3	1.3	4.6	4.8	e4.8	e13	14	16	12	6.0	6.7	5.9	2.8
4	1.4	3.2	5.1	e4.4	e11	13	14	11	7.7	5.7	5.7	3.0
5	1.7	2.8	4.6	e3.8	e10	14	14	10	10	5.2	5.3	2.9
6	11	2.5	5.4	e3.4	e9.0	18	12	11	6.2	5.0	5.1	6.3
7	2.3	3.5	4.6	e3.0	e9.5	18	15	9.9	5.9	4.9	4.9	5.5
8	1.9	4.2	4.2	e3.0	e10	e14	13	10	6.4	5.1	4.7	3.4
9	1.7	2.6	e4.0	e3.2	13	e11	13	12	6.3	6.3	8.1	3.1
10	1.6	2.3	e3.0	e3.2	11	e10	13	9.8	9.5	5.3	5.7	3.0
11	1.6	6.5	e3.4	e3.2	13	e11	13	13	15	4.6	4.7	3.0
12	1.6	14	e3.0	e2.9	11	e12	11	18	18	4.6	5.7	3.0
13	1.6	6.1	e3.0	e3.0	e9.0	13	11	12	11	30	8.1	4.3
14	2.2	8.4	e3.2	e3.4	e8.5	12	10	11	7.6	13	5.2	3.1
15	7.1	16	e4.0	4.1	e9.0	13	12	10	6.6	14	4.6	2.8
16	2.5	8.2	6.0	4.0	9.0	11	51	12	6.0	8.1	4.6	5.4
17	1.8	6.5	5.4	e3.4	e8.0	11	22	10	6.5	6.9	4.3	12
18	1.7	5.9	4.8	e4.0	e7.0	10	18	9.5	6.8	6.8	4.1	5.5
19	1.7	6.7	e4.4	e70	e8.5	16	16	8.9	18	42	3.9	3.7
20	1.7	7.0	e3.6	29	11	22	15	8.3	10	12	3.8	3.3
21	14	7.0	e3.4	e15	30	16	14	8.4	13	9.0	4.6	3.1
22	7.8	6.2	e3.2	e10	23	14	13	8.2	7.7	8.2	4.1	4.3
23	3.3	5.7	e3.4	e9.5	25	12	12	7.5	7.0	8.1	3.8	3.6
24	2.4	6.1	e3.6	e31	35	11	11	7.1	6.8	7.1	3.7	3.3
25	2.3	5.4	e3.6	22	29	11	11	6.8	7.1	6.6	3.4	3.1
26	2.3	5.2	e3.4	16	25	10	11	6.8	5.9	8.0	3.3	3.0
27	2.3	5.2	e3.0	70	22	9.7	11	7.9	5.7	6.4	3.4	2.9
28	7.3	4.8	e3.2	38	23	10	11	7.7	5.5	5.8	3.4	5.2
29	4.0	5.4	e3.0	26	19	17	16	9.3	5.4	8.9	3.3	4.7
30	2.9	4.8	e5.0	22	---	14	21	7.2	10	10	3.1	3.3
31	2.6	---	3.8	e18	---	12	---	6.5	---	8.8	3.0	---
TOTAL	100.7	176.1	125.5	443.0	440.5	410.7	459	310.8	249.8	285.4	146.4	118.3
MEAN	3.25	5.87	4.05	14.3	15.2	13.2	15.3	10.0	8.33	9.21	4.72	3.94
MAX	14	16	6.0	70	35	22	51	18	18	42	8.1	12
MIN	1.3	2.3	3.0	2.9	7.0	9.7	10	6.5	5.4	4.6	3.0	2.8
CFSM	.78	1.40	.97	3.42	3.63	3.17	3.66	2.40	1.99	2.20	1.13	.94
IN.	.90	1.57	1.12	3.94	3.92	3.66	4.08	2.77	2.22	2.54	1.30	1.05

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	3.02	5.86	7.61	7.07	8.73	12.1	12.8	10.2	5.66	4.62	3.16	2.77		
MAX	6.38	10.3	17.9	14.3	15.2	26.7	31.8	24.7	14.8	11.7	8.98	5.07		
(WY)	1990	1987	1994	1996	1996	1994	1993	1989	1984	1986	1986	1994		
MIN	.94	2.25	2.42	2.34	3.06	5.18	3.32	5.25	2.10	1.36	.85	.63		
(WY)	1989	1983	1983	1983	1992	1985	1985	1987	1985	1983	1983	1983		

e Estimated.

SCHUYLKILL RIVER BASIN

01470853 FURNACE CREEK AT ROBESONIA, PA--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1983 - 1996	
ANNUAL TOTAL	1867.8		3266.2		6.95	
ANNUAL MEAN	5.12		8.92		10.5	
HIGHEST ANNUAL MEAN					1994	
LOWEST ANNUAL MEAN					1985	
HIGHEST DAILY MEAN	35	Jan 20	e70	Jan 19	139	Dec 5 1993
LOWEST DAILY MEAN	1.2	Sep 11,16	1.3	Oct 3	.11	Sep 11 1983
ANNUAL SEVEN-DAY MINIMUM	1.3	Sep 2	1.7	Oct 8	.19	Sep 16 1985
INSTANTANEOUS PEAK FLOW			bc266	Jul 19	cd537	Nov 28 1993
INSTANTANEOUS PEAK STAGE			f4.72	Jan 19	f4.72	Jan 19 1996
INSTANTANEOUS LOW FLOW			1.1	Oct 3		
ANNUAL RUNOFF (CFSM)	1.22		2.13		1.66	
ANNUAL RUNOFF (INCHES)	16.62		29.07		22.60	
10 PERCENT EXCEEDS	8.5		16		14	
50 PERCENT EXCEEDS	4.7		6.6		4.7	
90 PERCENT EXCEEDS	1.5		3.0		1.4	

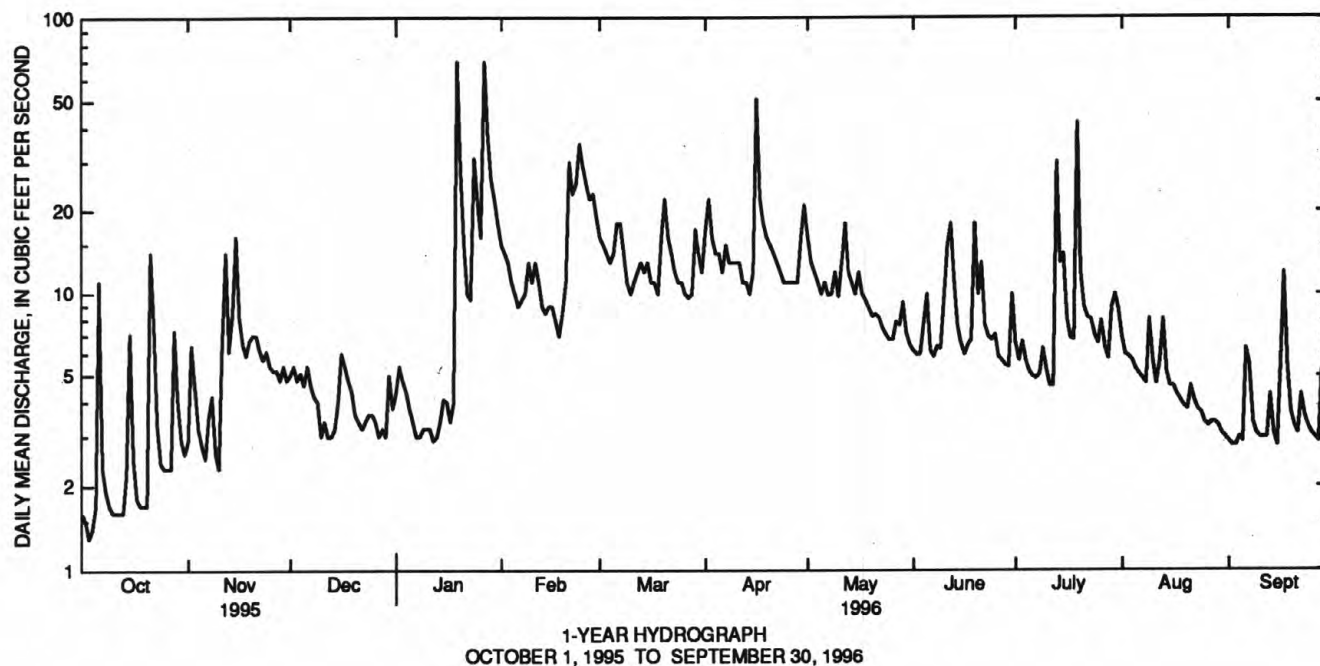
b Gage height, 2.89 ft.

c From rating curve extended above 70 ft³/s on basis of slope-area measurement of peak flow.

d Gage height, 3.79 ft.

e Estimated.

f From peak indicator; ice jam.



SCHUYLKILL RIVER BASIN

01470960 TULPEHOCKEN CREEK AT BLUE MARSH DAMSITE NEAR READING, PA

LOCATION.--Lat 40°22'14", long 76°01'32", Berks County, Hydrologic Unit 02040203, on right bank 1.0 mi upstream from Rebers Bridge and Plum Creek, 1.0 mi east of Blue Marsh, 3.0 mi north of Sinking Spring, and 5.5 mi northeast of Reading. Water-quality sampling site at Rebers Bridge 1.0 mi downstream.

DRAINAGE AREA.--175 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1965 to current year.

REVISED RECORDS.--WDR PA-72-1: 1969-71 (M).

GAGE.--Water-stage recorder. Datum of gage is 230.06 ft above sea level (Western Berks Water Authority datum). Prior to Nov. 25, 1974, water-stage recorder at site 0.3 mi downstream at same datum.

REMARKS.--Records good. Flow regulated since April 1979 by Blue Marsh Lake (station 01470870) 0.8 mi upstream. Satellite telemetry at station.

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	27	81	158	136	1310	413	370	747	157	499	302	87
2	39	116	165	e160	658	378	359	591	157	319	237	87
3	88	152	165	e220	602	378	363	373	154	221	183	163
4	125	152	182	173	603	328	366	400	151	218	184	181
5	88	152	196	128	436	290	366	410	283	188	224	113
6	26	152	196	120	327	410	366	387	236	164	252	113
7	25	152	196	122	367	532	369	308	133	164	206	114
8	25	152	167	122	427	646	374	262	134	148	170	113
9	26	127	150	173	460	492	374	293	150	135	172	208
10	27	107	150	247	460	491	322	339	282	180	179	e230
11	27	108	150	207	460	491	239	297	273	186	180	120
12	27	110	122	160	634	402	270	294	789	160	289	120
13	27	784	101	137	431	329	403	469	575	95	290	120
14	27	1410	189	136	308	293	406	590	273	789	232	120
15	27	1780	227	136	410	297	366	482	252	1140	180	120
16	27	2060	170	167	353	343	546	398	252	539	161	120
17	27	1340	170	191	310	343	1180	320	243	199	138	341
18	27	838	200	191	305	343	1240	265	260	211	137	297
19	27	833	225	237	304	345	878	265	324	725	184	115
20	27	503	204	53	303	920	604	265	1010	800	170	105
21	28	262	159	1810	805	947	555	258	913	675	150	106
22	28	262	159	3190	902	577	515	250	536	332	150	107
23	27	262	159	3160	777	491	445	215	536	136	149	212
24	27	254	159	2570	777	491	418	193	277	273	87	169
25	27	247	159	2070	777	491	376	193	73	285	87	75
26	27	247	159	1550	944	423	300	193	157	280	87	76
27	70	202	159	763	697	373	279	193	230	262	87	101
28	158	170	159	624	496	374	279	245	189	262	87	120
29	159	220	146	3020	512	450	566	288	136	282	87	120
30	158	200	136	2930	---	378	553	230	136	413	87	309
31	117	---	136	2420	---	381	---	170	---	436	87	---
TOTAL	1592	13435	5173	27323	16155	13840	14047	10183	9271	10716	5215	4382
MEAN	51.4	448	167	881	557	446	468	328	309	346	168	146
MAX	159	2060	227	3190	1310	947	1240	747	1010	1140	302	341
MIN	25	81	101	53	303	290	239	170	73	95	87	75

e Estimated.

SCHUYLKILL RIVER BASIN

01470960 TULPEHOCKEN CREEK AT BLUE MARSH DAMSITE NEAR READING, PA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1979 - 1996, BY WATER YEAR (WY) (SINCE REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	185	241	333	350	351	451	348	314	234	192	126	141
MAX	612	448	941	1151	596	1365	1016	1058	606	543	283	379
(WY)	1980	1996	1994	1979	1979	1994	1993	1989	1982	1984	1994	1987
MIN	51.4	62.4	77.2	91.7	131	135	49.8	147	69.9	79.3	55.4	54.0
(WY)	1996	1981	1981	1981	1980	1981	1985	1985	1979	1985	1981	1983

SUMMARY STATISTICS FOR 1995 CALENDAR YEAR FOR 1996 WATER YEAR WATER YEARS 1979 - 1996

ANNUAL TOTAL	74112	131332	
ANNUAL MEAN	203	359	272
HIGHEST ANNUAL MEAN			435
LOWEST ANNUAL MEAN			127
HIGHEST DAILY MEAN	2060	Nov 16	3190
LOWEST DAILY MEAN	25	Oct 7,8	25
ANNUAL SEVEN-DAY MINIMUM	26	Oct 6	26
INSTANTANEOUS PEAK FLOW			3240
INSTANTANEOUS PEAK STAGE			7.11
10 PERCENT EXCEEDS	347		732
50 PERCENT EXCEEDS	156		234
90 PERCENT EXCEEDS	45		87

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 1978, BY WATER YEAR (WY) (PRIOR TO REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	180	236	333	333	373	423	363	261	285	233	175	150
MAX	701	464	827	761	790	832	706	423	1244	523	350	536
(WY)	1977	1976	1978	1978	1971	1978	1970	1973	1972	1969	1969	1975
MIN	56.2	58.3	69.9	100	146	163	144	89.2	60.4	45.0	31.9	43.4
(WY)	1967	1966	1966	1966	1969	1969	1966	1965	1965	1966	1966	1966

SUMMARY STATISTICS WATER YEARS 1965 - 1978

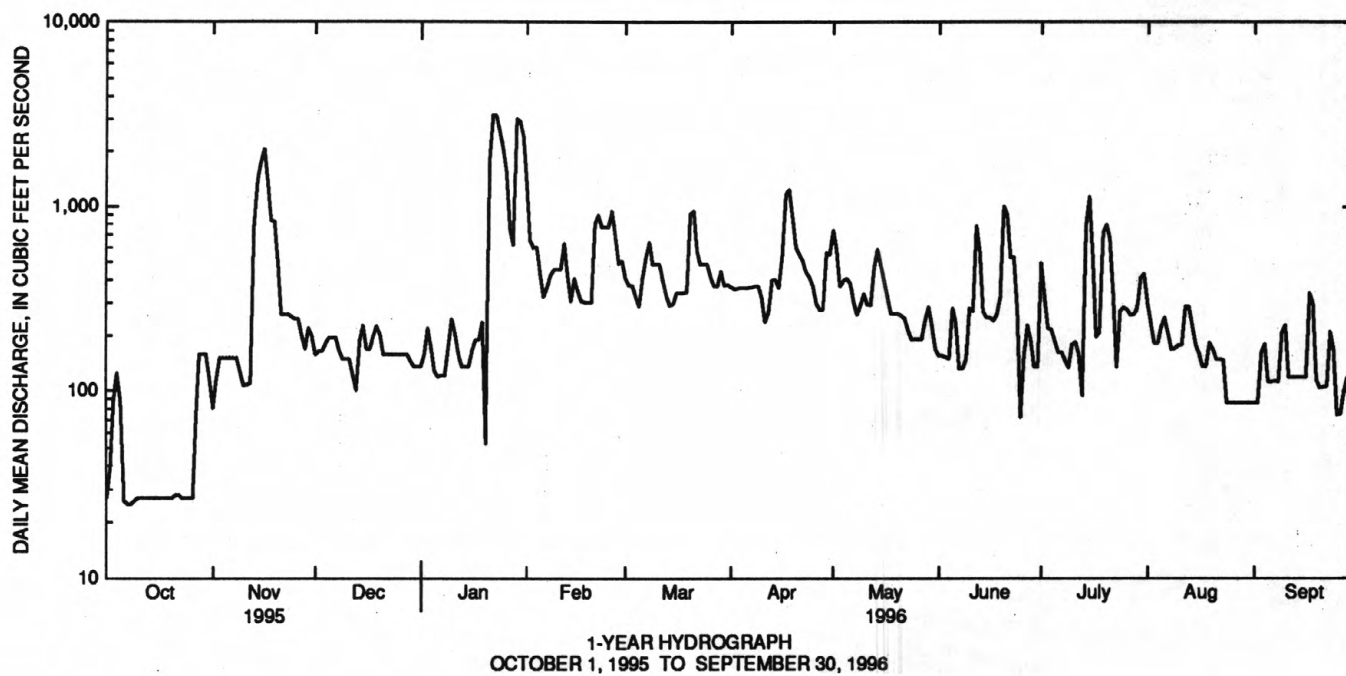
ANNUAL MEAN	283	
HIGHEST ANNUAL MEAN	416	1978
LOWEST ANNUAL MEAN	122	1966
HIGHEST DAILY MEAN	11000	Jun 23 1972
LOWEST DAILY MEAN	23	Sep 12 1966
ANNUAL SEVEN-DAY MINIMUM	25	Sep 7 1966
INSTANTANEOUS PEAK FLOW	a16100	Jun 22 1972
INSTANTANEOUS PEAK STAGE	b18.70	Jun 22 1972
ANNUAL RUNOFF (CFSM)	1.62	
ANNUAL RUNOFF (INCHES)	22.00	
10 PERCENT EXCEEDS	551	
50 PERCENT EXCEEDS	178	
90 PERCENT EXCEEDS	69	

a From rating curve extended above 3,000 ft³/s, on basis of runoff comparison with downstream station.

b From floodmark.

SCHUYLKILL RIVER BASIN

01470960 TULPEHOCKEN CREEK AT BLUE MARSH DAMSITE NEAR READING, PA--Continued



SCHUYLKILL RIVER BASIN

01470960 TULPEHOCKEN CREEK AT BLUE MARSH DAMSITE NEAR READING, PA--Continued

WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Water years 1969 to current year.

SUSPENDED-SEDIMENT DISCHARGE.--May 1973 to May 1976.

INSTRUMENTATION.--Temperature recorder since October 1968. Temperature probe interfaced with a data collection platform since 1986 water year.

REMARKS.--Temperature records collected at streamgage. Interruptions in the record were due to malfunctions of the equipment. Water-quality samples and suspended sediment samples collected at Rebers Bridge 1.0 mi downstream.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum, 34.0°C, Oct. 2, 1968; minimum, 0.0°C, on several days during December 1970, January and March 1971, and February 1979.

SUSPENDED-SEDIMENT CONCENTRATIONS: Maximum daily mean, 1,400 mg/L, June 22, 1973; minimum daily mean, 2 mg/L on many days.

SUSPENDED-SEDIMENT DISCHARGE: Maximum daily, 8,570 tons, Jan. 27, 1976; minimum daily, 0.45 tons, July 13.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum, 22.5°C, June 17, July 15; minimum, 1.5°C, several days during winter period.

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	20.5	17.5	18.5	14.0	14.0	14.0	5.5	5.5	5.5	3.0	2.5	3.0
2	21.0	17.5	18.5	14.5	13.5	14.0	5.5	5.0	5.5	---	---	---
3	19.5	18.0	19.0	14.0	13.0	13.5	5.5	5.0	5.0	---	---	---
4	19.0	18.5	19.0	13.5	13.0	13.5	5.5	5.0	5.5	---	---	---
5	19.0	18.5	18.5	13.0	12.5	13.0	5.5	5.0	5.0	2.5	2.5	2.5
6	21.5	18.5	19.5	13.0	12.5	12.5	5.0	5.0	5.0	2.5	2.0	2.5
7	19.0	18.5	18.5	12.5	12.0	12.0	5.0	4.5	5.0	2.5	1.5	2.0
8	20.0	17.5	18.5	12.0	11.5	12.0	4.5	4.5	4.5	2.5	1.5	2.0
9	20.5	17.5	18.5	11.5	10.5	11.0	4.5	4.0	4.5	2.5	2.0	2.5
10	20.5	17.5	18.5	11.0	10.5	11.0	4.0	3.0	3.5	3.0	2.5	2.5
11	20.5	17.5	18.5	11.5	10.5	11.0	3.0	2.5	3.0	2.5	2.5	2.5
12	---	---	---	10.5	10.0	10.5	2.5	2.0	2.0	2.5	2.0	2.5
13	---	---	---	10.0	10.0	10.0	2.5	2.0	2.5	2.5	2.5	2.5
14	19.5	17.5	18.5	10.0	9.5	9.5	2.5	2.0	2.5	3.0	2.5	2.5
15	19.5	17.0	18.0	9.5	9.0	9.0	3.0	2.5	2.5	3.0	2.0	2.5
16	19.0	16.5	17.5	9.0	8.0	8.5	3.0	2.5	2.5	2.5	2.0	2.5
17	18.5	16.0	17.0	8.0	7.5	8.0	3.0	2.5	2.5	2.5	2.5	2.5
18	18.5	16.0	16.5	7.5	7.0	7.0	3.0	2.5	2.5	2.5	2.5	2.5
19	18.5	16.0	17.0	7.5	7.0	7.0	2.5	2.5	2.5	2.5	1.5	2.5
20	17.0	15.0	16.0	7.0	7.0	7.0	2.5	2.5	2.5	3.0	1.5	2.0
21	16.0	14.5	15.5	7.0	7.0	7.0	3.0	2.5	2.5	2.0	1.5	1.5
22	17.0	14.5	15.0	7.0	6.5	6.5	3.0	2.5	2.5	1.5	1.5	1.5
23	17.0	14.5	15.5	6.5	6.0	6.5	3.0	2.5	2.5	1.5	1.5	1.5
24	17.0	14.5	15.5	6.5	6.0	6.0	3.0	2.5	2.5	1.5	1.5	1.5
25	15.0	13.5	14.0	6.0	5.5	6.0	3.0	2.5	2.5	2.0	1.5	1.5
26	15.0	12.5	13.5	6.0	5.5	6.0	3.0	2.5	2.5	2.0	2.0	2.0
27	14.5	12.5	13.5	6.0	5.5	5.5	---	---	---	2.0	1.5	2.0
28	14.5	14.0	14.5	6.0	5.5	6.0	---	---	---	2.5	1.5	2.0
29	15.0	14.0	14.5	6.0	5.5	5.5	---	---	---	2.5	2.5	2.5
30	14.5	14.0	14.0	5.5	5.5	5.5	---	---	---	2.5	2.0	2.5
31	14.5	14.0	14.0	---	---	---	3.0	2.5	2.5	2.5	2.5	2.5
MONTH	21.5	12.5	16.7	14.5	5.5	9.1	5.5	2.0	3.4	3.0	1.5	2.2

SCHUYLKILL RIVER BASIN

01470960 TULPEHOCKEN CREEK AT BLUE MARSH DAMSITE NEAR READING, PA--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
FEBRUARY				MARCH			APRIL			MAY		
1	3.0	2.5	3.0	4.0	3.5	3.5	8.0	6.5	7.0	14.0	13.5	13.5
2	3.0	3.0	3.0	4.0	3.5	4.0	7.0	6.5	6.5	14.5	13.5	14.0
3	3.5	3.0	3.0	4.0	3.5	3.5	8.0	6.5	7.5	14.0	14.0	14.0
4	3.5	3.0	3.0	3.5	3.0	3.5	8.0	7.0	7.5	14.0	13.5	14.0
5	3.5	3.0	3.0	4.0	3.5	3.5	8.5	7.5	8.0	14.5	13.5	14.0
6	3.5	3.0	3.0	4.0	3.5	3.5	9.0	7.5	8.0	14.5	13.5	14.0
7	3.0	3.0	3.0	3.5	3.5	3.5	---	---	---	15.0	13.5	14.5
8	3.0	3.0	3.0	3.5	3.0	3.5	9.0	8.0	8.5	14.5	13.5	14.0
9	3.0	3.0	3.0	3.0	2.5	3.0	8.0	8.0	8.0	14.5	14.0	14.0
10	3.0	3.0	3.0	2.5	2.0	2.5	8.5	8.0	8.0	15.0	14.0	14.5
11	3.0	2.5	3.0	3.0	2.5	3.0	9.0	7.5	8.0	16.0	14.5	15.0
12	2.5	2.5	2.5	3.5	3.0	3.0	9.5	8.0	9.0	16.0	14.5	15.0
13	3.0	2.5	2.5	4.0	3.0	3.5	9.5	8.5	9.0	15.0	14.5	14.5
14	3.0	2.5	2.5	4.5	3.5	4.0	10.0	9.0	9.5	15.0	14.5	14.5
15	3.0	2.5	3.0	5.0	4.0	4.5	9.5	9.0	9.5	15.5	14.5	15.0
16	3.0	2.5	2.5	5.0	4.0	4.5	10.0	9.5	9.5	15.0	14.5	14.5
17	3.0	2.5	2.5	4.5	4.0	4.5	9.5	9.5	9.5	15.0	14.5	14.5
18	3.0	2.5	2.5	5.5	4.5	5.0	10.5	9.5	10.0	15.5	14.5	15.0
19	3.0	2.5	3.0	5.0	4.5	5.0	10.5	10.0	10.0	16.0	14.5	15.0
20	3.0	3.0	3.0	5.5	4.5	5.0	11.0	10.0	10.5	17.5	15.5	16.0
21	3.0	3.0	3.0	5.5	5.5	5.5	11.0	10.5	11.0	18.5	15.5	17.0
22	3.0	3.0	3.0	5.5	5.5	5.5	12.5	11.0	11.5	17.5	16.5	17.0
23	3.0	3.0	3.0	5.5	5.0	5.5	14.0	10.5	12.5	18.0	16.0	17.5
24	3.0	3.0	3.0	6.0	5.0	5.5	13.5	12.5	13.0	18.0	16.5	17.5
25	3.5	3.0	3.0	6.0	5.5	6.0	13.0	12.5	12.5	18.0	17.0	17.5
26	4.0	3.5	3.5	7.0	6.0	6.5	13.5	12.5	13.0	17.5	16.5	17.0
27	4.0	4.0	4.0	7.0	6.5	6.5	13.5	13.0	13.0	17.0	16.5	16.5
28	4.5	4.0	4.0	6.5	6.5	6.5	14.0	13.0	13.0	16.5	16.0	16.5
29	4.0	3.5	3.5	6.5	6.0	6.5	14.0	13.0	13.0	16.5	16.0	16.0
30	---	---	---	7.0	6.0	6.5	---	---	---	16.5	15.5	16.5
31	---	---	---	8.0	6.5	7.0	---	---	---	17.5	16.0	16.5
MONTH	4.5	2.5	3.0	8.0	2.0	4.6	14.0	6.5	9.9	18.5	13.5	15.3

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE				JULY			AUGUST			SEPTEMBER		
1	17.5	16.0	17.0	21.0	19.0	19.5	21.0	20.5	21.0	---	---	---
2	18.0	16.0	17.0	21.0	20.0	20.5	21.0	20.0	20.5	---	---	---
3	17.0	16.0	16.5	21.0	20.0	20.5	20.5	20.0	20.5	---	---	---
4	18.0	16.5	17.0	21.0	20.0	20.5	21.0	20.0	20.5	---	---	---
5	18.0	16.5	17.5	21.0	19.5	20.5	21.0	20.0	20.5	---	---	---
6	18.5	17.0	17.5	21.0	19.5	20.0	21.0	20.5	20.5	---	---	---
7	18.5	17.0	17.5	21.0	20.0	20.5	21.5	20.0	20.5	---	---	---
8	---	---	---	21.0	19.5	20.5	21.5	20.5	20.5	---	---	---
9	---	---	---	21.5	19.5	20.5	21.0	20.5	20.5	---	---	---
10	18.5	17.5	18.5	21.0	18.5	19.5	21.5	20.5	20.5	---	---	---
11	---	---	---	19.5	18.5	19.0	21.5	20.0	20.5	---	---	---
12	---	---	---	20.0	18.5	19.0	21.5	20.5	21.0	---	---	---
13	---	---	---	20.0	19.0	19.0	21.0	20.5	21.0	---	---	---
14	21.0	18.0	20.0	22.0	19.0	20.5	21.5	20.5	21.0	---	---	---
15	21.0	19.5	20.5	22.5	21.0	21.5	21.5	20.5	21.0	---	---	---
16	21.0	20.0	20.5	21.5	20.5	21.0	21.5	20.5	20.5	---	---	---
17	22.5	19.5	20.5	21.0	19.5	20.5	21.5	20.0	20.5	---	---	---
18	20.5	19.5	20.0	21.0	19.5	20.0	21.5	20.0	20.5	---	---	---
19	20.0	19.5	19.5	---	---	---	21.5	20.0	21.0	---	---	---
20	20.0	18.5	19.0	---	---	---	21.5	20.5	21.0	---	---	---
21	20.5	19.0	19.5	---	---	---	21.0	20.5	21.0	---	---	---
22	20.5	19.5	20.0	---	---	---	21.5	20.5	21.0	---	---	---
23	20.5	19.5	20.0	21.0	20.0	20.5	---	---	---	---	---	---
24	21.5	19.5	20.5	21.5	20.5	21.0	---	---	---	---	---	---
25	21.5	19.0	20.0	21.5	20.5	20.5	---	---	---	---	---	---
26	20.5	18.5	19.5	21.0	20.5	20.5	---	---	---	---	---	---
27	20.5	19.5	20.0	21.0	20.5	20.5	---	---	---	---	---	---
28	21.0	18.5	19.5	21.0	20.5	20.5	---	---	---	---	---	---
29	19.5	18.5	19.0	21.0	20.5	20.5	---	---	---	---	---	---
30	19.0	19.0	19.0	21.0	20.5	20.5	---	---	---	---	---	---
31	---	---	---	21.0	20.5	21.0	---	---	---	---	---	---
MONTH	22.5	16.0	19.0	22.5	18.5	20.3	21.5	20.0	20.7	---	---	---
YEAR	22.5	1.5	11.0									

SCHUYLKILL RIVER BASIN

01471000 TULPEHOCKEN CREEK NEAR READING, PA

LOCATION.--Lat 40°22'08", long 75°58'46", Berks County, Hydrologic Unit 02040203, on right bank 15 ft upstream from covered bridge on Township Route 921, 1.0 mi downstream from Cacoosing Creek, 2.5 mi upstream from mouth, and 3.5 mi northwest of town square in Reading.

DRAINAGE AREA.--211 mi².

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

REVISED RECORDS.--WSP 1382: 1951-53, 1954 (M). WSP 2102: 1965 (M). WDR PA-72-1: 1971 (M).

GAGE.--Water-stage recorder. Datum of gage is 216.60 ft above sea level.

REMARKS.--Records good. No estimated daily discharges. Flow regulated since April 1979 by Blue Marsh Lake (station 01470870) 3.9 mi upstream. Several measurements of water temperature were made during the year. Satellite telemetry at station.

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	36	103	201	166	1490	494	478	974	208	504	371	91
2	48	138	216	193	768	456	533	732	204	354	302	91
3	90	179	216	271	694	447	494	459	204	262	229	155
4	119	178	230	222	684	405	485	483	205	254	228	195
5	125	175	250	163	528	372	476	487	347	228	261	120
6	77	170	250	149	405	484	472	469	313	197	296	121
7	45	173	247	166	439	637	478	394	187	195	250	146
8	43	185	212	244	489	758	474	348	184	184	201	127
9	43	156	189	242	542	576	470	375	184	181	208	218
10	41	127	188	311	543	570	429	421	355	208	210	265
11	41	132	186	263	543	568	338	419	366	225	203	134
12	41	234	158	207	698	496	347	448	826	198	303	134
13	41	640	127	173	536	419	476	580	798	232	342	139
14	44	1130	216	172	368	384	476	705	330	778	272	137
15	60	1930	282	172	476	377	446	596	302	1230	203	137
16	48	2430	208	204	428	430	954	496	300	630	191	136
17	49	1640	208	241	382	430	1420	426	290	266	166	379
18	45	1000	244	241	379	427	1460	360	309	245	165	349
19	44	983	273	811	372	446	1050	353	404	832	206	144
20	45	644	263	588	373	1110	727	348	1020	874	200	126
21	160	348	197	2010	943	1130	657	341	1010	711	174	126
22	86	344	194	3460	1060	699	608	330	574	413	177	129
23	68	342	193	3400	907	586	530	291	568	175	174	227
24	62	332	193	3020	919	576	492	259	342	330	179	211
25	57	317	193	2460	912	572	458	255	118	348	175	94
26	52	312	193	1830	1070	506	389	254	176	354	154	93
27	91	266	193	1400	843	449	368	254	254	323	126	114
28	219	219	195	955	590	451	360	305	224	312	126	140
29	184	273	180	3420	605	572	640	368	162	335	126	156
30	180	264	164	3270	---	473	696	304	187	466	112	304
31	144	---	166	2720	---	469	---	229	---	496	91	---
TOTAL	2428	15364	6425	33144	18986	16769	17681	13063	10951	12340	6421	4938
MEAN	78.3	512	207	1069	655	541	589	421	365	398	207	165
MAX	219	2430	282	3460	1490	1130	1460	974	1020	1230	371	379
MIN	36	103	127	149	368	372	338	229	118	175	91	91

SCHUYLKILL RIVER BASIN

01471000 TULPEHOCKEN CREEK NEAR READING, PA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1980 - 1996, BY WATER YEAR (WY) (SINCE REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	216	295	392	360	394	515	426	385	290	226	158	162
MAX	624	512	1044	1069	663	1604	1191	1226	673	661	331	456
(WY)	1980	1996	1984	1996	1986	1994	1983	1989	1982	1984	1994	1987
MIN	78.3	83.6	93.8	99.8	149	153	64.2	179	122	115	63.1	63.0
(WY)	1996	1981	1981	1981	1980	1981	1985	1981	1986	1985	1981	1983

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1980 - 1996	
ANNUAL TOTAL	91564		158510			
ANNUAL MEAN	251		433		318	
HIGHEST ANNUAL MEAN					531	1984
LOWEST ANNUAL MEAN					146	1981
HIGHEST DAILY MEAN	2430	Nov 16	3460	Jan 22	3950	Apr 18 1983
LOWEST DAILY MEAN	32	Sep 20, 21	36	Oct 1	27	Sep 24 1991
ANNUAL SEVEN-DAY MINIMUM	35	Sep 19	42	Oct 8	35	Sep 19 1995
INSTANTANEOUS PEAK FLOW			3590	Jan 21	a4060	Dec 6 1993
INSTANTANEOUS PEAK STAGE			5.27	Jan 21	5.81	Dec 6 1993
INSTANTANEOUS LOW FLOW					10	Sep 23 1993
10 PERCENT EXCEEDS	448		835		609	
50 PERCENT EXCEEDS	180		298		215	
90 PERCENT EXCEEDS	60		124		86	

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 1979, BY WATER YEAR (WY) (PRIOR TO REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	178	259	360	405	444	522	451	318	263	210	178	192
MAX	689	490	829	1193	917	914	806	712	1434	645	481	588
(WY)	1977	1973	1978	1979	1971	1978	1970	1953	1972	1969	1955	1975
MIN	55.8	67.5	84.4	124	178	202	170	116	72.8	57.5	41.9	54.8
(WY)	1964	1966	1966	1966	1969	1969	1966	1965	1965	1966	1966	1957

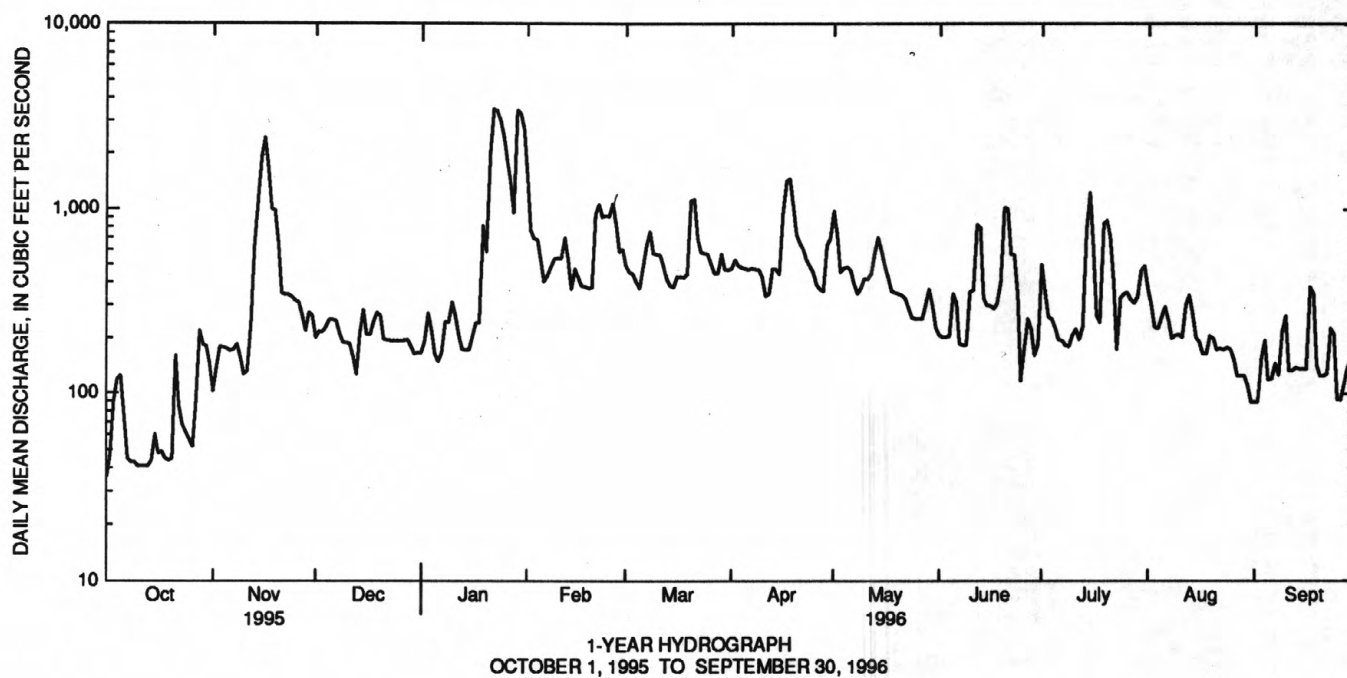
SUMMARY STATISTICS WATER YEARS 1951 - 1979

ANNUAL MEAN	314	
HIGHEST ANNUAL MEAN	491	1952
LOWEST ANNUAL MEAN	144	1966
HIGHEST DAILY MEAN	12000	Jun 23 1972
LOWEST DAILY MEAN	33	Sep 1 1966
ANNUAL SEVEN-DAY MINIMUM	35	Aug 28 1966
INSTANTANEOUS PEAK FLOW	a17000	Jun 23 1972
INSTANTANEOUS PEAK STAGE	b15.65	Jun 23 1972
INSTANTANEOUS LOW FLOW	c23	Dec 1 1964
ANNUAL RUNOFF (CFSM)	1.49	
ANNUAL RUNOFF (INCHES)	20.23	
10 PERCENT EXCEEDS	613	
50 PERCENT EXCEEDS	211	
90 PERCENT EXCEEDS	86	

- a From rating curve extended above 3,600 ft³/s, on basis of contracted-opening measurement of peak flow.
b From floodmark in gage shelter.
c Result of upstream shutoff.

SCHUYLKILL RIVER BASIN

01471000 TULPEHOCKEN CREEK NEAR READING, PA--Continued



SCHUYLKILL RIVER BASIN

01471510 SCHUYLKILL RIVER AT READING, PA

LOCATION.--Lat 40°20'05", long 75°56'12", Berks County, Hydrologic Unit 02040203, on left bank 200 ft downstream from bridge on Penn Street at Reading, and 1.0 mi downstream from Tulpehocken Creek.

DRAINAGE AREA.--880 mi².

PERIOD OF RECORD.--May 1914 to September 1915, October 1919 to September 1930, and July 1977 to current year. Prior to October 1914 monthly discharge only, published in WSP 1302. Diversion by Schuylkill Navigation Canal included during the navigation seasons of 1914-15.

REVISED RECORD.--WDR PA-78-1: 1977.

GAGE.--Water-stage recorder. Datum of gage is 185.50 ft above sea level (Pennsylvania Railroad datum). May 7, 1914, to Sept. 30, 1930, and July 6, 1979, to Dec. 5, 1980, nonrecording gage. June 30, 1977, to July 5, 1979, water-stage recorder at site 1,500 ft downstream on right bank at same datum.

REMARKS.--Records poor. Flow regulated by Still Creek Reservoir (station 01469200) since February 1933, Blue Marsh Lake (station 01470870) since April 1979, and to some extent by Lake Ontelaunee. Several measurements of water temperature were made during the year. Satellite telemetry at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 23, 1972, reached a stage of about 31.3 ft at site 1,500 ft downstream, from floodmarks, discharge, about 90,000 ft³/s.

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	330	1070	1290	771	5030	2850	2720	4200	987	2210	1540	590
2	343	1330	1190	907	3720	2600	3640	3770	950	1880	1370	579
3	383	1480	1240	1140	3280	2400	3320	3130	942	1540	1190	634
4	416	1260	1260	989	2940	2150	3070	2730	1020	1610	1540	662
5	1280	1170	1170	e500	2560	2000	2830	2610	1360	1400	1360	587
6	1090	1100	1240	e390	2130	2460	2580	2540	1220	1270	1280	675
7	567	1050	1190	e300	2140	2830	2590	2250	926	1210	1170	893
8	457	1180	e950	e290	2170	2880	2760	2030	904	1140	1040	807
9	412	1030	e850	e362	2320	2480	2490	2190	892	1350	1020	765
10	389	877	e800	e485	2400	2300	2440	2000	1780	1280	1150	808
11	368	972	e750	e575	2370	2230	2210	2060	2020	1290	984	656
12	363	4660	e750	e500	2490	2190	2110	e2300	3830	944	1110	702
13	355	4720	e830	e550	2050	2210	2100	3160	2880	2470	1450	e800
14	393	5160	932	e600	e1500	2150	2070	3020	1860	4150	1180	768
15	973	7920	1070	e650	e1400	2240	1980	2720	1960	4720	973	692
16	684	7310	1010	e510	e1300	2550	7170	2480	1600	3730	939	663
17	515	5210	1020	e550	e1200	2410	7530	2220	1440	2660	932	1460
18	464	3910	1030	959	e1160	2350	5730	1910	1600	2210	883	1600
19	437	3460	e950	7160	e1220	2420	4450	1810	2130	2860	885	1050
20	423	2900	e870	22000	1520	4820	3620	1800	3120	2760	842	888
21	2570	2420	e850	10400	4120	5120	3190	1670	2940	2190	767	815
22	4940	2160	e870	8580	5190	4080	2820	1630	1900	1660	773	848
23	2720	2010	964	7120	4980	3450	2550	1490	1870	1230	769	968
24	1870	1920	885	7490	5270	3050	2510	1390	1570	1450	847	905
25	1490	1700	e820	9490	5340	2780	2120	1330	1530	1300	779	713
26	1170	1510	e770	7230	4810	2550	1960	1280	1250	1820	711	681
27	1020	1640	e740	12200	4060	2300	1900	1330	1220	1680	657	682
28	1840	1660	819	19900	3670	2060	1750	1370	1120	1350	619	759
29	1720	1510	781	11700	3260	2780	2280	1420	984	1390	635	1180
30	1520	1460	728	e8000	---	2880	2840	1230	1540	1990	610	1150
31	1280	---	761	e6000	---	2710	---	1060	---	1790	562	---
TOTAL	32782	75759	29380	148298	85600	84280	91330	66130	49345	60534	30567	24980
MEAN	1057	2525	948	4784	2952	2719	3044	2133	1645	1953	986	833
MAX	4940	7920	1290	22000	5340	5120	7530	4200	3830	4720	1540	1600
MIN	330	877	728	290	1160	2000	1750	1060	892	944	562	579

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEAR 1977 - 1996, BY WATER YEAR (WY)

	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
MEAN	981	1537	2015	1948	1919	2652	2548	2115	1353	998	730	748								
MAX	3390	2681	5334	5682	3358	6484	6472	5493	3411	2907	1531	2705								
(WY)	1980	1978	1984	1979	1984	1994	1983	1989	1982	1984	1994	1987								
MIN	322	360	278	265	681	824	606	943	486	395	321	273								
(WY)	1981	1981	1981	1981	1980	1985	1985	1995	1991	1991	1993	1983								

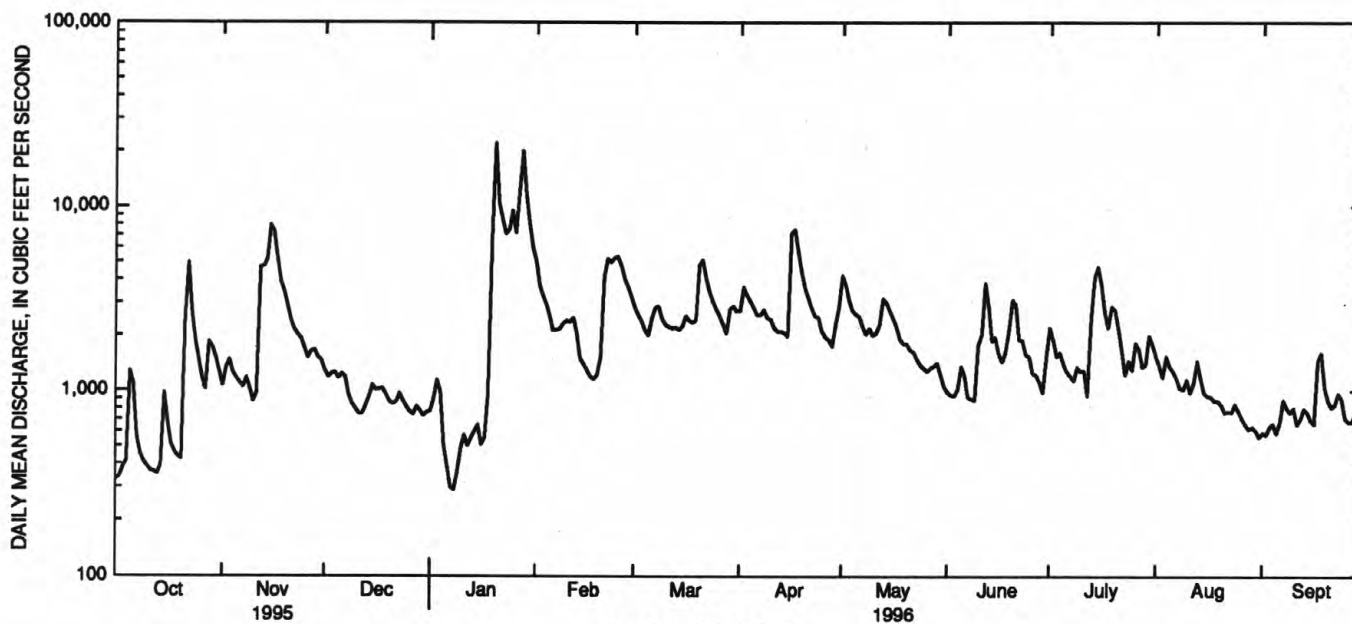
e Estimated.

SCHUYLKILL RIVER BASIN

01471510 SCHUYLKILL RIVER AT READING, PA--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1977 - 1996	
ANNUAL TOTAL	467949		778985		1631	
ANNUAL MEAN	1282		2128		2559	
HIGHEST ANNUAL MEAN					1984	
LOWEST ANNUAL MEAN					805	
HIGHEST DAILY MEAN	7920	Nov 15	22000	Jan 20	24700	Jan 25 1979
LOWEST DAILY MEAN	274	Sep 16	e290	Jan 8	180	Oct 1 1980
ANNUAL SEVEN-DAY MINIMUM	a331	Sep 13	391	Oct 8	224	Dec 24 1980
INSTANTANEOUS PEAK FLOW			28600	Jan 20	b37500	Jan 25 1979
INSTANTANEOUS PEAK STAGE			15.85	Jan 20	c17.36	Jan 25 1979
INSTANTANEOUS LOW FLOW			315	Oct 1		
10 PERCENT EXCEEDS	2320		4090		3330	
50 PERCENT EXCEEDS	950		1490		1070	
90 PERCENT EXCEEDS	416		645		403	

- a Computed using estimated daily discharges.
b From rating curve extended above 31,000 ft³/s.
c At site 1,500 ft downstream.
e Estimated



1-YEAR HYDROGRAPH
OCTOBER 1, 1995 TO SEPTEMBER 30, 1996

SCHUYLKILL RIVER BASIN

01471875 MANATAWNY CREEK NEAR SPANGSVILLE, PA

LOCATION.--Lat 40°20'22", long 75°44'33", Berks County, Hydrologic Unit 02040203, on left bank 200 ft north of powerline across stream, 1.2 mi south of Spangsville, and 1.3 mi north of SR 562 and Earlville.

DRAINAGE AREA.--56.9 mi².

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

GAGE.--Water-stage recorder. Elevation of gage is 265 ft above sea level, from topographic map.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Several measurements of water temperature were made during the year. Satellite telemetry 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	1630	1,510	6.36	Apr. 2	0430	1,540	6.41
Jan. 19	1900	*2,600	*7.77	Apr. 16	0900	1,740	6.70
Jan. 27	1900	1,570	6.45				

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	17	50	51	40	154	127	165	198	65	78	92	29
2	18	105	57	68	e140	126	628	140	60	50	65	27
3	18	78	49	83	e120	121	195	130	60	47	62	28
4	20	55	49	e48	e100	102	168	130	69	55	63	27
5	153	48	45	e40	e80	115	158	123	110	41	55	28
6	175	45	50	e32	e70	178	151	129	68	35	49	29
7	42	52	45	e28	e65	188	188	113	60	33	46	42
8	30	87	42	e24	e100	e130	196	119	57	34	43	35
9	24	52	43	e23	152	e100	157	140	56	98	47	32
10	20	45	38	e25	145	e85	170	121	62	72	60	29
11	19	49	e34	e28	158	e95	147	200	59	38	45	28
12	19	319	e32	e29	e120	e120	137	313	70	34	45	28
13	20	120	e30	e30	e85	137	129	150	67	570	84	30
14	28	283	e32	e40	e75	137	124	134	52	157	55	32
15	63	276	43	e46	e65	130	119	125	48	94	47	27
16	34	144	61	e34	e70	132	860	131	44	88	53	28
17	26	112	69	e44	e60	113	252	125	59	67	57	132
18	23	96	54	e46	e65	107	202	115	63	58	44	72
19	22	88	e48	1270	e70	134	184	108	102	124	41	35
20	22	80	e42	793	108	401	175	97	100	103	39	27
21	565	71	e38	248	513	171	163	93	71	63	38	26
22	146	63	e38	182	252	149	154	98	51	55	40	41
23	68	57	e40	161	228	137	148	85	46	60	40	46
24	49	71	e42	421	274	127	140	81	40	56	75	31
25	43	61	e40	349	198	122	134	77	50	49	41	30
26	37	57	e38	189	170	116	132	77	39	161	34	26
27	36	54	e34	890	153	106	134	89	35	84	31	26
28	243	50	e34	391	165	110	121	87	35	58	33	30
29	91	50	e36	235	140	213	171	95	33	54	33	92
30	58	52	e36	205	---	159	218	83	137	81	30	39
31	49	---	37	183	---	133	---	72	---	134	29	---
TOTAL	2178	2770	1327	6225	4095	4321	6020	3778	1868	2731	1516	1132
MEAN	70.3	92.3	42.8	201	141	139	201	122	62.3	88.1	48.9	37.7
MAX	565	319	69	1270	513	401	860	313	137	570	92	132
MIN	17	45	30	23	60	85	119	72	33	33	29	26
CFSM	1.23	1.62	.75	3.53	2.48	2.45	3.53	2.14	1.09	1.55	.86	.66
IN.	1.42	1.81	.87	4.07	2.68	2.82	3.94	2.47	1.22	1.79	.99	.74

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

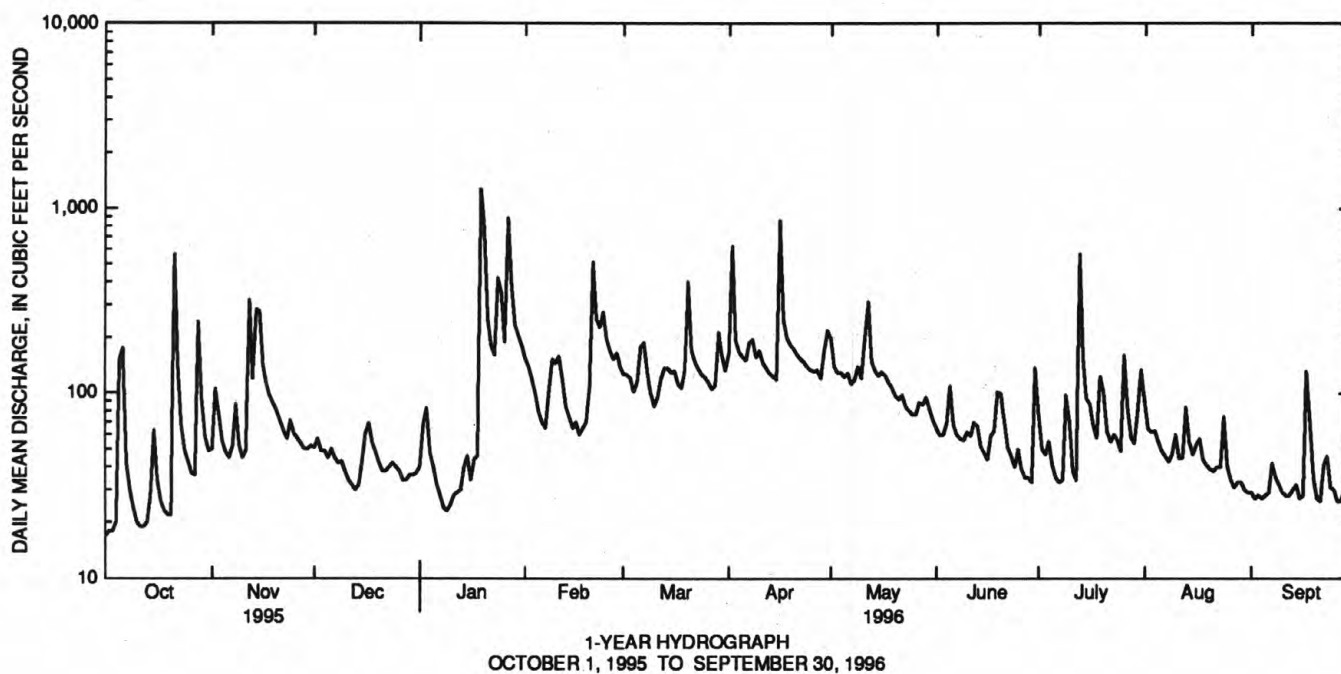
	1994	1995	1996	1994	1995	1996	1994	1995	1996	1994	1995	1996
MEAN	56.7	82.9	99.1	142	112	213	156	94.2	68.2	68.2	49.1	34.9
MAX	70.3	92.5	168	201	141	353	201	122	99.7	88.1	79.5	48.2
(WY)	1996	1994	1994	1996	1996	1994	1996	1996	1994	1996	1994	1994
MIN	37.4	64.0	42.8	104	75.5	139	70.4	62.9	42.5	41.2	18.8	18.9
(WY)	1995	1995	1996	1994	1995	1996	1995	1995	1995	1995	1995	1995

e Estimated.

SCHUYLKILL RIVER BASIN

01471875 MANATAMNY CREEK NEAR SPANGSVILLE, PA--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1994 - 1996	
ANNUAL TOTAL	24437		37961		98.0	
ANNUAL MEAN	67.0		104		125	
HIGHEST ANNUAL MEAN					1994	
LOWEST ANNUAL MEAN					1995	
HIGHEST DAILY MEAN	682	Mar 9	1270	Jan 19	1290	Dec 5 1993
LOWEST DAILY MEAN	11	Sep 4	17	Oct 1	11	Sep 4 1995
ANNUAL SEVEN-DAY MINIMUM	11	Sep 2	23	Oct 8	11	Sep 2 1995
INSTANTANEOUS PEAK FLOW			a2600	Jan 19	a2600	Jan 19 1996
INSTANTANEOUS PEAK STAGE			7.77	Jan 19	7.77	Jan 19 1996
INSTANTANEOUS LOW FLOW			14	Oct 20	9.8	Sep 6 1995
ANNUAL RUNOFF (CFSM)	1.18		1.82		1.72	
ANNUAL RUNOFF (INCHES)	15.98		24.82		23.41	
10 PERCENT EXCEEDS	117		183		184	
50 PERCENT EXCEEDS	51		66		61	
90 PERCENT EXCEEDS	18		30		30	

a From rating curve extended above 420 ft³/s.

SCHUYLKILL RIVER BASIN

01471980 MANATAWNY CREEK NEAR POTTSTOWN, PA

LOCATION.--Lat 40°16'22", long 75°40'49", Berks County, Hydrologic Unit 02040203, on left bank 180 ft upstream from bridge on Manatawny Street, 0.7 mi downstream from Ironstone Creek, 2.4 mi northwest of Pottstown, 3.1 mi upstream from mouth, and 4.7 mi southwest of Boyertown.

DRAINAGE AREA.--85.5 mi².

PERIOD OF RECORD.--August 1974 to current year.

GAGE.--Water-stage recorder. Datum of gage is 150.00 ft above sea level (levels by U.S. Army Corps of Engineers).

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

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 22, 1972 reached a stage of 17.1 ft from floodmarks, discharge, about 9,600 ft³/s.

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	1930	1,790	5.38	Mar. 20	0415	1,210	4.41
Jan. 19	1400	*4,560	*8.98	Apr. 2	0730	2,050	5.81
Jan. 24	1900	1,340	4.62	Apr. 16	0615	2,700	6.76
Jan. 27	1545	2,450	6.41	July 13	1200	1,610	5.08
Feb. 21	1000	1,220	4.43				

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	26	85	75	67	247	186	354	321	86	124	168	43
2	26	158	78	118	e210	186	1160	191	82	79	104	42
3	27	129	72	145	e190	174	381	185	80	122	90	41
4	28	89	71	e110	e170	146	296	181	91	107	90	41
5	204	77	68	e80	e140	163	262	167	136	72	80	42
6	247	73	73	e65	e120	270	238	183	88	63	71	43
7	71	81	68	e50	e110	370	306	156	80	59	67	52
8	50	118	63	e44	e170	272	354	165	78	61	65	48
9	41	84	67	e40	233	e180	257	197	76	109	72	44
10	36	72	e60	e46	225	e160	284	173	81	94	79	42
11	34	100	e55	e50	240	e170	229	213	78	63	64	40
12	33	513	e50	e55	e200	e190	202	544	123	57	87	40
13	31	183	e44	e60	e160	197	191	211	98	933	156	47
14	64	441	e48	e85	e130	198	186	185	75	280	79	45
15	122	463	e65	e110	e120	190	175	169	70	132	65	40
16	58	214	e100	e80	e130	189	1570	180	66	114	62	60
17	42	151	e90	e100	e100	162	483	173	87	92	72	214
18	38	128	e75	e130	e110	153	337	155	96	80	59	124
19	36	116	e70	2490	e120	200	287	145	139	176	55	61
20	36	107	e60	1400	187	684	256	128	152	151	53	48
21	921	100	e55	487	787	287	233	120	118	89	52	44
22	267	90	e57	340	450	227	212	123	78	78	52	131
23	104	85	e60	276	392	196	198	109	81	86	49	117
24	78	100	e65	673	447	188	192	104	70	78	121	55
25	67	86	e65	656	324	178	185	99	78	71	59	50
26	61	81	e60	341	262	165	183	98	64	226	52	45
27	61	79	e50	1450	226	152	184	125	60	116	49	44
28	425	76	e52	790	246	165	162	111	59	78	48	118
29	151	78	e55	437	200	396	224	141	57	73	47	218
30	93	78	e57	361	---	271	291	110	222	117	44	123
31	79	---	e60	313	---	203	---	92	---	296	43	---
TOTAL	3557	4235	1988	11449	6646	6868	9872	5254	2749	4276	2254	2102
MEAN	115	141	64.1	369	229	222	329	169	91.6	138	72.7	70.1
MAX	921	513	100	2490	787	684	1570	544	222	933	168	218
MIN	26	72	44	40	100	146	162	92	57	57	43	40
CFSM	1.34	1.65	.75	4.32	2.68	2.59	3.85	1.98	1.07	1.61	.85	.82
IN.	1.55	1.84	.86	4.98	2.89	2.99	4.30	2.29	1.20	1.86	.98	.91

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

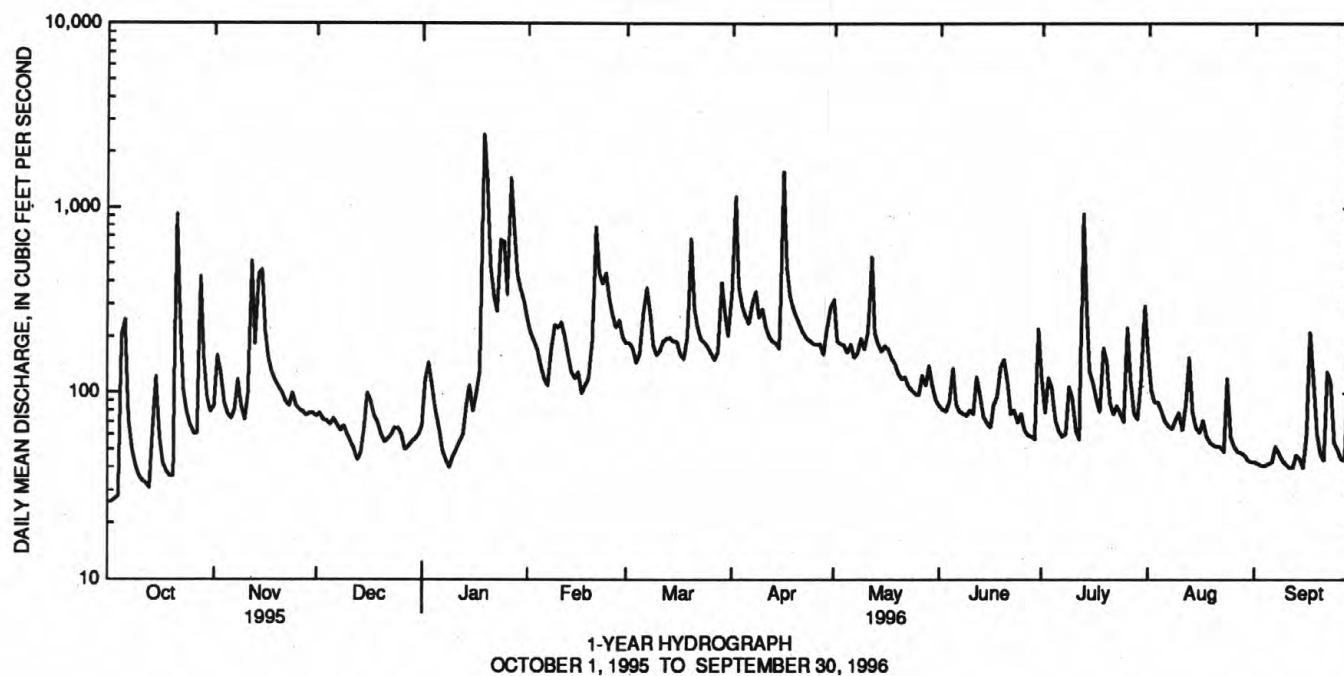
	MEAN	78.4	111	144	176	179	207	201	160	104	92.0	62.8	70.8
	MAX	212	187	425	499	356	470	450	390	266	312	138	191
	(WY)	1976	1978	1984	1979	1984	1994	1993	1989	1982	1984	1990	1987
	MIN	34.0	37.9	36.7	28.0	69.0	69.6	53.6	67.4	43.1	36.4	21.6	27.1
	(WY)	1983	1982	1981	1981	1980	1981	1985	1987	1987	1981	1981	1983

e Estimated.

SCHUYLKILL RIVER BASIN

01471980 MANATANNY CREEK NEAR POTTSTOWN, PA--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1974 - 1996	
ANNUAL TOTAL	35467		61250		132	
ANNUAL MEAN	97.2		167		230	1984
HIGHEST ANNUAL MEAN					63.4	1981
LOWEST ANNUAL MEAN					3010	Jul 7 1984
HIGHEST DAILY MEAN	1240	Mar 9	2490	Jan 19	14	Sep 14 1981
LOWEST DAILY MEAN	18	Aug 26	26	Oct 1,2	17	Aug 24 1981
ANNUAL SEVEN-DAY MINIMUM	19	Aug 21	41	Oct 8	a7550	Sep 9 1987
INSTANTANEOUS PEAK FLOW			a4560	Jan 19	11.46	Sep 9 1987
INSTANTANEOUS PEAK STAGE			8.98	Jan 19	13	Aug 26 1981
INSTANTANEOUS LOW FLOW			25	Oct 1	1.54	
ANNUAL RUNOFF (CFSM)	1.14		1.96		20.95	
ANNUAL RUNOFF (INCHES)	15.43		26.65		245	
10 PERCENT EXCEEDS	162		299		85	
50 PERCENT EXCEEDS	73		105		34	
90 PERCENT EXCEEDS	29		48			

a From rating curve extended above 2,200 ft³/s.

SCHUYLKILL RIVER BASIN

01472000 SCHUYLKILL RIVER AT POTTSTOWN, PA

LOCATION.--Lat 40°14'30", long 75°39'07", Montgomery County, Hydrologic Unit 02040203, on right bank 75 ft upstream from bridge on Hanover Street in Pottstown, and 0.3 mi downstream from Manatawny Creek.

DRAINAGE AREA.--1,147 mi².

PERIOD OF RECORD.--October 1927 to current year.

GAGE.--Water-stage recorder. Datum of gage is 117.86 ft above sea level. October 1927 to Nov. 22, 1928, nonrecording gage, and Nov. 23, 1928, to Dec. 26, 1972, recording gage at site 100 ft downstream at same datum. Dec. 27, 1972, to May 10, 1974, nonrecording gage 1.0 mi downstream at datum 2.83 ft lower.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Flow regulated by Blue Marsh Lake (station 01470870) since April 1979, by Still Creek Reservoir (station 01469200) since February 1933, and by Lake Ontelaunee. Several measurements of water temperature were made during the year. Satellite telemetry at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known prior to October 1926, 21.0 ft, Feb. 28, 1902, from floodmarks, discharge, 53,900 ft³/s.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 7,200 ft³/s and maximum (*).

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 21	1630	7,420	6.57	Jan. 28	1100	27,600	14.14
Nov. 15	2100	9,800	7.72	Apr. 2	0230	8,380	7.05
Jan. 20	1300	*30,200	*14.91	Apr. 16	0800	12,300	8.79
Jan. 25	0330	11,600	8.52				

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	356	1220	1350	863	5730	3180	3230	4220	1120	2060	1830	574
2	355	1440	1260	1030	4250	2860	6100	4190	1060	2020	1510	585
3	374	1690	1240	1380	3690	2670	4000	3320	1030	1540	1300	576
4	407	1410	1240	1230	3310	2430	3590	3010	1050	1660	1470	670
5	1320	1270	1230	e850	2910	2210	3290	2770	1480	1430	1390	594
6	2040	1130	1250	e700	2500	2790	3030	2690	1440	1260	1320	593
7	909	1170	1230	e490	2410	3650	3100	2530	1040	1180	1220	940
8	600	1310	1170	e340	2420	3520	3420	2180	980	1160	1070	837
9	509	1220	e1070	e500	2720	2900	2970	2510	944	1220	1060	694
10	463	1010	e950	e750	2750	2620	3030	2230	1330	1250	1190	796
11	438	1010	e850	e1000	2790	2580	2670	2310	2050	1320	1080	658
12	416	5100	e800	e1200	2810	2540	2460	4200	3060	967	1030	675
13	408	5030	e780	e1010	e2200	2440	2460	3380	3190	3190	1680	660
14	496	6000	e900	e1060	e1900	2440	2370	3270	1910	4250	1420	704
15	992	8450	1110	e1150	e1800	2460	2310	2970	1800	4550	1060	695
16	1000	8230	1190	e1110	e1700	2740	9770	2750	1580	3820	980	640
17	652	5920	1230	e1000	e1600	2620	9220	2540	1440	2720	967	1720
18	551	4090	1110	e1100	e1500	2530	6850	2160	1530	2140	902	2070
19	503	3520	e1010	10200	e1460	2670	5270	2020	1790	2760	852	1290
20	486	3070	e950	26600	1660	5880	4240	1930	2980	3050	879	1020
21	3740	2430	e900	12400	4550	5850	3690	1800	3790	2230	797	909
22	5880	2180	e950	9140	6040	4610	3300	1790	1980	1830	778	1050
23	3070	1990	1010	7240	5600	3800	2970	1650	1860	1260	775	1070
24	2040	1990	1040	7790	5740	3340	2830	1520	1680	1390	955	1110
25	1540	1770	e900	10600	5960	3030	2600	1450	1500	1290	824	836
26	1330	1500	e860	7730	5260	2800	2330	1380	1290	2010	742	769
27	1010	1540	e850	11500	4640	2500	2250	1430	1220	1940	684	736
28	2800	1700	919	24200	3950	2280	2050	1460	1150	1390	654	864
29	1990	1460	885	13600	3650	3560	2270	1640	1020	1320	629	1610
30	1610	1520	830	9710	---	3410	3320	1450	1510	1860	640	1280
31	1480	---	838	7830	---	3040	---	1220	---	2720	585	---
TOTAL	39765	81370	31902	175303	97500	95950	110990	73970	49804	62787	32273	27225
MEAN	1283	2712	1029	5655	3362	3095	3700	2386	1660	2025	1041	907
MAX	5880	8450	1350	26600	6040	5880	9770	4220	3790	4550	1830	2070
MIN	355	1010	780	340	1460	2210	2050	1220	944	967	585	574

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 1996, BY WATER YEAR (WY)

	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939
MEAN	1097	1677	2139	2183	2441	3176	2956	2292	1555	1268	1044	1055
MAX	3870	3897	6805	7383	5117	8948	7820	7220	7634	3940	5290	3732
(WY)	1977	1951	1984	1979	1971	1936	1983	1989	1972	1984	1933	1987
MIN	258	309	419	316	540	1101	875	729	461	302	301	256
(WY)	1931	1931	1931	1981	1934	1981	1985	1965	1965	1966	1966	1932

e Estimated.

SCHUYLKILL RIVER BASIN

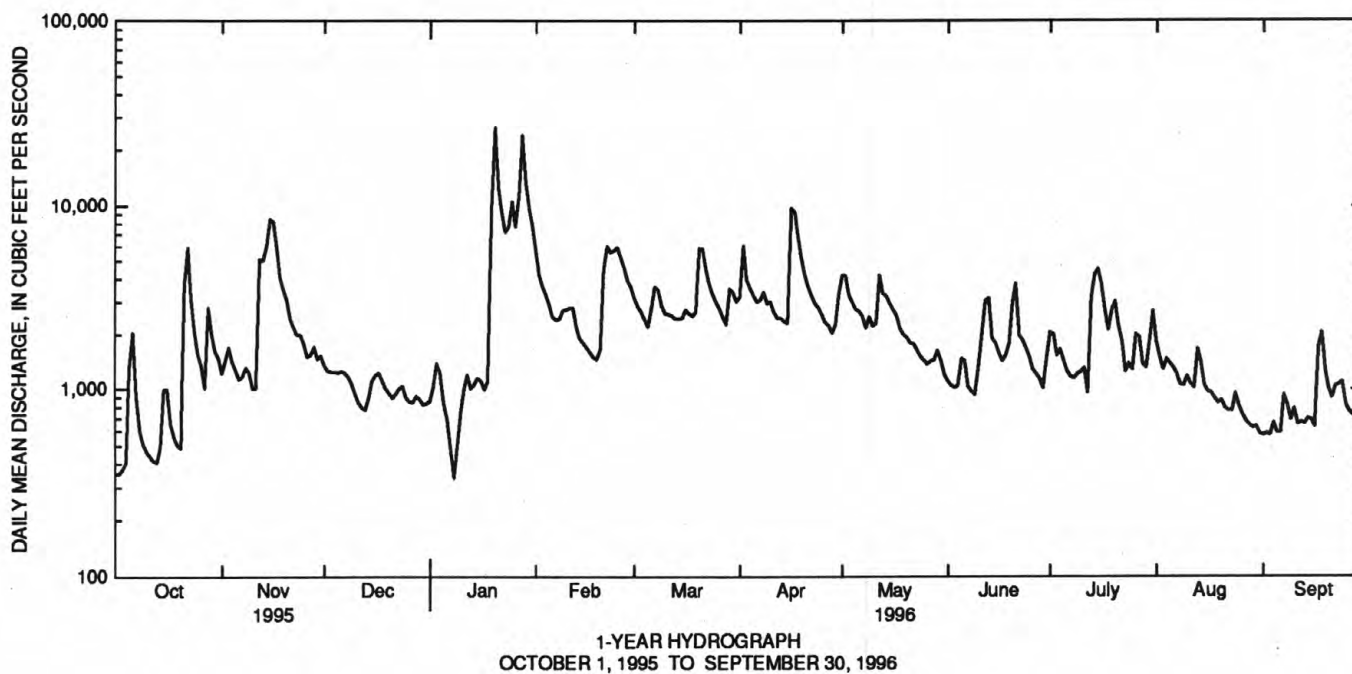
01472000 SCHUYLKILL RIVER AT POTTSTOWN, PA--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1928 - 1996	
ANNUAL TOTAL	520084		878839		1904	
ANNUAL MEAN	1425		2401		3211	
HIGHEST ANNUAL MEAN					1984	
LOWEST ANNUAL MEAN					843	
HIGHEST DAILY MEAN	9160	Mar 9	26600	Jan 20	71200	Jun 23 1972
LOWEST DAILY MEAN	347	Sep 21	e340	Jan 8	175	Sep 19 1932
ANNUAL SEVEN-DAY MINIMUM	385	Sep 28	476	Oct 8	210	Sep 19 1932
INSTANTANEOUS PEAK FLOW			30200	Jan 20	a95900	Jun 23 1972
INSTANTANEOUS PEAK STAGE			14.91	Jan 20	b29.97	Jun 23 1972
10 PERCENT EXCEEDS	2720		4550		3840	
50 PERCENT EXCEEDS	1070		1560		1290	
90 PERCENT EXCEEDS	467		703		473	

a From rating curve extended above 50,400 ft³/s.

b From floodmark.

e Estimated.



SCHUYLKILL RIVER BASIN

01472104 SCHUYLKILL RIVER AT VINCENT DAM AT LINFIELD, PA

LOCATION.--Lat 40°12'22", long 75°33'57", Montgomery County, Hydrologic Unit 02040203, on left bank 100 ft upstream from Vincent Dam, and 0.3 mi south of Linfield.

DRAINAGE AREA.--1,189 mi².

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

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: January 1986 to September 1990 (discontinued).

WATER TEMPERATURE: September 1989 to current year.

DISSOLVED OXYGEN: January 1986 to September 1990 (discontinued).

INSTRUMENTATION.--Water-quality monitor January 1986 to September 1990. Water temperature probe interfaced with a data collection platform since October 1990.

REMARKS.--Interruptions in the record were due to malfunctions of the recording instrument.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 752 microsiemens, Sept. 15, 1989; minimum, 118 microsiemens, Sept. 15, 1987.

WATER TEMPERATURE: Maximum, 31.5°C, July 20, 21, 22, 1991, Aug. 4, 1995; minimum, 0.0°C, many days during winter periods.

DISSOLVED OXYGEN: Maximum, 19.6 mg/L, Mar. 24, 1988; minimum, 0.8 mg/L, July 26, 1986.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum 27.5°C, Aug. 23, 25; minimum recorded, 0.0°C, many days during winter period.

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	19.5	17.0	18.0	13.0	12.5	12.5	5.5	4.5	5.0	3.0	2.0	2.5
2	20.5	18.0	19.0	14.5	13.0	14.0	6.0	5.0	5.5	3.0	2.5	3.0
3	20.5	18.5	19.5	---	---	---	5.5	4.0	5.0	2.5	2.0	2.0
4	20.5	20.0	20.5	---	---	---	6.5	5.5	6.0	2.0	1.0	1.5
5	20.5	19.5	20.0	---	---	---	6.0	5.0	5.5	1.0	.5	.5
6	21.5	19.5	20.5	---	---	---	5.5	4.5	5.0	.5	.5	.5
7	21.5	20.0	21.0	8.5	7.5	8.0	5.0	4.0	4.5	.5	.5	.5
8	20.0	19.0	19.5	8.5	7.5	8.0	4.5	3.5	4.0	.5	.5	.5
9	19.0	17.0	18.0	7.5	6.0	7.0	3.5	2.5	3.0	.5	.0	.0
10	19.0	17.0	18.0	7.0	5.5	6.5	2.5	.5	1.5	.5	.0	.0
11	19.5	17.5	18.5	10.0	6.5	8.0	.5	.0	.0	.0	.0	.0
12	20.0	18.0	19.0	10.0	7.0	8.0	.0	.0	.0	.5	.0	.0
13	20.0	18.0	19.0	7.0	6.5	6.5	.0	.0	.0	.0	.0	.0
14	20.0	18.5	19.0	7.5	6.5	7.0	.0	.0	.0	.5	.0	.0
15	19.5	17.0	18.5	7.0	6.5	6.5	1.0	.0	.5	.0	.0	.0
16	17.0	15.0	16.0	7.0	6.0	6.5	2.5	1.0	1.5	.0	.0	.0
17	15.0	13.5	14.5	6.5	6.0	6.0	2.5	1.5	2.0	.5	.0	.0
18	14.5	13.0	14.0	6.5	5.5	6.0	2.0	1.5	2.0	.0	.0	.0
19	15.5	13.5	14.5	7.0	6.0	6.5	2.0	.0	1.0	1.0	.0	.5
20	16.5	14.5	15.0	8.0	6.5	7.0	.0	.0	.0	---	---	---
21	17.0	14.0	16.0	8.0	6.5	7.0	1.0	.0	.0	---	---	---
22	---	---	---	7.0	5.5	6.5	.0	.0	.0	---	---	---
23	---	---	---	7.5	5.0	5.5	1.0	.0	.5	---	---	---
24	15.0	13.5	14.0	6.5	5.5	5.5	1.5	1.0	1.0	---	---	---
25	15.0	13.5	14.5	5.5	5.0	5.0	2.0	1.5	1.5	---	---	---
26	14.0	12.5	13.5	5.5	4.0	5.0	1.5	1.0	1.0	---	---	---
27	13.5	12.0	13.0	6.0	4.5	5.5	1.0	.0	.5	---	---	---
28	15.0	13.5	14.5	7.5	6.0	7.0	1.5	.0	.5	3.5	2.5	3.0
29	14.5	12.5	13.5	7.0	5.5	6.0	1.5	.5	1.0	---	---	---
30	13.0	11.5	12.0	5.5	4.5	5.0	1.5	.5	1.0	---	---	---
31	13.0	12.0	12.5	---	---	---	2.0	1.0	1.5	---	---	---
MONTH	21.5	11.5	16.7	14.5	4.0	7.0	6.5	.0	2.0	3.5	.0	.7

SCHUYLKILL RIVER BASIN

01472157 FRENCH CREEK NEAR PHOENIXVILLE, PA

LOCATION.--Lat 40°09'05", long 75°36'06", Chester County, Hydrologic Unit 02040203, on right bank 70 ft downstream from two-span county bridge on French Creek Road, 4.5 mi northwest of Phoenixville, and 7.3 mi upstream from mouth.

DRAINAGE AREA.--59.1 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1968 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 160 ft above sea level, from topographic map. Prior to Nov. 7, 1968, nonrecording gage at site 70 ft upstream at same datum.

REMARKS.--Records good except those for estimated daily discharges and Oct. 1-21, which are fair. Several measurements of water temperature were made during the year.

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

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 21	1300	1,250	7.54	Mar. 20	0145	867	6.96
Nov. 12	0400	826	6.89	Apr. 2	0300	1,390	7.72
Jan. 19	0545	*4,570	*a10.47	Apr. 16	0730	1,900	8.31
Jan. 27	1415	1,860	8.27	July 13	1315	959	7.11

a From peak indicator.

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	15	70	49	68	e130	112	256	226	47	82	137	47
2	14	146	51	112	e120	114	798	141	45	52	79	46
3	13	107	46	77	e110	115	247	140	45	49	72	44
4	13	74	45	e65	e100	97	199	138	47	62	75	43
5	72	62	43	e50	e90	105	184	126	61	47	74	43
6	126	58	48	e34	e90	211	173	153	46	44	62	44
7	29	58	45	e26	e95	399	222	126	45	44	56	46
8	19	86	42	e26	e100	280	232	120	46	44	53	68
9	15	66	e40	e27	175	e150	195	133	45	42	65	52
10	13	57	e32	e30	161	e135	235	122	52	43	79	47
11	13	64	e30	e34	165	e130	184	153	46	40	56	44
12	12	535	e28	e36	162	142	159	330	78	38	54	43
13	12	141	e30	e40	107	139	148	117	86	481	234	47
14	18	246	e34	e44	109	128	140	93	53	186	95	47
15	98	378	e50	e70	104	125	131	84	48	81	64	49
16	32	145	67	e60	102	121	1170	105	51	67	60	42
17	21	94	52	e50	99	109	318	105	47	59	67	41
18	17	79	50	e140	97	107	223	86	57	63	67	379
19	16	71	e48	2730	89	175	199	80	115	223	64	206
20	16	64	e46	536	128	529	186	74	98	178	58	79
21	547	60	e40	236	455	193	173	70	279	71	53	57
22	e200	55	e42	167	282	156	160	61	76	58	50	50
23	e100	52	e42	144	238	137	160	64	58	65	50	225
24	e55	62	e40	374	242	125	175	62	52	64	49	132
25	e50	55	e38	285	188	120	144	49	58	63	221	73
26	e48	51	e36	163	154	115	142	49	48	123	63	66
27	e46	49	e34	1110	137	109	150	59	43	87	49	56
28	285	48	e36	474	147	113	129	61	41	60	46	53
29	116	49	e38	227	127	455	142	93	40	58	48	58
30	72	51	e40	196	---	224	188	73	117	123	51	411
31	62	---	42	180	---	161	---	52	---	214	49	---
TOTAL	2165	3133	1304	7811	4303	5331	7162	3345	1970	2911	2300	2638
MEAN	69.8	104	42.1	252	148	172	239	108	65.7	93.9	74.2	87.9
MAX	547	535	67	2730	455	529	1170	330	279	481	234	411
MIN	12	48	28	26	89	97	129	49	40	38	46	41
CFSM	1.18	1.77	.71	4.26	2.51	2.91	4.04	1.83	1.11	1.59	1.26	1.49
IN.	1.36	1.97	.82	4.92	2.71	3.36	4.51	2.11	1.24	1.83	1.45	1.66

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1969 - 1996, BY WATER YEAR (WY)

	MEAN	MAX	(WY)	MIN	(WY)
1969	46.0	125	1980	17.9	1987
1970	71.8	166	1973	24.6	1982
1971	96.5	267	1984	19.2	1981
1972	110	394	1979	13.7	1981
1973	126	266	1984	39.7	1969
1974	144	350	1994	40.5	1981
1975	139	306	1983	35.6	1985
1976	107	250	1989	31.9	1969
1977	80.5	353	1972	22.7	1969
1978	64.8	258	1984	21.9	1985
1979	41.3	110	1971	15.2	1981
1980	45.3	125	1971	14.1	1980

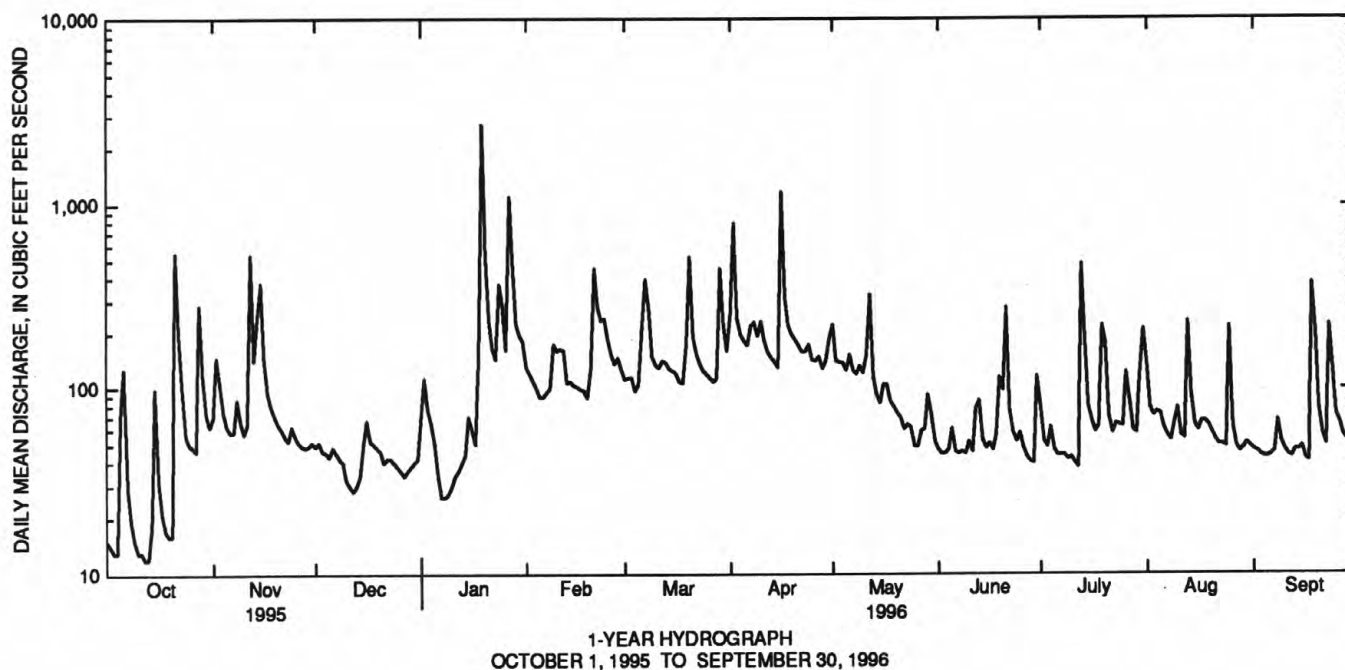
e Estimated.

SCHUYLKILL RIVER BASIN

01472157 FRENCH CREEK NEAR PHOENIXVILLE, PA--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1969 - 1996	
ANNUAL TOTAL	22695.7		44373		89.2	
ANNUAL MEAN	62.2		121		155	1984
HIGHEST ANNUAL MEAN					36.1	1981
LOWEST ANNUAL MEAN					4530	Jun 22 1972
HIGHEST DAILY MEAN	1040	Mar 9	2730	Jan 19	8.9	Aug 25 1981
LOWEST DAILY MEAN	9.8	Aug 27	12	Oct 12,13	9.1	Aug 23 1981
ANNUAL SEVEN-DAY MINIMUM	11	Aug 22	15	Oct 8		
INSTANTANEOUS PEAK FLOW			b4570	Jan 19	b11200	Jun 22 1972
INSTANTANEOUS PEAK STAGE			10.47	Jan 19	13.66	Jun 22 1972
INSTANTANEOUS LOW FLOW			12	Oct 12-14	8.9	Aug 25 1981
ANNUAL RUNOFF (CFSM)	1.05		2.05		1.51	
ANNUAL RUNOFF (INCHES)	14.29		27.93		20.50	
10 PERCENT EXCEEDS	100		224		171	
50 PERCENT EXCEEDS	46		70		56	
90 PERCENT EXCEEDS	16		40		21	

b From rating curve extended above 2,500 ft³/s, on basis of slope-area measurement of peak flow.



SCHUYLKILL RIVER BASIN

01472157 FRENCH CREEK NEAR PHOENIXVILLE, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1970 to current year.

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

DATE	TIME	AGENCY COL- LECTING SAMPLE (CODE NUMBER) (00027)	AGENCY ANA- LYZING SAMPLE (CODE NUMBER) (00028)	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (μ S/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)
OCT 1995 27...	1030	1028	80020	45	172	7.4	9.5

DATE	OXYGEN, DIS- SOLVED (MG/L) (00300)	ALKA- LITY WAT WH TOT IT FIELD MG/L AS CACO3 (00419)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	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)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)
OCT 1995 27...	11.3	34	11	<0.010	1.20	<0.015	0.020

SCHUYLKILL RIVER BASIN

01472198 PERKIOMEN CREEK AT EAST GREENVILLE, PA

LOCATION.--Lat 40°23'38", long 75°30'57", Montgomery County, Hydrologic Unit 02040203, on right bank 100 ft upstream from bridge on Church Road, 0.9 mi upstream from Molasses Creek, and 1.0 mi southwest of East Greenville.

DRAINAGE AREA.--38.0 mi².

PERIOD OF RECORD.--October 1981 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 288.50 ft above sea level.

REMARKS.--Records poor. Several measurements of water temperature were made during the year. Satellite telemetry at station.

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	Unknown	Unknown	Unknown	Jan. 27	Unknown	2,870	4.39
Oct. 28	0630	1,050	3.64	Apr. 2	Unknown	Unknown	Unknown
Jan. 19	Unknown	*11,200	*5.87	Apr. 16	Unknown	Unknown	Unknown

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	12	48	33	e25	e95	81	e245	156	38	44	98	17
2	11	116	34	e29	e80	80	e660	99	36	33	50	17
3	11	64	30	e28	e70	75	e160	90	35	33	57	17
4	11	47	30	e27	e60	61	e130	86	38	32	50	17
5	171	40	29	e25	e55	76	139	76	49	29	38	17
6	130	36	33	e23	e55	156	121	88	37	26	33	17
7	e40	46	30	e22	e65	158	148	72	34	25	31	28
8	e25	55	28	e21	e80	120	164	82	33	29	29	19
9	e20	38	30	e22	115	98	129	89	32	136	29	17
10	e20	34	26	e23	73	84	143	73	34	55	31	16
11	18	55	e24	e25	89	80	115	124	33	33	26	15
12	15	316	e22	e24	76	90	104	181	48	e100	27	15
13	14	87	e22	e24	54	99	96	93	45	e280	50	18
14	53	183	e23	e27	e48	99	89	75	34	e120	32	21
15	111	170	e25	e26	e46	91	81	68	31	e70	27	15
16	38	87	e28	e25	e44	85	e880	84	29	e42	27	15
17	28	61	e27	e26	e42	71	e190	82	29	e38	28	115
18	24	54	e26	e50	e40	67	e140	69	34	e44	24	69
19	21	49	e24	e2800	42	113	132	64	115	e65	23	30
20	e25	45	e22	e880	76	359	119	57	65	45	22	23
21	e500	42	e21	e175	403	149	107	53	48	34	21	20
22	e125	39	e22	e125	204	114	93	54	36	32	22	40
23	e65	38	e24	e100	176	97	87	49	36	35	20	34
24	41	46	e23	e350	247	84	80	47	30	33	36	25
25	35	38	e22	e260	157	78	73	44	34	32	23	25
26	30	35	e21	e125	127	71	74	43	29	60	20	22
27	30	34	e21	e910	108	64	72	49	27	35	22	20
28	389	33	e22	e290	119	69	63	47	26	29	21	62
29	82	33	e23	e165	95	209	142	48	26	28	20	182
30	51	33	e21	e140	---	130	183	44	76	40	18	51
31	42	---	e22	e115	---	99	---	40	---	143	18	---
TOTAL	2188	2002	788	6907	2941	3307	4959	2326	1197	1780	973	999
MEAN	70.6	66.7	25.4	223	101	107	165	75.0	39.9	57.4	31.4	33.3
MAX	500	316	34	2800	403	359	880	181	115	280	98	182
MIN	11	33	21	21	40	61	63	40	26	25	18	15
CFSM	1.86	1.76	.67	5.86	2.67	2.81	4.35	1.97	1.05	1.51	.83	.88
IN.	2.14	1.96	.77	6.76	2.88	3.24	4.85	2.28	1.17	1.74	.95	.98

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1982 - 1996, BY WATER YEAR (WY)

	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
MEAN	32.6	56.3	66.3	71.2	75.8	100	102	74.4	48.5	44.1	30.6	37.6			
MAX	70.6	116	187	223	138	273	224	163	121	163	59.4	113			
(WY)	1996	1993	1984	1996	1984	1994	1983	1989	1982	1984	1993	1987			
MIN	13.6	16.7	18.1	26.4	33.6	34.5	24.9	35.0	19.9	22.9	11.3	13.4			
(WY)	1982	1982	1990	1985	1992	1985	1985	1995	1995	1983	1995	1986			

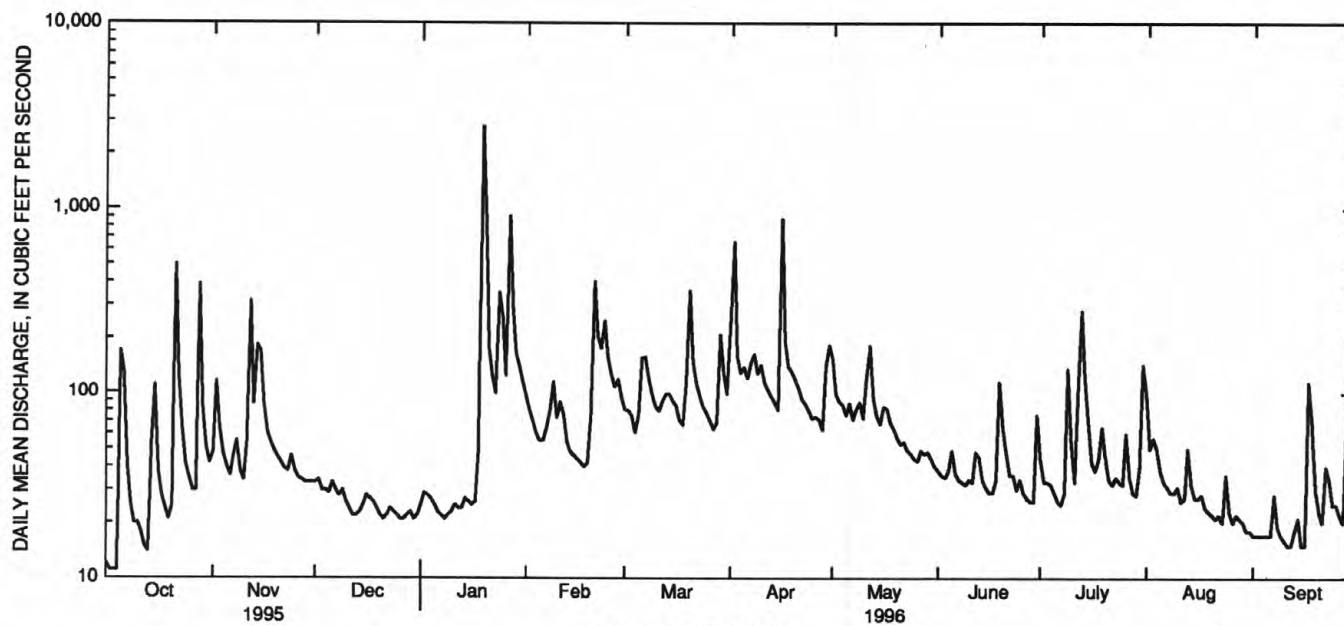
e Estimated.

SCHUYLKILL RIVER BASIN

01472198 PERKIOMEN CREEK AT EAST GREENVILLE, PA--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1982 - 1996	
ANNUAL TOTAL	16998.8		30367		61.5	
ANNUAL MEAN	46.6		83.0		103	
HIGHEST ANNUAL MEAN					35.6	
LOWEST ANNUAL MEAN					2800	
HIGHEST DAILY MEAN	1110	Mar 8	e2800	Jan 19		Jan 19 1996
LOWEST DAILY MEAN	e8.0	Aug 5	11	Oct 2-4	4.2	Aug 21 1985
ANNUAL SEVEN-DAY MINIMUM	a9.0	Aug 1	16	Sep 10	4.4	Aug 18 1985
INSTANTANEOUS PEAK FLOW			b11200	Jan 19	b24900	Jun 25 1984
INSTANTANEOUS PEAK STAGE			c5.87	Jan 19	7.07	Jun 25 1984
INSTANTANEOUS LOW FLOW			10	Oct 3,4	3.8	Sep 5 1985
ANNUAL RUNOFF (CFSM)	1.23		2.18		1.62	
ANNUAL RUNOFF (INCHES)	16.64		29.73		21.99	
10 PERCENT EXCEEDS	78		144		115	
50 PERCENT EXCEEDS	31		44		36	
90 PERCENT EXCEEDS	11		21		16	

- a Computed using estimated daily discharges.
b From rating curve extended above 720 ft³/s.
c From outside gage.
e Estimated.



1-YEAR HYDROGRAPH
OCTOBER 1, 1995 TO SEPTEMBER 30, 1996

SCHUYLKILL RIVER BASIN

01472199 WEST BRANCH PERKIOMEN CREEK AT HILLEGASS, PA

LOCATION.--Lat 40°22'26", long 75°31'22", Montgomery County, Hydrologic Unit 02040203, on left bank 0.3 mi downstream from bridge on private road, and 0.5 mi north of Hillegass.

DRAINAGE AREA.--23.0 mi².

PERIOD OF RECORD.--October 1981 to current year. Prior to October 1992, published as "Northwest Branch".

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Datum of gage is 290.00 ft above sea level.

REMARKS.--Records good except those for estimated daily discharges and those above 560 ft³/s, which are poor. Several measurements of water temperature were made during the year. Satellite telemetry at station.

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	1330	937	4.31	Apr. 2	0300	1,110	4.48
Jan. 19	1500	*4,610	*6.34	Apr. 16	0700	1,440	4.76
Jan. 27	1600	1,180	4.55				

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	8.0	34	21	19	60	49	154	95	24	35	49	10
2	8.1	73	24	e19	52	49	419	55	22	22	32	10
3	7.9	47	20	e18	e44	46	105	49	22	24	34	10
4	7.9	35	19	e17	e40	39	81	48	24	24	30	10
5	108	29	17	e15	e36	45	71	44	36	17	25	10
6	81	27	22	e14	e36	104	62	47	24	14	20	11
7	23	33	18	13	e38	108	86	41	22	14	18	20
8	14	44	16	12	e46	74	90	44	20	19	16	12
9	12	28	17	e13	78	e52	69	54	18	43	17	11
10	10	25	15	e14	61	e50	76	44	21	37	19	10
11	9.8	46	14	e15	70	49	60	75	21	17	15	10
12	9.4	176	14	e15	60	52	52	128	75	15	16	10
13	8.8	55	13	e15	45	58	48	55	38	268	34	13
14	30	113	15	e16	e36	60	45	46	26	70	22	13
15	56	124	18	e16	e34	54	41	42	23	39	16	10
16	24	59	25	e16	e32	51	580	48	18	37	16	10
17	16	43	26	e16	e32	42	126	48	18	29	18	77
18	13	37	22	e20	e32	40	88	42	19	26	14	46
19	12	35	20	1760	35	81	73	40	44	43	13	22
20	12	32	e19	585	64	229	66	36	43	36	13	15
21	313	29	e18	116	313	81	59	33	35	24	12	13
22	78	27	e18	77	146	61	53	35	23	21	13	29
23	39	25	e19	63	123	51	50	30	19	25	e12	29
24	30	30	e18	200	170	45	47	30	16	23	e22	18
25	26	26	e17	159	108	42	43	27	20	18	e13	16
26	22	24	e16	78	85	40	42	26	15	45	e12	14
27	20	23	e16	561	69	36	44	30	14	26	12	13
28	222	22	e17	188	76	38	38	30	14	17	12	55
29	55	22	e16	104	58	129	73	32	14	16	11	111
30	36	22	e16	87	---	75	111	30	61	25	11	38
31	31	---	17	74	---	55	---	26	---	104	10	---
TOTAL	1342.9	1345	563	4335	2079	1985	2952	1410	789	1173	577	676
MEAN	43.3	44.8	18.2	140	71.7	64.0	98.4	45.5	26.3	37.8	18.6	22.5
MAX	313	176	26	1760	313	229	580	128	75	268	49	111
MIN	7.9	22	13	12	32	36	38	26	14	14	10	10
CFSM	1.88	1.95	.79	6.08	3.12	2.78	4.28	1.98	1.14	1.65	.81	.98
IN.	2.17	2.18	.91	7.01	3.36	3.21	4.77	2.28	1.28	1.90	.93	1.09

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1982 - 1996, BY WATER YEAR (WY)

	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
MEAN	19.2	34.6	45.0	45.1	48.4	63.7	64.3	47.4	30.7	24.9	16.5	18.7			
MAX	43.3	60.6	165	140	93.8	171	146	114	83.7	99.0	35.3	42.7			
(WY)	1996	1993	1984	1996	1984	1994	1983	1989	1982	1984	1994	1985			
MIN	7.85	8.61	10.3	15.7	22.4	23.4	16.4	22.9	12.1	10.0	5.80	5.47			
(WY)	1983	1982	1990	1985	1992	1985	1985	1995	1995	1986	1995	1983			

e Estimated.

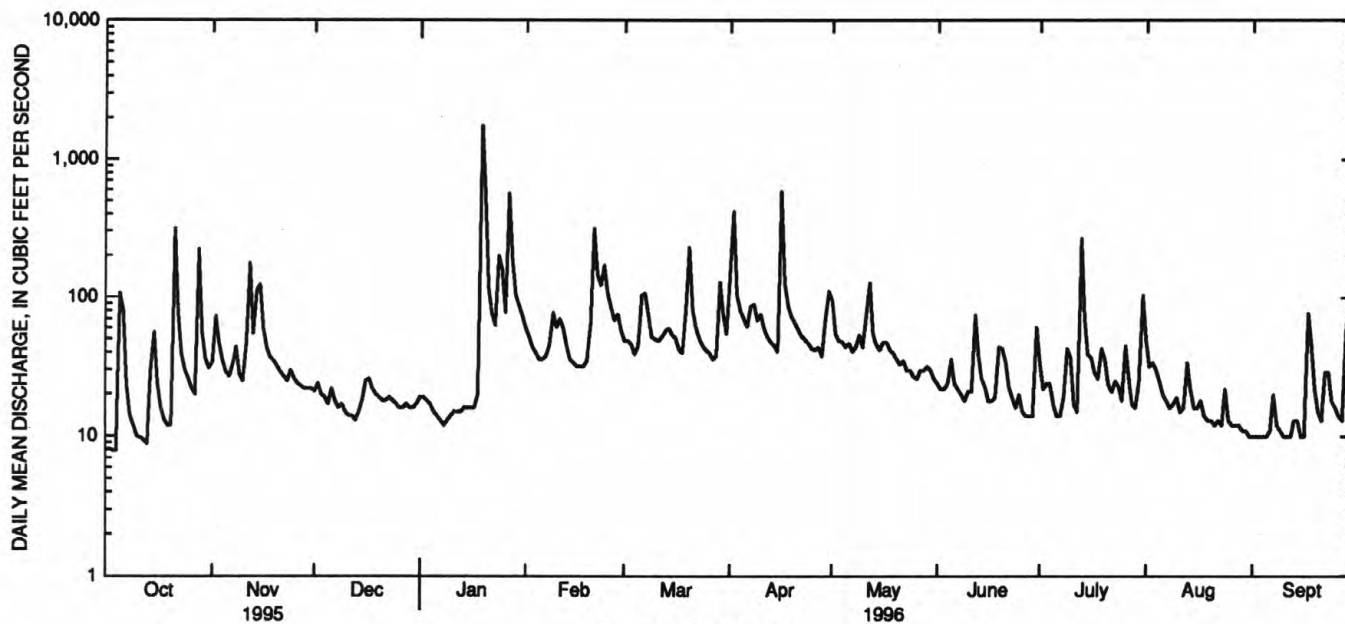
SCHUYLKILL RIVER BASIN

01472199 WEST BRANCH PERKIOMEN CREEK AT HILLEGASS, PA--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1982 - 1996	
ANNUAL TOTAL	10804.5		19226.9		38.2	
ANNUAL MEAN	29.6		52.5		69.5	
HIGHEST ANNUAL MEAN					21.1	
LOWEST ANNUAL MEAN					1985	
HIGHEST DAILY MEAN	e640	Mar 8	1760	Jan 19	1760	Jan 19 1996
LOWEST DAILY MEAN	3.8	Sep 6-8	7.9	Oct 3,4	3.8	Sep 6 1995
ANNUAL SEVEN-DAY MINIMUM	3.9	Sep 2	10	Aug 30	3.9	Sep 2 1995
INSTANTANEOUS PEAK FLOW			a4610	Jan 19	a4610	Jan 19 1996
INSTANTANEOUS PEAK STAGE			6.34	Jan 19	6.34	Jan 19 1996
INSTANTANEOUS LOW FLOW			7.6	Oct 3,4	3.4	Aug 27 1995
ANNUAL RUNOFF (CFSM)	1.29		2.28		1.66	
ANNUAL RUNOFF (INCHES)	17.48		31.10		22.54	
10 PERCENT EXCEEDS	53		87		74	
50 PERCENT EXCEEDS	21		30		23	
90 PERCENT EXCEEDS	5.2		13		8.2	

a From rating curve extended above 560 ft³/s.

e Estimated.



1-YEAR HYDROGRAPH
OCTOBER 1, 1995 TO SEPTEMBER 30, 1996

SCHUYLKILL RIVER BASIN

01472620 EAST BRANCH PERKIOMEN CREEK NEAR DUBLIN, PA

LOCATION.--Lat 40°24'14", long 75°14'05", Bucks County, Hydrologic Unit 02040203, on right bank 40 ft downstream from bridge on Bucks Road, 4.5 mi northeast of Perkasio, and 5.0 mi southeast of Quakertown.

DRAINAGE AREA.--4.05 mi².

PERIOD OF RECORD.--October 1983 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 334.12 ft above sea level.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Diversion since August 1989 from Delaware River at Point Pleasant to Bradshaw Reservoir (Geddes Creek Basin). Pumpage from reservoir enters the stream about 0.5 mi upstream of gage. See station 01472618, Distributary from Bradshaw Reservoir, for pumpage data. Peak flows are unregulated. Several measurements of water temperature were made during the year. Satellite telemetry at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 350 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 17	0315	483	4.18	Jan. 27	1530	476	4.15
Oct. 21	1145	644	4.78	Apr. 1	2130	539	4.40
Nov. 11	2230	445	4.02	Apr. 16	0615	624	4.71
Jan. 19	1445	*1,610	*7.22				

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	61	33	31	e17	e16	18	91	23	56	64	60	56
2	59	52	19	e23	e15	17	54	18	56	62	35	56
3	57	36	18	e30	e15	18	23	18	56	63	54	56
4	56	32	17	21	e14	17	19	17	56	63	60	56
5	72	30	16	e15	e14	21	18	17	48	62	60	56
6	88	29	16	e11	e13	46	17	17	57	61	60	56
7	62	34	17	e8.0	e14	58	25	17	49	61	61	55
8	e60	35	16	e6.0	17	24	28	18	54	e62	61	44
9	e60	31	15	e6.0	29	24	27	18	31	e70	48	52
10	e60	35	e14	e6.0	25	23	32	17	57	e55	59	56
11	e58	76	e13	e7.0	27	25	21	38	53	e55	56	56
12	e58	70	e14	e7.5	20	26	19	49	56	e60	56	56
13	e54	36	e15	e7.0	e16	24	18	19	41	76	65	57
14	e54	52	e16	e7.0	e15	22	17	15	43	e65	62	58
15	e52	51	18	e6.5	e15	20	17	16	60	e45	60	58
16	e50	35	21	e6.5	e16	19	131	17	60	55	60	60
17	96	28	22	e7.5	e15	18	25	17	54	54	59	65
18	51	35	19	e15	e15	18	20	16	48	49	59	48
19	56	36	e17	483	17	41	18	16	61	43	60	50
20	59	36	e16	65	34	45	18	15	62	19	59	51
21	161	31	e16	26	61	23	17	31	61	44	59	57
22	43	28	e16	16	23	20	17	59	52	46	57	65
23	56	28	e17	20	29	19	16	60	55	59	58	64
24	e45	31	e16	107	37	17	17	57	61	61	48	62
25	e30	30	e15	33	23	17	16	56	60	45	55	60
26	e30	28	e14	30	21	17	16	56	61	59	55	53
27	e30	37	e13	177	20	17	15	56	62	61	54	56
28	61	38	e14	29	21	17	15	56	62	61	54	58
29	35	38	e13	22	19	69	17	56	62	61	54	68
30	32	38	e14	21	---	26	47	56	67	53	56	57
31	30	---	e15	20	---	21	---	56	---	71	56	---
TOTAL	1776	1129	513	1256.0	616	787	831	997	1661	1765	1760	1702
MEAN	57.3	37.6	16.5	40.5	21.2	25.4	27.7	32.2	55.4	56.9	56.8	56.7
MAX	161	76	31	483	61	69	131	60	67	76	65	68
MIN	30	28	13	6.0	13	17	15	15	31	19	35	44

e Estimated.

SCHUYLKILL RIVER BASIN

01472620 EAST BRANCH PERKIOMEN CREEK NEAR DUBLIN, PA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 1996, BY WATER YEAR (WY) (SINCE REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	50.6	36.4	24.7	23.0	16.8	30.9	24.1	40.6	52.3	54.5	58.2	55.8
MAX	57.3	59.7	46.5	40.5	23.0	43.2	29.9	56.0	60.5	61.8	61.8	58.3
(WY)	1991	1992	1992	1996	1993	1993	1993	1995	1994	1995	1993	1991
MIN	23.8	12.8	14.5	17.8	12.3	17.2	16.4	32.2	34.8	44.5	54.2	52.5
(WY)	1990	1991	1995	1993	1991	1991	1992	1996	1992	1990	1995	1995

SUMMARY STATISTICS FOR 1995 CALENDAR YEAR FOR 1996 WATER YEAR WATER YEARS 1990 - 1996

ANNUAL TOTAL	14929.5	14793.0	
ANNUAL MEAN	40.9	40.4	39.1
HIGHEST ANNUAL MEAN			42.0
LOWEST ANNUAL MEAN			35.7
HIGHEST DAILY MEAN	161	Oct 21	483
LOWEST DAILY MEAN	9.5	Jan 5	ae6.0
ANNUAL SEVEN-DAY MINIMUM	11	Jan 28	ae6.6
INSTANTANEOUS PEAK FLOW			b1610
INSTANTANEOUS PEAK STAGE			7.22
10 PERCENT EXCEEDS	63		61
50 PERCENT EXCEEDS	41		36
90 PERCENT EXCEEDS	12		15

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1984 - 1989, BY WATER YEAR (WY) (PRIOR TO REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	1.19	10.1	8.67	5.60	11.8	8.00	7.61	9.15	3.18	5.25	2.89	6.55
MAX	2.56	14.7	20.9	9.16	19.1	15.7	17.2	21.0	12.5	20.9	15.6	25.7
(WY)	1986	1986	1984	1986	1984	1984	1984	1984	1989	1984	1989	1989
MIN	.14	1.92	1.96	2.61	4.26	2.21	.91	.41	.090	.13	.025	.027
(WY)	1987	1985	1989	1985	1987	1985	1985	1986	1987	1985	1987	1986

SUMMARY STATISTICS WATER YEARS 1984 - 1989

ANNUAL MEAN	6.63	
HIGHEST ANNUAL MEAN	11.7	1984
LOWEST ANNUAL MEAN	3.60	1985
HIGHEST DAILY MEAN	418	Sep 20 1989
LOWEST DAILY MEAN	.00	Jul 20 1985
ANNUAL SEVEN-DAY MINIMUM	.00	Sep 14 1985
INSTANTANEOUS PEAK FLOW	b2270	Jul 7 1984
INSTANTANEOUS PEAK STAGE	8.41	Jul 7 1984
ANNUAL RUNOFF (CFSM)	1.50	
ANNUAL RUNOFF (INCHES)	20.42	
10 PERCENT EXCEEDS	13	
50 PERCENT EXCEEDS	1.2	
90 PERCENT EXCEEDS	.06	

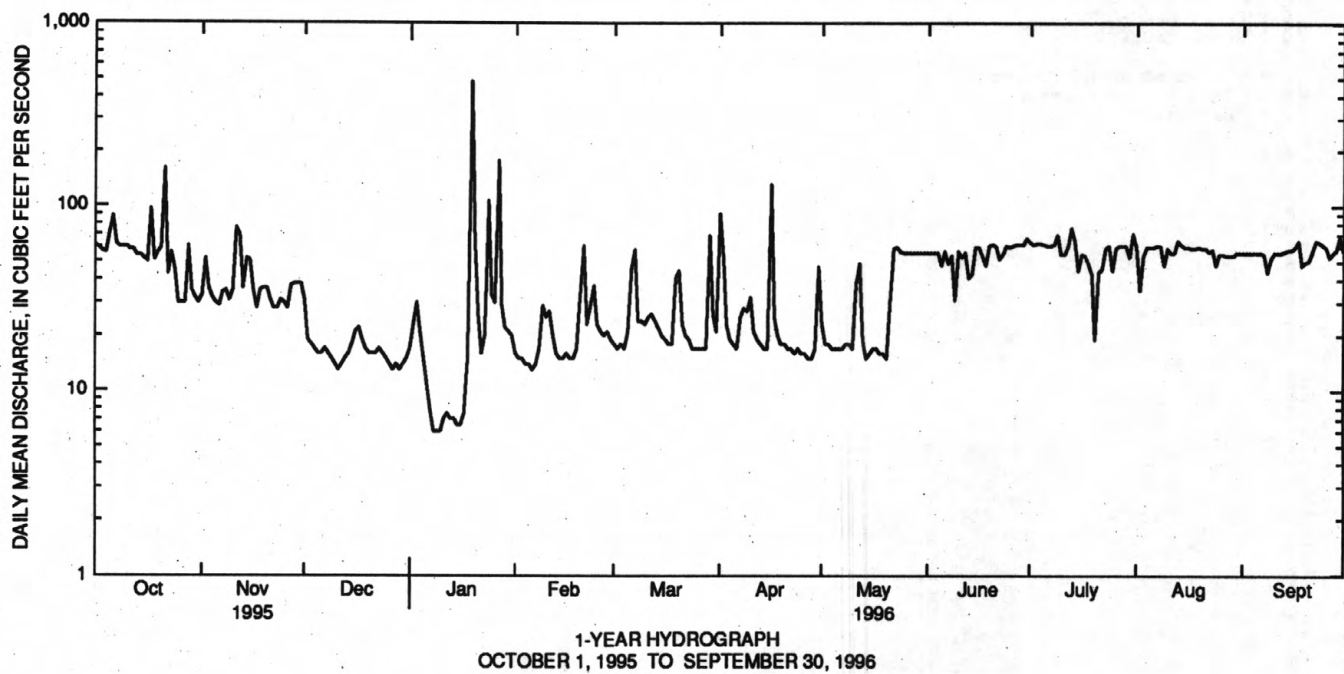
a Computed using estimated daily discharges.

b From rating curve extended above 500 ft³/s on basis of slope-area measurement of peak flow.

e Estimated.

SCHUYLKILL RIVER BASIN

01472620 EAST BRANCH PERKIOMEN CREEK NEAR DUBLIN, PA--Continued



SCHUYLKILL RIVER BASIN

01472810 EAST BRANCH PERKIOMEN CREEK NEAR SCHWENKSVILLE, PA

LOCATION.--Lat 40°15'31", long 75°25'45", Montgomery County, Hydrologic Unit 02040203, on left bank 600 ft upstream from Bergey's Mill bridge, and 2.0 mi east of Schwenksville.

DRAINAGE AREA.--58.7 mi².

PERIOD OF RECORD.--January 1991 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 150 ft above sea level, from topographic map.

REMARKS.--Records poor. Diversion since August 1989 from Delaware River at Point Pleasant to Bradshaw Reservoir (Geddes Creek Basin). Pumpage from reservoir enters stream about 19 mi upstream of gage. See station 01472618, Distributary from Bradshaw Reservoir, for pumpage data. Peak flows are unregulated. Several measurements of water temperature were made during the year. Satellite telemetry at station.

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	2030	*12,200	*12.97	No other peak greater than base discharge.			

REVISIONS.--The peak discharges and annual maximum reported for water years 1993-1995 have been revised as shown in the following table. They supersede previously published figures.

Water Year	Date	Discharge ft ³ /s	Gage Height
1993	Aug. 17, 1993	*5,120	*8.79
1994	Nov. 28, 1993	*6,450	*9.66
1995	Dec. 5, 1994	*8,370	*10.79
	Mar. 8, 1995	4,830	8.60

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	70	109	65	e55	94	e80	401	333	72	e125	e205	63
2	70	283	56	109	e80	e80	1630	e130	70	e85	e110	63
3	70	194	46	201	e70	e90	207	e120	69	e75	e95	63
4	70	131	45	142	e65	e70	137	90	71	e110	e130	63
5	231	84	42	e110	e60	e75	110	77	78	e70	e75	63
6	679	72	44	e75	e65	e220	94	75	69	e65	e70	65
7	138	92	43	e65	e70	e390	107	70	69	e70	e75	75
8	105	150	40	e65	e80	e220	208	72	60	e65	78	80
9	91	86	40	e65	148	e140	142	86	54	e95	86	64
10	85	74	39	e65	112	e120	239	82	55	e85	82	63
11	81	131	e36	e75	91	e110	156	122	66	e65	77	63
12	79	1280	e33	e85	76	e130	110	481	168	e65	74	62
13	78	227	e34	e75	51	e140	91	132	e135	e560	199	65
14	120	424	e38	e70	e40	e140	81	96	e70	e170	110	77
15	353	397	e44	e80	e32	111	73	84	e55	e95	90	65
16	124	192	75	e85	e30	100	1470	85	e60	e70	87	64
17	99	142	110	e95	e33	85	254	83	e75	e60	83	357
18	90	125	86	e140	36	80	146	73	e75	e50	79	233
19	86	104	69	6020	e40	120	114	65	e105	e120	77	101
20	87	81	e55	1580	e100	653	97	59	e135	e105	75	81
21	1270	75	e50	240	e770	176	86	53	e80	e55	75	73
22	258	64	e50	162	e280	129	74	79	e55	e55	74	217
23	135	60	e55	143	e200	104	67	82	e50	e60	72	165
24	105	69	e60	858	e250	89	74	79	e40	e60	196	102
25	92	64	e60	546	e145	81	60	74	e50	e55	84	89
26	85	60	e55	188	e105	74	57	73	e60	e85	74	77
27	63	61	e50	1870	e95	67	54	75	e60	e75	70	73
28	533	64	e50	445	e100	67	47	75	e60	e60	69	82
29	151	66	e50	173	e90	488	67	79	e65	e55	67	266
30	98	69	e48	136	---	211	311	78	e180	e65	65	112
31	82	---	e46	123	---	131	---	73	---	e500	64	---
TOTAL	5678	5030	1614	14141	3408	4771	6764	3235	2311	3330	2867	3086
MEAN	183	168	52.1	456	118	154	225	104	77.0	107	92.5	103
MAX	1270	1280	110	6020	770	653	1630	481	180	560	205	357
MIN	63	60	33	55	30	67	47	53	40	50	64	62

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

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
MEAN	104	141	158	174	90.8	226	132	80.4	72.8	87.4	102	89.0
MAX	183	201	285	456	118	388	230	104	84.6	107	159	133
(WY)	1996	1994	1994	1996	1996	1994	1993	1996	1992	1996	1994	1993
MIN	75.5	84.9	52.1	70.7	60.2	119	43.2	68.1	57.8	70.1	61.5	67.2
(WY)	1992	1992	1996	1992	1992	1992	1992	1992	1993	1992	1995	1995

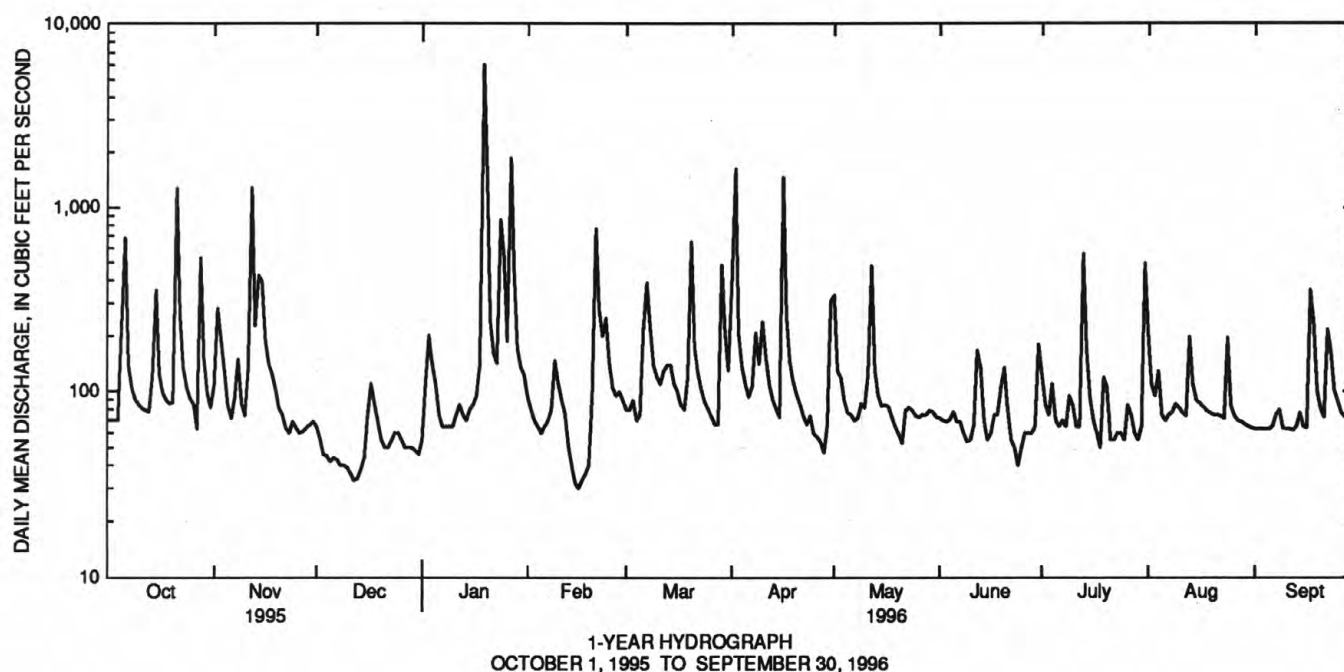
e Estimated.

SCHUYLKILL RIVER BASIN

01472810 EAST BRANCH PERKIOMEN CREEK NEAR SCHWENKSVILLE, PA--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1991 - 1996	
ANNUAL TOTAL	37664		56235		124	
ANNUAL MEAN	103		154		154	
HIGHEST ANNUAL MEAN					80.6	
LOWEST ANNUAL MEAN					1992	
HIGHEST DAILY MEAN	1560	Mar 9	6020	Jan 19	6020	Jan 19 1996
LOWEST DAILY MEAN	e31	Feb 9,10	e30	Feb 16	28	Feb 13 1992
ANNUAL SEVEN-DAY MINIMUM	a33	Feb 5	a37	Dec 8	30	Feb 7 1992
INSTANTANEOUS PEAK FLOW			b12100	Jan 19	b12100	Jan 19 1996
INSTANTANEOUS PEAK STAGE			12.97	Jan 19	12.97	Jan 19 1996
10 PERCENT EXCEEDS	139		228		180	
50 PERCENT EXCEEDS	70		80		71	
90 PERCENT EXCEEDS	44		55		46	

- a Computed using estimated daily discharges.
b From rating curve extended above 3,000 ft³/s.
e Estimated.



SCHUYLKILL RIVER BASIN

01473000 PERKIOMEN CREEK AT GRATERFORD, PA

LOCATION.--Lat 40°13'46", long 75°27'07", Montgomery County, Hydrologic Unit 02040203, on left bank 1,650 ft upstream from highway bridge at Graterford, 0.5 mi upstream from Lodel Creek, and 2.5 mi north of Collegeville.

DRAINAGE AREA.--279 mi².

PERIOD OF RECORD.--June 1914 to current year. Monthly discharge only for some periods, published in WSP 1302. Prior to October 1950, published as "at Graters Ford."

REVISED RECORDS.--WSP 756: Drainage area. WSP 1171: 1935(M). WSP 1302: 1915-16, 1927-29. WSP 1382: 1932-33, 1935, 1937, 1942, 1947, 1948(M), 1949(P), 1950(M), 1951-52(P), WDR PA-91-1: 1989-90 (adjusted means and monthly runoff).

GAGE.--Water-stage recorder. Datum of gage is 112.66 ft above sea level. June 1914, to Sept. 6, 1921, nonrecording gage at site 1,650 ft downstream at datum 3.29 ft lower. Sept. 7, 1921, to Sept. 13, 1927, nonrecording gage at present site and datum.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Some regulation since Dec. 21, 1956 by Green Lane Reservoir (station 01472200) 10.5 mi upstream. Diversion from the Delaware River at Point Pleasant to Bradshaw Reservoir (Geddes Creek Basin) has been pumped from the reservoir to the East Branch Perkiomen Creek since August 1989. See station 01472618, Distributary from Bradshaw Reservoir, for pumpage data. Several measurements of water temperature were made during the year. Satellite telemetry at station.

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	114	343	255	173	505	391	1390	1770	205	434	922	137
2	112	959	244	300	e420	383	7890	e630	197	273	427	134
3	112	726	208	727	e340	400	1280	475	193	234	305	136
4	111	447	195	555	e320	310	813	460	201	383	514	131
5	415	329	184	399	e300	309	659	410	272	233	299	128
6	1930	284	190	310	e290	1000	570	415	229	195	248	135
7	346	280	201	e290	e300	2360	664	383	199	181	236	178
8	224	599	183	e280	322	1310	1140	387	177	172	217	168
9	181	371	e170	e290	540	688	737	508	168	220	211	153
10	162	287	e160	e300	780	529	1030	487	156	258	221	141
11	149	340	e150	e320	764	532	726	570	175	199	193	137
12	137	4200	e135	e330	730	603	549	2210	311	169	176	134
13	133	1100	e130	e340	410	664	470	694	576	2020	568	138
14	184	1500	134	e330	e320	e650	421	485	253	936	348	169
15	1210	2100	152	e310	e300	e570	373	403	201	378	246	141
16	355	973	221	e300	e280	e500	7020	425	183	277	214	137
17	238	613	415	e340	e270	e400	1700	490	265	232	210	850
18	200	474	353	e600	e260	e350	865	411	228	204	191	805
19	180	428	320	14600	262	e550	670	375	289	481	175	344
20	174	392	287	8400	382	e3000	578	327	447	440	165	242
21	3660	377	e260	1520	4100	1020	515	271	260	204	156	197
22	1190	350	e250	862	1880	715	448	297	190	181	158	585
23	438	320	e250	681	1240	553	414	298	159	187	153	616
24	319	352	e230	2390	1430	460	431	275	137	191	457	325
25	275	342	e220	2930	978	414	348	247	160	172	245	262
26	247	294	e210	959	692	385	334	220	186	251	184	218
27	199	280	e200	6790	559	337	349	247	169	266	165	193
28	2940	276	e210	3180	566	323	299	265	162	188	158	211
29	922	257	e200	1030	491	2190	413	263	155	167	154	2170
30	452	266	e180	765	---	1160	1150	287	481	187	144	576
31	337	---	e170	681	---	674	---	242	---	2020	141	---
TOTAL	17646	19859	6667	51282	20031	23730	34246	15227	6984	11933	8201	9891
MEAN	569	662	215	1654	691	765	1142	491	233	385	265	330
MAX	3660	4200	415	14600	4100	3000	7890	2210	576	2020	922	2170
MIN	111	257	130	173	260	309	299	220	137	167	141	128

e Estimated.

SCHUYLKILL RIVER BASIN

01473000 PERKIOMEN CREEK AT GRATERFORD, PA--Continued

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

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	193	371	504	557	600	763	641	412	262	208	153	218
MAX	657	1182	1491	2071	1241	2100	1759	1298	1330	1286	493	1163
(WY)	1980	1973	1984	1979	1971	1994	1983	1989	1972	1984	1971	1971
MIN	28.1	43.8	63.3	75.6	156	186	128	84.0	52.9	41.7	37.4	24.8
(WY)	1958	1958	1966	1981	1980	1985	1985	1965	1965	1965	1957	1957

SUMMARY STATISTICS FOR 1995 CALENDAR YEAR FOR 1996 WATER YEAR WATER YEARS 1957 - 1996

ANNUAL TOTAL	132037	225697	
ANNUAL MEAN	362	617	406
HIGHEST ANNUAL MEAN			767
LOWEST ANNUAL MEAN			165
HIGHEST DAILY MEAN	8600	Mar 9	14600
LOWEST DAILY MEAN	75	Sep 20	111
ANNUAL SEVEN-DAY MINIMUM	91	Aug 22	135
INSTANTANEOUS PEAK FLOW			a32500
INSTANTANEOUS PEAK STAGE			16.45
INSTANTANEOUS LOW FLOW			110
10 PERCENT EXCEEDS	605		1110
50 PERCENT EXCEEDS	195		319
90 PERCENT EXCEEDS	112		160

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1915 - 1956, BY WATER YEAR (WY) (PRIOR TO REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	192	345	445	504	641	771	513	346	213	274	261	177
MAX	856	1119	1077	1336	1458	2193	1335	1395	976	1190	1378	869
(WY)	1956	1933	1928	1915	1918	1936	1952	1948	1946	1919	1955	1934
MIN	21.2	38.0	69.8	66.5	80.2	247	167	71.7	32.7	32.4	21.0	23.8
(WY)	1942	1932	1923	1925	1934	1915	1946	1941	1921	1954	1930	1932

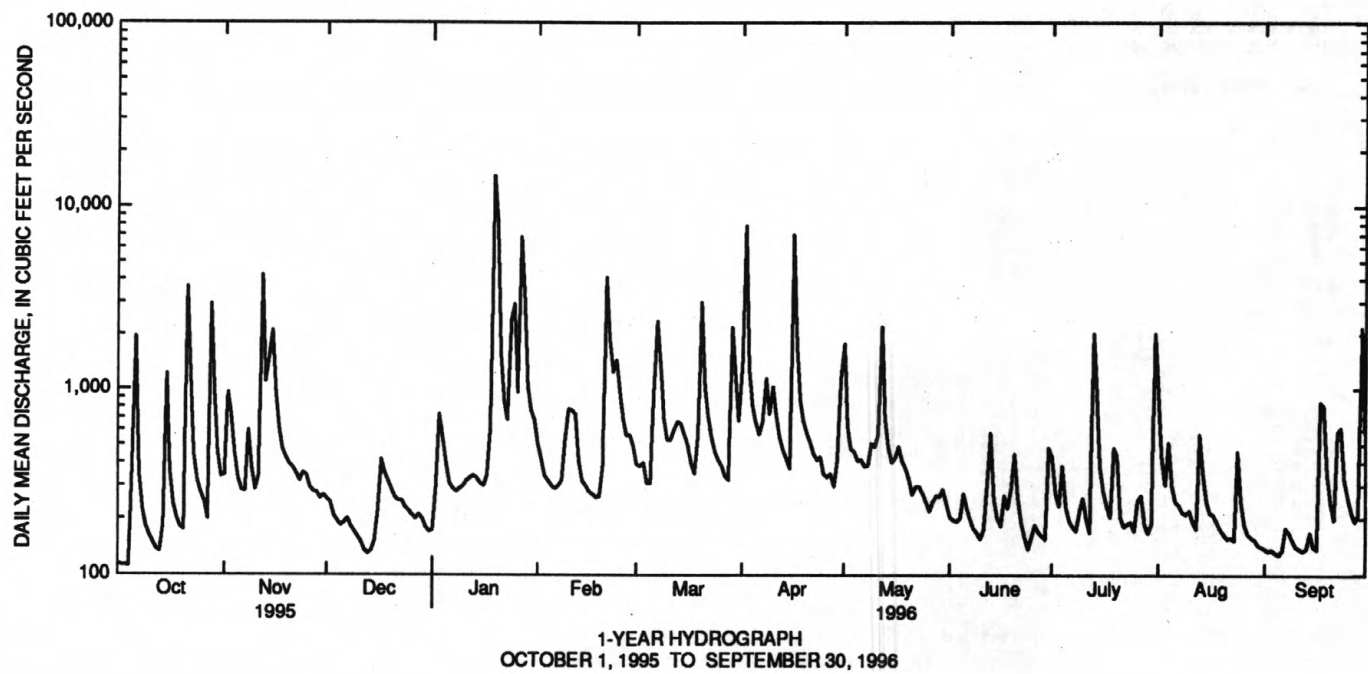
SUMMARY STATISTICS WATER YEARS 1915 - 1956

ANNUAL MEAN	389	
HIGHEST ANNUAL MEAN	689	1956
LOWEST ANNUAL MEAN	188	1931
HIGHEST DAILY MEAN	18600	Jul 9 1935
LOWEST DAILY MEAN	3.8	Jun 25 1921
ANNUAL SEVEN-DAY MINIMUM	5.2	Jun 22 1921
INSTANTANEOUS PEAK FLOW	a39900	Jul 9 1935
INSTANTANEOUS PEAK STAGE	18.26	Jul 9 1935
INSTANTANEOUS LOW FLOW	4.7	Oct 4 1941
ANNUAL RUNOFF (CFSM)	1.40	
ANNUAL RUNOFF (INCHES)	18.96	
10 PERCENT EXCEEDS	800	
50 PERCENT EXCEEDS	166	
90 PERCENT EXCEEDS	42	

a From rating curve extended above 12,000 ft³/s, on basis of slope-area measurement at gage height 16.23 ft.

SCHUYLKILL RIVER BASIN

01473000 PERKIOMEN CREEK AT GRATERFORD, PA--Continued



SCHUYLKILL RIVER BASIN

01473169 VALLEY CREEK AT PENNSYLVANIA TURNPIKE BRIDGE NEAR VALLEY FORGE, PA

LOCATION.--Lat 40°04'45", long 75°27'40", Chester County, Hydrologic Unit 02040202, on right bank 100 ft upstream from Pennsylvania turnpike bridge, 0.9 mi downstream from Little Valley Creek, 2.2 mi upstream from mouth, and 1.0 mi south of Valley Forge.

DRAINAGE AREA.--20.8 mi².

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

GAGE.--Water-stage recorder. Datum of gage is 108.62 ft above sea level.

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

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 600 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	839	6.88	Apr. 16	0700	1,290	7.96
Nov. 11	2330	789	6.79	June 19	1545	740	6.71
Jan. 19	1600	*1,810	*a9.51	July 13	0945	1,160	7.61
Jan. 27	1630	981	7.17	July 19	1000	930	7.06
Apr. 1	2330	1,160	7.59	Sept. 17	0530	890	6.98

a From outside highwater mark.

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	12	26	20	17	47	34	203	56	31	34	33	22
2	12	35	20	31	45	36	248	47	30	e29	31	22
3	11	23	19	41	44	34	71	54	30	e68	32	22
4	11	21	19	e22	40	33	63	47	32	47	32	21
5	86	20	18	e19	40	35	57	44	43	29	32	22
6	82	20	e18	e17	40	55	53	60	30	27	29	32
7	22	25	e17	e15	35	109	65	44	29	26	28	e80
8	17	24	e17	e14	36	56	56	46	29	56	28	e240
9	17	20	e17	e13	54	43	62	55	34	34	48	e270
10	15	19	e16	e13	40	39	68	45	42	29	e26	e27
11	15	80	e16	e13	38	39	54	76	39	24	e24	e23
12	14	156	e16	e14	35	39	50	60	47	26	e200	23
13	13	32	e15	e14	33	38	47	46	40	405	e55	33
14	58	80	e16	e15	34	37	47	44	30	e51	39	27
15	57	48	19	e16	34	40	45	42	28	e38	33	22
16	21	33	26	e17	33	36	325	50	27	38	40	30
17	19	29	23	18	33	35	73	44	27	33	31	194
18	18	27	21	19	32	34	62	42	30	30	29	43
19	17	27	e20	e800	31	78	58	40	156	e130	28	30
20	16	25	e19	e600	71	75	56	39	47	e70	27	27
21	221	24	e18	e250	101	43	54	37	40	e38	27	25
22	36	23	e18	e110	49	39	51	37	34	e36	27	98
23	23	23	e18	e50	44	38	54	36	31	35	27	34
24	20	25	e18	e150	43	37	54	34	29	31	54	29
25	19	23	e18	55	40	36	48	34	30	30	28	27
26	19	22	18	43	38	35	48	33	27	67	26	26
27	19	22	18	329	37	34	46	34	27	34	25	26
28	89	21	18	85	39	38	44	34	26	31	25	34
29	24	24	18	61	35	149	50	42	25	30	24	51
30	21	22	17	56	---	52	88	34	88	56	23	28
31	20	---	17	52	---	45	---	32	---	35	23	---
TOTAL	1044	999	568	2969	1221	1471	2300	1368	1158	1647	1134	1588
MEAN	33.7	33.3	18.3	95.8	42.1	47.5	76.7	44.1	38.6	53.1	36.6	52.9
MAX	221	156	26	800	101	149	325	76	156	405	200	270
MIN	11	19	15	13	31	33	44	32	25	24	23	21
CFSM	1.62	1.60	.88	4.60	2.02	2.28	3.69	2.12	1.86	2.55	1.76	2.54
IN.	1.87	1.79	1.02	5.31	2.18	2.63	4.11	2.45	2.07	2.95	2.03	2.84

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	21.4	28.5	29.5	34.2	32.9	43.2	45.6	38.6	29.3	29.3	24.8	26.5		
MAX	34.7	48.8	60.8	95.8	53.5	85.9	98.8	77.5	49.9	53.1	36.6	52.9		
(WY)	1990	1987	1984	1996	1984	1994	1983	1984	1984	1996	1996	1996		
MIN	15.0	19.5	18.3	16.8	19.1	17.9	18.1	19.5	15.1	15.9	11.1	15.4		
(WY)	1987	1991	1996	1985	1992	1985	1985	1995	1995	1992	1995	1986		

e Estimated.

SCHUYLKILL RIVER BASIN

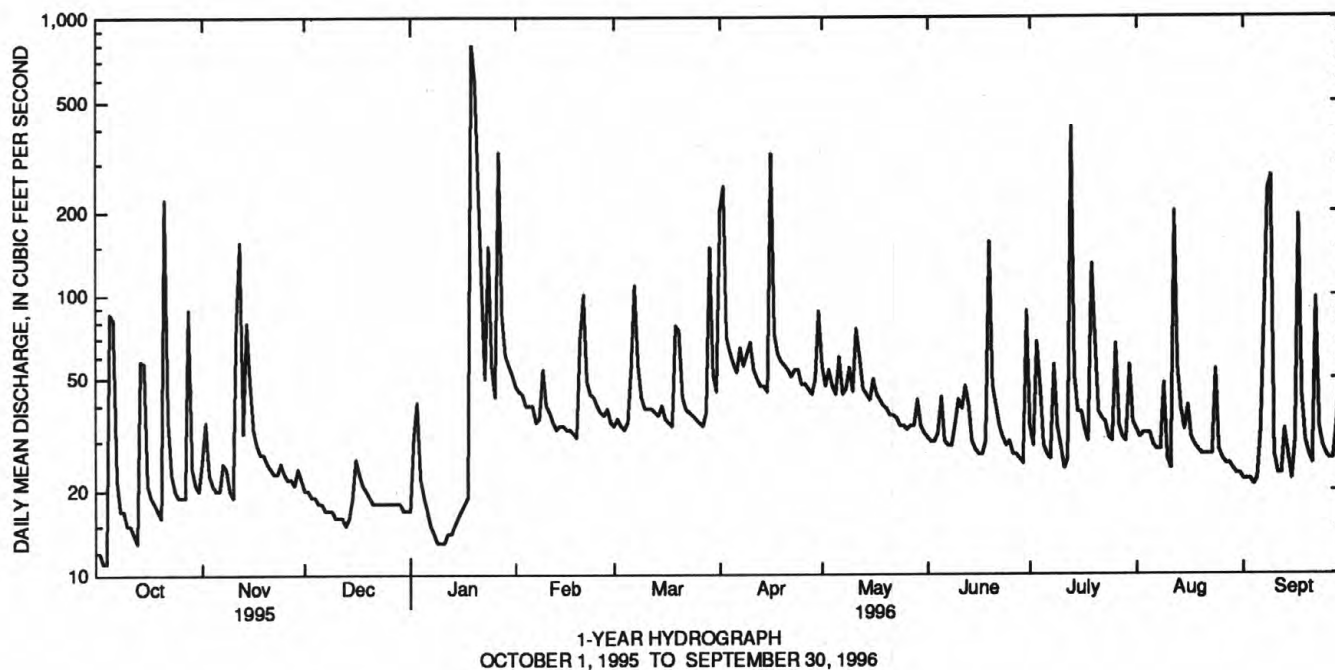
01473169 VALLEY CREEK AT PENNSYLVANIA TURNPIKE BRIDGE NEAR VALLEY FORGE, PA--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR			FOR 1996 WATER YEAR			WATER YEARS 1983 - 1996	
ANNUAL TOTAL	8671.9			17467			32.0	
ANNUAL MEAN	23.8			47.7			47.7	1996
HIGHEST ANNUAL MEAN							20.3	1992
LOWEST ANNUAL MEAN							e800	Jan 19 1996
HIGHEST DAILY MEAN	258	Mar	8	e800	Jan	19	8.6	Nov 26 1993
LOWEST DAILY MEAN	8.7	Sep	1	11	Oct	3,4	8.8	Sep 1 1995
ANNUAL SEVEN-DAY MINIMUM	8.8	Sep	1	b14	Jan	7	1810	Jan 19 1996
INSTANTANEOUS PEAK FLOW				1810	Jan	19	a9.51	Jan 19 1996
INSTANTANEOUS PEAK STAGE				a9.51	Jan	19	7.8	Sep 1 1995
INSTANTANEOUS LOW FLOW				11	Oct	2-5	1.54	
ANNUAL RUNOFF (CFSM)	1.14			2.29			20.89	
ANNUAL RUNOFF (INCHES)	15.51			31.24			52	
10 PERCENT EXCEEDS	32			71			23	
50 PERCENT EXCEEDS	19			33			15	
90 PERCENT EXCEEDS	10			18				

a From outside highwater mark.

b Computed using estimated daily discharges.

e Estimated.



SCHUYLKILL RIVER BASIN

01474000 WISSAHICKON CREEK AT MOUTH, PHILADELPHIA, PA

LOCATION.--Lat 40°00'54", long 75°12'24", Philadelphia County, Hydrologic Unit 02040203, on left bank 100 ft upstream from dam at Ridge Avenue, 750 ft upstream from mouth, and 1,000 ft northwest of Gustine Lake in Philadelphia.

DRAINAGE AREA.--64.0 mi².

PERIOD OF RECORD.--June 1897 to September 1903, January 1905 to July 1906, October 1965 to current year. Prior to October 1965, records furnished by Department of Public Works, City of Philadelphia. Records for 1971-74 published in WDR PA-81-1. Prior to October 1965, published as "near Philadelphia".

REVISED RECORDS.--WSP 1302: 1905: WDR PA-89-1: 1988.

GAGE.--Water-stage recorder, crest-stage gage and concrete control. Datum of gage is 26.41 ft above sea level. Prior to October 1965, water-stage recorder at about same site and datum.

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

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 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	2100	*6,240	*7.60	No other peak greater than base discharge.			

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	46	251	68	64	127	86	275	305	59	111	112	58
2	39	e650	75	117	118	89	1030	111	56	69	73	57
3	30	e440	68	249	111	88	219	143	56	88	66	53
4	27	e400	63	e95	106	78	170	125	59	199	71	49
5	584	e360	60	e65	106	79	157	108	89	64	61	49
6	385	e360	66	e55	106	281	135	140	59	60	57	57
7	172	392	61	e50	106	664	176	100	52	57	56	74
8	58	486	59	e46	104	329	264	126	52	74	52	665
9	37	378	e48	e42	183	151	196	160	51	78	62	1120
10	34	362	e46	e38	159	128	328	127	61	70	75	74
11	29	456	e44	e36	123	116	187	155	53	52	58	60
12	29	e600	e44	e36	e110	123	148	e140	140	50	55	58
13	27	e85	e44	e38	e103	120	138	e130	262	1030	649	53
14	223	e290	e46	e40	e98	109	133	e120	60	165	95	69
15	674	e160	e54	e42	e95	116	118	e112	51	88	72	51
16	77	e120	156	e50	e90	107	1170	e125	51	96	76	54
17	55	e105	136	e60	84	102	271	e116	116	67	65	1210
18	48	e95	84	79	80	92	175	e105	253	67	61	255
19	46	e90	e70	2690	79	152	156	e94	678	333	55	103
20	45	e85	e67	2740	111	549	145	e85	378	107	52	81
21	731	e80	e63	e820	569	140	133	e80	e146	76	51	76
22	183	e77	e63	e255	176	113	119	77	e85	64	52	327
23	119	e80	e60	147	128	101	124	74	e70	64	49	208
24	111	e85	e58	547	122	102	134	73	e65	63	481	89
25	111	e78	e58	390	105	93	107	68	e63	58	69	80
26	101	e75	58	152	95	87	108	68	e60	141	57	64
27	108	e75	61	1310	90	82	100	65	e60	72	52	64
28	815	e78	58	545	101	87	98	68	55	58	139	78
29	294	e85	57	212	90	719	108	97	56	55	55	268
30	261	e75	58	177	---	207	245	82	355	72	52	85
31	244	---	63	157	---	142	---	65	---	439	53	---
TOTAL	5743	6953	2016	11344	3675	5432	6867	3444	3651	4087	3033	5589
MEAN	185	232	65.0	366	127	175	229	111	122	132	97.8	186
MAX	815	650	156	2740	569	719	1170	305	678	1030	649	1210
MIN	27	75	44	36	79	78	98	65	51	50	49	49
CFSM	2.89	3.62	1.02	5.72	1.98	2.74	3.58	1.74	1.90	2.06	1.53	2.91
IN.	3.34	4.04	1.17	6.59	2.14	3.16	3.99	2.00	2.12	2.38	1.76	3.25

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

	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977
MEAN	65.9	88.7	109	120	122	151	142	116	88.9	84.4	75.5	77.7
MAX	185	265	275	378	266	370	410	229	244	230	171	245
(WY)	1996	1973	1984	1979	1979	1994	1983	1984	1989	1975	1973	1971
MIN	23.1	17.7	22.7	24.3	37.0	40.7	41.3	50.8	32.0	24.3	19.8	23.0
(WY)	1966	1966	1966	1981	1969	1985	1985	1986	1986	1966	1966	1968

e Estimated.

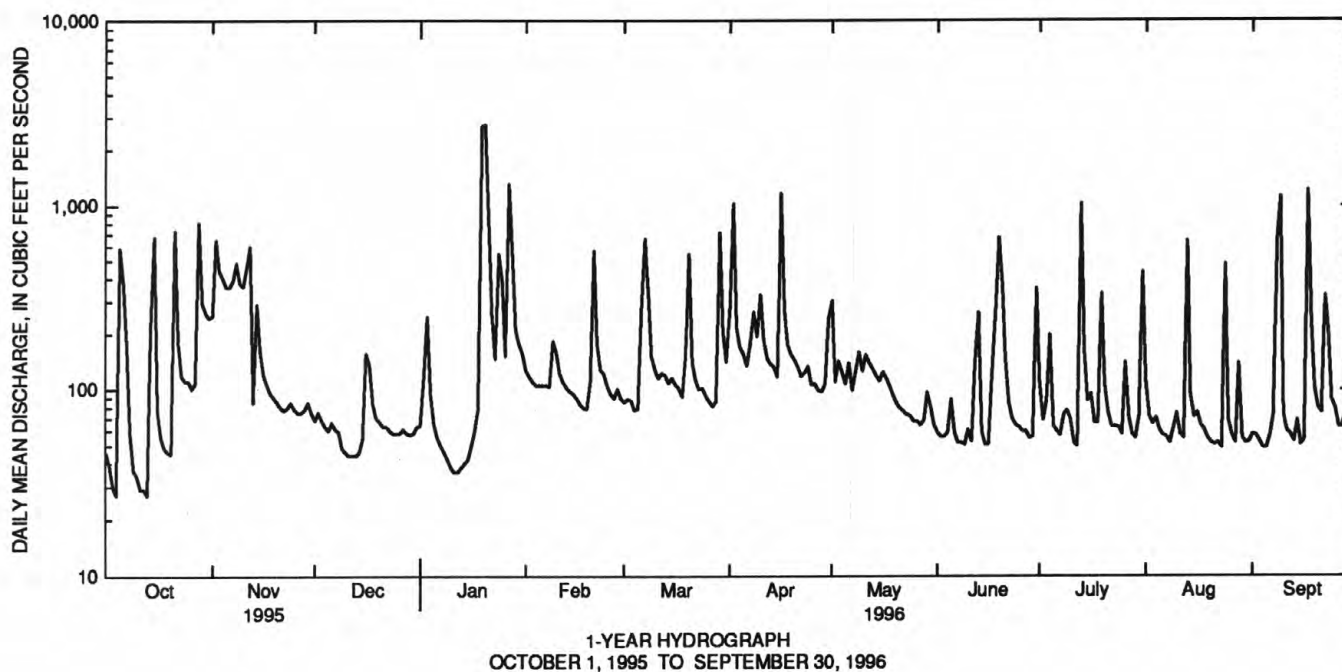
SCHUYLKILL RIVER BASIN

01474000 WISSAHICKON CREEK AT MOUTH, PHILADELPHIA, PA--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1966 - 1996	
ANNUAL TOTAL	30048.8		61834		103	
ANNUAL MEAN	82.3		169		169	1996
HIGHEST ANNUAL MEAN					50.6	1966
LOWEST ANNUAL MEAN					3320	Sep 27 1985
HIGHEST DAILY MEAN	815	Oct 28	2740	Jan 20	8.8	Aug 30 1995
LOWEST DAILY MEAN	8.8	Aug 30	27	Oct 4, 13	12	Aug 27 1966
ANNUAL SEVEN-DAY MINIMUM	13	Aug 30	a39	Jan 9	6870	Jun 29 1973
INSTANTANEOUS PEAK FLOW			6240		7.92	Jun 29 1973
INSTANTANEOUS PEAK STAGE			7.60		b2.0	Jul 18 1905
INSTANTANEOUS LOW FLOW			17		1.62	
ANNUAL RUNOFF (CFSM)	1.29		2.64		21.94	
ANNUAL RUNOFF (INCHES)	17.47		35.94			
10 PERCENT EXCEEDS	144		361		178	
50 PERCENT EXCEEDS	49		89		59	
90 PERCENT EXCEEDS	20		51		28	

a Computed using estimated daily discharges.

b Also July 19. Minimum observed is outside computed statistical period.



SCHUYLKILL RIVER BASIN

01474500 SCHUYLKILL RIVER AT PHILADELPHIA, PA

LOCATION.--Lat 39°58'04", long 75°11'20", Philadelphia County, Hydrologic Unit 02040203, on right bank 150 ft upstream from Fairmont Dam, 1,500 ft upstream from bridge on Spring Garden Street in Philadelphia, and 8.7 mi upstream from mouth.

DRAINAGE AREA.--1,893 mi².

PERIOD OF RECORD.--October 1931 to current year. Records for January 1898 to December 1912, published in WSP 35, 48, 65, 82, 97, 125, 166, 202, 214, 261, 301, and 381 have been found to be unreliable and should not be used.

REVISED RECORDS.--WSP 756: Drainage area. WSP 1302: 1936 (M). WSP 1432: 1945. See also PERIOD OF RECORD.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 5.74 ft above sea level. Prior to Nov. 25, 1956, water-stage recorder at site on right bank just upstream from Fairmont Dam at same datum. Nov. 26, 1956, to Oct. 6, 1966, water-stage recorder at site on left bank 40 ft upstream from Fairmont Dam at same datum.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Flow regulated by Still Creek Reservoir (station 01469200) since February 1933, Blue Marsh Lake (station 01470870) since April 1979, Green Lane Reservoir (station 01472200) since December 1956 and to some extent by Lake Ontelaunee. Records of discharge do not include diversion above station by city of Philadelphia for municipal water supply. Satellite telemetry at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 4, 1869 reached a stage of 17.0 ft, discharge, 135,000 ft³/s, from rating extended above 46,000 ft³/s. Flood of Mar. 1, 1902 reached a stage of 14.8 ft, discharge, 98,000 ft³/s.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 18,000 ft³/s and maximum (*):

<u>Date</u>	<u>Time</u>	<u>Discharge (ft³/s)</u>	<u>Gage height (ft)</u>	<u>Date</u>	<u>Time</u>	<u>Discharge (ft³/s)</u>	<u>Gage height (ft)</u>
Oct. 21	2200	20,900	8.95	Jan. 27	2330	38,900	10.73
Jan. 19	2400	*79,000	*13.36	Apr. 2	0800	32,600	10.17
Jan. 25	0330	20,900	8.95	Apr. 16	1530	33,300	10.23

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	559	2180	2020	1290	8770	4500	5090	8060	1570	3380	4980	685
2	578	2890	1890	1640	6590	4020	22800	6260	1480	2770	2420	669
3	618	3420	1770	3190	5250	3790	8690	5130	1420	2420	1900	699
4	565	2640	1760	2780	4760	3410	6380	4550	1390	2970	1880	656
5	2090	2150	1720	1920	4100	3090	5390	3920	1790	2170	1970	723
6	6390	1950	1690	e1300	3630	4120	4910	3990	1910	1810	1690	693
7	2650	1850	1750	e1030	3320	9020	4760	3690	1640	1610	1520	945
8	1410	2360	1650	e600	3360	9160	6580	3370	1340	1710	1380	1790
9	1060	2130	e1580	e900	3920	5290	5340	3550	1290	1580	1350	2660
10	913	1730	e1480	1600	4930	4270	6110	3610	1380	1810	1510	868
11	785	1670	e1400	1860	4500	4070	5070	3310	2080	1620	1370	889
12	735	12500	1290	1780	4730	4060	4140	8610	2460	1560	1280	746
13	634	8710	1330	1520	3890	4020	3830	5680	5140	7580	4380	793
14	1200	7840	1420	1560	3180	3850	3630	4720	3030	8070	2680	1030
15	4030	12500	1450	1580	3000	3670	3460	4210	2070	5450	1750	878
16	2210	11400	1880	1570	2940	3650	18900	4050	2070	5210	1410	866
17	1460	8670	2300	1420	2700	3720	15500	3910	1950	3960	1310	6470
18	1100	6050	2080	1550	2470	3490	10600	3390	2380	2860	1230	4640
19	954	4900	e1900	26400	2340	3590	8220	2970	3740	4090	1140	2530
20	840	4300	e1800	51800	2390	12100	6620	2740	4640	5070	1030	1550
21	6770	3540	e1620	21900	10500	9220	5590	2540	5100	3230	1010	1230
22	11700	3060	e1550	13200	10800	7260	4870	2390	3450	2520	940	2730
23	5620	2650	e1500	10600	9030	5710	4350	2310	2570	2050	898	3060
24	3450	2610	1590	11100	8670	4880	4160	2100	2280	1620	2730	1740
25	2450	2510	1540	18200	8860	4340	3760	1970	2020	1690	1510	1480
26	2030	2250	1500	12100	7640	3960	3300	1820	1890	1940	1110	1140
27	1720	2100	1400	18900	6720	3570	3180	1830	1570	2970	935	970
28	6770	2190	1430	31600	5720	3310	2950	1950	1480	2050	979	999
29	5070	2270	1350	19800	5290	8350	2890	2130	1410	1610	803	4710
30	2950	2130	1240	13700	---	7720	4770	2330	2510	1860	719	2720
31	2370	---	1250	11100	---	5180	---	1800	---	4760	720	---
TOTAL	81681	127150	50130	289490	154000	160390	195840	112890	69050	94000	50534	51559
MEAN	2635	4238	1617	9338	5310	5174	6528	3642	2302	3032	1630	1719
MAX	11700	12500	2300	51800	10800	12100	22800	8610	5140	8070	4980	6470
MIN	559	1670	1240	600	2340	3090	2890	1800	1290	1560	719	656

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

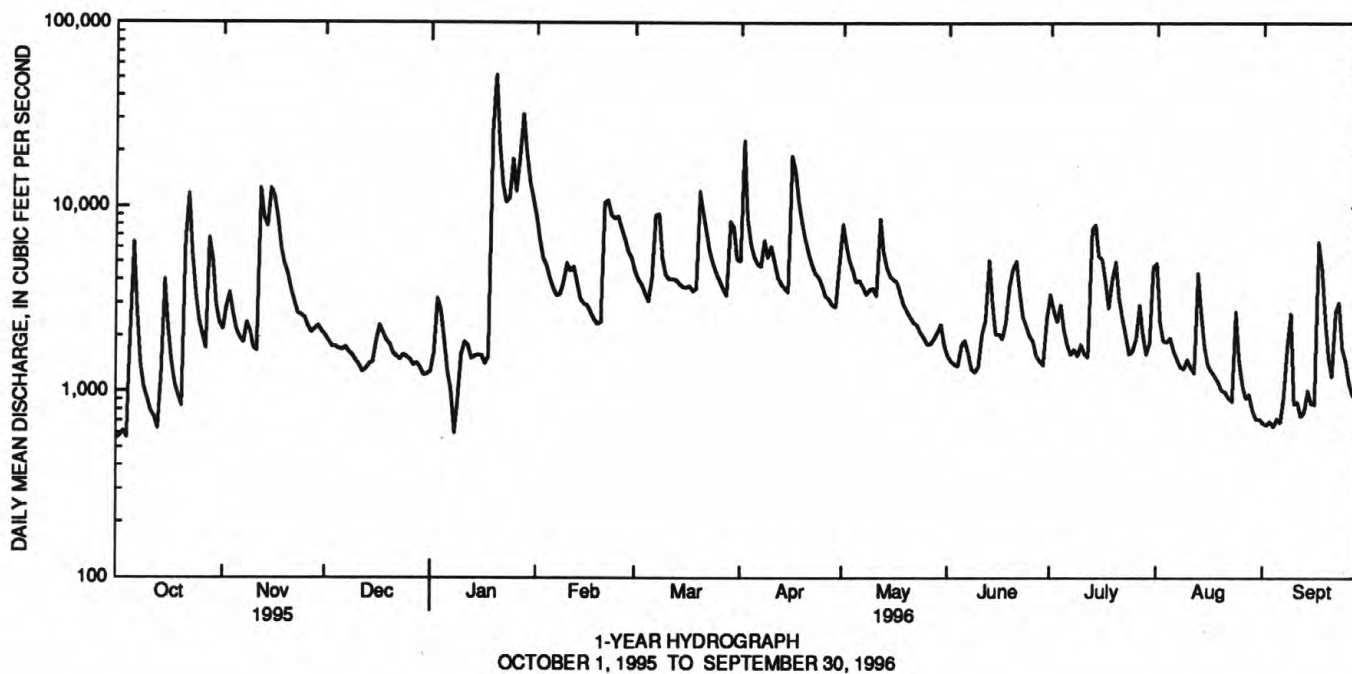
MEAN	1333	2329	3109	3345	3617	4856	4288	3122	2104	1651	1392	1395
MAX	4771	6272	9569	11400	8136	13320	11620	9943	11640	6434	7980	4863
(WY)	1956	1973	1984	1979	1939	1936	1983	1989	1972	1984	1933	1960
MIN	89.4	223	444	340	647	1552	1237	693	261	116	140	117
(WY)	1942	1932	1981	1981	1934	1981	1985	1965	1965	1966	1966	1932

e Estimated.

SCHUYLKILL RIVER BASIN

01474500 SCHUYLKILL RIVER AT PHILADELPHIA, PA--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1932 - 1996	
ANNUAL TOTAL	832294		1436714		2707	
ANNUAL MEAN	2280		3925		4791	
HIGHEST ANNUAL MEAN					1014	
LOWEST ANNUAL MEAN					1984	
HIGHEST DAILY MEAN	30300	Mar 9	51800	Jan 20	93400	Jun 23 1972
LOWEST DAILY MEAN	487	Sep 16	559	Oct 1	.60	Sep 2 1966
ANNUAL SEVEN-DAY MINIMUM	576	Sep 2	692	Aug 31	24	Sep 28 1941
INSTANTANEOUS PEAK FLOW			79000	Jan 19	103000	Jun 23 1972
INSTANTANEOUS PEAK STAGE			13.36	Jan 19	14.65	Jun 23 1972
INSTANTANEOUS LOW FLOW			382	Oct 4	.00	Sep 2 1966
10 PERCENT EXCEEDS	4040		8260		5850	
50 PERCENT EXCEEDS	1630		2510		1660	
90 PERCENT EXCEEDS	689		1030		424	



SCHUYLKILL RIVER BASIN

LAKES AND RESERVOIRS IN SCHUYLKILL RIVER BASIN

01469200 STILL CREEK RESERVOIR.--Lat 40°51'25", long 75°59'30", Schuylkill County, Hydrologic Unit 02040106, at dam on Still Creek, 1.0 mi upstream from mouth, and 2.3 mi north of Hometown. DRAINAGE AREA, 7.19 mi². PERIOD OF RECORD, January 1933 to current year. GAGE, nonrecording gage. Datum of gage is sea level (levels by Panther Valley Water Co.).

REMARKS.--Reservoir formed by earthfill dam with ungated concrete spillway at elevation 1,182.00 ft. Storage began February 1933. Capacity at elevation 1,182.00 ft is 8,290 acre-ft. Reservoir is used for municipal water supply. Figures given herein represent total contents. Regulation by valves on pipe through dam.

COOPERATION.--Records provided by the borough of Tamaqua.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 8,570 acre-ft, Oct. 15, 1955, elevation, 1,182.92 ft, but may have been greater during 1950 or 1951 water years; minimum contents (after first filling), 588 acre-ft, Dec. 8, 1944, elevation, 1,136.70 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 8,370 acre-ft, Jan. 31, elevation, 1,182.3 ft; minimum contents, 8,210 acre-ft, Oct. 31, elevation, 1,181.7 ft.

01470870 BLUE MARSH LAKE.--Lat 40°22'45", long 76°01'59", Berks County, Hydrologic Unit 02040203, at dam on Tulpehocken Creek, 0.8 mi upstream from gaging station on Tulpehocken Creek (station 01470960), 1.0 mi northeast of Blue Marsh, 1.9 mi upstream from Rebers Bridge, and 5.1 mi southeast of Bernville. DRAINAGE AREA, 175 mi². PERIOD OF RECORD, April 1979 to current year. GAGE, water-stage recorder (U.S. Army Corps of Engineers datum).

REMARKS.--Lake formed by earthfill dam with ungated concrete spillway at elevation 307.00 ft. Storage began April 23, 1979. Capacity at elevation 307.00 ft is 50,000 acre-ft. Dead storage is 3,000 acre-ft. Lake is used for flood control, water supply, and recreation. Figures herein represent total contents. Satellite telemetry at station.

COOPERATION.--Records provided by U.S. Army Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 39,480 acre-ft, Apr. 17, 1983, elevation, 301.65 ft; minimum contents (after first filling), 13,150 acre-ft, Mar. 18, 1994, elevation, 279.88 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 29,540 acre-ft, Jan. 21, elevation, 295.28 ft; minimum contents, 16,880 acre-ft, Oct. 5, elevation, 284.21.

01472200 GREEN LAKE RESERVOIR.--Lat 40°20'30", long 75°28'45", Montgomery County, Hydrologic Unit 02040203, at dam on Perkiomen Creek, 0.4 mi west of Green Lane, and 2.1 mi upstream from Unami Creek. DRAINAGE AREA, 70.9 mi². PERIOD OF RECORD, December 1956 to current year. GAGE, water-stage recorder. Datum of gage is sea level (levels by Philadelphia Suburban Water Co.).

REMARKS.--Reservoir formed by concrete, gravity-type dam with ungated spillway at elevation 286.00 ft. Storage began December 21, 1956. Capacity at elevation 286.00 ft is 13,430 acre-ft. Reservoir is used for municipal water supply. Figures given herein represent total contents. Regulation by valves on pipe through dam.

COOPERATION.--Records provided by Philadelphia Suburban Water Co.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 17,030 acre-ft, June 23, 1972, elevation, 290.05 ft; minimum contents (after first filling), 1,270 acre-ft, Aug. 25, 1957, elevation, 251.60 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 14,630 acre-ft, Apr. 16, elevation, 287.36 ft; minimum contents, 10,180 acre-ft, Oct. 6, elevation, 281.69 ft.

01472618 DISTRIBUTARY FROM BRADSHAW RESERVOIR.--Lat 40°24'50", long 75°13'13", Bucks County, Hydrologic Unit 02040203, about 0.5 mi upstream from station 01472620, East Branch Perkiomen Creek near Dublin, Pa.

REMARKS.--Water from the Delaware River near Point Pleasant is diverted to Bradshaw Reservoir located in Geddes Run Basin on Tohickon Creek, a tributary to the Lehigh River, for consumptive use by the Philadelphia Electric Company. Figures in this table represent the equivalent monthly mean streamflow, in cubic feet per second, diverted from Bradshaw Reservoir to the East Branch Perkiomen Creek.

COOPERATION.--Records provided by Philadelphia Electric Company.

SCHUYLKILL RIVER BASIN

LAKES AND RESERVOIRS IN SCHUYLKILL RIVER BASIN--Continued

MONTHEND ELEVATION, IN FEET ABOVE SEA LEVEL, AND CONTENTS AT 2400 HRS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

Date	Elevation (feet)	Contents (acre- feet)	Change in contents (equivalent in ft ³ /s)	Elevation (feet)	Contents (acre- feet)	Change in contents (equivalent in ft ³ /s)
<u>01469200 Still Creek Reservoir</u>				<u>01470870 Blue Marsh Lake</u>		
Sept. 30.....	1,180.7	7,930	--	284.46	17,110	--
Oct. 31.....	1,181.7	8,210	+ 4.6	289.86	22,740	+ 91.6
Nov. 30.....	1,182.1	8,320	+ 1.8	285.13	17,750	- 83.9
Dec. 31.....	1,182.0	8,290	- 0.5	285.04	17,660	- 1.5
CAL YR 1995	--	--	+ 0.5	--	--	- 0.1
Jan. 31.....	1,182.3	8,370	+ 1.3	285.98	18,590	+ 15.1
Feb. 29.....	1,182.1	8,320	- 0.9	284.91	17,540	- 18.3
Mar. 31.....	1,182.1	8,320	0	285.70	18,310	+ 12.5
Apr. 31.....	1,182.2	8,340	+ 0.3	290.26	23,200	+ 82.2
May 31.....	1,182.1	8,320	- 0.3	289.93	22,820	- 6.2
June 30.....	1,182.1	8,320	0	290.63	23,630	+ 13.6
July 31.....	1,182.1	8,320	0	289.97	22,860	- 12.5
Aug. 31.....	1,182.0	8,290	- 0.5	290.14	23,060	+ 3.3
Sept. 30.....	1,182.0	8,290	0	290.06	22,970	- 1.5
WTR YR 1996.....	--	--	+ 0.5	--	--	+ 8.1

<u>01472200 Green Lane Reservoir</u>			
Sept. 30.....	280.45	9,430	--
Oct. 31.....	286.05	13,480	+65.9
Nov. 30.....	286.00	13,430	- 0.8
Dec. 31.....	285.94	13,380	- 0.8
CAL YR 1995.....	--	--	- 0.3
Jan. 31.....	286.20	13,610	+ 3.7
Feb. 29.....	286.11	13,530	- 1.4
Mar. 31.....	286.15	13,560	+ 0.5
Apr. 30.....	286.21	13,610	+ 0.8
May 31.....	285.99	13,420	- 3.1
June 30.....	285.93	13,370	- 0.8
July 31.....	286.03	13,460	+ 1.5
Aug. 31.....	285.78	13,230	- 3.7
Sept. 30.....	286.10	13,520	+ 4.9
WTR YR 1996.....	--	--	+ 5.6

Date	Monthly Mean Discharge (equivalent in ft ³ /s)
<u>01472618 Distributary from Bradshaw Reservoir</u>	
Oct 1995.....	48.5
Nov.....	30.6
Dec.....	12.5
Jan 1996.....	9.66
Feb.....	9.78
Mar.....	10.2
Apr.....	10.1
May.....	26.8
June.....	56.9
July.....	54.3
Aug.....	58.8
Sept.....	58.0

DELAWARE RIVER BASIN

01474703 DELAWARE RIVER AT FORT MIFFLIN AT PHILADELPHIA, PA

LOCATION.--Lat 39°52'45", long 75°12'11", Philadelphia County, Hydrologic Unit 02040202, on right bank at outer end of L-shaped pier at Fort Mifflin, 0.4 mi downstream from mouth of Schuylkill River, and at Philadelphia.

DRAINAGE AREA.--10,000 mi², approximately.

PERIOD OF RECORD.--Water years 1970-76, 1981 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: July 1970 to December 1971, February 1981 to current year.

WATER TEMPERATURE: June 1972 to June 1976, February 1981 to current year.

INSTRUMENTATION.--Water-quality monitor. Since 1986, probes interfaced with a data collection platform.

REMARKS.--Data collection discontinued during winter months. Other interruptions in the record were due to malfunctions of the recording instrument.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 1,230 microsiemens, Oct. 27, 1981; minimum, 90 microsiemens, Apr. 11, 17, 19, 29, 1983, Apr. 29, 1984.

WATER TEMPERATURE: Maximum, 31.0°C, Aug. 4-6, 13, 1975; minimum, 0.5°C, Feb. 5, 1981.

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25° 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	---	---	---	274	179	222	---	---	---	---	---	---
2	---	---	---	281	215	237	---	---	---	---	---	---
3	---	---	---	343	226	261	---	---	---	---	---	---
4	854	535	633	371	233	283	---	---	---	---	---	---
5	---	---	---	369	229	273	---	---	---	---	---	---
6	---	---	---	359	224	264	---	---	---	---	---	---
7	---	---	---	327	228	255	---	---	---	---	---	---
8	---	---	---	345	219	266	---	---	---	---	---	---
9	---	---	---	316	234	259	---	---	---	---	---	---
10	---	---	---	276	231	246	---	---	---	---	---	---
11	523	396	430	266	228	245	---	---	---	---	---	---
12	490	385	419	408	220	293	---	---	---	---	---	---
13	471	384	420	283	212	239	---	---	---	---	---	---
14	504	388	427	301	210	245	---	---	---	---	---	---
15	442	336	378	307	215	261	---	---	---	---	---	---
16	392	336	362	269	197	232	---	---	---	---	---	---
17	392	327	366	268	158	224	---	---	---	---	---	---
18	388	336	364	273	176	219	---	---	---	---	---	---
19	377	340	359	279	180	229	---	---	---	---	---	---
20	382	339	358	287	185	224	---	---	---	---	---	---
21	404	337	367	291	182	226	---	---	---	---	---	---
22	410	266	326	326	200	251	---	---	---	---	---	---
23	307	250	268	328	196	237	---	---	---	---	---	---
24	271	250	260	338	200	255	---	---	---	---	---	---
25	286	250	262	332	207	254	---	---	---	---	---	---
26	285	239	255	336	206	249	---	---	---	---	---	---
27	268	229	247	316	204	247	---	---	---	---	---	---
28	317	224	263	334	207	259	---	---	---	---	---	---
29	323	225	275	358	241	272	---	---	---	---	---	---
30	312	204	239	318	218	256	---	---	---	---	---	---
31	271	191	216	---	---	---	---	---	---	---	---	---
MONTH	854	191	341	408	158	249	---	---	---	---	---	---

DELAWARE RIVER BASIN

01474703 DELAWARE RIVER AT FORT MIFFLIN AT PHILADELPHIA, PA--Continued

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25° CELSIUS, 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	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	385	272	333
3	---	---	---	---	---	---	226	165	189	---	---	---
4	---	---	---	---	---	---	259	197	224	357	219	283
5	---	---	---	---	---	---	285	220	253	342	217	265
6	---	---	---	---	---	---	300	238	264	337	220	265
7	---	---	---	---	---	---	306	240	269	321	210	253
8	---	---	---	---	---	---	313	235	279	321	203	249
9	---	---	---	---	---	---	307	232	275	330	212	253
10	---	---	---	---	---	---	305	230	274	335	173	252
11	---	---	---	---	---	---	309	221	269	334	211	260
12	---	---	---	---	---	---	309	237	263	351	202	274
13	---	---	---	---	---	---	313	228	267	325	202	244
14	---	---	---	---	---	---	318	243	275	284	203	238
15	---	---	---	---	---	---	313	245	274	283	198	225
16	---	---	---	---	---	---	326	204	267	305	199	247
17	---	---	---	---	---	---	236	163	192	318	197	254
18	---	---	---	---	---	---	263	191	225	313	192	239
19	---	---	---	---	---	---	269	180	235	306	182	226
20	---	---	---	---	---	---	284	184	233	288	179	212
21	---	---	---	---	---	---	282	177	223	284	176	213
22	---	---	---	---	---	---	298	181	224	275	174	226
23	---	---	---	---	---	---	---	---	---	282	194	233
24	---	---	---	---	---	---	---	---	---	279	199	230
25	---	---	---	---	---	---	---	---	---	257	186	213
26	---	---	---	---	---	---	322	221	262	260	190	220
27	---	---	---	---	---	---	301	230	265	277	207	226
28	---	---	---	---	---	---	351	248	295	297	211	238
29	---	---	---	---	---	---	371	261	305	308	216	246
30	---	---	---	---	---	---	412	267	337	394	220	277
31	---	---	---	---	---	---	---	---	---	300	200	244
MONTH	---	---	---	---	---	---	412	163	258	394	173	246

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	246	188	214	366	227	293	297	187	234	353	273	287
2	246	192	214	309	244	263	251	187	210	322	276	285
3	252	207	223	323	243	264	228	185	196	334	275	291
4	267	210	227	326	243	265	205	184	191	323	275	290
5	294	218	246	306	244	264	211	183	194	312	283	291
6	312	213	244	306	244	268	242	188	204	330	285	295
7	351	218	260	325	258	281	272	208	226	326	289	301
8	326	225	254	316	249	269	304	207	241	384	296	312
9	316	227	255	308	250	268	316	220	248	465	296	350
10	---	---	---	351	247	278	313	223	252	386	312	330
11	343	232	279	311	237	270	304	221	250	361	306	322
12	344	261	299	333	255	280	292	225	246	349	309	325
13	384	271	310	356	231	282	374	234	286	340	314	327
14	369	266	304	347	221	268	283	230	259	338	305	325
15	332	265	292	252	207	230	262	220	244	333	312	321
16	353	263	290	---	---	---	250	225	240	343	317	326
17	322	267	282	---	---	---	254	228	240	450	320	360
18	336	258	287	---	---	---	252	228	240	366	322	338
19	---	---	---	---	---	---	258	235	243	335	300	318
20	---	---	---	---	---	---	262	235	247	322	294	309
21	---	---	---	---	---	---	269	239	253	314	285	301
22	---	---	---	---	---	---	286	250	261	309	286	299
23	---	---	---	289	193	223	317	247	266	317	283	303
24	---	---	---	261	183	207	407	259	304	322	295	310
25	---	---	---	227	177	193	377	264	310	338	299	316
26	335	212	231	255	180	203	351	268	291	319	294	310
27	329	216	249	321	187	238	337	271	288	316	294	307
28	330	235	267	336	187	234	352	272	296	313	289	303
29	343	243	269	305	180	217	335	275	292	351	291	308
30	---	---	---	327	181	231	323	270	287	339	289	313
31	---	---	---	349	200	266	313	271	282	---	---	---
MONTH	384	188	262	366	177	252	407	183	252	465	273	312

DELAWARE RIVER BASIN

01474703 DELAWARE RIVER AT FORT MIFFLIN AT PHILADELPHIA, PA--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	---	---	---	14.0	13.5	13.5	---	---	---	---	---	---
2	---	---	---	14.0	13.5	14.0	---	---	---	---	---	---
3	---	---	---	14.0	13.5	14.0	---	---	---	---	---	---
4	21.0	20.5	20.5	13.5	13.0	13.5	---	---	---	---	---	---
5	---	---	---	13.0	13.0	13.0	---	---	---	---	---	---
6	---	---	---	13.0	12.5	12.5	---	---	---	---	---	---
7	---	---	---	12.5	12.0	12.5	---	---	---	---	---	---
8	---	---	---	12.5	11.5	12.0	---	---	---	---	---	---
9	---	---	---	11.5	10.5	11.0	---	---	---	---	---	---
10	---	---	---	11.0	10.5	10.5	---	---	---	---	---	---
11	21.0	20.0	20.5	11.0	10.0	10.5	---	---	---	---	---	---
12	20.5	20.0	20.5	11.0	8.5	9.5	---	---	---	---	---	---
13	21.0	20.0	20.5	9.5	8.0	9.0	---	---	---	---	---	---
14	20.5	20.0	20.0	9.0	7.0	8.5	---	---	---	---	---	---
15	20.0	19.0	20.0	8.5	6.5	7.5	---	---	---	---	---	---
16	19.5	18.5	19.0	7.5	6.5	7.0	---	---	---	---	---	---
17	19.5	18.5	19.0	7.0	6.5	6.5	---	---	---	---	---	---
18	19.0	18.5	18.5	6.5	6.0	6.5	---	---	---	---	---	---
19	19.0	18.0	18.5	6.5	6.0	6.0	---	---	---	---	---	---
20	18.5	18.0	18.5	6.5	5.5	6.0	---	---	---	---	---	---
21	18.5	18.0	18.5	6.5	6.0	6.0	---	---	---	---	---	---
22	18.0	16.5	17.0	6.5	5.5	6.0	---	---	---	---	---	---
23	17.0	16.0	16.5	6.5	5.5	6.0	---	---	---	---	---	---
24	16.5	15.5	16.0	6.5	5.5	6.0	---	---	---	---	---	---
25	16.0	15.0	15.5	6.0	5.0	5.5	---	---	---	---	---	---
26	15.5	14.5	15.0	6.0	5.0	5.5	---	---	---	---	---	---
27	15.5	14.5	15.0	6.0	5.5	5.5	---	---	---	---	---	---
28	15.0	14.5	15.0	6.5	5.5	6.0	---	---	---	---	---	---
29	14.5	14.0	14.5	6.5	6.0	6.0	---	---	---	---	---	---
30	14.5	14.0	14.0	6.0	5.5	6.0	---	---	---	---	---	---
31	14.0	13.5	14.0	---	---	---	---	---	---	---	---	---
MONTH	21.0	13.5	17.6	14.0	5.0	8.7	---	---	---	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	---	---	---	---	---	---	7.5	6.5	7.0	---	---	---
2	---	---	---	---	---	---	8.5	7.0	8.0	16.0	15.5	16.0
3	---	---	---	---	---	---	8.5	7.5	8.0	15.5	15.0	15.5
4	---	---	---	---	---	---	9.5	8.0	8.5	---	---	---
5	---	---	---	---	---	---	10.0	8.5	9.5	15.5	14.0	14.5
6	---	---	---	---	---	---	10.0	9.0	9.5	15.5	14.0	14.5
7	---	---	---	---	---	---	10.0	9.0	9.5	15.5	13.5	14.5
8	---	---	---	---	---	---	10.0	9.0	9.5	15.0	13.5	14.0
9	---	---	---	---	---	---	9.0	8.5	9.0	15.0	13.5	14.0
10	---	---	---	---	---	---	9.0	8.0	8.5	16.0	13.5	14.5
11	---	---	---	---	---	---	10.0	8.0	8.5	17.0	14.0	15.0
12	---	---	---	---	---	---	9.5	8.0	9.0	17.0	14.5	15.5
13	---	---	---	---	---	---	10.5	9.0	9.5	16.5	14.5	15.5
14	---	---	---	---	---	---	11.5	9.5	10.5	16.0	14.5	15.0
15	---	---	---	---	---	---	12.0	10.0	11.0	15.5	15.0	15.0
16	---	---	---	---	---	---	13.0	10.5	11.5	15.0	14.5	15.0
17	---	---	---	---	---	---	11.0	9.5	10.0	15.5	14.5	15.0
18	---	---	---	---	---	---	10.5	9.5	10.0	15.5	14.5	15.0
19	---	---	---	---	---	---	11.0	9.5	10.5	16.0	14.5	15.0
20	---	---	---	---	---	---	12.5	9.5	11.0	17.0	15.0	15.5
21	---	---	---	---	---	---	13.5	10.5	11.5	18.0	15.5	16.5
22	---	---	---	---	---	---	15.0	10.5	12.5	19.0	16.5	17.5
23	---	---	---	---	---	---	---	---	---	20.0	17.0	18.5
24	---	---	---	---	---	---	---	---	---	20.0	17.5	18.5
25	---	---	---	---	---	---	---	---	---	20.5	18.0	19.0
26	---	---	---	---	---	---	17.5	14.0	15.5	20.5	18.5	19.0
27	---	---	---	---	---	---	17.0	14.5	15.5	20.0	18.5	19.0
28	---	---	---	8.5	7.0	7.5	17.0	15.0	16.0	19.5	18.5	19.0
29	---	---	---	8.5	7.0	7.5	17.0	15.5	16.5	20.0	18.5	19.0
30	---	---	---	7.0	6.0	6.5	17.0	16.0	16.5	19.5	18.5	19.0
31	---	---	---	7.0	5.5	6.5	---	---	---	19.0	18.0	18.5
MONTH	---	---	---	8.5	5.5	7.0	17.5	6.5	10.8	20.5	13.5	16.3

DELAWARE RIVER BASIN

01474703 DELAWARE RIVER AT FORT MIFFLIN AT PHILADELPHIA, PA--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	19.5	18.0	19.0	24.5	24.0	24.0	24.5	23.5	24.0	26.5	25.5	26.0
2	19.5	18.5	19.0	24.5	24.0	24.0	24.5	23.5	24.0	26.5	25.5	26.0
3	19.0	18.5	19.0	24.5	23.5	24.0	24.5	24.0	24.0	26.5	25.5	26.0
4	19.5	19.0	19.5	24.0	23.5	23.5	24.5	24.0	24.0	26.0	26.0	26.0
5	20.0	19.5	19.5	24.5	23.0	23.5	25.5	24.0	24.5	26.5	26.0	26.0
6	21.0	19.5	20.0	24.5	23.5	24.0	26.0	24.5	25.0	26.0	26.0	26.0
7	21.5	20.0	20.5	25.0	24.0	24.0	26.0	25.0	25.0	26.0	25.5	26.0
8	22.5	20.5	21.0	25.0	24.0	24.5	26.5	25.0	25.5	26.5	26.0	26.0
9	23.0	21.0	21.5	25.5	25.0	25.5	25.5	25.0	25.5	26.5	26.0	26.0
10	---	---	---	25.5	24.5	25.0	26.0	25.0	25.5	26.5	26.0	26.0
11	23.5	21.5	22.5	26.0	24.5	25.0	26.0	25.0	25.5	26.5	26.0	26.0
12	24.5	22.5	23.0	25.5	24.5	25.0	25.5	24.5	25.0	26.0	25.5	25.5
13	25.0	22.5	23.5	25.5	24.5	25.0	25.0	24.5	24.5	25.5	25.0	25.5
14	25.0	23.0	24.0	25.0	23.5	24.5	24.5	24.0	24.0	25.0	24.5	25.0
15	25.0	23.5	24.0	25.0	24.0	24.5	25.0	24.0	24.0	24.5	24.5	24.5
16	25.5	24.0	24.5	---	---	---	25.0	24.0	24.0	24.5	24.0	24.0
17	25.0	24.5	24.5	---	---	---	25.0	24.0	24.5	24.0	22.5	23.5
18	25.5	24.5	25.0	---	---	---	25.0	24.0	24.5	23.0	22.5	22.5
19	---	---	---	---	---	---	25.0	24.5	25.0	22.5	22.0	22.0
20	---	---	---	---	---	---	25.5	24.5	25.0	22.5	21.5	22.0
21	---	---	---	---	---	---	25.0	24.5	25.0	22.5	21.5	22.0
22	---	---	---	---	---	---	26.0	24.5	25.0	22.0	21.5	21.5
23	---	---	---	24.5	23.5	24.0	26.5	25.0	25.5	21.5	21.0	21.0
24	---	---	---	24.5	23.5	24.0	26.5	25.5	25.5	21.0	20.5	21.0
25	---	---	---	25.0	23.5	24.0	27.5	25.5	26.0	21.0	20.0	20.5
26	25.5	24.5	24.5	25.0	24.0	24.5	26.5	26.0	26.0	21.0	20.0	20.5
27	25.5	24.5	24.5	24.5	24.0	24.5	26.5	26.0	26.0	20.5	20.0	20.5
28	25.5	24.5	24.5	25.5	24.0	24.5	26.5	25.5	26.0	20.5	20.0	20.5
29	25.0	24.5	24.5	25.0	24.5	24.5	26.5	25.5	26.0	20.5	19.5	20.0
30	---	---	---	25.0	24.0	24.5	26.0	25.5	26.0	20.5	19.5	20.0
31	---	---	---	25.0	24.0	24.5	26.5	25.5	26.0	---	---	---
MONTH	25.5	18.0	22.3	26.0	23.0	24.4	27.5	23.5	25.0	26.5	19.5	23.6

DARBY CREEK BASIN

01475300 DARBY CREEK AT WATERLOO MILLS NEAR DEVON, PA

LOCATION.--Lat 40°01'21", long 75°25'20", Chester County, Hydrologic Unit 02040202, on left bank 125 ft upstream from bridge on Waterloo Road, 2 mi south of Devon, and 2.5 mi northwest of Newtown Square.

DRAINAGE AREA.--5.1 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1972 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 310 ft above sea level, from topographic map.

REMARKS.--Records good except those for estimated daily discharges and Jan. 20 to Aug. 13, which are fair. Several measurements of water temperature were made during the year.

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

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 21	1145	292	3.74	Apr. 1	2115	376	4.14
Nov. 11	2345	305	3.80	Apr. 16	0715	465	4.50
Jan. 19	1515	*1,150	*a5.99	July 13	1015	502	4.62
Jan. 27	1615	550	4.77	Aug. 13	0600	422	4.33
Feb. 20	2230	317	3.86	Sept. 17	0600	388	4.19
Mar. 19	2100	254	3.55				

a 6.03 ft from outside gage.

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	1.5	5.6	5.3	4.5	e9.0	7.4	72	13	5.6	6.6	6.3	4.6
2	1.6	9.3	5.0	10	e8.5	8.2	56	9.1	5.4	5.5	5.1	3.8
3	1.5	5.7	4.6	12	e7.5	7.6	14	11	5.6	6.6	5.6	4.1
4	1.6	4.9	4.5	e5.0	e7.0	7.0	13	9.1	6.1	13	4.8	3.8
5	e18	4.8	4.4	e4.2	e6.7	8.3	12	8.4	9.1	5.3	4.5	3.7
6	e11	4.6	5.0	e3.6	e6.5	17	11	15	5.5	4.6	4.2	4.4
7	e4.0	6.8	4.4	e3.2	e6.4	47	18	8.7	5.2	4.4	4.1	6.5
8	e3.0	7.0	4.2	e2.9	8.0	e12	14	10	5.0	14	4.0	4.8
9	e2.4	5.0	5.1	e2.7	14	e9.0	18	14	7.9	5.1	8.8	5.1
10	e2.2	4.6	4.7	e2.5	10	e8.0	19	9.3	7.0	4.3	5.3	3.7
11	e2.0	28	4.2	e2.5	10	e8.5	13	22	6.9	4.0	4.2	3.6
12	e1.9	40	4.0	e2.5	8.3	8.9	11	13	6.4	4.0	5.7	3.7
13	e2.0	6.5	4.0	e2.7	7.0	8.4	10	8.9	5.8	138	78	6.8
14	e10	26	4.4	e2.9	e6.5	8.1	9.9	8.5	4.9	9.8	8.1	4.7
15	e18	9.9	4.7	e3.4	e6.0	9.8	9.6	8.1	4.5	7.4	5.9	3.7
16	e5.5	6.6	7.8	e3.9	e5.5	8.0	89	11	4.2	6.5	12	7.2
17	e3.6	5.8	6.6	e4.2	e5.0	7.6	14	9.0	4.8	5.7	6.0	83
18	3.1	5.6	5.4	5.2	e5.0	7.4	12	8.4	5.3	5.5	5.1	10
19	2.8	6.1	6.0	284	6.3	35	11	8.0	37	31	5.8	5.5
20	3.8	5.2	5.3	23	40	24	11	7.6	12	7.3	4.7	4.8
21	60	5.0	4.6	11	38	10	10	7.2	20	5.7	4.6	4.5
22	7.0	4.8	4.6	9.5	12	8.9	10	6.9	5.8	5.5	4.6	37
23	4.9	4.6	4.4	8.5	10	8.2	11	6.8	5.1	6.2	4.4	6.6
24	3.9	5.8	4.4	34	9.8	7.9	11	6.6	4.8	5.4	18	5.5
25	3.7	4.8	4.4	14	8.6	7.9	9.5	6.3	4.9	5.0	4.9	5.1
26	3.6	4.6	4.3	9.1	8.2	7.5	9.4	6.4	4.2	8.2	4.6	4.8
27	4.4	4.5	4.2	154	8.1	7.4	8.8	6.8	4.1	5.1	4.4	4.7
28	35	4.4	4.0	19	8.5	9.0	8.3	6.8	4.0	4.6	4.3	5.9
29	5.4	6.2	4.0	13	7.6	58	9.5	8.9	4.0	4.8	4.4	13
30	4.6	5.2	4.0	12	---	11	34	6.5	32	11	4.1	5.1
31	4.4	---	4.1	10	---	9.5	---	6.0	---	8.2	4.1	---
TOTAL	236.4	247.9	146.6	679.0	294.0	402.5	559.0	287.3	243.1	358.3	250.6	269.7
MEAN	7.63	8.26	4.73	21.9	10.1	13.0	18.6	9.27	8.10	11.6	8.08	8.99
MAX	60	40	7.8	284	40	58	89	22	37	138	78	83
MIN	1.5	4.4	4.0	2.5	5.0	7.0	8.3	6.0	4.0	4.0	4.0	3.6
CFSM	1.48	1.60	.92	4.25	1.97	2.52	3.62	1.80	1.57	2.24	1.57	1.75
IN.	1.71	1.79	1.06	4.90	2.12	2.91	4.04	2.08	1.76	2.59	1.81	1.95

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1972 - 1996, BY WATER YEAR (WY)

	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
MEAN	5.21	7.99	9.53	10.8	10.2	13.1	12.5	10.4	8.55	7.00	5.29	5.92													
MAX	15.9	22.2	18.9	30.2	27.4	29.4	26.4	18.8	20.4	16.6	8.70	26.4													
(WY)	1980	1973	1974	1979	1979	1994	1983	1984	1982	1975	1978	1979													
MIN	2.34	2.90	1.92	1.71	5.52	4.15	3.67	4.46	2.50	2.67	1.57	1.62													
(WY)	1986	1981	1981	1981	1980	1985	1985	1995	1985	1985	1995	1980													

e Estimated.

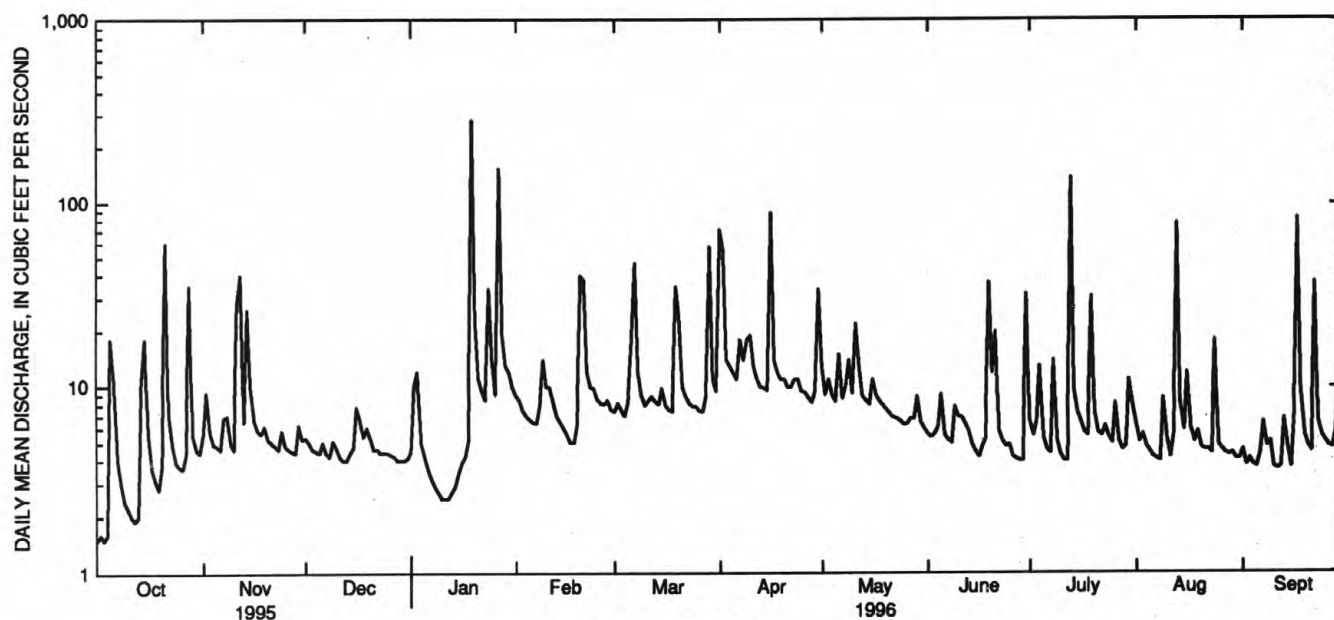
DARBY CREEK BASIN

01475300 DARBY CREEK AT WATERLOO MILLS NEAR DEVON, PA--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1972 - 1996	
ANNUAL TOTAL	1898.68		3974.4		8.82	
ANNUAL MEAN	5.20		10.9		14.3	
HIGHEST ANNUAL MEAN					1979	
LOWEST ANNUAL MEAN					1995	
HIGHEST DAILY MEAN	60	Oct 21	284	Jan 19	284	Jan 19 1996
LOWEST DAILY MEAN	.75	Sep 2,4,6	1.5	Oct 1,3	.75	Sep 2 1995
ANNUAL SEVEN-DAY MINIMUM	.79	Sep 2	b2.5	Oct 7	.79	Sep 2 1995
INSTANTANEOUS PEAK FLOW			c1150	Jan 19	c1800	Sep 6 1979
INSTANTANEOUS PEAK STAGE			a5.99	Jan 19	6.71	Sep 6 1979
INSTANTANEOUS LOW FLOW			1.2	Oct 1		
ANNUAL RUNOFF (CFSM)	1.01		2.11		1.71	
ANNUAL RUNOFF (INCHES)	13.71		28.71		23.26	
10 PERCENT EXCEEDS	7.0		16		15	
50 PERCENT EXCEEDS	4.2		6.3		5.8	
90 PERCENT EXCEEDS	1.5		4.0		2.4	

a 6.03 ft from outside gage.

b Computed using estimated daily discharges.

c From rating curve extended above 800 ft³/s.

1-YEAR HYDROGRAPH
OCTOBER 1, 1995 TO SEPTEMBER 30, 1996

DARBY CREEK BASIN

01475300 DARBY CREEK AT WATERLOO MILLS NEAR DEVON, PA--Continued

WATER QUALITY RECORDS

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

DATE	TIME	AGENCY COL- LECTING SAMPLE (CODE NUMBER) (00027)	AGENCY ANA- LYZING SAMPLE (CODE NUMBER) (00028)	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (μ S/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)
OCT 1995 19...	0945	1028	80020	3.0	301	7.5	11.5

DATE	OXYGEN, DIS- SOLVED (MG/L) (00300)	ALKA- LINITY WAT WH TOT IT FIELD MG/L AS CACO3 (00419)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	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)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)
OCT 1995 19...	10.0	63	27	0.010	1.30	<0.015	0.020

CRUM CREEK BASIN

01475850 CRUM CREEK NEAR NEWTOWN SQUARE, PA

LOCATION.--Lat 39°58'35", long 75°26'13", Delaware County, Hydrologic Unit 02040202, at Castle Rock bridge on State Highway 3, 0.6 mi upstream from Preston Run, 0.8 mi upstream from Springton Reservoir, and 2.0 mi west of Newtown Square.

DRAINAGE AREA.--15.8 mi².

PERIOD OF RECORD.--October 1981 to current year. Occasional low-flow measurements, water years 1932, 1949, 1970-1977, and annual maximum 1977-1981.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 207.75 ft above sea level.

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

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 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	1630	*1,860	*a8.76	June 19	1700	668	5.85
Jan. 27	1600	939	6.68	July 13	1300	819	6.33
Apr. 2	0030	946	6.70	Aug. 13	0830	710	5.99
Apr. 16	1000	986	6.81				

a 8.86 ft from outside gage.

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	4.0	16	14	14	e29	25	130	55	19	26	27	12
2	3.9	29	14	30	e26	27	204	33	18	20	19	12
3	3.8	19	12	51	e24	26	49	38	18	23	18	12
4	3.9	15	12	22	e23	23	42	34	19	35	18	12
5	55	13	11	16	e21	26	39	31	29	19	16	12
6	48	13	12	e12	e20	62	37	54	18	16	15	14
7	11	17	11	e10	e19	140	54	32	18	15	15	23
8	8.1	24	10	e9.5	27	e51	52	37	17	38	14	15
9	7.0	15	12	e9.0	56	e26	56	50	18	20	23	17
10	6.2	14	11	e8.5	39	e25	71	35	25	16	20	12
11	5.8	34	10	e8.0	38	e26	47	54	27	15	15	12
12	5.6	165	9.7	e8.0	32	32	39	63	27	15	17	12
13	5.7	26	9.6	e8.5	24	30	36	32	28	291	205	15
14	36	78	11	e9.5	24	28	34	29	18	39	29	15
15	59	43	12	e11	e21	35	33	27	16	27	21	12
16	13	21	23	e12	e19	29	257	38	15	25	34	14
17	9.6	17	24	e14	e17	26	54	33	15	20	23	181
18	8.4	16	19	17	e16	25	43	29	19	19	19	33
19	8.1	18	19	704	e16	68	39	27	143	84	17	19
20	8.7	15	e17	99	67	98	38	25	40	29	16	16
21	155	14	e14	41	151	36	36	23	75	21	16	15
22	27	13	e14	34	50	31	34	22	23	19	16	93
23	15	13	14	31	41	28	34	21	19	23	15	25
24	12	16	14	105	39	26	37	21	17	20	27	19
25	11	13	14	64	32	26	31	20	18	18	15	18
26	10	13	13	34	29	25	31	20	16	32	14	16
27	11	12	13	371	28	24	29	21	15	19	15	15
28	103	11	12	75	29	27	28	22	14	17	14	18
29	20	15	12	46	26	165	31	28	14	17	14	40
30	15	14	12	41	---	44	89	22	79	32	13	18
31	14	---	12	38	---	34	---	19	---	34	13	---
TOTAL	703.8	742	417.3	1953.0	983	1294	1734	995	837	1044	753	747
MEAN	22.7	24.7	13.5	63.0	33.9	41.7	57.8	32.1	27.9	33.7	24.3	24.9
MAX	155	165	24	704	151	165	257	63	143	291	205	181
MIN	3.8	11	9.6	8.0	16	23	28	19	14	15	13	12
CFSM	1.44	1.57	.85	3.99	2.15	2.64	3.66	2.03	1.77	2.13	1.54	1.58
IN.	1.66	1.75	.98	4.60	2.31	3.05	4.08	2.34	1.97	2.46	1.77	1.76

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1982 - 1996, BY WATER YEAR (WY)

	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
MEAN	13.2	20.9	23.2	26.7	27.7	35.9	34.3	26.4	19.8	17.2	13.2	13.0			
MAX	27.5	37.3	55.6	63.0	42.7	95.0	76.8	58.9	43.8	36.2	24.3	24.9			
(WY)	1990	1987	1984	1996	1984	1994	1983	1984	1982	1989	1996	1996			
MIN	8.57	7.98	10.3	7.45	17.1	11.7	9.45	13.7	5.85	6.99	3.93	6.42			
(WY)	1982	1982	1990	1985	1992	1985	1985	1995	1985	1985	1995	1986			

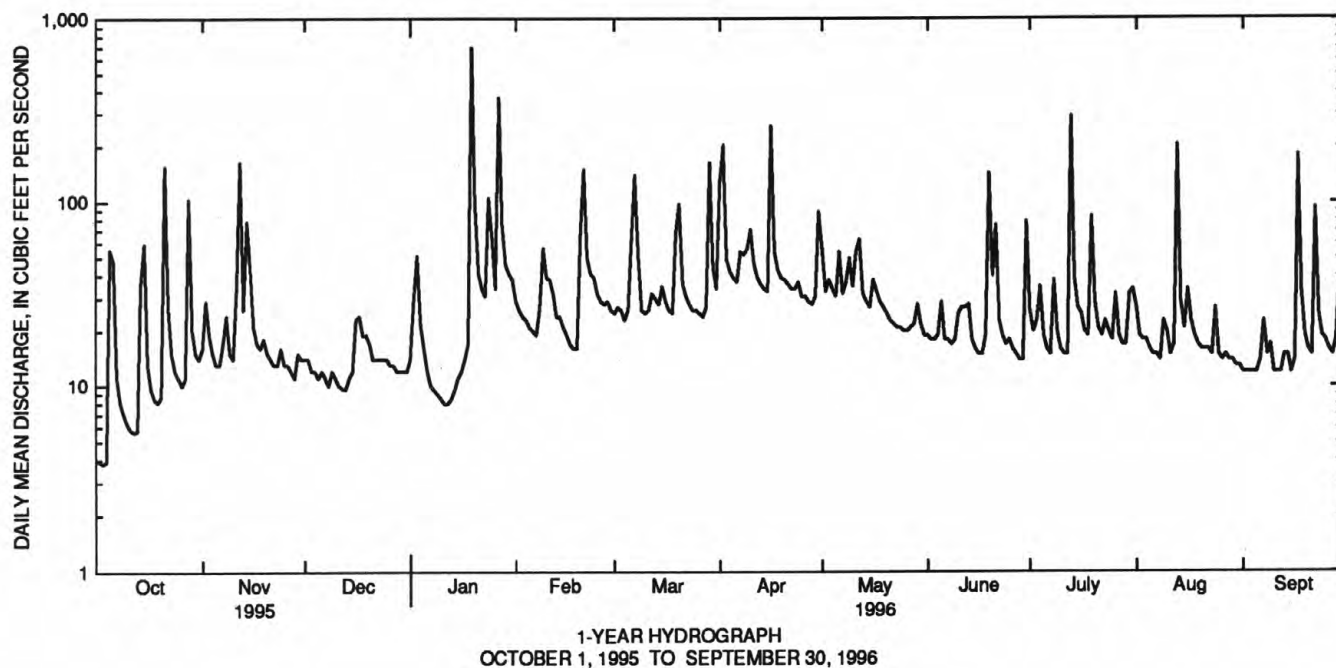
e Estimated.

CRUM CREEK BASIN

01475850 CRUM CREEK NEAR NEWTOWN SQUARE, PA--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR			FOR 1996 WATER YEAR			WATER YEARS 1982 - 1996	
ANNUAL TOTAL	5717.0			12203.1				
ANNUAL MEAN	15.7			33.3			22.6	
HIGHEST ANNUAL MEAN							34.7	
LOWEST ANNUAL MEAN							12.3	
HIGHEST DAILY MEAN	165	Mar	9	704	Jan	19	704	Jan 19 1996
LOWEST DAILY MEAN	2.4	Aug	23-26	3.8	Oct	3	.64	Aug 8 1991
ANNUAL SEVEN-DAY MINIMUM	2.5	Aug	20	7.1	Oct	7	2.4	Aug 2 1991
INSTANTANEOUS PEAK FLOW				b1860	Jan	19	b2210	Jan 28 1994
INSTANTANEOUS PEAK STAGE				a8.76	Jan	19	9.37	Jan 28 1994
INSTANTANEOUS LOW FLOW				3.7	Oct	1,3,4		
ANNUAL RUNOFF (CFSM)	.99			2.11			1.43	
ANNUAL RUNOFF (INCHES)	13.46			28.73			19.44	
10 PERCENT EXCEEDS	24			54			38	
50 PERCENT EXCEEDS	12			21			15	
90 PERCENT EXCEEDS	3.8			12			6.3	

a 8.86 ft from outside gage.

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

CHESTER CREEK BASIN

01477000 CHESTER CREEK NEAR CHESTER, PA

LOCATION.--Lat 39°52'08", long 75°24'31", Delaware County, Hydrologic Unit 02040202, on right bank 30 ft downstream from bridge on Dutton Mill Road, and 3.0 mi northwest of Chester.

DRAINAGE AREA.--61.1 mi².

PERIOD OF RECORD.--August 1931 to current year. Monthly discharges only for some periods, published in WSP 1302.

REVISED RECORDS.--WDR PA-72-1: 1971.

GAGE.--Water-stage recorder. Datum of gage is 23.41 ft above Penn Central Railroad datum. Prior to June 27, 1966, water-stage recorder at site 50 ft upstream, and June 28, 1966, to Oct. 4, 1967, nonrecording gage 150 ft upstream, all at same datum.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Diversion about 3 mi upstream into Ridley Creek basin by Philadelphia Suburban Water Company. Several measurements of water temperature were made during the year. Satellite telemetry at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,400 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 21	1400	1,660	6.81	Apr. 16	0830	1,740	6.95
Jan. 19	Unknown	Unknown	Unknown	July 13	1215	1,750	6.95
Jan. 27	1730	2,210	7.82	Aug. 13	0730	*a2,520	*a8.36
Apr. 1	2400	1,920	7.30				

a Exceeded on Jan. 19.

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	e25	63	67	e60	108	85	301	e170	95	117	404	62
2	e24	e110	66	e100	e100	91	736	e130	91	85	111	59
3	e24	e70	60	e180	e95	95	189	143	92	89	90	57
4	25	e55	59	e100	e90	81	145	123	96	80	84	57
5	89	e46	56	e65	e85	85	132	113	142	70	79	59
6	e200	46	59	e55	e80	172	124	257	96	64	74	67
7	e90	55	58	e46	e77	331	182	e125	91	60	75	84
8	e65	79	55	e40	100	276	183	192	85	136	81	67
9	e55	53	62	e36	203	e130	216	217	89	92	128	103
10	e46	48	66	e34	146	e97	310	144	155	66	148	63
11	e44	68	81	e32	121	e100	178	180	178	57	90	56
12	44	505	86	e32	110	115	138	280	215	55	88	57
13	42	94	64	e36	89	109	123	131	161	791	982	57
14	e140	266	60	e38	e82	100	116	113	104	194	168	69
15	e220	189	65	e42	e75	145	109	104	91	99	98	46
16	e70	93	e100	e48	e70	120	823	157	81	107	98	50
17	e44	74	e110	e50	e65	100	241	133	94	75	105	467
18	e37	70	e100	e62	e65	96	156	110	201	72	76	122
19	e36	78	e85	e3100	81	153	139	105	249	307	69	73
20	38	68	e80	e420	138	372	128	95	275	170	67	60
21	570	65	e65	168	581	132	122	90	439	86	67	53
22	159	61	e60	125	190	106	117	94	278	77	68	263
23	e75	59	e55	110	141	96	122	106	227	94	66	163
24	e55	76	e55	308	131	90	146	111	154	85	84	100
25	49	64	e55	270	110	88	111	104	129	79	73	86
26	45	60	e55	126	101	85	110	102	54	185	72	78
27	47	60	e53	832	96	81	112	109	52	104	70	75
28	534	60	e50	385	96	89	100	119	54	86	76	75
29	94	88	e48	165	89	500	112	142	57	82	71	176
30	65	77	e48	141	---	189	257	118	220	119	66	94
31	59	---	e50	130	---	125	---	100	---	358	63	---
TOTAL	3110	2800	2033	7336	3515	4434	5978	4217	4345	4141	3891	2898
MEAN	100	93.3	65.6	237	121	143	199	136	145	134	126	96.6
MAX	570	505	110	3100	581	500	823	280	439	791	982	467
MIN	24	46	48	32	65	81	100	90	52	55	63	46

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

MEAN	54.2	77.7	87.5	104	115	140	129	102	77.9	70.1	63.3	64.8
MAX	234	233	232	326	326	627	413	224	176	254	217	543
(WY)	1980	1951	1984	1979	1979	1994	1980	1983	1982	1975	1955	1971
MIN	13.7	18.2	24.3	23.4	41.4	53.1	41.9	34.8	28.3	17.4	13.7	10.4
(WY)	1942	1932	1932	1981	1932	1981	1963	1942	1966	1932	1966	1932

e Estimated.

CHESTER CREEK BASIN

01477000 CHESTER CREEK NEAR CHESTER, PA--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1932 - 1996	
ANNUAL TOTAL	23449		48698		90.3	
ANNUAL MEAN	64.2		133		168	
HIGHEST ANNUAL MEAN					39.3	
LOWEST ANNUAL MEAN					1979	
HIGHEST DAILY MEAN	717	Mar 9	e3100	Jan 19	6510	Sep 13 1971
LOWEST DAILY MEAN	10	Sep 3	e24	Oct 2,3	6.5	Sep 25 1941
ANNUAL SEVEN-DAY MINIMUM	12	Sep 1	c35	Jan 8	8.3	Sep 9 1932
INSTANTANEOUS PEAK FLOW			ab2520	Aug 13	b21000	Sep 13 1971
INSTANTANEOUS PEAK STAGE			a8.36	Aug 13	d24.59	Sep 13 1971
INSTANTANEOUS LOW FLOW			3.0	Oct 6	.30	Aug 7 1934
10 PERCENT EXCEEDS	90		220		153	
50 PERCENT EXCEEDS	55		91		60	
90 PERCENT EXCEEDS	22		53		27	

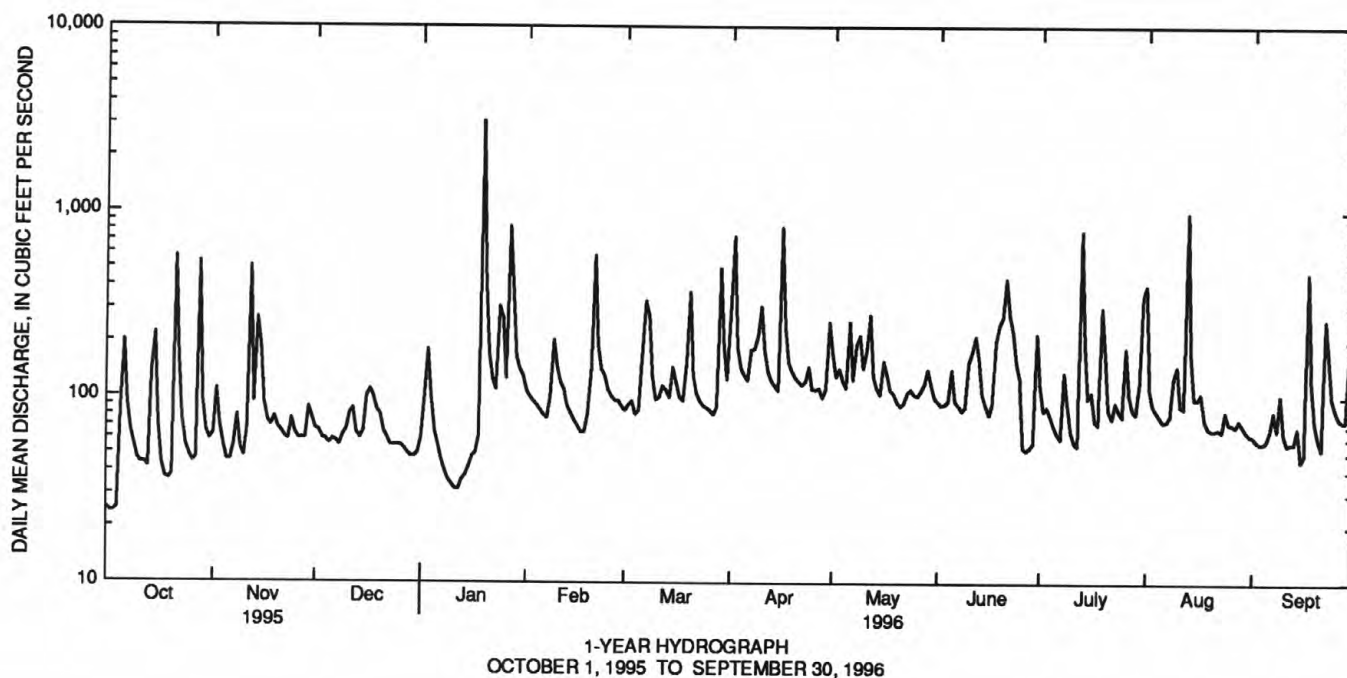
a Exceeded on Jan. 19.

b From rating curve extended above 2,400 ft³/s on basis on contracted-opening measurement at gage height 13.57 ft, and slope-area measurement of peak flow.

c Computed using estimated daily discharges.

d From floodmark.

e Estimated.



DELAWARE RIVER BASIN

01477050 DELAWARE RIVER AT CHESTER, PA

LOCATION.--Lat 39°50'33", long 75°21'28", Delaware County, Hydrologic Unit 02040202, in the pumping house of Scott Paper Company at Chester.

DRAINAGE AREA.--10,300 mi².

PERIOD OF RECORD.--December 1961 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1963 to current year.

pH: January 1968 to current year.

WATER TEMPERATURES: December 1961 to current year.

DISSOLVED OXYGEN: December 1961 to current year.

INSTRUMENTATION.--Water-quality monitor since December 1961. Probes interfaced with a data collection platform since the 1986 water year.

REMARKS.--Data collection discontinued during winter months. Prior to April 1981 sampling site located at auxiliary tidal-gaging station at the end of Reynolds Aluminum Company pier, 0.5 mi downstream from Chester Creek in Chester (latitude 39°50'12", longitude 75°22'00").

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 5,900 microsiemens, Oct. 7, 1965; minimum, 103 microsiemens, June 2, 1984, Apr. 9, 1987.

pH: Maximum, 8.7, Sept. 13, 14, 1971, Oct. 16, 1979; minimum, 5.5, Dec. 10, 11, 1969.

WATER TEMPERATURE: Maximum, 33.0°C, July 21, 1977; minimum, 0.0°C, many days during winter periods.

DISSOLVED OXYGEN: Maximum, 16.3 mg/L, Mar. 28, 1993; minimum, 0.0 mg/L, on many days.

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25° 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	2910	1410	1960	247	226	240	---	---	---	---	---	---
2	2880	1460	1970	255	219	233	---	---	---	---	---	---
3	3020	1530	2020	241	217	227	---	---	---	---	---	---
4	3020	1630	2120	240	220	227	---	---	---	---	---	---
5	2990	1130	1940	240	222	228	---	---	---	---	---	---
6	2590	1120	1770	244	224	231	---	---	---	---	---	---
7	2090	1010	1520	250	228	234	---	---	---	---	---	---
8	1890	974	1360	264	233	242	---	---	---	---	---	---
9	1620	927	1240	257	238	247	---	---	---	---	---	---
10	1640	904	1190	254	240	245	---	---	---	---	---	---
11	1540	872	1190	286	235	246	---	---	---	---	---	---
12	1440	860	1120	289	216	246	---	---	---	---	---	---
13	1490	837	1100	267	251	257	---	---	---	---	---	---
14	1530	872	1140	276	252	266	---	---	---	---	---	---
15	1010	526	800	263	244	251	---	---	---	---	---	---
16	822	527	662	263	243	252	---	---	---	---	---	---
17	783	493	629	259	235	242	---	---	---	---	---	---
18	867	530	691	250	224	234	---	---	---	---	---	---
19	875	540	685	239	210	218	---	---	---	---	---	---
20	941	553	708	232	206	213	---	---	---	---	---	---
21	962	440	708	225	203	211	---	---	---	---	---	---
22	639	390	465	229	206	212	---	---	---	---	---	---
23	436	332	381	224	203	210	---	---	---	---	---	---
24	355	301	320	241	205	213	---	---	---	---	---	---
25	309	282	294	228	207	213	---	---	---	---	---	---
26	291	281	288	228	209	215	---	---	---	---	---	---
27	295	275	288	233	207	216	---	---	---	---	---	---
28	294	233	266	246	213	220	---	---	---	---	---	---
29	263	249	255	247	214	222	---	---	---	---	---	---
30	275	247	255	263	219	232	---	---	---	---	---	---
31	252	236	248	---	---	---	---	---	---	---	---	---
MONTH	3020	233	954	289	203	231	---	---	---	---	---	---

DELAWARE RIVER BASIN

01477050 DELAWARE RIVER AT CHESTER, PA--Continued

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25° CELSIUS, 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	---	---	---	---	---	---	---	---	---	---	---	---
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
JUNE			JULY			AUGUST			SEPTEMBER			
1	---	---	---	249	236	244	215	183	200	296	280	285
2	---	---	---	254	241	246	223	205	213	294	284	288
3	---	---	---	264	245	249	231	213	221	306	284	297
4	---	---	---	265	246	252	231	223	227	306	293	301
5	---	---	---	264	251	256	238	224	229	306	292	301
6	---	---	---	266	253	259	238	217	228	319	293	304
7	---	---	---	272	257	262	237	218	225	321	298	310
8	---	---	---	270	254	261	236	220	227	325	298	312
9	---	---	---	268	254	260	236	221	228	328	300	316
10	---	---	---	273	257	263	241	229	232	332	310	323
11	284	255	265	271	261	265	234	228	231	333	314	323
12	274	253	266	283	261	268	240	225	231	332	317	326
13	286	263	274	266	223	250	234	202	219	345	324	334
14	298	271	284	276	230	258	240	219	229	343	327	336
15	305	283	289	274	260	269	255	232	239	348	331	340
16	302	284	290	264	226	250	265	238	249	355	329	345
17	302	286	291	250	223	238	262	245	251	349	275	321
18	298	282	288	256	228	237	261	247	252	321	293	313
19	291	274	284	242	213	228	265	250	254	331	315	326
20	281	267	276	227	205	214	267	250	255	337	323	330
21	282	236	270	219	204	212	264	251	255	338	322	330
22	281	268	277	220	206	212	270	250	256	336	290	324
23	282	267	276	227	202	213	270	251	256	327	299	317
24	275	257	267	224	206	213	277	254	261	326	310	318
25	268	251	261	222	205	212	271	258	262	324	312	318
26	258	241	252	229	202	211	272	257	264	325	317	321
27	255	239	250	217	202	208	281	261	268	331	319	325
28	253	237	249	216	202	206	287	265	275	330	319	326
29	259	241	252	217	202	208	290	274	280	329	310	319
30	263	240	252	227	204	210	297	279	287	320	308	314
31	---	---	---	247	179	211	299	283	289	---	---	---
MONTH	305	236	271	283	179	237	299	183	245	355	275	318

DELAWARE RIVER BASIN

01477050 DELAWARE RIVER AT CHESTER, PA--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	7.0	7.1	7.3	7.2	7.2
2	---	---	---	---	---	---	7.1	7.0	7.1	7.3	7.1	7.2
3	---	---	---	---	---	---	7.1	7.1	7.1	7.2	7.1	7.1
4	---	---	---	---	---	---	7.1	7.0	7.1	7.2	7.1	7.1
5	---	---	---	---	---	---	7.2	7.1	7.1	7.1	7.0	7.1
6	---	---	---	---	---	---	7.2	7.1	7.1	7.1	7.0	7.0
7	---	---	---	---	---	---	7.3	7.1	7.2	7.1	7.0	7.1
8	---	---	---	---	---	---	7.4	7.2	7.3	7.1	7.0	7.1
9	---	---	---	---	---	---	7.3	7.2	7.3	7.1	6.8	7.0
10	---	---	---	---	---	---	7.4	7.2	7.3	6.9	6.8	6.9
11	---	---	---	---	---	---	7.4	7.2	7.3	7.0	6.8	6.9
12	---	---	---	---	---	---	7.3	7.1	7.2	7.0	6.9	7.0
13	---	---	---	---	---	---	7.1	7.0	7.1	7.0	7.0	7.0
14	---	---	---	---	---	---	7.1	7.0	7.0	7.0	6.9	7.0
15	---	---	---	---	---	---	7.1	7.0	7.1	7.1	6.9	7.0
16	---	---	---	---	---	---	7.1	7.0	7.1	7.1	6.9	7.0
17	---	---	---	7.0	6.9	7.0	7.2	7.0	7.1	7.1	7.0	7.1
18	---	---	---	7.0	6.9	7.0	7.2	7.0	7.0	7.0	6.9	7.0
19	---	---	---	7.1	7.0	7.0	7.1	7.0	7.0	7.1	6.9	7.0
20	---	---	---	7.1	7.0	7.0	7.2	7.0	7.1	7.1	7.0	7.0
21	---	---	---	7.1	7.0	7.1	7.1	7.0	7.1	7.1	7.0	7.0
22	---	---	---	7.1	7.0	7.1	7.2	7.0	7.1	7.1	7.0	7.1
23	---	---	---	7.2	7.0	7.1	7.1	7.0	7.0	7.1	7.0	7.1
24	---	---	---	7.2	7.0	7.1	7.0	6.8	6.9	7.1	7.0	7.1
25	---	---	---	7.2	7.1	7.1	7.2	6.8	7.0	7.1	6.9	7.1
26	---	---	---	7.2	7.1	7.1	7.2	7.0	7.1	7.2	7.0	7.1
27	---	---	---	7.2	7.0	7.1	7.1	7.0	7.1	7.2	7.0	7.1
28	---	---	---	7.2	7.1	7.1	7.4	7.0	7.2	7.3	7.0	7.1
29	---	---	---	7.2	7.1	7.1	7.4	7.3	7.3	7.2	7.1	7.2
30	---	---	---	7.2	7.1	7.1	7.3	7.1	7.3	7.2	7.0	7.1
31	---	---	---	7.2	7.1	7.1	7.3	7.2	7.2	---	---	---
MONTH	---	---	---	7.2	6.9	7.1	7.4	6.8	7.1	7.3	6.8	7.1

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	20.5	20.0	20.5	15.0	14.5	15.0	---	---	---	---	---	---
2	21.0	20.0	20.5	15.5	14.5	15.0	---	---	---	---	---	---
3	21.0	20.5	20.5	15.5	15.0	15.0	---	---	---	---	---	---
4	21.5	20.5	21.0	15.0	13.5	14.0	---	---	---	---	---	---
5	21.0	20.0	21.0	13.5	12.5	13.0	---	---	---	---	---	---
6	22.0	20.5	21.0	13.0	12.0	12.5	---	---	---	---	---	---
7	21.5	21.0	21.0	12.5	12.0	12.5	---	---	---	---	---	---
8	21.0	20.5	21.0	12.5	10.5	12.0	---	---	---	---	---	---
9	21.0	20.5	20.5	11.5	10.5	11.0	---	---	---	---	---	---
10	21.0	20.5	20.5	11.0	10.5	11.0	---	---	---	---	---	---
11	21.0	20.5	20.5	11.5	10.5	11.0	---	---	---	---	---	---
12	21.0	20.5	21.0	11.0	9.5	10.5	---	---	---	---	---	---
13	21.5	20.5	21.0	10.5	9.0	10.0	---	---	---	---	---	---
14	21.0	20.5	21.0	10.0	9.0	10.0	---	---	---	---	---	---
15	20.5	19.0	20.0	10.0	8.5	9.0	---	---	---	---	---	---
16	19.5	18.0	19.0	8.5	7.5	8.0	---	---	---	---	---	---
17	19.0	18.0	18.5	8.0	7.0	7.5	---	---	---	---	---	---
18	19.0	18.0	18.5	7.5	7.0	7.5	---	---	---	---	---	---
19	19.0	18.0	18.5	7.5	7.0	7.5	---	---	---	---	---	---
20	19.0	18.0	18.5	7.5	7.0	7.5	---	---	---	---	---	---
21	19.0	17.0	18.5	7.5	7.0	7.5	---	---	---	---	---	---
22	18.0	16.5	17.5	7.0	6.5	7.0	---	---	---	---	---	---
23	17.5	16.5	17.5	6.5	6.0	6.5	---	---	---	---	---	---
24	18.0	17.0	17.5	6.5	6.5	6.5	---	---	---	---	---	---
25	17.5	16.5	17.0	6.5	6.0	6.5	---	---	---	---	---	---
26	17.0	16.0	16.5	6.5	6.0	6.5	---	---	---	---	---	---
27	16.5	16.0	16.5	7.0	6.5	6.5	---	---	---	---	---	---
28	16.5	16.0	16.5	7.5	7.0	7.0	---	---	---	---	---	---
29	16.0	15.0	15.5	7.5	6.5	7.0	---	---	---	---	---	---
30	15.0	14.0	14.5	7.0	6.5	6.5	---	---	---	---	---	---
31	15.0	14.5	14.5	---	---	---	---	---	---	---	---	---
MONTH	22.0	14.0	18.9	15.5	6.0	9.6	---	---	---	---	---	---

DELAWARE RIVER BASIN

01477050 DELAWARE RIVER AT CHESTER, PA--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
	FEBRUARY			MARCH			APRIL			MAY		
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
	JUNE			JULY			AUGUST			SEPTEMBER		
1	---	---	---	25.0	24.0	24.5	25.0	24.0	24.5	27.0	26.5	27.0
2	---	---	---	25.5	24.5	25.0	25.5	24.5	25.0	27.0	26.5	26.5
3	---	---	---	25.5	24.5	25.0	25.5	25.0	25.0	27.5	26.5	27.0
4	---	---	---	25.0	24.0	24.5	25.5	25.0	25.5	27.0	26.5	27.0
5	---	---	---	25.0	24.0	24.5	26.5	25.0	25.5	27.5	26.5	27.0
6	---	---	---	25.5	24.0	24.5	27.0	25.5	26.0	27.0	26.5	26.5
7	---	---	---	26.0	24.5	25.0	27.5	26.0	26.5	27.0	26.0	26.5
8	---	---	---	26.0	25.0	25.5	27.5	26.0	26.5	27.5	26.5	27.0
9	---	---	---	27.0	25.0	26.0	26.5	26.0	26.5	27.5	26.0	27.0
10	---	---	---	26.5	25.5	26.0	27.0	25.5	26.5	27.5	26.5	27.0
11	23.5	22.5	23.0	26.5	25.0	25.5	26.5	25.5	26.0	27.5	26.5	27.0
12	24.0	22.5	23.5	26.0	25.5	25.5	26.0	25.5	25.5	26.5	26.0	26.5
13	24.5	23.0	23.5	25.5	24.0	25.0	25.5	22.5	24.5	26.0	25.5	26.0
14	25.0	23.5	24.0	26.0	24.0	25.0	25.0	23.5	24.5	25.5	24.5	25.5
15	25.0	24.0	24.5	26.0	25.5	25.5	25.5	24.5	25.0	25.0	24.5	25.0
16	25.5	24.5	25.0	26.0	25.5	25.5	25.5	25.0	25.0	24.5	24.0	24.5
17	25.5	25.0	25.5	26.5	25.5	26.0	26.0	25.0	25.5	24.0	22.0	23.5
18	25.5	25.0	25.5	26.5	26.0	26.0	26.0	25.0	25.5	23.0	22.0	23.0
19	25.5	24.5	25.0	26.5	24.5	26.0	26.5	25.0	26.0	23.5	22.5	23.0
20	25.5	23.5	24.5	25.5	25.0	25.5	26.5	25.5	26.0	23.0	22.5	23.0
21	26.0	25.0	25.5	25.5	24.5	25.0	26.0	25.5	26.0	23.0	22.0	22.5
22	26.0	25.0	25.5	25.0	24.5	24.5	27.0	26.0	26.5	22.5	20.5	22.0
23	26.5	25.5	26.0	24.5	24.0	24.5	27.5	26.0	26.5	22.5	21.0	22.0
24	26.5	25.5	26.0	25.5	24.0	24.5	27.5	26.5	27.0	22.0	21.0	21.5
25	26.5	25.5	26.0	26.0	24.5	25.0	27.5	26.0	27.0	22.0	21.0	21.5
26	26.5	25.0	25.5	26.0	25.0	25.5	27.5	26.5	27.0	21.5	21.0	21.0
27	26.5	25.0	25.5	25.5	24.5	25.0	27.5	26.5	27.0	21.5	21.0	21.0
28	26.5	25.0	25.5	26.0	24.5	25.5	27.0	26.5	27.0	21.5	21.0	21.5
29	25.5	25.0	25.5	25.5	25.0	25.5	27.0	26.5	27.0	21.5	20.0	21.0
30	25.5	23.0	24.5	25.0	24.5	25.0	27.0	26.5	27.0	21.5	20.5	21.0
31	---	---	---	25.0	23.5	24.5	27.5	26.5	27.0	---	---	---
MONTH	26.5	22.5	25.0	27.0	23.5	25.2	27.5	22.5	26.0	27.5	20.0	24.3

DELAWARE RIVER BASIN

01477050 DELAWARE RIVER AT CHESTER, PA--Continued

OXYGEN DISSOLVED (MG/L), 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	---	---	---	6.1	5.3	5.8	---	---	---	6.7	5.7	6.1
2	---	---	---	5.5	4.5	5.0	---	---	---	6.8	5.6	6.1
3	---	---	---	4.7	4.1	4.4	---	---	---	6.8	5.6	6.1
4	---	---	---	4.7	4.0	4.4	---	---	---	6.2	5.4	5.8
5	---	---	---	5.0	4.2	4.5	---	---	---	6.5	5.3	5.7
6	---	---	---	5.2	4.5	4.8	---	---	---	6.2	5.5	5.8
7	---	---	---	5.3	4.7	4.9	---	---	---	6.5	5.6	6.0
8	---	---	---	5.6	4.6	4.9	---	---	---	6.0	5.2	5.5
9	---	---	---	5.2	4.6	4.9	---	---	---	5.7	5.0	5.3
10	---	---	---	5.4	4.5	4.9	---	---	---	5.3	4.4	4.9
11	7.5	6.9	7.2	6.0	4.7	5.3	---	---	---	5.4	4.3	4.7
12	7.1	6.4	6.8	6.1	5.0	5.6	---	---	---	5.1	4.3	4.7
13	6.6	6.0	6.3	6.3	5.6	6.0	---	---	---	5.4	4.9	5.2
14	6.2	5.7	5.9	6.2	5.3	5.7	---	---	---	5.5	4.7	5.1
15	5.9	5.1	5.6	6.0	5.0	5.5	---	---	---	5.7	4.9	5.4
16	6.1	5.1	5.5	6.5	5.4	5.9	---	---	---	6.2	5.2	5.6
17	6.0	5.2	5.6	6.4	5.4	5.9	---	---	---	6.6	5.6	6.1
18	5.9	5.2	5.5	6.5	5.4	5.8	---	---	---	5.9	5.2	5.7
19	5.8	5.4	5.5	7.1	5.8	6.3	---	---	---	5.9	5.2	5.5
20	6.0	4.7	5.3	7.2	6.1	6.6	---	---	---	5.9	5.4	5.7
21	5.4	4.3	4.7	7.5	6.2	6.9	---	---	---	6.3	5.5	5.7
22	5.0	4.1	4.5	7.0	5.8	6.4	---	---	---	7.2	5.6	6.0
23	5.4	4.1	4.6	7.4	5.2	6.0	---	---	---	6.7	5.9	6.2
24	5.6	4.3	4.9	6.7	5.2	6.0	---	---	---	6.3	5.9	6.1
25	5.9	4.9	5.2	7.0	5.9	6.6	---	---	---	6.4	5.7	6.1
26	8.2	5.1	6.1	7.4	6.0	6.8	---	---	---	6.4	5.7	6.1
27	7.0	5.5	6.2	6.6	5.6	6.2	---	---	---	6.8	5.9	6.2
28	7.1	5.8	6.3	6.8	4.7	6.1	---	---	---	7.2	6.0	6.7
29	7.0	5.9	6.4	---	---	---	6.7	5.4	6.1	7.1	6.4	6.6
30	6.5	6.1	6.4	---	---	---	6.7	5.6	6.3	6.6	6.0	6.3
31	---	---	---	---	---	---	6.6	5.5	6.2	---	---	---
MONTH	8.2	4.1	5.7	7.5	4.0	5.6	6.7	5.4	6.2	7.2	4.3	5.8

CHRISTINA RIVER BASIN

01479820 RED CLAY CREEK NEAR KENNETT SQUARE, PA

LOCATION.--Lat 39°49'00", long 75°41'31", Chester County, Hydrologic Unit 02040205, on left bank along SR 82 (Creek Road), and 3.0 mi south of the intersection of SR 82 and U.S. Highway 1 at Kennett Square.

DRAINAGE AREA.--28.3 mi².

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

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 200 ft above sea level, from topographic map.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Some regulation upstream of gage. Several measurements of water temperature were made during the year.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than a 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	*3,760	*a9.22	June 19	1715	1,070	5.96
Jan. 27	Unknown	1,200	b6.14	July 13	0900	1,260	6.24
Apr. 16	0745	1,300	6.30	July 31	2345	1,240	6.21
June 11	1745	1,470	6.55	Aug. 13	0645	1,660	6.83

a From outside gage; peak may have been higher.

b From outside gage.

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	8.4	27	23	e18	40	34	167	57	32	41	185	25
2	8.4	43	22	e38	e36	37	150	44	31	34	46	25
3	8.3	35	20	e110	e34	36	57	50	31	34	40	25
4	8.4	28	20	e32	e33	33	50	45	33	31	37	25
5	55	25	20	e24	e33	36	47	44	54	29	35	24
6	169	23	20	e19	e34	53	45	78	32	27	33	26
7	24	24	e19	e15	35	125	59	48	31	26	32	32
8	18	39	e18	e20	38	64	53	63	30	37	31	25
9	16	27	e20	e27	98	44	64	67	34	30	45	26
10	16	25	e21	e28	53	41	72	51	41	26	41	25
11	15	24	e17	e30	49	41	52	83	286	25	32	25
12	15	260	e16	e34	42	40	48	79	75	25	34	26
13	15	50	e16	e42	35	39	45	49	53	371	509	30
14	52	106	e18	e38	e32	37	44	45	37	52	57	30
15	67	110	e19	e34	e33	53	43	43	33	39	44	24
16	25	45	e46	e32	e32	42	337	57	30	38	40	32
17	20	32	e40	e32	e31	37	69	49	108	31	38	154
18	19	29	e27	e30	e31	37	54	44	64	30	36	47
19	18	31	e29	e1200	32	87	50	42	236	69	34	36
20	18	27	e30	e190	68	112	49	39	68	37	32	33
21	158	23	e23	e55	112	50	46	37	48	30	33	32
22	43	21	e22	e48	58	43	44	37	38	30	33	177
23	28	21	e21	e40	51	40	45	35	35	36	31	48
24	24	27	e20	e120	47	38	47	34	33	31	30	38
25	22	22	e19	e75	41	38	42	33	33	29	29	36
26	21	20	e19	e46	39	37	42	33	30	46	28	34
27	21	20	e18	e340	38	35	44	38	29	30	32	34
28	124	20	e17	e110	37	41	39	42	28	27	33	40
29	36	30	e17	e55	34	196	44	47	28	34	28	70
30	28	25	e17	e50	---	61	68	38	78	69	27	38
31	26	---	e17	46	---	49	---	34	---	229	26	---
TOTAL	1126.5	1239	671	2978	1276	1656	2016	1485	1719	1623	1711	1242
MEAN	36.3	41.3	21.6	96.1	44.0	53.4	67.2	47.9	57.3	52.4	55.2	41.4
MAX	169	260	46	1200	112	196	337	83	286	371	509	177
MIN	8.3	20	16	15	31	33	39	33	28	25	26	24
CFSM	1.28	1.46	.76	3.39	1.55	1.89	2.37	1.69	2.02	1.85	1.95	1.46
IN.	1.48	1.63	.88	3.91	1.68	2.17	2.65	1.95	2.26	2.13	2.25	1.63

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

	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
MEAN	26.3	33.6	35.4	51.1	43.8	58.2	47.9	45.3	34.4	32.0	25.4	28.6
MAX	55.3	44.8	67.4	96.1	81.2	116	85.5	79.2	57.3	94.5	55.2	66.8
(WY)	1990	1989	1994	1996	1994	1994	1993	1989	1996	1989	1996	1993
MIN	10.8	17.7	20.0	22.0	24.9	34.0	24.9	25.6	16.0	12.0	5.84	8.83
(WY)	1995	1995	1989	1992	1995	1990	1992	1995	1995	1995	1995	1995

e Estimated.

CHRISTINA RIVER BASIN

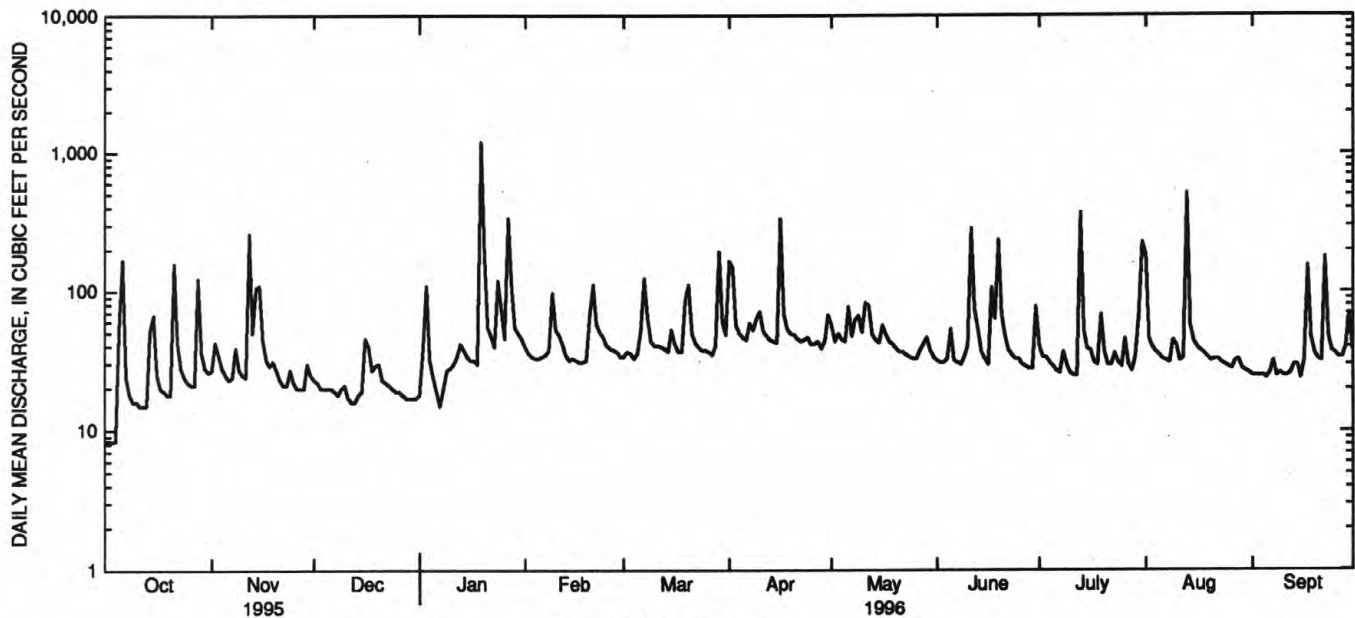
01479820 RED CLAY CREEK NEAR KENNETT SQUARE, PA--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1988 - 1996	
ANNUAL TOTAL	9305.83		18742.5		38.9	
ANNUAL MEAN	25.5		51.2		51.2	
HIGHEST ANNUAL MEAN					21.4	
LOWEST ANNUAL MEAN					1995	
HIGHEST DAILY MEAN	358	Mar 8	e1200	Jan 19	e1200	Jan 19 1996
LOWEST DAILY MEAN	.86	Sep 3,4	8.3	Oct 3	.86	Sep 3 1995
ANNUAL SEVEN-DAY MINIMUM	1.1	Sep 2	17	Oct 7	1.1	Sep 2 1995
INSTANTANEOUS PEAK FLOW			b3760	Jan 19	b3760	Jan 19 1996
INSTANTANEOUS PEAK STAGE			a9.22	Jan 19	a9.22	Jan 19 1996
ANNUAL RUNOFF (CFSM)	.90		1.81		1.37	
ANNUAL RUNOFF (INCHES)	12.22		24.61		18.65	
10 PERCENT EXCEEDS	37		73		59	
50 PERCENT EXCEEDS	21		35		28	
90 PERCENT EXCEEDS	4.0		20		13	

a From outside gage; peak may have been higher.

b From rating curve extended above 2,100 ft³/s.

e Estimated.



1-YEAR HYDROGRAPH
OCTOBER 1, 1995 TO SEPTEMBER 30, 1996

CHRISTINA RIVER BASIN

01480300 WEST BRANCH BRANDYWINE CREEK NEAR HONEY BROOK, PA

LOCATION.--Lat 40°04'22", long 75°51'40", Chester County, Hydrologic Unit 02040205, on right bank on upstream side of bridge on SR 4007 at Birdell, 0.4 mi downstream from Two Log Run, and 3.0 mi southeast of Honey Brook.

DRAINAGE AREA.--18.7 mi².

PERIOD OF RECORD.--June 1960 to current year:

REVISÉD RECORDS.--WDR PA-73-1: 1972 (P) .

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 591.20 ft above sea level.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Several measurements of water temperature were made during the year. Satellite telemetry at station.

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

<u>Date</u>	<u>Time</u>	<u>Discharge</u> <u>(ft³/s)</u>	<u>Gage height</u> <u>(ft)</u>	<u>Date</u>	<u>Time</u>	<u>Discharge</u> <u>(ft³/s)</u>	<u>Gage height</u> <u>(ft)</u>
Oct. 21	1630	1,020	7.16	Mar. 7	1800	567	5.92
Nov. 12	0300	1,180	7.44	Mar. 20	0200	940	7.00
Jan. 19	1600	*8,920	*11.62	Apr. 16	0730	1,150	7.38
Jan. 24	2130	731	6.45	June 17	2030	4,780	10.28
Jan. 27	1500	1,030	7.17	June 19	1900	1,270	7.58

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	4.4	20	17	13	25	21	36	52	17	25	30	9.8
2	4.6	47	17	27	24	22	132	32	17	21	21	9.8
3	4.3	26	16	53	e21	22	43	30	16	22	19	9.9
4	4.7	17	15	26	e17	18	37	31	17	21	18	10
5	56	15	15	17	e15	24	34	29	30	18	17	10
6	40	14	18	e14	e14	71	33	47	18	17	15	12
7	11	17	15	e11	e15	225	38	36	16	16	14	34
8	7.9	31	14	e10	15	55	52	31	16	23	13	13
9	7.5	17	15	e11	71	33	40	34	15	19	28	12
10	7.3	15	e13	e12	33	29	49	34	17	19	21	11
11	7.2	40	e12	e11	45	30	46	35	26	16	15	11
12	7.9	406	13	e12	32	33	39	88	26	16	16	11
13	6.6	36	13	e12	24	32	35	35	23	185	122	12
14	24	206	14	e12	22	29	32	28	18	37	25	12
15	83	163	16	e11	23	32	30	24	16	23	19	10
16	13	37	22	e11	21	28	483	28	15	21	21	11
17	9.5	26	24	e12	20	24	63	27	704	19	17	120
18	8.6	22	19	17	19	23	42	23	247	18	15	40
19	8.1	21	18	2210	19	55	36	22	315	106	14	20
20	8.0	20	e17	406	42	290	33	20	94	26	14	17
21	289	19	e15	263	141	46	30	20	36	19	14	15
22	39	17	e14	263	65	35	29	19	26	18	13	76
23	17	16	15	262	50	30	29	19	24	19	13	26
24	14	20	15	367	46	27	34	18	21	18	16	19
25	12	17	15	237	31	27	30	17	23	16	13	19
26	12	17	14	126	26	26	28	17	20	27	12	16
27	11	17	14	503	25	25	30	18	19	19	11	16
28	130	16	14	91	30	27	27	21	18	16	12	32
29	23	19	14	37	23	155	26	31	18	16	11	155
30	16	19	12	33	---	52	36	22	45	56	11	25
31	15	---	12	e29	---	35	---	19	---	40	10	---
TOTAL	901.6	1373	477	5119	954	1581	1632	907	1913	932	610	794.5
MEAN	29.1	45.8	15.4	165	32.9	51.0	54.4	29.3	63.8	30.1	19.7	26.5
MAX	289	406	24	2210	141	290	483	88	704	185	122	155
MIN	4.3	14	12	10	14	18	26	17	15	16	10	9.8
CFSM	1.56	2.45	.82	8.83	1.76	2.73	2.91	1.56	3.41	1.61	1.05	1.42
IN.	1.79	2.73	.95	10.18	1.90	3.15	3.25	1.80	3.81	1.85	1.21	1.55

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1960 - 1996, BY WATER YEAR (WY)

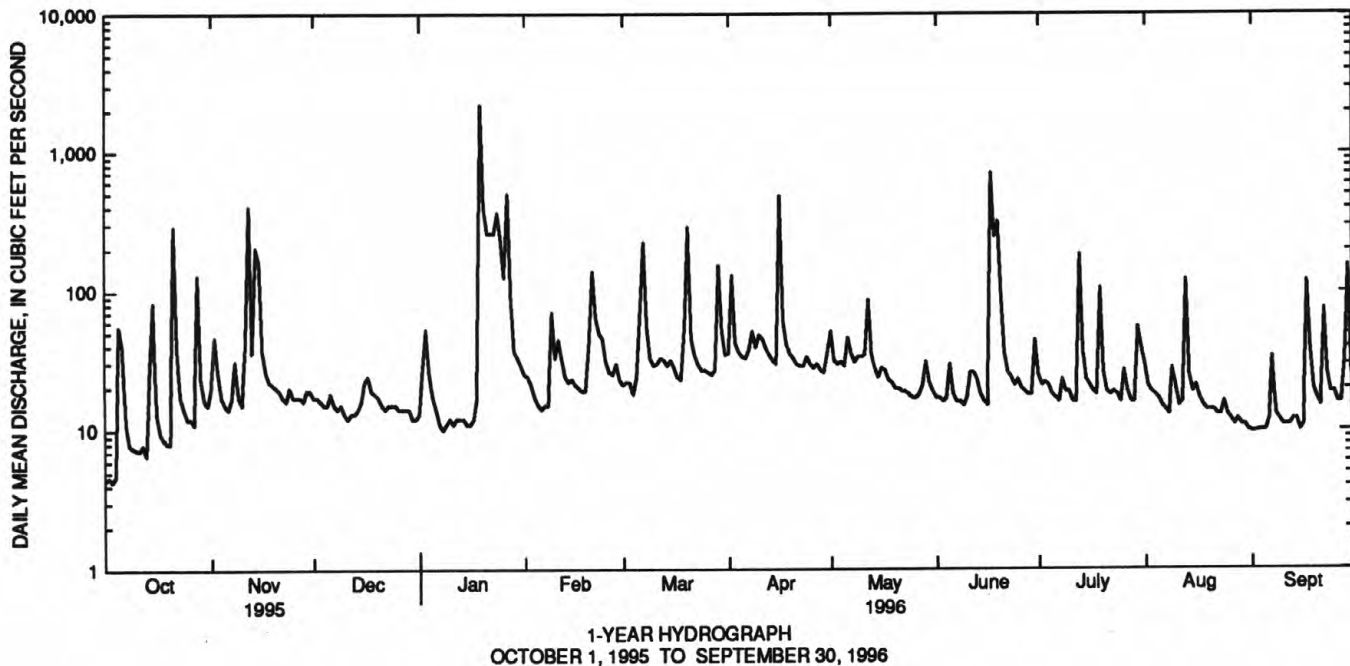
MEAN	15.9	24.8	28.1	36.4	37.8	41.5	33.4	26.2	23.9	21.7	13.1	16.5
MAX	50.9	58.6	84.3	165	85.1	110	83.8	74.6	134	106	25.8	63.1
(WY)	1977	1973	1984	1996	1979	1994	1983	1989	1972	1984	1990	1960
MIN	5.74	7.35	8.23	7.03	14.3	15.3	11.7	8.84	6.46	3.79	3.31	3.62
(WY)	1965	1982	1981	1981	1969	1981	1963	1963	1963	1963	1963	1964

e Estimated.

CHRISTINA RIVER BASIN

01480300 WEST BRANCH BRANDYWINE CREEK NEAR HONEY BROOK, PA--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1960 - 1996	
ANNUAL TOTAL	7489.9		17194.1		26.5	
ANNUAL MEAN	20.5		47.0		47.0	
HIGHEST ANNUAL MEAN					12.8	
LOWEST ANNUAL MEAN					1996	
HIGHEST DAILY MEAN	406	Nov 12	2210	Jan 19	2520	Jun 22 1972
LOWEST DAILY MEAN	2.8	Sep 8	4.3	Oct 3	1.7	Aug 19 1963
ANNUAL SEVEN-DAY MINIMUM	3.3	Sep 7	7.9	Oct 7	2.1	Sep 7 1966
INSTANTANEOUS PEAK FLOW			a8920	Jan 19	a8920	Jan 19 1996
INSTANTANEOUS PEAK STAGE			11.62	Jan 19	11.62	Jan 19 1996
INSTANTANEOUS LOW FLOW			3.9	Oct 2-4	1.7	Aug 15 1963
ANNUAL RUNOFF (CFSM)	1.10		2.51		1.42	
ANNUAL RUNOFF (INCHES)	14.90		34.20		19.23	
10 PERCENT EXCEEDS	27		64		41	
50 PERCENT EXCEEDS	13		21		15	
90 PERCENT EXCEEDS	4.9		12		7.0	

a From rating curve extended above 8,200 ft³/s.

CHRISTINA RIVER BASIN

01480400 BIRCH RUN NEAR WAGONTOWN, PA

LOCATION.--Lat 40°01'38", long 75°50'43", Chester County, Hydrologic Unit 02040205, on right bank 15 ft upstream from SR 4005, 0.2 mi downstream from Hibernia Reservoir, 1.0 mi upstream of mouth, and 2.0 mi northwest of Wagontown.

DRAINAGE AREA.--4.55 mi².

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

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Elevation of gage is 510 ft above sea level, from topographic map.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Flow regulated by Hibernia Reservoir. Several measurements of water temperature were made during the year. Satellite telemetry at station.

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	1.2	1.1	1.2	1.3	8.7	5.8	14	16	5.0	6.5	8.3	2.0
2	1.2	1.1	1.2	1.4	7.4	6.1	32	10	4.5	5.0	5.6	1.9
3	1.2	1.1	1.2	1.4	e7.0	7.3	19	10	4.2	5.0	4.7	1.7
4	1.2	1.0	1.2	1.3	e6.0	5.9	13	10	4.2	4.6	4.3	1.7
5	1.3	1.0	1.2	1.3	e5.5	5.9	11	8.2	4.1	4.1	3.8	1.7
6	1.2	1.1	1.2	e1.2	e4.6	11	9.2	15	3.8	3.7	3.4	2.1
7	1.2	1.1	1.2	e1.2	e5.0	27	11	11	3.6	3.4	3.0	4.9
8	1.2	1.1	1.2	e1.2	5.7	29	14	9.9	3.5	3.5	2.9	4.0
9	1.2	1.1	1.2	e1.2	10	16	12	11	3.4	3.5	3.8	e3.2
10	1.2	e1.1	1.2	e1.2	12	10	15	9.8	3.6	3.1	5.0	e2.5
11	1.2	e1.2	1.2	e1.2	12	8.8	12	9.5	3.7	2.6	3.8	e2.1
12	1.1	e1.3	1.2	e1.2	12	8.8	9.3	21	3.8	2.4	3.5	e2.0
13	1.1	e1.4	1.2	e1.2	7.6	8.4	8.4	12	3.7	17	17	e1.9
14	1.1	e1.4	1.2	e1.2	6.3	7.6	e8.0	8.2	3.2	15	10	e1.8
15	1.1	e1.3	1.2	e1.2	5.9	8.2	e7.5	7.1	2.9	7.1	5.9	e1.9
16	1.1	e1.4	1.3	e1.2	6.1	8.3	e8.0	7.5	2.5	5.2	5.1	e1.8
17	1.1	e1.3	1.3	e1.2	5.8	7.0	42	7.7	36	4.2	4.8	e2.9
18	1.1	e1.3	1.2	e1.2	5.4	6.5	23	7.4	66	3.6	3.9	e2.1
19	1.0	e1.3	1.3	122	5.0	11	16	e6.5	45	18	3.4	e1.0
20	1.0	e1.3	1.2	88	6.4	41	13	e6.0	40	14	3.1	e5.5
21	1.4	1.3	1.2	33	25	22	11	e5.4	19	6.5	3.0	e3.0
22	1.1	1.3	1.2	17	24	13	9.6	5.0	9.4	4.7	3.1	e1.7
23	1.1	1.3	1.2	10	20	9.5	9.2	4.7	6.3	4.4	3.0	e1.3
24	1.1	1.3	1.2	14	18	7.8	9.5	4.5	5.1	4.1	2.9	e7.3
25	1.1	1.3	1.2	23	14	7.1	7.8	4.2	5.0	3.9	2.5	e4.0
26	1.1	1.3	1.2	14	10	6.9	7.6	4.0	4.3	5.6	2.2	e3.6
27	1.1	1.3	1.2	53	8.3	6.2	8.0	4.7	3.8	5.0	2.3	e3.2
28	1.2	1.3	1.2	54	10	6.6	7.0	5.5	3.6	4.1	2.8	e6.0
29	1.1	1.3	1.2	24	6.6	30	7.3	7.4	3.4	4.0	2.5	e1.6
30	1.1	1.2	1.2	15	---	25	10	7.4	6.3	8.4	2.3	e1.0
31	1.1	---	1.3	12	---	16	---	5.8	---	11	2.2	---
TOTAL	35.5	36.9	37.6	501.3	280.3	389.7	456.4	262.4	312.9	193.2	134.1	185.8
MEAN	1.15	1.23	1.21	16.2	9.67	12.6	15.2	8.46	10.4	6.23	4.33	6.19
MAX	1.4	1.4	1.3	122	25	41	80	21	66	18	17	29
MIN	1.0	1.0	1.2	1.2	4.6	5.8	7.0	4.0	2.5	2.4	2.2	1.7

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

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
MEAN	1.15	1.23	1.21	16.2	7.76	11.8	9.06	5.78	6.01	3.78	2.79	3.82
MAX	1.15	1.23	1.21	16.2	9.67	12.6	15.2	8.46	10.4	6.23	4.33	6.19
(WY)	1996	1996	1996	1996	1996	1996	1996	1996	1996	1996	1996	1996
MIN	1.15	1.23	1.21	16.2	5.79	11.1	2.90	3.09	1.58	1.33	1.25	1.45
(WY)	1996	1996	1996	1996	1995	1995	1995	1995	1995	1995	1995	1995

e Estimated.

CHRISTINA RIVER BASIN

01480400 BIRCH RUN NEAR WAGONTOWN, PA--Continued

SUMMARY STATISTICS

FOR 1996 WATER YEAR

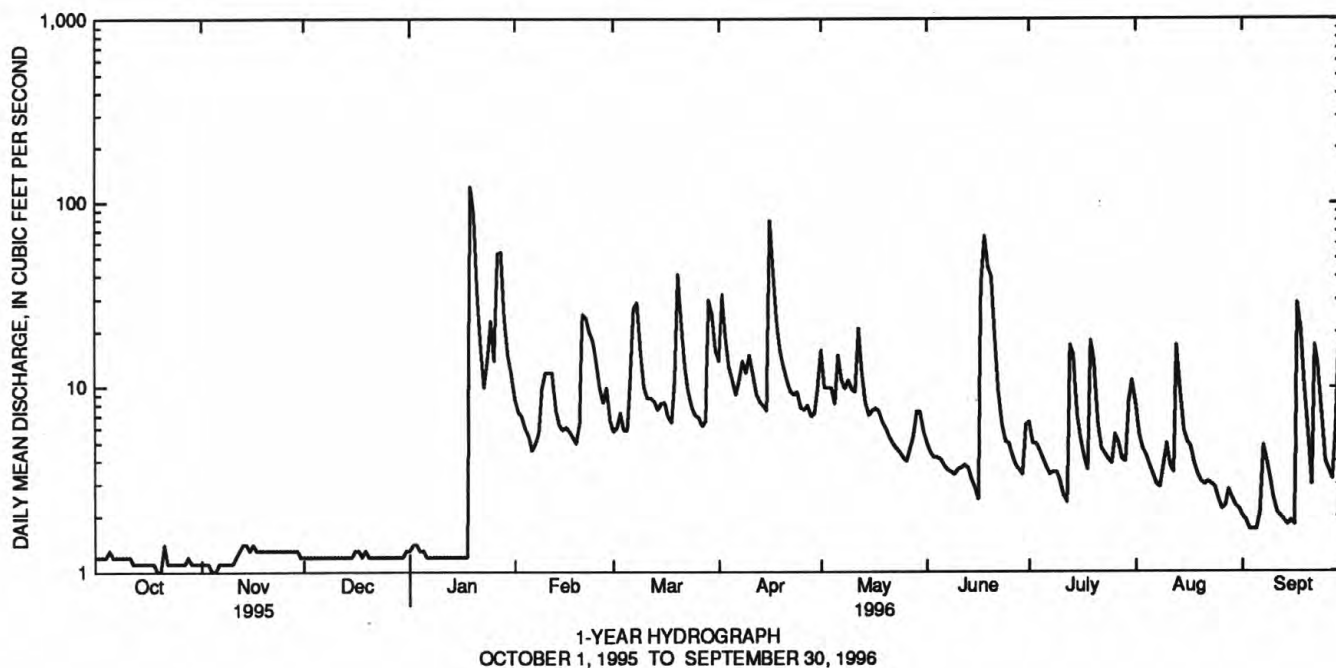
WATER YEARS 1995 - 1996

ANNUAL TOTAL	2826.1		6.06	
ANNUAL MEAN	7.72		7.72	1996
HIGHEST ANNUAL MEAN			3.55	1995
LOWEST ANNUAL MEAN			122	Jan 19 1996
HIGHEST DAILY MEAN	122	Jan 19	.10	Feb 15 1995
LOWEST DAILY MEAN	1.0	Oct 19 ^a	.27	Apr 18 1995
ANNUAL SEVEN-DAY MINIMUM	1.1	Oct 14	b700	Jan 19 1996
INSTANTANEOUS PEAK FLOW	b700	Jan 19	c4.99	Jan 19 1996
INSTANTANEOUS PEAK STAGE	c4.99	Jan 19	.08	Feb 15 1995
INSTANTANEOUS LOW FLOW	.84	Oct 18		
10 PERCENT EXCEEDS	16		12	
50 PERCENT EXCEEDS	4.2		3.0	
90 PERCENT EXCEEDS	1.2		1.2	

a Also Oct 20, Nov. 4, 5.

b From rating curve extended above 59 ft³/s.

c From outside gage; inside, 4.81 ft.



CHRISTINA RIVER BASIN

01480500 WEST BRANCH BRANDYWINE CREEK AT COATESVILLE, PA

LOCATION.--Lat 39°59'08", long 75°49'40", Chester County, Hydrologic Unit 02040205, on right bank at city limits of Coatesville, 1,200 ft upstream from bridge on old Lincoln Highway, and 0.6 mi downstream from Rock Run.

DRAINAGE AREA.--45.8 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1943 to December 1951, January 1970 to current year.

GAGE.--Water-stage recorder and V-notch sharp-crested weir. Elevation of gage is 305 ft above sea level, from topographic map. Sept. 10, 1943, to Dec. 31, 1951, nonrecording gage at site 1,100 ft downstream at different datum.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Diversion from Rock Run Reservoir 2.6 mi upstream, capacity, 982 acre-ft, for municipal supply of city of Coatesville. Several measurements of water temperature were made during the year.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Aug. 9, 1942, reached a stage of 12.3 ft, site and datum then in use, discharge, 8,600 ft³/s, by slope-area measurement.

COOPERATION.--Records of diversion provided by city of Coatesville.

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)
Oct. 21	2200	770	5.44	Mar. 20	0630	1,080	5.88
Nov. 12	0830	1,020	5.76	Apr. 16	0945	1,800	6.60
Jan. 19	2030	*5,530	*8.98	June 18	0030	3,310	7.74
Jan. 27	1800	1,690	6.50	Sept. 17	0630	822	5.56
Mar. 7	2130	705	5.40				

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	9.4	38	36	26	71	55	122	137	44	66	76	32
2	9.3	104	38	43	65	56	344	80	41	48	49	30
3	9.2	64	33	108	e55	58	127	90	42	54	44	28
4	9.4	39	32	56	e50	47	101	85	44	50	43	30
5	50	30	30	35	e46	53	90	72	61	42	40	30
6	80	28	33	26	e48	131	86	146	46	38	37	35
7	24	31	32	19	e50	363	108	90	44	36	36	78
8	15	61	29	18	59	224	127	94	43	47	35	41
9	12	36	30	e19	159	94	103	115	41	43	129	35
10	12	30	e24	e20	135	77	132	98	42	39	85	32
11	12	59	e23	e18	111	75	103	120	44	35	45	34
12	12	545	e24	e19	100	80	86	231	59	33	43	33
13	11	97	e25	e20	56	78	79	103	49	311	308	35
14	14	211	29	e20	56	70	74	86	39	119	92	37
15	92	278	33	e19	54	76	70	80	35	59	58	32
16	24	94	43	e18	54	75	1100	86	33	49	59	36
17	16	57	51	e20	51	59	224	87	e130	44	56	363
18	14	48	40	e25	49	58	143	78	806	42	46	131
19	14	44	41	1840	45	118	119	73	e500	220	43	58
20	13	41	e38	875	75	519	111	63	330	90	40	44
21	294	39	e32	178	295	129	100	53	103	51	41	38
22	149	36	e30	97	177	90	93	51	65	44	40	223
23	36	34	e28	77	146	77	99	50	55	45	38	97
24	28	40	28	193	135	65	110	44	47	44	40	54
25	22	38	28	265	96	65	94	43	49	41	37	49
26	19	36	25	91	76	61	97	40	44	64	34	43
27	19	34	25	836	65	60	104	44	41	48	37	40
28	202	33	28	348	75	66	89	53	40	40	36	62
29	57	35	26	134	63	349	93	72	39	38	35	315
30	34	38	24	101	---	162	118	61	103	138	33	76
31	29	---	25	e80	---	104	---	47	---	106	32	---
TOTAL	1341.3	2298	963	5644	2517	3594	4446	2572	3059	2124	1767	2171
MEAN	43.3	76.6	31.1	182	86.8	116	148	83.0	102	68.5	57.0	72.4
MAX	294	545	51	1840	295	519	1100	231	806	311	308	363
MIN	9.2	28	23	18	45	47	70	40	33	33	32	28
(†)	4.2	4.3	4.8	5.8	4.7	4.2	3.4	4.1	4.5	4.2	3.8	4.0

STATISTICS OF MONTHLY MEAN DATA FOR PERIOD OF DAILY RECORD, BY WATER YEAR (WY)

	MEAN	35.7	56.8	68.1	80.4	87.7	97.0	88.1	74.5	61.9	52.2	33.6	37.3
MAX	118	114	152	262	179	275	197	159	236	176	82.9	136	
(WY)	1980	1973	1984	1979	1971	1994	1983	1989	1972	1984	1971	1979	
MIN	11.8	14.9	18.9	15.5	30.1	33.3	28.9	33.5	19.8	14.5	9.31	10.1	
(WY)	1987	1982	1981	1981	1992	1985	1985	1977	1986	1944	1995	1986	

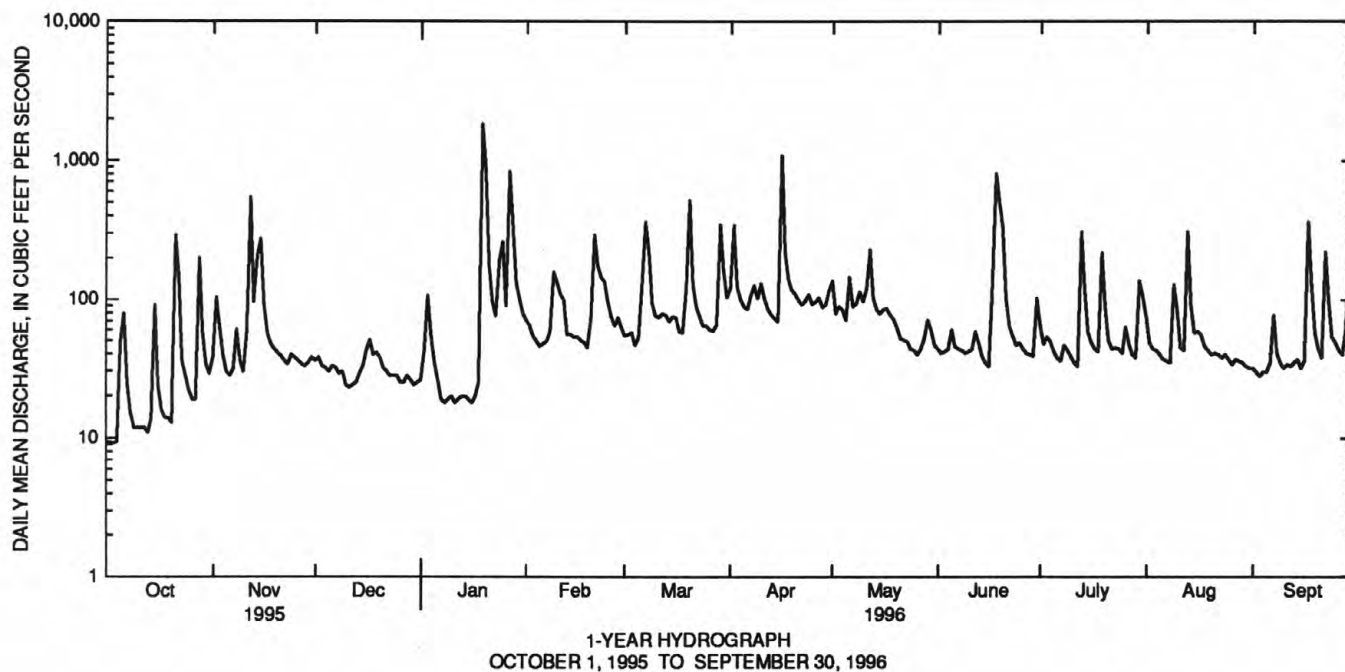
† Diversion for municipal supply, equivalent in cubic feet per second.

e Estimated.

CHRISTINA RIVER BASIN

01480500 WEST BRANCH BRANDYWINE CREEK AT COATESVILLE, PA--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		PERIOD OF DAILY RECORD	
ANNUAL TOTAL	15320.8		32496.3		64.5	
ANNUAL MEAN	42.0		88.8		98.6	
HIGHEST ANNUAL MEAN					28.1	
LOWEST ANNUAL MEAN					3400	
HIGHEST DAILY MEAN	644	Mar 9	1840	Jan 19	3400	Jun 22 1972
LOWEST DAILY MEAN	5.6	Sep 15	9.2	Oct 3	4.6	Sep 10 1944
ANNUAL SEVEN-DAY MINIMUM	5.8	Sep 10	13	Oct 8	5.8	Sep 10 1995
INSTANTANEOUS PEAK FLOW			5530	Jan 19	a8100	Jun 29 1973
INSTANTANEOUS PEAK STAGE			8.98	Jan 19	10.08	Jun 29 1973
INSTANTANEOUS LOW FLOW			9.0	Oct 2-4	9.0	Oct 2 1995
10 PERCENT EXCEEDS	72		144		113	
50 PERCENT EXCEEDS	30		50		43	
90 PERCENT EXCEEDS	9.4		25		16	

a From rating curve extended above 7,800 ft³/s.

CHRISTINA RIVER BASIN

01480500 WEST BRANCH BRANDYWINE CREEK AT COATESVILLE, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965, 1970-72, 1995 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: January 1995 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum, 28.0°C, July 15, 1995; minimum, 0.0°C, many days during winter periods.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum, 24.5°C, July 9; minimum 0.0°C, many days during winter period.

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	15.5	12.5	14.0	11.5	10.5	11.0	---	---	---	1.5	.5	1.0
2	16.5	13.0	15.0	14.0	11.5	13.0	---	---	---	1.5	.5	1.0
3	16.5	14.0	15.5	15.5	14.0	14.5	5.5	2.5	3.5	1.5	.5	1.0
4	18.0	16.5	17.0	14.0	8.5	11.0	6.5	5.0	6.0	.5	.0	.0
5	18.0	17.0	17.5	8.5	7.0	7.5	5.0	3.5	4.0	.5	.0	.0
6	20.5	18.0	19.0	7.0	5.5	6.5	5.0	3.5	4.5	.5	.0	.0
7	19.5	18.0	18.5	7.0	5.0	5.5	4.0	2.5	3.5	.0	.0	.0
8	18.0	15.5	17.0	7.0	6.0	6.5	2.5	1.5	2.0	.0	.0	.0
9	15.5	12.5	14.0	6.0	4.5	5.0	1.5	.5	1.0	.0	.0	.0
10	15.0	12.5	14.0	6.0	3.5	5.0	1.0	.0	.5	.0	.0	.0
11	16.0	13.0	14.5	10.0	5.5	7.0	.5	.0	.0	.0	.0	.0
12	16.0	13.5	15.0	8.0	4.5	6.0	.5	.0	.0	.0	.0	.0
13	16.5	13.5	15.0	5.5	4.5	5.0	.5	.0	.0	.0	.0	.0
14	17.0	14.5	15.5	6.0	5.0	5.5	.0	.0	.0	.0	.0	.0
15	16.5	13.5	15.5	5.5	4.5	5.0	.5	.0	.5	.0	.0	.0
16	13.5	11.0	12.0	5.0	3.5	4.0	.5	.0	.5	.0	.0	.0
17	11.5	9.0	10.5	5.0	2.5	3.5	1.0	.0	.5	.0	.0	.0
18	11.0	8.5	10.0	5.5	3.5	4.0	1.5	.0	.5	.0	.0	.0
19	12.5	9.5	11.0	6.5	5.0	5.5	1.5	.0	.5	---	---	---
20	14.0	11.0	12.0	7.0	5.5	6.0	.0	.0	.0	---	---	---
21	15.5	12.0	14.0	7.0	5.5	6.0	.0	.0	.0	---	---	---
22	12.5	10.5	11.5	6.0	4.0	5.0	.5	.0	.0	---	---	---
23	12.5	9.5	11.0	5.0	2.5	4.0	.5	.0	.0	---	---	---
24	14.0	10.5	12.0	5.0	4.0	5.0	.5	.0	.5	---	---	---
25	14.0	12.0	13.0	4.5	3.0	4.0	.5	.0	.5	---	---	---
26	12.0	9.5	10.5	5.0	2.0	3.5	.5	.0	.0	---	---	---
27	12.5	9.0	10.5	6.0	3.5	5.0	.5	.0	.0	---	---	---
28	14.5	12.5	14.0	8.5	6.0	7.5	.5	.0	.0	---	---	---
29	13.5	10.5	12.0	7.5	4.0	5.0	.5	.0	.5	---	---	---
30	10.5	8.5	9.5	4.5	2.5	3.5	.5	.0	.0	---	---	---
31	11.0	10.0	10.5	---	---	---	1.0	.0	.5	---	---	---
MONTH	20.5	8.5	13.6	15.5	2.0	6.2	6.5	.0	1.0	1.5	.0	.2

CHRISTINA RIVER BASIN

01480617 WEST BRANCH BRANDYWINE CREEK AT MODENA, PA

LOCATION.--Lat 39°57'42", long 75°48'06", Chester County, Hydrologic Unit 02040205, on left bank at bridge on SR 15068 at Modena, and 300 ft upstream from Dennis Run.

DRAINAGE AREA.--55.0 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1970 to current year.

REVISED RECORDS.--WDR PA-74-1: 1971-72(P), 1973. WDR PA-75-1: 1974(m).

GAGE.--Water-stage recorder. Elevation of gage is 265 ft above sea level, from topographic map.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Flow regulated by Rock Run Reservoir 5.6 mi upstream, capacity, 982 acre-ft, and by Lukens Steel Company. Satellite telemetry at station.

COOPERATION.--Records of diversion provided by the city of Coatesville.

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	16	51	47	34	129	82	166	e160	61	84	96	43
2	18	105	46	56	109	85	380	105	59	67	66	40
3	16	74	43	134	94	85	176	e100	60	92	60	41
4	18	48	42	84	90	75	139	e98	62	70	60	40
5	100	39	41	48	81	81	130	e104	79	57	53	40
6	114	34	43	33	79	175	123	e160	63	54	49	55
7	33	44	42	e31	80	388	146	e120	60	48	51	95
8	25	67	39	e29	81	275	170	e110	56	84	46	57
9	21	45	e35	e28	119	130	144	e122	57	60	220	51
10	22	36	e33	e27	209	110	173	e119	61	52	112	43
11	19	99	31	e26	166	106	141	e150	60	46	66	45
12	21	625	e30	e25	157	106	119	e250	75	46	61	44
13	21	130	e29	e24	114	107	105	e130	65	376	395	47
14	34	247	e28	e23	90	98	97	e105	51	154	116	48
15	112	344	e34	e23	84	109	94	96	48	79	79	43
16	33	137	56	e22	82	104	1010	116	43	67	79	55
17	25	e75	69	e22	79	86	342	111	296	63	75	438
18	21	e61	54	e50	74	82	208	102	780	57	64	153
19	22	e56	48	2200	70	157	162	93	480	255	62	72
20	20	e52	e41	889	73	512	142	87	359	112	56	58
21	364	e49	e37	364	e210	177	130	76	124	70	58	53
22	184	e46	e36	273	e300	130	114	73	81	60	59	300
23	48	e45	e34	185	e280	109	111	70	72	65	54	119
24	37	e50	e32	212	e180	91	121	64	64	63	63	74
25	33	e49	e31	378	e130	93	e108	64	68	56	53	66
26	26	e47	e30	215	e100	89	e110	59	62	87	47	59
27	33	e45	e29	815	e80	89	e111	70	55	67	54	55
28	255	e44	e29	446	e75	97	e110	75	54	53	53	85
29	74	e46	e28	280	86	373	e108	95	53	54	47	343
30	40	51	e28	191	---	217	e125	79	144	180	45	88
31	39	---	e28	160	---	142	---	68	---	127	43	---
TOTAL	1844	2841	1173	7327	3501	4560	5315	3231	3652	2805	2442	2750
MEAN	59.5	94.7	37.8	236	121	147	177	104	122	90.5	78.8	91.7
MAX	364	625	69	2200	300	512	1010	250	780	376	395	438
MIN	16	34	28	22	70	75	94	59	43	46	43	40
(†)	4.2	4.3	4.8	5.8	4.7	4.2	3.4	4.1	4.5	4.2	3.8	4.0

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 1996, BY WATER YEAR (WY)

	MEAN	52.9	74.2	90.6	106	111	125	119	98.2	86.2	74.7	49.3	54.2
MAX	147	139	207	330	235	308	241	213	302	236	123	186	
(WY)	1980	1973	1984	1979	1971	1994	1983	1989	1972	1984	1971	1979	
MIN	22.0	28.7	25.6	20.1	41.9	43.0	39.9	49.2	32.6	30.8	16.8	21.4	
(WY)	1987	1982	1981	1981	1992	1985	1985	1995	1985	1986	1995	1981	

† Diversion for municipal supply, equivalent in cubic feet per second.

e Estimated.

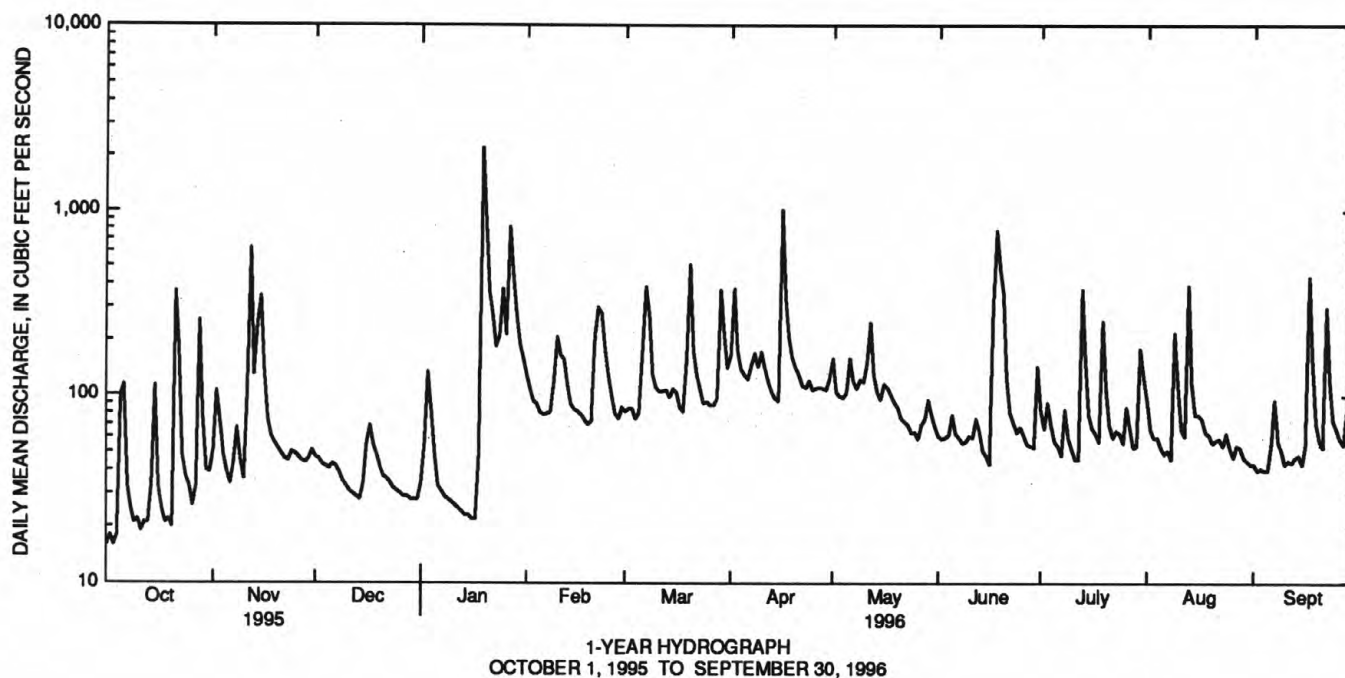
CHRISTINA RIVER BASIN

01480617 WEST BRANCH BRANDYWINE CREEK AT MODENA, PA--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1970 - 1996	
ANNUAL TOTAL	20361		41441		86.8	
ANNUAL MEAN	55.8		113		130	
HIGHEST ANNUAL MEAN					37.6	
LOWEST ANNUAL MEAN					1979	
HIGHEST DAILY MEAN	706	Mar 9	2200	Jan 19	4010	Jun 22 1972
LOWEST DAILY MEAN	10	Sep 6	16	Oct 1,3	9.8	Sep 13 1981
ANNUAL SEVEN-DAY MINIMUM	all	Sep 4	23	Oct 7	11	Sep 4 1995
INSTANTANEOUS PEAK FLOW			6120	Jan 19	c9600	Jun 29 1973
INSTANTANEOUS PEAK STAGE			b10.39	Jan 19	12.47	Jun 29 1973
INSTANTANEOUS LOW FLOW			4.4	Oct 3	1.8	Aug 29 1974
10 PERCENT EXCEEDS	100		213		149	
50 PERCENT EXCEEDS	39		72		58	
90 PERCENT EXCEEDS	18		31		27	

a Computed using estimated daily discharges.

b From outside gage; inside, 9.71 ft.

c From rating curve extended above 7,800 ft³/s, on basis of slope-area measurement at gage height 11.48 ft.

CHRISTINA RIVER BASIN

01480617 WEST BRANCH BRANDYWINE CREEK AT MODENA, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1969 to October 1978, August 1981 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: May 1971 to October 1977, August 1981 to current year.

pH: May 1971 to October 1977, August 1981 to current year.

WATER TEMPERATURES: May 1971 to October 1977, August 1981 to current year.

DISSOLVED OXYGEN: May 1971 to October 1977, August 1981 to current year.

INSTRUMENTATION.--Water-quality monitor May 1971 to October 1977, August 1981 to current year.

REMARKS.--Data collection discontinued during winter months since 1981 water year. Other interruptions in the record were due to malfunctions of the recording instrument.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 858 microsiemens, Jan. 10, 1977; minimum, 72 microsiemens, Nov. 16, 1985.

pH: Maximum, 10.0, Dec. 21, 1971; minimum, 5.9, July 14, 1991.

WATER TEMPERATURE: Maximum, 33.5°C, July 19, 1977; minimum, 0.0°C, many days during winter periods.

DISSOLVED OXYGEN: Maximum, 19.5 mg/L, Sept. 2, 1990; minimum, 0.6 mg/L, Nov. 1, 3, 1974.

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

DATE	TIME	AGENCY COL- LECTING SAMPLE (CODE NUMBER) (00027)	AGENCY ANA- LYZING SAMPLE (CODE NUMBER) (00028)	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (μS/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	OXYGEN, DIS- SOLVED (MG/L) (00300)	COLI- FORM, FECAL, 0.45 μM-MF (COLS./ 100 ML) (31616)
OCT 1995									
04...	1150	1028	1028	21	421	7.5	18.5	10.0	580
26...	1435	1028	1028	31	394	7.9	13.5	12.6	K900
NOV									
01...	1255	1028	1028	57	328	7.5	12.5	10.4	3100
07...	1320	1028	1028	39	339	7.6	7.5	11.7	920
MAR 1996									
05...	1120	1028	1028	80	289	7.9	5.0	13.2	K72
11...	0945	1028	1028	129	284	7.6	2.0	14.2	170
18...	1020	1028	1028	114	280	7.7	7.5	13.3	120
25...	0930	1028	1028	123	153	7.6	7.5	13.6	120
APR									
03...	0740	1028	1028	204	223	7.5	6.5	11.6	530
11...	1105	1028	1028	171	253	8.0	8.0	12.7	210
15...	1005	1028	1028	129	264	7.9	10.0	11.8	73
22...	1030	1028	1028	158	253	8.1	13.5	11.5	540
30...	0940	1028	1028	142	256	8.0	15.5	9.8	1900
MAY									
07...	1035	1028	1028	165	246	8.0	12.5	11.7	4400
15...	1105	1028	1028	171	262	8.0	13.5	11.6	250
21...	1105	1028	1028	108	273	8.1	20.5	10.5	290
29...	1155	1028	1028	149	230	7.7	13.5	10.8	5500
JUN									
04...	1110	1028	1028	87	284	8.0	16.0	11.4	660
13...	1050	1028	1028	100	274	7.3	21.0	8.3	3400
19...	1020	1028	1028	259	--	--	--	--	K13000
26...	1045	1028	1028	80	297	7.7	19.5	10.1	1200
JUL									
01...	1145	1028	1028	111	266	7.7	19.5	10.0	K36000
10...	1115	1028	1028	61	318	7.9	21.5	9.7	2000
18...	1120	1028	1028	78	318	7.4	22.0	9.6	1100
24...	1110	1028	1028	85	303	7.7	20.0	10.4	1400
AUG									
01...	1130	1028	1028	123	268	7.6	21.5	9.9	6100
06...	1115	1028	1028	71	309	7.6	21.5	10.4	1100
14...	1040	1028	1028	155	256	7.8	18.5	10.5	K27000
21...	1145	1028	1028	95	316	7.8	20.5	10.8	1400
27...	1130	1028	1028	67	316	6.9	21.0	11.0	950
SEP									
05...	1000	1028	1028	61	320	--	20.5	10.7	920
12...	1120	1028	1028	63	315	--	20.0	9.2	K68
19...	1130	1028	1028	105	285	8.1	17.0	9.1	8000
25...	1210	1028	1028	89	294	7.8	16.5	11.8	720

CHRISTINA RIVER BASIN

01480617 WEST BRANCH BRANDYWINE CREEK AT MODENA, PA--Continued

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25° 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	453	374	429	346	287	319	---	---	---	---	---	---
2	438	349	404	305	262	274	---	---	---	---	---	---
3	442	360	404	313	270	297	---	---	---	---	---	---
4	424	374	411	326	311	318	---	---	---	---	---	---
5	428	153	312	356	325	336	---	---	---	---	---	---
6	290	218	260	345	326	338	---	---	---	---	---	---
7	365	290	329	345	280	325	---	---	---	---	---	---
8	390	354	371	309	278	293	---	---	---	---	---	---
9	407	382	392	326	305	318	---	---	---	---	---	---
10	419	376	394	335	320	327	---	---	---	---	---	---
11	426	386	414	---	---	---	---	---	---	---	---	---
12	418	388	410	---	---	---	---	---	---	---	---	---
13	412	401	407	---	---	---	---	---	---	---	---	---
14	433	248	355	---	---	---	---	---	---	---	---	---
15	312	244	267	---	---	---	---	---	---	---	---	---
16	356	282	321	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	411	390	402	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	363	334	348	---	---	---	---	---	---	---	---	---
25	387	352	365	---	---	---	---	---	---	---	---	---
26	399	370	384	---	---	---	---	---	---	---	---	---
27	373	285	361	---	---	---	---	---	---	---	---	---
28	285	172	218	---	---	---	---	---	---	---	---	---
29	291	224	261	---	---	---	---	---	---	---	---	---
30	321	291	306	338	299	322	---	---	---	---	---	---
31	346	312	325	---	---	---	---	---	---	---	---	---
MONTH	453	153	354	356	262	315	---	---	---	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	---	---	---	282	256	273	---	---	---	243	201	228
2	---	---	---	349	258	281	212	163	188	258	239	246
3	---	---	---	280	258	269	240	212	227	260	242	253
4	---	---	---	299	277	287	253	240	246	257	241	250
5	---	---	---	317	277	287	258	249	252	262	250	257
6	---	---	---	303	255	273	255	248	251	253	199	223
7	---	---	---	277	199	242	255	224	244	257	240	247
8	---	---	---	429	206	275	242	217	231	254	234	245
9	---	---	---	296	268	278	244	236	240	254	236	243
10	---	---	---	298	273	286	240	232	237	256	246	251
11	---	---	---	287	272	280	240	174	192	261	184	243
12	---	---	---	277	263	271	252	184	207	233	182	211
13	---	---	---	283	249	267	256	250	253	249	231	241
14	---	---	---	280	267	273	264	249	253	259	247	254
15	---	---	---	432	255	290	266	257	261	---	---	---
16	---	---	---	279	238	262	---	---	---	267	252	257
17	---	---	---	289	256	278	187	151	165	259	249	255
18	---	---	---	287	274	279	244	161	199	261	249	254
19	---	---	---	284	195	270	249	242	245	257	246	251
20	---	---	---	195	100	138	254	247	250	274	250	257
21	---	---	---	---	---	---	254	245	249	277	264	271
22	---	---	---	---	---	---	---	---	---	286	254	272
23	---	---	---	---	---	---	255	242	251	292	254	279
24	---	---	---	---	---	---	256	244	249	294	275	289
25	---	---	---	---	---	---	259	247	254	297	281	290
26	---	---	---	---	---	---	259	251	255	291	275	283
27	---	---	---	---	---	---	255	245	249	290	273	283
28	---	---	---	---	---	---	255	250	252	282	257	267
29	---	---	---	---	---	---	253	244	248	265	227	254
30	---	---	---	---	---	---	259	202	244	287	245	266
31	---	---	---	---	---	---	---	---	---	294	286	289
MONTH	---	---	---	432	100	268	266	151	237	297	182	257

CHRISTINA RIVER BASIN

01480617 WEST BRANCH BRANDYWINE CREEK AT MODENA, PA--Continued

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25° 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	305	283	295	275	238	261	280	212	262	323	311	317
2	304	256	284	284	272	278	297	280	289	325	310	319
3	297	267	279	281	169	257	307	296	302	326	306	316
4	286	217	258	291	270	282	307	299	304	336	254	314
5	285	210	244	303	288	296	312	299	306	335	315	326
6	334	225	271	319	295	304	317	305	312	335	209	312
7	348	234	319	327	310	319	323	308	316	289	214	262
8	349	264	335	327	161	281	328	298	313	306	243	292
9	350	269	317	313	285	301	327	109	252	317	275	302
10	292	271	285	320	308	314	296	218	263	328	312	319
11	300	282	289	334	307	321	314	296	306	328	302	319
12	295	249	278	334	321	330	327	292	312	332	318	327
13	301	267	284	---	---	---	292	150	205	333	298	318
14	306	287	296	---	---	---	281	234	257	316	277	297
15	314	299	305	---	---	---	307	281	292	323	303	313
16	320	305	312	---	---	---	308	282	298	324	198	302
17	---	---	---	---	---	---	312	288	302	207	130	182
18	---	---	---	319	306	315	312	303	307	255	194	221
19	---	---	---	317	157	234	320	306	311	286	255	271
20	224	133	184	258	198	232	323	308	317	302	286	293
21	261	220	246	291	258	277	324	302	313	313	300	306
22	279	261	271	298	290	295	327	315	320	314	117	210
23	290	275	281	299	286	292	327	316	321	266	202	233
24	296	286	291	301	293	297	327	209	303	293	266	279
25	293	281	287	313	293	304	336	313	326	307	289	295
26	301	291	296	---	---	---	337	315	325	320	305	313
27	311	296	301	---	---	---	320	218	304	324	311	316
28	314	288	305	---	---	---	314	278	300	315	177	296
29	308	299	303	---	---	---	319	306	313	225	162	192
30	302	189	244	---	---	---	323	304	314	266	225	247
31	---	---	---	244	213	234	323	310	316	---	---	---
MONTH	350	133	284	334	157	287	337	109	299	336	117	287

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	8.2	7.3	7.8	7.5	7.4	7.4	---	---	---	---	---	---
2	8.2	7.4	7.9	7.6	7.3	7.4	---	---	---	---	---	---
3	8.4	7.3	8.0	7.8	7.3	7.5	---	---	---	---	---	---
4	8.2	7.3	7.8	7.9	7.5	7.6	---	---	---	---	---	---
5	8.0	7.1	7.3	7.8	7.4	7.6	---	---	---	---	---	---
6	7.3	7.1	7.2	7.9	7.4	7.6	---	---	---	---	---	---
7	7.3	7.1	7.2	7.6	7.4	7.5	---	---	---	---	---	---
8	7.6	7.2	7.4	7.7	7.4	7.5	---	---	---	---	---	---
9	7.7	7.2	7.4	7.9	7.4	7.6	---	---	---	---	---	---
10	7.8	7.2	7.5	8.0	7.4	7.7	---	---	---	---	---	---
11	8.0	7.2	7.6	---	---	---	---	---	---	---	---	---
12	8.1	7.2	7.7	---	---	---	---	---	---	---	---	---
13	8.2	7.3	7.8	---	---	---	---	---	---	---	---	---
14	8.2	7.4	7.6	7.5	7.3	7.4	---	---	---	---	---	---
15	7.4	7.3	7.3	7.5	7.3	7.4	---	---	---	---	---	---
16	7.7	7.3	7.4	7.5	7.4	7.4	---	---	---	---	---	---
17	---	---	---	7.4	7.3	7.4	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	8.0	7.4	7.7	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	7.8	7.4	7.6	---	---	---	---	---	---	---	---	---
25	7.9	7.5	7.7	---	---	---	---	---	---	---	---	---
26	7.9	7.5	7.7	---	---	---	---	---	---	---	---	---
27	7.8	7.4	7.6	---	---	---	---	---	---	---	---	---
28	7.5	7.2	7.2	---	---	---	---	---	---	---	---	---
29	7.4	7.2	7.3	---	---	---	---	---	---	---	---	---
30	7.5	7.2	7.4	8.1	7.4	7.6	---	---	---	---	---	---
31	7.6	7.3	7.4	---	---	---	---	---	---	---	---	---
MONTH	8.4	7.1	7.5	8.1	7.3	7.5	---	---	---	---	---	---

CHRISTINA RIVER BASIN

01480617 WEST BRANCH BRANDYWINE CREEK AT MODENA, PA--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
FEBRUARY			MARCH			APRIL			MAY			
1	---	---	---	---	---	---	7.9	7.4	7.6	9.2	8.0	8.5
2	---	---	---	8.0	7.1	7.5	7.6	7.2	7.4	8.8	7.6	8.3
3	---	---	---	8.0	7.2	7.6	8.1	7.2	7.6	8.2	7.6	7.8
4	---	---	---	8.2	7.2	7.7	8.2	7.2	7.6	8.8	7.7	8.1
5	---	---	---	8.4	7.2	7.7	8.1	7.2	7.6	8.9	7.7	8.2
6	---	---	---	7.8	7.2	7.5	8.5	7.3	7.8	7.9	7.7	7.8
7	---	---	---	7.8	7.2	7.5	8.0	7.4	7.6	8.5	7.7	8.1
8	---	---	---	7.7	7.4	7.6	8.5	7.3	7.8	8.5	7.7	8.0
9	---	---	---	7.9	7.4	7.7	8.1	7.3	7.6	8.2	7.8	8.0
10	---	---	---	7.9	7.4	7.7	8.4	7.3	7.8	8.5	7.8	8.1
11	---	---	---	8.0	7.4	7.8	---	---	---	8.5	7.8	8.0
12	---	---	---	8.1	7.6	7.8	---	---	---	7.9	7.8	7.8
13	---	---	---	8.2	7.6	7.9	8.9	7.2	8.0	8.1	7.8	7.9
14	---	---	---	8.5	7.5	8.0	8.9	7.3	8.0	8.2	7.6	7.9
15	---	---	---	8.6	7.7	8.0	---	---	---	---	---	---
16	---	---	---	8.6	7.6	8.1	---	---	---	7.8	7.6	7.7
17	---	---	---	8.9	7.8	8.2	---	---	---	8.4	7.6	7.9
18	---	---	---	8.6	7.4	8.1	---	---	---	8.4	7.5	7.8
19	---	---	---	8.2	7.4	7.8	8.2	7.7	8.0	8.6	7.5	8.0
20	---	---	---	7.6	7.2	7.4	8.6	7.8	8.1	8.7	7.5	8.0
21	---	---	---	7.8	7.3	7.6	8.7	7.8	8.2	8.8	7.5	8.0
22	---	---	---	7.9	7.4	7.7	---	---	---	8.7	7.5	8.0
23	---	---	---	8.1	7.5	7.8	9.1	7.6	8.2	8.8	7.5	8.0
24	---	---	---	8.3	7.6	7.8	9.0	7.7	8.2	8.9	7.4	8.1
25	---	---	---	8.4	7.5	7.8	9.1	7.7	8.3	8.9	7.5	8.1
26	---	---	---	7.7	7.3	7.5	8.8	7.7	8.2	8.7	7.5	8.0
27	---	---	---	7.4	7.3	7.4	9.4	7.9	8.6	8.4	7.5	7.8
28	---	---	---	7.6	7.3	7.4	9.5	8.0	8.7	8.2	7.5	7.8
29	---	---	---	7.7	7.5	7.6	9.3	8.0	8.5	8.0	7.5	7.7
30	---	---	---	7.7	7.5	7.6	9.0	8.0	8.3	8.4	7.4	7.8
31	---	---	---	7.7	7.5	7.6	---	---	---	8.5	7.4	7.9
MONTH	---	---	---	8.9	7.1	7.7	9.5	7.2	8.0	9.2	7.4	8.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	8.6	7.4	8.0	8.4	7.3	7.8	---	---	---	---	---	---
2	8.7	7.5	8.0	8.7	7.4	8.0	---	---	---	---	---	---
3	8.5	7.5	7.9	8.2	7.5	7.8	---	---	---	---	---	---
4	8.6	7.4	8.0	8.3	7.5	7.9	---	---	---	---	---	---
5	8.5	7.4	7.9	8.4	7.5	7.9	---	---	---	---	---	---
6	8.7	7.5	8.0	8.5	7.5	8.0	---	---	---	---	---	---
7	8.9	7.6	8.1	8.6	7.5	8.0	---	---	---	---	---	---
8	8.9	7.6	8.2	7.9	7.6	7.7	---	---	---	---	---	---
9	8.7	7.6	8.0	8.4	7.6	8.0	---	---	---	---	---	---
10	8.5	7.6	7.9	8.4	7.6	8.0	---	---	---	---	---	---
11	8.2	7.3	7.7	8.7	7.5	8.1	---	---	---	---	---	---
12	8.0	7.2	7.5	8.6	7.7	8.1	---	---	---	---	---	---
13	7.8	7.2	7.5	---	---	---	---	---	---	---	---	---
14	8.1	7.3	7.6	---	---	---	---	---	---	8.5	7.9	8.1
15	8.3	7.3	7.8	---	---	---	---	---	---	8.5	7.8	8.1
16	8.4	7.4	7.8	---	---	---	---	---	---	8.3	7.7	7.9
17	---	---	---	---	---	---	---	---	---	8.1	7.5	7.7
18	---	---	---	7.9	7.3	7.6	---	---	---	7.9	7.7	7.7
19	---	---	---	7.5	7.3	7.4	---	---	---	8.0	7.7	7.8
20	7.3	6.9	7.1	7.8	7.4	7.5	---	---	---	8.1	7.8	7.9
21	7.6	7.2	7.4	8.1	7.5	7.8	---	---	---	8.3	7.7	8.0
22	7.8	7.4	7.6	7.9	7.5	7.7	---	---	---	7.9	7.4	7.6
23	8.0	7.5	7.8	8.2	7.5	7.8	---	---	---	7.7	7.5	7.6
24	8.1	7.7	7.9	7.9	7.4	7.7	---	---	---	7.8	7.6	7.7
25	8.2	7.6	7.9	---	---	---	---	---	---	8.0	7.6	7.8
26	8.5	7.5	7.9	---	---	---	---	---	---	8.1	7.7	7.8
27	8.5	7.4	7.9	---	---	---	---	---	---	8.2	7.7	7.9
28	8.7	7.4	8.1	---	---	---	---	---	---	8.1	7.7	7.8
29	8.7	7.5	8.0	---	---	---	---	---	---	7.7	7.3	7.5
30	7.7	7.3	7.4	---	---	---	---	---	---	7.6	7.4	7.5
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	8.9	6.9	7.8	8.7	7.3	7.8	---	---	---	8.5	7.3	7.8

CHRISTINA RIVER BASIN

01480617 WEST BRANCH BRANDYWINE CREEK AT MODENA, PA--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	17.5	14.5	16.5	13.5	12.0	12.5	---	---	---	---	---	---
2	18.5	15.0	17.0	15.0	13.5	14.5	---	---	---	---	---	---
3	19.0	16.0	18.0	17.0	15.0	15.5	---	---	---	---	---	---
4	19.0	18.0	19.0	15.0	9.5	12.0	---	---	---	---	---	---
5	19.5	18.5	19.0	10.0	8.0	9.0	---	---	---	---	---	---
6	21.5	19.0	20.0	9.5	7.5	8.5	---	---	---	---	---	---
7	20.0	19.0	19.5	9.5	7.0	8.0	---	---	---	---	---	---
8	19.0	17.0	18.0	9.5	7.5	8.5	---	---	---	---	---	---
9	17.0	14.5	16.0	7.5	6.0	7.0	---	---	---	---	---	---
10	17.5	14.0	16.0	8.5	5.5	7.0	---	---	---	---	---	---
11	18.0	15.0	16.5	---	---	---	---	---	---	---	---	---
12	18.0	15.5	17.0	---	---	---	---	---	---	---	---	---
13	18.0	15.5	17.0	---	---	---	---	---	---	---	---	---
14	19.0	16.5	17.5	10.0	6.5	7.5	---	---	---	---	---	---
15	19.0	14.5	16.5	10.5	8.5	9.5	---	---	---	---	---	---
16	14.5	12.5	13.5	8.5	4.5	6.5	---	---	---	---	---	---
17	---	---	---	7.5	3.0	5.5	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	15.0	11.5	13.5	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	15.5	12.0	13.5	---	---	---	---	---	---	---	---	---
25	15.0	13.5	14.0	---	---	---	---	---	---	---	---	---
26	13.5	11.5	12.5	---	---	---	---	---	---	---	---	---
27	14.5	10.5	12.0	---	---	---	---	---	---	---	---	---
28	15.5	14.0	15.0	---	---	---	---	---	---	---	---	---
29	14.0	11.5	12.5	---	---	---	---	---	---	---	---	---
30	12.0	10.0	11.0	6.0	4.5	5.0	---	---	---	---	---	---
31	12.5	11.5	12.0	---	---	---	---	---	---	---	---	---
MONTH	21.5	10.0	15.7	17.0	3.0	9.1	---	---	---	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	---	---	---	5.5	2.5	4.0	10.5	8.5	9.5	17.0	12.0	14.5
2	---	---	---	6.0	3.5	5.0	10.0	7.0	8.5	17.5	13.0	15.0
3	---	---	---	6.0	2.5	4.5	12.5	6.5	9.5	15.5	13.5	14.0
4	---	---	---	5.0	1.0	3.0	13.0	8.5	10.5	16.5	13.5	15.0
5	---	---	---	8.0	3.5	5.5	11.0	8.5	9.5	19.0	14.0	16.5
6	---	---	---	7.5	6.5	7.0	10.0	7.5	9.0	16.5	13.0	14.5
7	---	---	---	6.5	3.0	5.0	9.0	7.5	8.5	16.0	11.5	13.5
8	---	---	---	3.5	1.5	2.5	11.0	6.0	8.5	15.0	12.5	13.5
9	---	---	---	3.0	.5	1.5	9.0	6.5	7.5	14.0	13.5	14.0
10	---	---	---	4.5	.5	2.5	9.0	6.0	7.5	17.0	13.0	14.5
11	---	---	---	6.0	1.0	3.5	12.0	6.5	9.0	20.0	15.0	17.0
12	---	---	---	7.5	2.5	5.0	14.0	9.0	11.5	17.0	13.5	15.5
13	---	---	---	8.5	3.5	6.0	15.5	11.5	13.0	15.5	11.5	13.5
14	---	---	---	10.0	5.5	8.0	14.5	11.0	12.5	16.0	10.5	13.0
15	---	---	---	10.5	7.5	9.0	12.0	9.5	10.5	---	---	---
16	---	---	---	10.5	7.0	9.0	12.0	9.5	11.0	13.5	12.5	13.0
17	---	---	---	8.0	6.0	7.0	12.0	9.0	10.5	16.5	13.0	15.0
18	---	---	---	11.0	6.5	8.5	14.5	8.0	11.0	17.5	14.5	16.0
19	---	---	---	9.5	7.0	8.0	14.0	10.5	12.5	21.5	15.5	18.5
20	---	---	---	7.5	6.5	6.5	16.5	12.5	14.0	23.5	17.5	20.5
21	---	---	---	7.0	6.0	6.5	17.0	13.5	15.5	24.0	19.0	21.5
22	---	---	---	7.0	4.5	6.0	---	---	---	22.0	18.5	20.0
23	---	---	---	7.5	4.5	6.0	20.5	15.0	17.5	21.5	17.0	19.0
24	---	---	---	9.5	4.5	7.0	17.5	13.0	15.5	21.5	18.0	19.5
25	---	---	---	12.0	5.5	9.0	15.5	12.0	13.5	20.5	16.0	18.0
26	---	---	---	12.5	10.0	11.5	15.5	13.0	14.5	17.5	15.0	15.5
27	---	---	---	10.5	6.0	9.0	16.0	12.5	14.0	15.5	14.5	15.0
28	---	---	---	9.0	6.0	7.0	16.0	11.0	13.5	14.5	13.5	14.0
29	---	---	---	6.0	5.0	5.5	16.5	13.5	15.0	14.5	13.5	13.5
30	---	---	---	10.5	5.5	7.5	16.5	14.0	15.5	17.5	12.0	14.5
31	---	---	---	11.5	7.5	9.5	---	---	---	18.5	13.0	15.5
MONTH	---	---	---	12.5	.5	6.3	20.5	6.0	11.7	24.0	10.5	15.8

CHRISTINA RIVER BASIN

01480617 WEST BRANCH BRANDYWINE CREEK AT MODENA, PA--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	20.0	14.0	17.0	23.0	18.5	20.5	24.0	20.5	22.0	23.0	18.5	20.5
2	20.5	15.0	17.5	23.5	20.0	22.0	24.0	20.0	22.0	23.0	18.5	20.5
3	17.5	15.5	16.0	22.5	19.0	21.0	22.0	20.5	21.0	23.5	19.0	21.0
4	19.5	15.0	17.0	20.5	18.5	19.5	24.0	20.0	21.5	22.0	20.0	21.0
5	21.0	16.5	18.5	23.0	17.5	20.0	24.5	20.0	22.0	24.0	20.5	22.0
6	21.5	16.5	19.0	24.0	18.0	20.5	25.0	20.5	22.5	22.5	21.0	21.5
7	22.5	17.0	19.5	24.0	19.5	21.5	25.5	21.0	23.0	23.0	21.0	22.0
8	24.5	19.0	21.5	24.0	20.5	22.5	25.0	20.5	22.5	24.0	20.5	22.0
9	23.5	20.0	21.5	25.5	21.5	23.5	22.5	20.5	21.0	24.0	20.5	22.0
10	23.0	20.0	21.5	24.0	20.5	22.0	23.5	20.0	21.5	24.0	21.0	22.5
11	22.0	20.5	21.0	24.0	18.5	21.0	23.0	19.0	21.0	22.5	20.5	21.0
12	23.5	20.0	21.5	21.5	19.0	20.5	21.0	19.0	19.5	21.0	19.5	20.0
13	24.0	20.0	22.0	---	---	---	19.0	18.0	18.5	20.5	19.0	20.0
14	24.5	20.0	22.0	---	---	---	21.5	17.5	19.5	20.0	17.0	18.5
15	25.5	20.5	23.0	---	---	---	23.0	19.0	21.0	19.5	16.0	17.5
16	25.0	20.5	22.5	---	---	---	22.5	19.5	21.0	17.5	16.5	17.0
17	---	---	---	---	---	---	23.0	19.5	21.5	18.0	17.0	17.5
18	---	---	---	22.5	21.0	22.0	23.0	19.5	21.0	18.5	17.0	17.5
19	---	---	---	23.5	21.0	22.0	23.5	19.0	21.0	19.5	16.0	17.5
20	21.5	20.0	20.5	23.5	20.5	22.0	24.0	20.0	22.0	19.0	15.5	17.5
21	24.0	20.0	21.5	23.5	18.5	21.0	22.5	20.0	21.0	18.5	15.5	17.0
22	23.5	19.5	21.5	21.0	19.5	20.0	23.5	20.0	21.5	18.0	16.5	17.5
23	24.0	20.0	22.0	21.0	19.0	19.5	25.0	21.0	22.5	18.0	16.5	17.0
24	22.5	19.0	21.0	23.0	18.5	20.5	24.5	21.5	23.0	16.5	15.0	16.0
25	24.0	20.0	22.0	24.0	20.0	22.0	24.0	20.0	22.0	18.0	15.0	16.5
26	23.0	18.5	20.5	---	---	---	23.5	19.0	21.5	17.0	14.5	16.0
27	23.0	18.0	20.5	---	---	---	23.0	19.5	21.0	18.5	16.0	17.0
28	22.5	19.0	20.5	---	---	---	23.0	19.5	21.0	19.0	17.5	18.0
29	20.0	19.0	19.5	---	---	---	24.0	20.0	21.5	18.5	16.5	17.5
30	19.5	18.0	18.5	---	---	---	23.5	19.5	21.0	19.0	15.5	17.0
31	---	---	---	21.5	20.0	20.5	22.5	19.0	21.0	---	---	---
MONTH	25.5	14.0	20.3	25.5	17.5	21.1	25.5	17.5	21.4	24.0	14.5	18.9

OXYGEN, DISSOLVED (MG/L), 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	12.7	9.4	10.7	10.6	10.0	10.2	---	---	---	---	---	---
2	12.8	9.1	10.5	10.3	9.5	9.9	---	---	---	---	---	---
3	12.9	8.7	10.4	9.9	9.2	9.5	---	---	---	---	---	---
4	11.0	8.3	9.6	10.9	9.4	10.2	---	---	---	---	---	---
5	9.3	8.4	9.0	11.6	10.4	11.0	---	---	---	---	---	---
6	9.6	8.9	9.2	12.2	10.7	11.4	---	---	---	---	---	---
7	9.5	8.2	9.1	12.0	10.9	11.5	---	---	---	---	---	---
8	10.7	9.0	9.6	12.0	11.2	11.6	---	---	---	---	---	---
9	11.1	9.1	9.9	12.8	11.7	12.2	---	---	---	---	---	---
10	11.5	9.2	10.1	13.0	11.7	12.3	---	---	---	---	---	---
11	11.8	8.9	10.1	---	---	---	---	---	---	---	---	---
12	12.1	8.8	10.1	---	---	---	---	---	---	---	---	---
13	12.1	9.2	10.4	---	---	---	---	---	---	---	---	---
14	10.0	8.7	9.3	---	---	---	---	---	---	---	---	---
15	10.0	8.8	9.6	---	---	---	---	---	---	---	---	---
16	11.1	9.9	10.4	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	12.0	10.3	11.0	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	11.7	10.6	11.2	---	---	---	---	---	---	---	---	---
25	11.6	10.5	11.0	---	---	---	---	---	---	---	---	---
26	12.1	10.6	11.3	---	---	---	---	---	---	---	---	---
27	12.0	10.0	11.2	---	---	---	---	---	---	---	---	---
28	10.2	9.7	10.0	---	---	---	---	---	---	---	---	---
29	10.6	10.0	10.4	---	---	---	---	---	---	---	---	---
30	11.5	10.3	10.8	---	---	---	---	---	---	---	---	---
31	10.8	10.2	10.4	---	---	---	---	---	---	---	---	---
MONTH	12.9	8.2	10.2	13.0	9.2	11.0	---	---	---	---	---	---

CHRISTINA RIVER BASIN

01480617 WEST BRANCH BRANDYWINE CREEK AT MODENA, PA--Continued

OXYGEN, DISSOLVED (MG/L), 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	---	---	---	13.9	12.1	13.1	---	---	---	11.4	9.6	10.5
2	---	---	---	13.7	12.4	12.9	11.9	10.3	11.2	11.7	9.6	10.5
3	---	---	---	13.6	12.5	12.9	12.4	10.5	11.5	11.4	9.6	10.5
4	---	---	---	14.6	12.6	13.7	12.1	10.4	11.2	11.6	9.6	10.6
5	---	---	---	13.4	11.5	12.7	12.5	10.3	11.4	11.8	9.2	10.4
6	---	---	---	12.5	11.8	12.1	12.8	11.1	11.9	10.6	9.4	10.2
7	---	---	---	13.2	12.2	12.7	12.5	11.2	11.8	12.0	10.1	11.0
8	---	---	---	14.4	13.1	13.7	12.9	11.1	12.1	11.7	10.1	10.9
9	---	---	---	14.9	13.6	14.4	12.8	11.1	12.0	11.3	10.1	10.7
10	---	---	---	15.0	13.8	14.4	13.1	11.5	12.4	11.4	9.6	10.6
11	---	---	---	15.0	13.1	14.0	---	---	---	10.5	8.3	9.7
12	---	---	---	14.6	12.7	13.6	---	---	---	10.1	9.0	9.7
13	---	---	---	14.4	12.0	13.0	12.3	9.7	10.9	11.3	10.1	10.7
14	---	---	---	13.8	11.4	12.7	12.5	9.9	11.0	11.8	10.3	11.0
15	---	---	---	12.9	11.2	11.9	---	---	---	---	---	---
16	---	---	---	13.5	11.2	12.3	---	---	---	11.1	10.3	10.7
17	---	---	---	14.0	11.7	12.9	---	---	---	11.6	9.7	10.6
18	---	---	---	14.4	11.5	12.8	11.8	10.4	11.1	11.2	9.4	10.3
19	---	---	---	14.6	11.5	13.0	11.4	10.4	11.0	10.9	8.6	9.8
20	---	---	---	13.3	11.5	12.5	10.9	9.6	10.5	10.7	8.1	9.4
21	---	---	---	13.6	12.7	13.1	11.2	9.6	10.4	10.6	8.1	9.1
22	---	---	---	14.0	12.9	13.5	---	---	---	10.8	8.2	9.4
23	---	---	---	14.4	13.2	13.8	11.0	8.7	9.9	10.9	8.4	9.5
24	---	---	---	15.0	12.4	13.7	11.4	9.0	10.2	10.9	8.4	9.5
25	---	---	---	---	---	---	11.9	9.7	10.8	11.1	8.6	9.7
26	---	---	---	---	---	---	11.2	9.7	10.3	11.5	8.9	10.1
27	---	---	---	---	---	---	12.0	9.8	10.8	11.1	9.4	10.1
28	---	---	---	---	---	---	12.1	9.9	11.0	10.9	9.6	10.2
29	13.5	11.1	12.4	---	---	---	11.5	9.3	10.3	11.2	9.6	10.4
30	---	---	---	---	---	---	10.7	9.3	9.8	11.7	9.8	10.7
31	---	---	---	---	---	---	---	---	---	11.5	9.3	10.4
MONTH	13.5	11.1	12.4	15.0	11.2	13.1	13.1	8.7	11.0	12.0	8.1	10.2

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	11.3	9.0	10.1	10.1	8.6	9.6	10.9	9.5	10.2	---	---	---
2	11.1	8.9	9.9	10.3	8.5	9.3	11.4	9.9	10.6	---	---	---
3	11.2	8.8	10.0	9.6	8.2	8.9	11.3	10.1	10.5	---	---	---
4	11.2	8.6	9.9	10.1	8.8	9.4	11.7	9.7	10.6	---	---	---
5	10.4	8.4	9.3	10.3	8.7	9.5	11.7	9.6	10.6	---	---	---
6	10.6	8.3	9.4	10.2	8.1	9.2	11.4	9.6	10.4	---	---	---
7	10.7	8.3	9.3	9.8	8.0	8.7	11.9	9.3	10.4	---	---	---
8	10.9	8.4	9.5	---	---	---	12.9	9.2	10.3	---	---	---
9	10.2	7.5	9.0	9.7	7.2	8.6	9.9	9.2	9.6	---	---	---
10	10.0	7.5	8.6	10.7	8.6	9.5	11.2	9.2	9.8	---	---	---
11	9.1	7.3	8.2	10.5	9.0	9.7	10.8	9.3	9.9	---	---	---
12	8.6	7.1	7.7	10.9	8.9	9.8	---	---	---	---	---	---
13	8.1	7.1	7.6	---	---	---	---	---	---	---	---	---
14	8.9	7.0	7.8	---	---	---	---	---	---	9.6	8.3	8.9
15	8.4	6.9	7.7	---	---	---	---	---	---	10.0	8.6	9.2
16	8.8	6.8	7.7	---	---	---	---	---	---	10.0	8.5	9.2
17	---	---	---	---	---	---	---	---	---	9.2	8.1	8.7
18	---	---	---	9.7	8.7	9.1	---	---	---	9.4	8.4	8.9
19	---	---	---	8.9	8.5	8.7	---	---	---	9.2	8.2	8.8
20	9.0	8.4	8.7	9.4	8.6	9.0	---	---	---	9.7	8.3	9.0
21	8.8	8.1	8.5	9.8	8.7	9.2	---	---	---	10.3	8.6	9.3
22	9.1	8.1	8.5	9.8	8.7	9.3	---	---	---	---	---	---
23	8.9	8.1	8.4	10.8	9.0	9.4	---	---	---	---	---	---
24	9.1	8.1	8.7	10.5	9.0	9.6	---	---	---	---	---	---
25	9.3	8.2	8.8	11.3	9.0	9.9	---	---	---	---	---	---
26	10.0	8.5	9.4	---	---	---	---	---	---	---	---	---
27	10.9	8.9	10.0	---	---	---	---	---	---	---	---	---
28	10.9	9.0	10.0	---	---	---	---	---	---	---	---	---
29	11.0	9.1	10.1	---	---	---	---	---	---	---	---	---
30	10.0	8.9	9.5	---	---	---	---	---	---	---	---	---
31	---	---	---	10.0	9.5	9.7	---	---	---	---	---	---
MONTH	11.3	6.8	9.0	11.3	7.2	9.3	12.9	9.2	10.3	10.3	8.1	9.0

CHRISTINA RIVER BASIN

01480675 MARSH CREEK NEAR GLENMOORE, PA

LOCATION.--Lat 40°05'52", long 75°44'31", Chester County, Hydrologic Unit 02040205, on left bank 200 ft north of Pennsylvania Turnpike, 1.2 mi downstream from Lyons Run, 1.8 mi upstream from Black Horse Creek, and 3.0 mi northeast of Glenmoore.

DRAINAGE AREA.--8.57 mi².

PERIOD OF RECORD.--July 1966 to current year.

REVISED RECORDS.--WDR PA-74-1: 1967(M), 1971-72(P) WDR PA-93-1: 1992.

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 450 ft above sea level, from topographic map.

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

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 130 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 19	1945	*448	*3.29	Apr. 16	1200	284	2.80
Jan. 27	2145	201	2.53				

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	1.1	8.0	8.1	5.6	19	14	28	43	8.7	23	25	3.7
2	.92	20	8.6	11	e16	15	109	23	7.7	10	12	3.5
3	.78	21	6.8	18	e14	16	44	22	7.3	7.4	8.7	3.3
4	.95	11	6.5	e16	e13	12	25	23	7.6	7.7	7.9	3.4
5	8.9	6.5	5.7	e10	e10	15	23	19	10	5.8	7.1	3.5
6	18	4.7	7.8	e5.5	e10	32	23	28	9.5	4.4	6.1	5.7
7	12	5.4	6.9	e3.4	e11	58	30	22	7.3	3.8	5.4	10
8	5.7	11	5.3	e3.0	e15	64	38	19	6.5	3.9	4.9	9.4
9	2.9	8.6	5.2	e2.8	e23	e25	28	22	6.4	4.0	9.4	6.2
10	1.9	5.3	e4.4	e2.7	30	e17	36	20	9.0	4.1	14	4.7
11	1.6	6.9	e3.4	e2.5	30	e18	28	23	8.0	3.4	10	4.1
12	1.3	81	e3.0	e2.4	27	e19	21	49	7.4	3.0	8.0	4.2
13	1.3	49	e3.0	e2.5	16	20	19	25	6.9	39	36	5.1
14	3.2	33	e3.8	e2.7	e12	18	18	16	5.7	61	37	6.3
15	11	67	5.2	e3.0	e13	18	17	14	4.8	20	13	5.4
16	9.0	34	9.8	e2.5	e12	17	188	18	4.1	8.4	10	5.8
17	4.4	15	12	e2.3	e11	15	78	20	7.6	5.8	9.1	64
18	2.6	11	12	e2.3	e11	14	33	16	11	4.8	7.4	70
19	1.9	10	9.9	179	e11	23	28	14	26	31	5.9	24
20	1.8	9.1	7.9	200	19	91	26	12	28	54	5.1	9.6
21	45	8.4	e7.0	75	70	37	24	11	38	22	4.7	6.5
22	59	7.5	e6.3	36	54	21	22	10	24	8.5	4.7	39
23	17	6.6	e5.7	25	35	17	22	9.2	9.2	7.8	4.4	66
24	7.5	9.3	e5.5	33	33	16	31	8.7	6.4	7.2	44	19
25	4.4	8.9	e5.3	53	26	15	22	8.1	6.9	6.1	25	11
26	3.2	7.4	e4.8	43	20	15	20	8.0	5.5	28	9.5	8.6
27	3.1	6.9	e4.4	102	18	14	23	9.6	4.3	19	6.4	7.5
28	34	7.0	e4.2	124	20	16	18	11	3.9	9.5	5.5	10
29	32	7.7	e4.0	46	17	68	21	19	3.7	7.0	5.0	60
30	12	8.4	e4.0	29	---	57	29	19	19	27	4.6	43
31	6.9	---	e4.4	27	---	23	---	11	---	43	4.1	---
TOTAL	315.35	495.6	190.9	1070.2	616	820	1072	572.6	310.4	489.6	359.9	522.5
MEAN	10.2	16.5	6.16	34.5	21.2	26.5	35.7	18.5	10.3	15.8	11.6	17.4
MAX	59	81	12	200	70	91	188	49	38	61	44	70
MIN	.78	4.7	3.0	2.3	10	12	17	8.0	3.7	3.0	4.1	3.3
CFSM	1.19	1.93	.72	4.03	2.48	3.09	4.17	2.16	1.21	1.84	1.35	2.03
IN.	1.37	2.15	.83	4.65	2.67	3.56	4.65	2.49	1.35	2.13	1.56	2.27

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

	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977
MEAN	6.89	11.0	13.7	14.3	17.0	21.2	19.4	15.3	11.0	9.16	5.97	6.36
MAX	21.2	21.8	43.4	35.9	44.8	58.4	47.4	36.7	42.2	34.0	22.1	21.4
(WY)	1980	1973	1984	1978	1971	1994	1983	1989	1972	1984	1971	1979
MIN	2.33	3.18	2.07	1.19	5.09	6.58	4.84	4.97	2.81	2.28	.93	.88
(WY)	1982	1982	1981	1981	1980	1981	1985	1969	1986	1987	1995	1980

e Estimated.

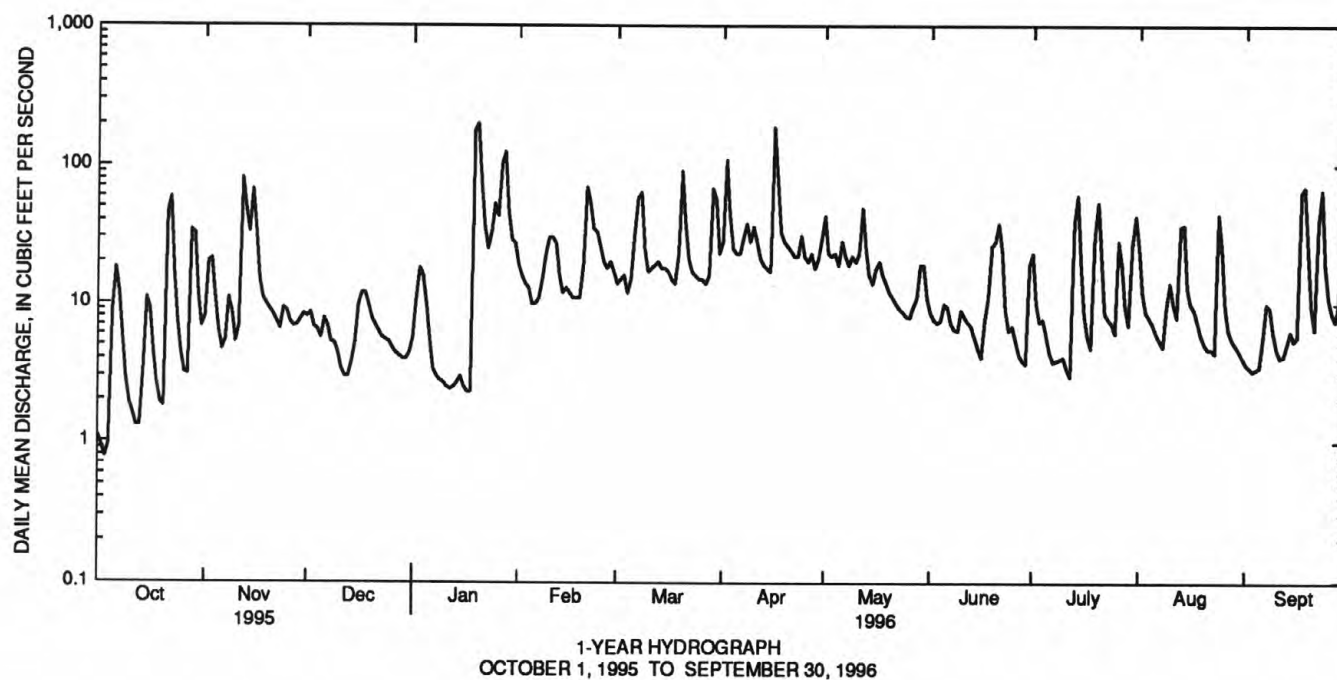
CHRISTINA RIVER BASIN

01480675 MARSH CREEK NEAR GLENMOORE, PA--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1966 - 1996	
ANNUAL TOTAL	3302.03		6835.05		12.6	
ANNUAL MEAN	9.05		18.7		23.2	
HIGHEST ANNUAL MEAN					1984	
LOWEST ANNUAL MEAN					1981	
HIGHEST DAILY MEAN	187	Mar 9	200	Jan 20	444	Jun 22 1972
LOWEST DAILY MEAN	.39	Sep 8a	.78	Oct 3	.39	Sep 8 1995a
ANNUAL SEVEN-DAY MINIMUM	.41	Sep 10	b2.5	Jan 12	.41	Sep 7 1966
INSTANTANEOUS PEAK FLOW			448	Jan 19	946	Jun 22 1972
INSTANTANEOUS PEAK STAGE			3.29	Jan 19	4.68	Jun 22 1972
INSTANTANEOUS LOW FLOW			.76	Oct 2-4	.30	Aug 31 1966
ANNUAL RUNOFF (CFSM)	1.06		2.18		1.47	
ANNUAL RUNOFF (INCHES)	14.33		29.67		19.99	
10 PERCENT EXCEEDS	17		39		25	
50 PERCENT EXCEEDS	6.4		11		7.7	
90 PERCENT EXCEEDS	.95		3.6		2.2	

a Also Sept. 12, 15, 16.

b Computed using estimated daily discharges.



CHRISTINA RIVER BASIN

01480684 MARSH CREEK RESERVOIR NEAR DOWNINGTOWN, PA

LOCATION.--Lat 40°03'24", long 75°43'06", Chester County, Hydrologic Unit 02040205, on right bank at dam on Marsh Creek, 0.3 mi upstream from mouth, and 3.2 mi north of Downingtown.

DRAINAGE AREA.--20.1 mi².

PERIOD OF RECORD.--November 1973 to current year.

GAGE.--Water-stage recorder. Datum of gage is sea level (levels by Pennsylvania Department of Environmental Protection).

REMARKS.--Reservoir formed by earthfill dam with concrete spillway at elevation 359.5 ft. Storage began November 1973. Total capacity, 22,190 acre-ft, elevation 373 ft. Reservoir is used for water supply, flood control, and recreation. Figures given herein represent contents above lowest gate sill at elevation 289.5 ft.

COOPERATION.--Records provided by Pennsylvania Department of Environmental Protection.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 16,380 acre-ft, Jan. 25, 1979, elevation, 363.49 ft; minimum contents (after first filling), 10,410 acre-ft, Mar. 3, 1976, elevation, 351.75 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 14,950 acre-ft, Sept. 20, elevation, 360.90 ft; minimum contents, 12,660 acre-ft, Dec. 16, elevation, 356.51 ft.

MONTHEND ELEVATION, IN FEET ABOVE SEA LEVEL, AND CONTENTS AT 2400 HRS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

Date	Elevation (feet)	Contents (acre- feet)	Change in contents (equivalent in ft ³ /s)
<u>01480684 Marsh Creek Reservoir</u>			
Sept. 30	358.55	13,680	--
Oct. 31	360.65	14,820	+18.5
Nov. 30	359.84	14,370	- 7.6
Dec. 31	356.98	12,900	-23.9
CAL YR 1995	--	--	- 0.2
Jan. 31	360.21	14,570	+27.2
Feb. 29	356.91	12,860	-29.7
Mar. 31	359.37	14,110	+20.3
Apr. 30	359.57	14,220	+ 1.8
May 31	360.00	14,460	+ 3.9
June 30	359.94	14,430	- 0.5
July 31	360.69	14,840	+ 6.7
Aug. 31	360.18	14,560	- 4.6
Sept. 30	360.44	14,700	+ 2.4
WTR YR 1996	--	--	+ 1.4

LOCATION.--Lat 40°03'19", long 75°43'00", Chester County, Hydrologic Unit 02040205, on left bank 1,000 ft downstream from Marsh Creek Dam, 0.2 mi upstream from mouth, and 3.0 mi north of Downingtown.

PERIOD OF RECORD.--June 1973 to current year.

REMARKS.--No estimated daily discharges. Records good. Flow completely regulated since November 1973 by Marsh Creek Reservoir.

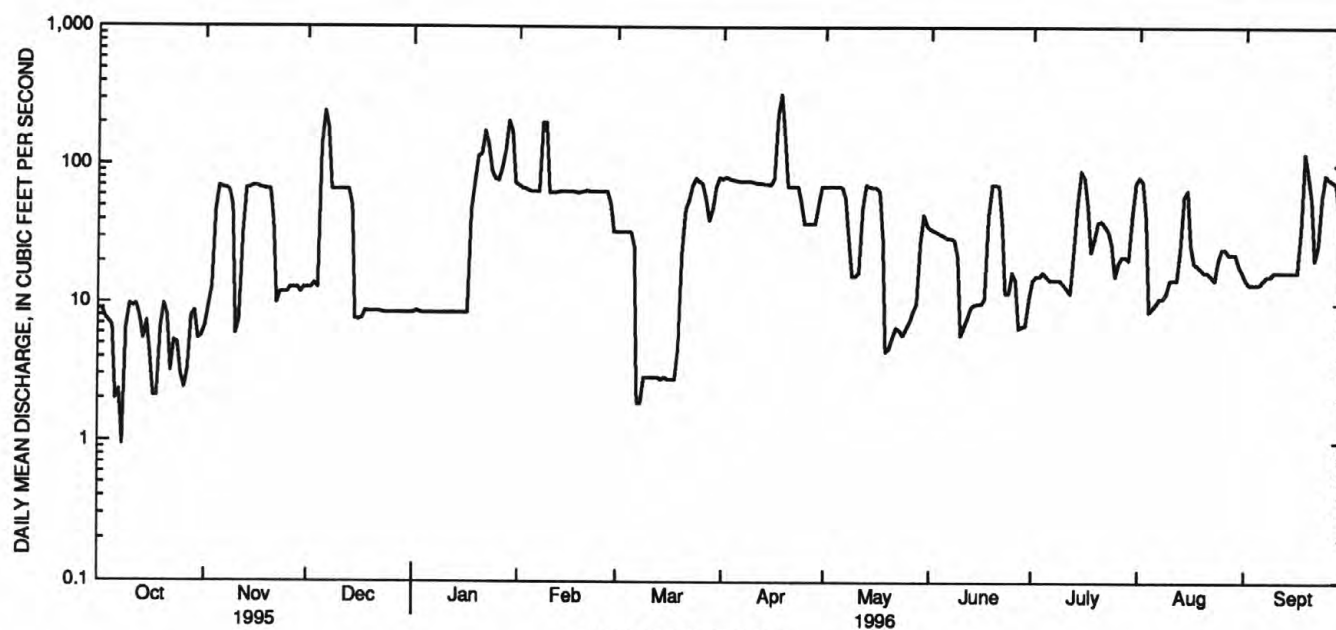
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.0	6.8	13	8.5	71	33	79	70	35	15	82	15
2	9.0	9.5	13	8.8	68	33	82	70	34	16	76	14
3	7.8	13	14	8.6	67	33	79	70	33	16	43	14
4	7.3	47	13	8.5	65	33	78	70	32	17	8.8	14
5	6.7	70	141	8.5	64	33	77	70	31	16	9.4	14
6	2.0	68	243	8.5	64	26	76	69	30	15	10	15
7	2.3	67	183	8.5	64	1.9	76	58	30	15	11	16
8	.94	65	66	8.5	201	1.9	76	30	29	15	11	16
9	6.6	50	66	8.5	202	2.9	76	16	22	15	12	17
10	9.7	6.0	66	8.5	63	2.9	75	16	5.9	14	15	17
11	9.4	7.5	66	8.5	63	2.9	74	17	6.9	13	15	17
12	9.7	32	66	8.5	63	2.9	74	49	8.0	12	15	17
13	7.8	67	66	8.5	64	2.9	73	72	9.5	25	25	17
14	5.5	68	50	8.5	64	2.8	73	70	9.9	54	59	17
15	7.3	70	7.7	8.5	64	2.9	72	69	10	91	66	17
16	4.2	70	7.6	8.5	64	2.8	80	69	10	81	27	17
17	2.1	68	7.8	8.5	64	2.8	234	65	11	51	20	35
18	2.1	67	8.8	47	63	2.8	330	30	43	24	19	122
19	6.5	66	8.7	75	63	4.7	167	4.5	72	30	18	85
20	9.8	66	8.7	115	64	23	70	4.8	72	39	17	56
21	8.1	38	8.7	120	65	48	70	5.7	71	40	17	21
22	3.2	10	8.7	175	64	56	70	6.7	38	37	16	27
23	5.3	12	8.6	140	64	71	70	6.5	12	34	15	60
24	5.1	12	8.5	90	64	80	53	5.9	12	27	21	85
25	3.0	12	8.5	79	64	76	38	6.7	17	16	25	80
26	2.4	13	8.5	77	64	73	38	7.4	15	20	25	77
27	3.3	13	8.5	95	64	56	38	8.8	6.7	22	23	74
28	8.0	13	8.5	126	52	40	38	10	6.9	22	23	44
29	8.7	12	8.5	208	33	49	52	28	7.0	21	23	10
30	5.5	13	8.5	173	---	71	70	44	11	43	19	14
31	5.8	---	8.5	74	---	81	---	37	---	74	17	---
TOTAL	184.14	1131.8	1209.3	1738.9	2099	952.1	2558	1156.0	730.8	930	783.2	1044
MEAN	5.94	37.7	39.0	56.1	72.4	30.7	85.3	37.3	24.4	30.0	25.3	34.8
MAX	9.8	70	243	208	202	81	330	72	72	91	82	122
MIN	.94	6.0	7.6	8.5	33	1.9	38	4.5	5.9	12	8.8	10

MEAN	19.1	22.2	41.3	43.4	34.8	40.1	42.3	34.7	24.3	22.7	15.0	16.3
MAX	52.5	60.0	87.4	128	72.4	119	140	83.4	71.2	81.6	31.4	54.3
(WY)	1979	1989	1984	1979	1996	1994	1983	1989	1982	1984	1989	1979
MIN	3.39	3.50	3.01	7.30	.86	.83	.84	.72	4.06	5.18	6.42	6.47
(WY)	1981	1979	1974	1981	1989	1974	1974	1974	1976	1983	1981	1981

CHRISTINA RIVER BASIN

01480685 MARSH CREEK NEAR DOWNINGTOWN, PA--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1973 - 1996	
ANNUAL TOTAL	7337.94		14517.24		29.5	
ANNUAL MEAN	20.1		39.7		52.9	1984
HIGHEST ANNUAL MEAN					11.6	1974
LOWEST ANNUAL MEAN					462	Jun 18 1982
HIGHEST DAILY MEAN	301	Mar 14	330	Apr 18	.31	Dec 22 1973
LOWEST DAILY MEAN	.94	Oct 8	.94	Oct 8	.40	Feb 27 1980
ANNUAL SEVEN-DAY MINIMUM	3.9	Jul 3	2.6	Mar 7	a560	Dec 14 1983
INSTANTANEOUS PEAK FLOW			a371	Jan 29	3.70	Dec 14 1983
INSTANTANEOUS PEAK STAGE			3.37	Jan 29		
INSTANTANEOUS LOW FLOW			.62	Oct 8		
10 PERCENT EXCEEDS	58		76		65	
50 PERCENT EXCEEDS	11		23		15	
90 PERCENT EXCEEDS	5.4		6.6		5.4	

a From rating curve extended above 200 ft³/s.

1-YEAR HYDROGRAPH
OCTOBER 1, 1995 TO SEPTEMBER 30, 1996

CHRISTINA RIVER BASIN

01480700 EAST BRANCH BRANDYWINE CREEK NEAR DOWNINGTOWN, PA

LOCATION.--Lat 40°02'05", long 75°42'32", Chester County, Hydrologic Unit 02040205, on right bank 20 ft downstream from bridge on Dowlin Forge Road, 200 ft east of State Highway 282, 0.4 mi downstream from Shamona Creek, 1.5 mi downstream from Marsh Creek, 2.0 mi upstream from Beaver Creek, and 2.2 mi north of Downingtown.

DRAINAGE AREA.--60.6 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1948-57. October 1965 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 270 ft above sea level, from topographic map. Prior to July 30, 1966, nonrecording gage at same site and datum.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Flow regulated since November 1973 by Marsh Creek Reservoir (station 01480684) 1.9 mi upstream. Several measurements of water temperature were made during the year.

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	19	48	49	39	162	109	241	212	89	80	167	49
2	19	98	51	58	155	112	448	162	84	64	142	47
3	17	71	48	102	147	112	212	175	83	67	102	45
4	16	85	47	61	144	100	189	168	83	67	58	44
5	73	102	45	48	135	107	180	157	93	54	55	44
6	110	96	185	46	136	183	176	206	82	49	52	51
7	28	97	285	46	137	343	205	152	78	46	50	78
8	19	112	209	112	275	192	208	127	77	56	49	59
9	21	86	89	146	339	114	193	126	69	54	92	56
10	25	37	86	e85	180	98	220	110	57	51	86	50
11	23	46	84	e65	182	94	185	136	55	43	60	48
12	22	516	84	e55	175	96	171	254	64	40	61	48
13	20	159	84	e50	138	93	165	172	61	403	271	55
14	34	274	86	e48	139	86	159	157	53	198	144	57
15	78	280	71	e46	137	91	155	149	49	171	134	48
16	34	154	53	e46	136	86	865	162	46	151	91	53
17	21	123	59	e38	135	77	455	156	93	110	77	327
18	17	112	49	e44	131	76	455	113	242	72	68	231
19	22	105	49	1580	128	126	282	78	352	230	62	147
20	27	101	48	789	165	375	182	71	249	154	59	105
21	301	78	49	483	360	169	175	67	211	100	57	58
22	90	49	44	279	238	158	169	64	106	90	57	250
23	47	49	42	253	216	160	169	60	64	93	54	159
24	40	54	41	281	220	164	163	58	55	79	81	149
25	33	51	41	286	179	157	130	57	64	62	70	137
26	28	49	39	181	164	151	129	57	57	128	65	126
27	28	49	40	830	157	129	132	65	40	81	65	118
28	195	47	39	472	154	116	122	74	39	69	62	95
29	67	49	39	343	118	420	144	113	39	68	58	278
30	46	50	39	301	---	218	198	114	122	198	55	94
31	42	---	38	183	---	189	---	94	---	193	52	---
TOTAL	1562	3227	2212	7396	5082	4701	6877	3866	2856	3321	2556	3106
MEAN	50.4	108	71.4	239	175	152	229	125	95.2	107	82.5	104
MAX	301	516	285	1580	360	420	865	254	352	403	271	327
MIN	16	37	38	38	118	76	122	57	39	40	49	44

e Estimated.

CHRISTINA RIVER BASIN

01480700 EAST BRANCH BRANDYWINE CREEK NEAR DOWNINGTOWN, PA--Continued

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

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	56.1	73.6	107	123	113	140	131	108	73.1	70.9	45.6	54.4
MAX	150	148	217	361	242	380	365	246	181	257	90.9	191
(WY)	1980	1989	1978	1979	1979	1994	1983	1989	1982	1984	1989	1979
MIN	23.2	25.2	23.5	17.5	47.8	35.7	28.9	49.2	29.6	22.9	18.8	17.1
(WY)	1981	1982	1981	1981	1992	1985	1985	1976	1985	1977	1981	1980

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR			FOR 1996 WATER YEAR			WATER YEARS 1974 - 1996		
ANNUAL TOTAL	22604			46762					
ANNUAL MEAN	61.9			128			91.3		
HIGHEST ANNUAL MEAN							150		
LOWEST ANNUAL MEAN							39.3		
HIGHEST DAILY MEAN	630			Mar 8			2020		
LOWEST DAILY MEAN	12			Aug 25a			11		
ANNUAL SEVEN-DAY MINIMUM	12			Sep 2			12		
INSTANTANEOUS PEAK FLOW				23			4750		
INSTANTANEOUS PEAK STAGE				8.66			8.95		
INSTANTANEOUS LOW FLOW				13			7.3		
10 PERCENT EXCEEDS	103			241			175		
50 PERCENT EXCEEDS	48			91			58		
90 PERCENT EXCEEDS	19			42			26		

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 1973, BY WATER YEAR (WY) (PRIOR TO REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	44.3	76.4	92.0	81.4	139	129	123	98.8	99.8	63.1	56.5	45.2
MAX	120	168	245	168	286	195	238	144	306	128	147	148
(WY)	1972	1973	1973	1973	1971	1972	1973	1973	1972	1972	1971	1971
MIN	24.8	27.6	32.0	33.3	51.6	70.0	64.3	43.2	30.3	18.3	15.3	20.1
(WY)	1970	1966	1966	1969	1969	1969	1969	1969	1966	1966	1966	1970

SUMMARY STATISTICS	WATER YEARS 1966 - 1973		
ANNUAL TOTAL			
ANNUAL MEAN	87.0		
HIGHEST ANNUAL MEAN	139		
LOWEST ANNUAL MEAN	51.6		
HIGHEST DAILY MEAN	3220		
LOWEST DAILY MEAN	7.2		
ANNUAL SEVEN DAY MINIMUM	8.0		
INSTANTANEOUS PEAK FLOW	c8070		
INSTANTANEOUS PEAK STAGE	d12.06		
INSTANTANEOUS LOW FLOW	7.2		
ANNUAL RUNOFF (CFSM)	1.44		
ANNUAL RUNOFF (INCHES)	19.51		
10 PERCENT EXCEEDS	163		
50 PERCENT EXCEEDS	56		
90 PERCENT EXCEEDS	23		

a Also Aug. 26-28, Sept. 2-9, 11-13, 19.

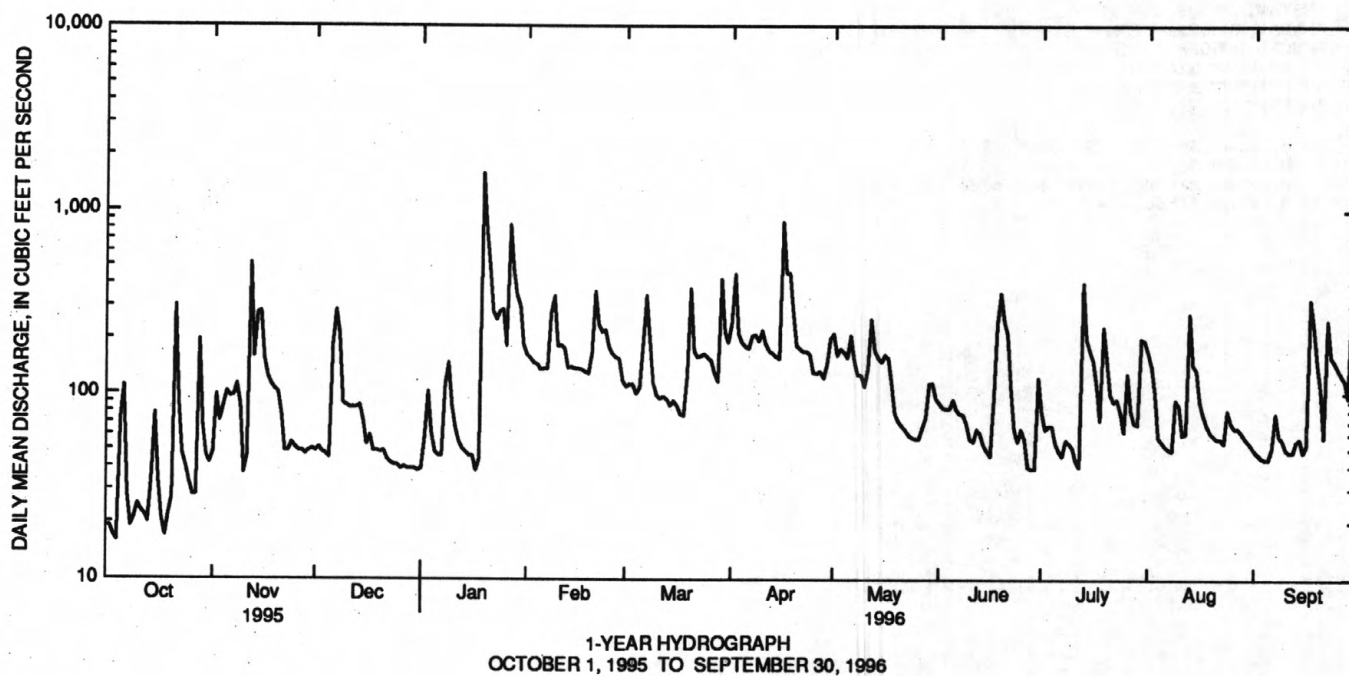
b Also Sept. 17, 1992.

c From rating curve extended above 5,000 ft³/s.

d From floodmark.

CHRISTINA RIVER BASIN

01480700 EAST BRANCH BRANDYWINE CREEK NEAR DOWNINGTOWN, PA--Continued



CHRISTINA RIVER BASIN

01480700 EAST BRANCH BRANDYWINE CREEK NEAR DOWNINGTOWN, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1971 to current year.

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

DATE	TIME	AGENCY COL- LECTING SAMPLE (CODE NUMBER) (00027)	AGENCY ANA- LYZING SAMPLE (CODE NUMBER) (00028)	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (μ S/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)
OCT 1995							
17...	1257	1028	80020	19	222	7.5	11.0
AUG 1996							
14...	1000	1028	1028	96	190	6.3	19.0
21...	1045	1028	1028	50	196	6.7	20.5
DATE	OXYGEN, DIS- SOLVED (MG/L) (00300)	ALKA- LINITY WAT WH TOT IT FIELD MG/L AS CACO3 (00419)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	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)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)
OCT 1995							
17...	11.4	47	17	<0.010	1.40	0.020	0.030
AUG 1996							
14...	9.0	--	--	--	--	--	--
21...	9.2	--	--	--	--	--	--

CHRISTINA RIVER BASIN

01480870 EAST BRANCH BRANDYWINE CREEK BELOW DOWNINGTOWN, PA

LOCATION.--Lat 39°58'07", long 75°40'25", Chester County, Hydrologic Unit 02040205, on left bank at downstream side of Sugars Bridge (U.S. Highway 322), 2,000 ft upstream from Valley Creek, 1.5 mi north of Marshallton, and 3.3 mi southeast of Downingtown.

DRAINAGE AREA.--89.9 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February 1972 to current year.

REVISED RECORDS.--WDR PA-75-1: 1972(P), 1973, 1974.

GAGE.--Water-stage recorder. Elevation of gage is 195 ft above sea level, from topographic map. Feb. 1 to Apr. 10, and June 25 to Nov. 17, 1972, nonrecording gage at same site and datum.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Flow regulated since November 1973 by Marsh Creek Reservoir (station 01480684) about 7.5 mi upstream. Satellite telemetry at station.

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	36	81	81	64	259	158	385	279	124	125	262	113
2	37	145	83	100	244	160	834	212	118	101	215	109
3	35	111	76	173	230	157	326	224	117	139	175	107
4	34	110	77	100	222	139	280	217	115	115	114	104
5	154	130	74	75	215	145	262	202	125	93	106	104
6	310	124	193	66	212	257	248	280	112	86	101	114
7	62	129	319	95	200	586	302	205	108	84	97	161
8	49	145	259	295	341	350	303	189	105	118	96	123
9	45	119	122	368	538	200	273	193	104	94	393	124
10	50	65	116	232	274	174	324	171	102	88	214	111
11	44	92	111	e90	252	168	260	204	98	82	124	106
12	45	865	111	e80	254	167	238	355	121	80	122	106
13	44	223	111	e70	199	160	225	222	113	768	668	119
14	107	443	115	e65	195	148	216	204	91	343	244	125
15	150	410	107	e60	192	164	209	194	86	274	220	104
16	68	214	91	e60	188	150	1750	207	82	241	169	114
17	49	178	98	e55	184	133	620	205	116	201	146	694
18	49	162	81	e70	180	130	541	172	324	150	126	355
19	45	154	82	2680	173	201	383	138	663	429	118	225
20	52	147	77	1370	229	652	265	129	343	282	128	185
21	590	125	75	820	627	253	244	118	e300	184	147	120
22	170	88	72	430	341	232	235	112	155	169	144	542
23	80	83	68	392	302	224	232	109	108	180	138	260
24	67	92	67	490	300	227	232	103	97	155	192	206
25	60	86	66	498	255	220	199	102	102	141	152	189
26	54	83	63	290	232	212	188	102	95	229	144	172
27	52	82	61	1470	216	191	187	110	83	166	207	165
28	350	79	63	851	221	176	178	124	82	143	154	151
29	109	85	63	532	172	768	193	154	81	142	130	407
30	76	84	59	484	---	336	259	158	203	333	122	152
31	70	---	61	298	---	272	---	132	---	310	116	---
TOTAL	3143	4934	3102	12723	7447	7510	10391	5526	4473	6045	5484	5667
MEAN	101	164	100	410	257	242	346	178	149	195	177	189
MAX	590	865	319	2680	627	768	1750	355	663	768	668	694
MIN	34	65	59	55	172	130	178	102	81	80	96	104

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

	MEAN	86.7	113	162	190	181	221	213	175	122	118	78.5	90.9
MAX	224	214	449	527	409	525	594	410	315	421	177	292	
(WY)	1980	1989	1984	1979	1979	1994	1983	1989	1982	1984	1996	1979	
MIN	41.2	43.6	40.8	30.9	74.6	61.6	53.1	81.9	47.0	41.1	35.9	29.5	
(WY)	1987	1974	1981	1981	1980	1985	1985	1976	1985	1977	1995	1980	

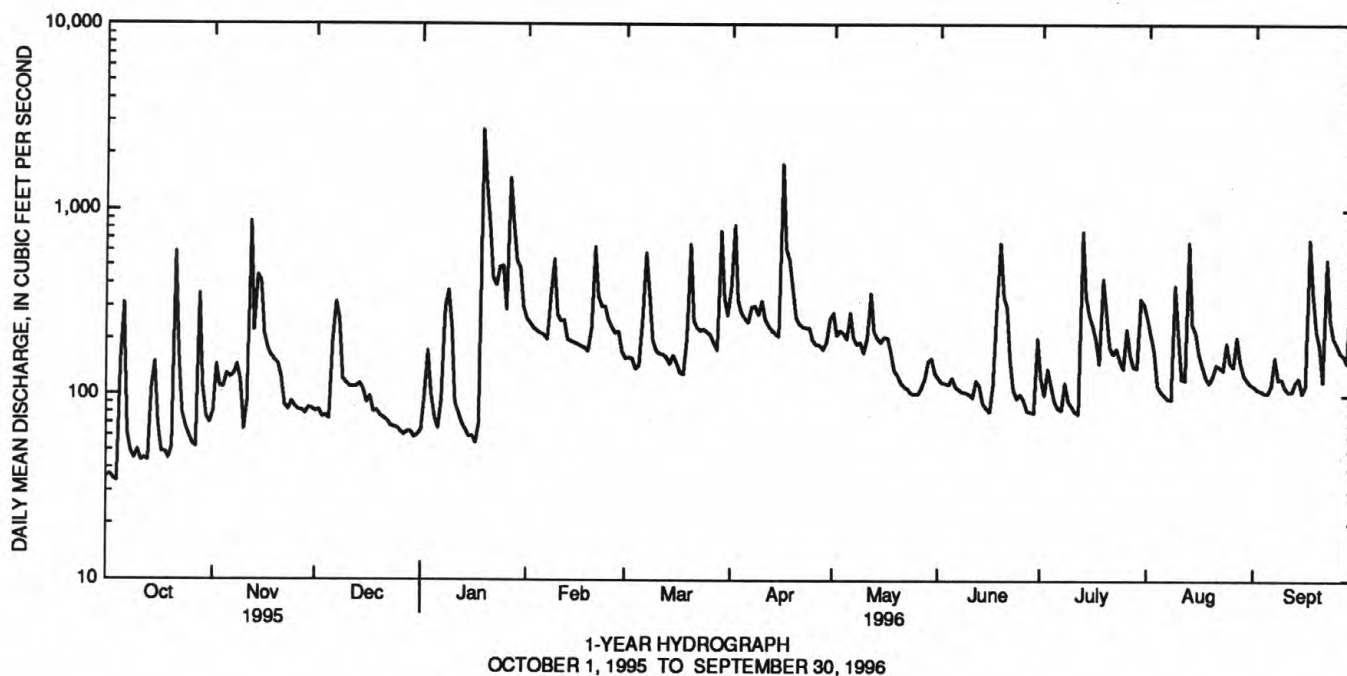
e Estimated.

CHRISTINA RIVER BASIN

01480870 EAST BRANCH BRANDYWINE CREEK BELOW DOWNINGTOWN, PA--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1974 - 1996	
ANNUAL TOTAL	35869		76445		146	
ANNUAL MEAN	98.3		209		257	1984
HIGHEST ANNUAL MEAN					59.7	1981
LOWEST ANNUAL MEAN					3040	Jan 26 1978
HIGHEST DAILY MEAN	1320	Mar 9	2680	Jan 19	23	Sep 12 1995
LOWEST DAILY MEAN	23	Sep 12	34	Oct 4	26	Sep 6 1995
ANNUAL SEVEN-DAY MINIMUM	26	Sep 6	48	Oct 7	a8160	Jun 22 1972
INSTANTANEOUS PEAK FLOW			a6560	Jan 19	c13.40	Jun 22 1972
INSTANTANEOUS PEAK STAGE			b12.50	Jan 19	22	Sep 25 1980
INSTANTANEOUS LOW FLOW						
10 PERCENT EXCEEDS	157		355		281	
50 PERCENT EXCEEDS	74		152		95	
90 PERCENT EXCEEDS	34		69		42	

- a From rating curve extended above 3,600 ft³/s on basis of slope-area measurement of peak flow.
b 12.60 ft from peak indicator.
c From floodmark.



CHRISTINA RIVER BASIN

01480870 EAST BRANCH BRANDYWINE CREEK BELOW DOWNINGTOWN, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966, October 1970 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: February 1972 to current year.

pH: February 1972 to current year.

WATER TEMPERATURES: February 1972 to current year.

DISSOLVED OXYGEN: February 1972 to current year.

INSTRUMENTATION.--Water-quality monitor since February 1972.

REMARKS.--Data collection discontinued during winter months since 1981 water year. Other interruptions in the record were due to malfunctions of the recording instrument.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 652 microsiemens, Feb. 6, 1977; minimum, 67 microsiemens, July 1, 1984.

pH: Maximum, 9.9, May 13, June 5, 1973; minimum, 5.4, Oct. 24, 26, 1973.

WATER TEMPERATURE: Maximum, 33.0°C, July 18, 1977; minimum, 0.0°C, many days during winter periods.

DISSOLVED OXYGEN: Maximum, 19.4 mg/L, Mar. 18, 1989; minimum, 0.8 mg/L, July 23, 1984.

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

DATE	TIME	AGENCY COL- LECTING SAMPLE (CODE NUMBER) (00027)	AGENCY ANA- LYZING SAMPLE (CODE NUMBER) (00028)	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (μ S/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	OXYGEN, DIS- SOLVED (MG/L) (00300)	COLI- FORM, FECAL, 0.45 μ M-MF (COLS./ 100 ML) (31616)
OCT 1995									
26...	1455	1028	1028	58	347	7.6	14.5	9.2	K300
NOV									
01...	1320	1028	1028	92	306	7.3	13.0	10.5	K89
07...	1255	1028	1028	144	259	7.3	9.5	9.2	2700
MAR 1996									
05...	1050	1028	1028	184	264	7.3	4.0	13.2	K11
11...	1025	1028	1028	189	278	7.3	2.5	14.3	K12
25...	0955	1028	1028	254	238	7.3	6.5	13.3	78
APR									
03...	0805	1028	1028	359	219	7.1	7.5	9.9	110
11...	1020	1028	1028	297	234	7.3	7.5	12.0	K22
15...	0930	1028	1028	252	241	7.4	10.0	10.1	44
22...	1100	1028	1028	277	216	7.1	12.5	10.5	39
30...	0910	1028	1028	249	218	7.2	14.5	8.7	100
MAY									
07...	0955	1028	1028	252	214	7.3	12.0	10.5	200
15...	1155	1028	1028	237	236	7.4	12.0	12.1	K11
21...	1030	1028	1028	167	270	7.4	19.5	8.5	210
29...	1125	1028	1028	198	272	7.5	14.0	11.3	2400
JUN									
04...	1150	1028	1028	165	261	7.5	15.5	11.1	120
13...	1140	1028	1028	153	281	7.3	20.0	--	2600
19...	1100	1028	1028	259	225	7.6	19.5	--	5100
26...	1150	1028	1028	144	274	7.8	19.0	--	450
JUL									
01...	1240	1028	1028	159	255	7.8	19.0	13.0	5200
10...	1200	1028	1028	133	294	7.8	21.0	--	540
18...	1210	1028	1028	144	271	7.2	21.0	10.2	720
24...	1230	1028	1028	144	264	7.4	19.0	11.7	530
AUG									
01...	1215	1028	1028	216	217	7.7	20.0	7.0	1600
06...	1215	1028	1028	106	276	7.6	21.0	--	340
14...	0920	1028	1028	189	248	6.9	18.5	9.0	9400
21...	1000	1028	1028	126	297	7.8	20.5	9.5	340
27...	1050	1028	1028	123	272	7.1	21.5	9.9	380
SEP									
05...	1035	1028	1028	102	295	7.1	21.5	9.5	210
12...	1040	1028	1028	100	291	6.7	21.0	9.0	360
19...	1010	1028	1028	171	237	6.5	16.0	9.3	820
25...	1040	1028	1028	155	244	6.3	16.5	9.2	160

CHRISTINA RIVER BASIN

01480870 EAST BRANCH BRANDYWINE CREEK BELOW DOWNINGTOWN, PA--Continued

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25° 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	383	325	359	308	277	293	---	---	---	---	---	---
2	385	333	363	277	241	252	---	---	---	---	---	---
3	381	336	364	275	241	256	---	---	---	---	---	---
4	392	353	379	291	251	267	---	---	---	---	---	---
5	391	177	289	261	234	248	---	---	---	---	---	---
6	269	134	207	258	237	248	---	---	---	---	---	---
7	343	269	304	258	239	249	---	---	---	---	---	---
8	368	320	343	253	234	242	---	---	---	---	---	---
9	377	344	363	264	235	247	---	---	---	---	---	---
10	355	315	338	324	264	306	---	---	---	---	---	---
11	382	316	346	336	300	316	---	---	---	---	---	---
12	379	335	357	---	---	---	---	---	---	---	---	---
13	370	330	354	---	---	---	---	---	---	---	---	---
14	364	161	304	---	---	---	---	---	---	---	---	---
15	279	182	239	---	---	---	---	---	---	---	---	---
16	349	277	295	---	---	---	---	---	---	---	---	---
17	364	299	326	---	---	---	---	---	---	---	---	---
18	384	364	375	---	---	---	---	---	---	---	---	223
19	386	350	370	---	---	---	---	---	---	---	---	---
20	368	327	350	---	---	---	---	---	---	---	---	---
21	350	127	224	290	235	252	---	---	---	---	---	---
22	264	164	220	300	275	289	---	---	---	---	---	---
23	304	262	279	299	266	284	---	---	---	---	---	---
24	316	286	303	287	257	270	---	---	---	---	---	---
25	341	307	323	303	274	289	---	---	---	---	---	---
26	347	322	340	301	273	288	---	---	---	---	---	---
27	---	---	---	298	273	288	---	---	---	---	---	---
28	---	---	---	303	274	291	---	---	---	---	---	---
29	---	---	---	383	272	317	---	---	---	---	---	---
30	---	---	---	327	303	311	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	392	127	320	383	234	276	---	---	---	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	---	---	---	266	256	262	239	219	236	214	193	202
2	---	---	---	285	258	270	219	183	195	224	214	219
3	---	---	---	283	264	271	231	207	222	226	220	223
4	---	---	---	275	266	270	236	230	233	226	217	222
5	---	---	---	272	263	267	238	235	237	231	220	226
6	---	---	---	277	264	271	241	235	238	229	210	215
7	---	---	---	278	221	262	240	230	235	238	220	226
8	---	---	---	303	215	247	233	220	226	248	233	238
9	---	---	---	306	285	299	236	227	233	252	241	245
10	---	---	---	295	280	288	235	226	231	255	242	249
11	---	---	---	287	278	283	244	232	236	266	236	256
12	---	---	---	286	273	280	246	239	243	236	202	211
13	---	---	---	284	270	277	243	233	239	238	220	230
14	---	---	---	285	254	274	244	235	241	241	230	237
15	---	---	---	323	284	299	246	236	242	242	231	237
16	---	---	---	303	281	290	245	138	173	243	232	237
17	---	---	---	293	279	287	193	160	184	240	229	234
18	---	---	---	292	272	283	192	190	191	264	235	246
19	---	---	---	290	264	282	215	190	199	275	256	266
20	---	---	---	264	205	222	226	215	220	284	264	274
21	---	---	---	246	228	241	227	210	216	290	270	279
22	---	---	---	249	242	245	222	211	215	287	254	275
23	---	---	---	250	242	246	227	213	222	290	274	282
24	---	---	---	245	237	242	227	205	215	292	273	284
25	---	---	---	246	238	242	239	227	233	293	273	286
26	---	---	---	248	239	244	242	216	227	293	284	288
27	---	---	---	258	241	247	225	213	221	289	275	282
28	---	---	---	262	251	257	239	213	234	283	269	274
29	---	---	---	260	192	225	240	221	232	276	233	264
30	---	---	---	229	193	213	227	202	219	253	232	239
31	---	---	---	236	229	231	---	---	---	260	251	256
MONTH	---	---	---	323	192	262	246	138	223	293	193	248

CHRISTINA RIVER BASIN

01480870 EAST BRANCH BRANDYWINE CREEK BELOW DOWNINGTOWN, PA--Continued

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25° 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	263	256	261	275	238	254	238	218	228	311	279	296
2	268	256	263	290	273	280	246	237	241	313	280	297
3	272	256	266	293	229	266	271	242	250	308	282	298
4	274	260	266	289	250	268	292	271	282	315	290	302
5	273	251	261	299	280	289	297	285	292	319	294	308
6	268	257	263	307	286	298	300	293	297	314	289	303
7	274	256	265	313	291	302	304	294	300	290	255	274
8	274	257	267	313	258	285	309	299	304	299	267	282
9	276	259	268	307	276	293	314	212	282	296	268	285
10	286	269	278	307	292	301	279	211	250	300	278	293
11	294	273	281	313	298	307	301	279	288	307	284	298
12	297	236	282	320	301	311	309	295	301	318	287	305
13	296	231	273	320	192	251	295	204	233	317	275	300
14	307	285	298	234	190	211	262	219	248	314	267	288
15	311	286	299	235	223	230	276	257	262	322	284	303
16	319	291	306	236	229	233	285	276	282	318	276	303
17	319	270	307	249	230	236	299	283	289	---	---	---
18	270	199	217	258	249	254	309	294	302	---	---	---
19	231	195	221	269	180	232	316	303	310	---	---	---
20	217	185	198	227	174	197	320	296	312	---	---	---
21	---	---	---	246	227	234	312	297	305	---	---	---
22	268	231	243	254	228	241	314	282	302	---	---	---
23	288	267	275	262	253	257	314	288	303	---	---	---
24	292	276	286	273	238	253	312	229	264	243	226	235
25	294	278	287	284	273	281	285	256	270	247	231	241
26	293	274	283	285	231	257	287	257	275	251	236	245
27	308	291	300	268	235	251	289	140	257	255	239	247
28	313	296	307	278	260	268	293	190	264	265	240	251
29	318	297	310	279	270	276	296	277	289	260	150	185
30	318	227	271	282	197	251	298	281	292	266	203	235
31	---	---	---	224	199	214	312	280	295	---	---	---
MONTH	319	185	272	320	174	261	320	140	280	322	150	277

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	8.2	7.2	7.5	7.3	7.1	7.2	---	---	---	---	---	---
2	8.1	7.2	7.5	7.3	7.1	7.2	---	---	---	---	---	---
3	8.3	7.1	7.6	7.4	7.1	7.2	---	---	---	---	---	---
4	8.0	7.2	7.5	7.5	7.1	7.3	---	---	---	---	---	---
5	7.3	6.8	7.1	7.4	7.1	7.2	---	---	---	---	---	---
6	7.1	6.7	6.9	7.4	7.1	7.3	---	---	---	---	---	---
7	7.2	7.0	7.1	7.3	7.2	7.2	---	---	---	---	---	---
8	7.5	7.1	7.2	7.4	7.1	7.2	---	---	---	---	---	---
9	7.5	7.1	7.3	7.4	7.2	7.3	---	---	---	---	---	---
10	7.5	7.1	7.3	7.5	7.2	7.3	---	---	---	---	---	---
11	7.8	7.2	7.4	---	---	---	---	---	---	---	---	---
12	7.9	7.2	7.5	---	---	---	---	---	---	---	---	---
13	8.1	7.3	7.6	---	---	---	---	---	---	---	---	---
14	7.4	6.9	7.2	---	---	---	---	---	---	---	---	---
15	7.3	6.9	7.1	---	---	---	---	---	---	---	---	---
16	7.5	7.1	7.3	---	---	---	---	---	---	---	---	---
17	7.7	7.2	7.4	---	---	---	---	---	---	---	---	---
18	7.7	7.3	7.4	---	---	---	---	---	---	---	---	---
19	7.9	7.3	7.5	---	---	---	---	---	---	---	---	---
20	7.9	7.3	7.5	---	---	---	---	---	---	---	---	---
21	7.3	6.7	7.0	7.2	7.0	7.1	---	---	---	---	---	---
22	7.1	6.8	7.0	7.3	7.1	7.2	---	---	---	---	---	---
23	7.4	7.1	7.2	7.3	7.1	7.2	---	---	---	---	---	---
24	7.5	7.2	7.3	7.5	7.1	7.2	---	---	---	---	---	---
25	7.5	7.2	7.3	7.3	7.1	7.2	---	---	---	---	---	---
26	7.6	7.2	7.4	7.4	7.1	7.2	---	---	---	---	---	---
27	---	---	---	7.4	7.1	7.2	---	---	---	---	---	---
28	---	---	---	7.6	7.1	7.3	---	---	---	---	---	---
29	---	---	---	7.5	7.1	7.3	---	---	---	---	---	---
30	---	---	---	7.5	7.1	7.3	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	8.3	6.7	7.3	7.6	7.0	7.2	---	---	---	---	---	---

CHRISTINA RIVER BASIN

01480870 EAST BRANCH BRANDYWINE CREEK BELOW DOWNINGTOWN, PA--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
	FEBRUARY			MARCH			APRIL			MAY		
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
	JUNE			JULY			AUGUST			SEPTEMBER		
1	---	---	---	---	---	---	---	---	---	7.6	6.7	7.0
2	---	---	---	---	---	---	---	---	---	7.6	6.7	7.0
3	---	---	---	---	---	---	---	---	---	7.7	6.7	7.1
4	---	---	---	---	---	---	---	---	---	7.5	6.8	7.1
5	---	---	---	---	---	---	---	---	---	7.5	6.8	7.0
6	---	---	---	---	---	---	---	---	---	7.0	6.7	6.8
7	---	---	---	---	---	---	---	---	---	7.0	6.7	6.8
8	---	---	---	---	---	---	---	---	---	7.2	6.8	7.0
9	---	---	---	---	---	---	---	---	---	7.4	6.8	7.1
10	---	---	---	---	---	---	---	---	---	7.5	6.9	7.1
11	---	---	---	---	---	---	---	---	---	7.2	7.0	7.1
12	---	---	---	---	---	---	---	---	---	7.2	6.9	7.1
13	---	---	---	---	---	---	---	---	---	7.2	6.9	7.0
14	---	---	---	---	---	---	---	---	---	7.2	6.9	7.0
15	---	---	---	---	---	---	---	---	---	7.2	6.9	7.0
16	---	---	---	---	---	---	---	---	---	7.1	6.9	6.9
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	8.4	7.0	7.5	---	---	---
21	---	---	---	---	---	---	8.1	7.4	7.7	---	---	---
22	---	---	---	---	---	---	8.3	7.3	7.6	---	---	---
23	---	---	---	---	---	---	8.1	7.1	7.5	---	---	---
24	---	---	---	---	---	---	7.6	6.9	7.2	---	---	---
25	---	---	---	---	---	---	7.5	6.9	7.1	---	---	---
26	---	---	---	---	---	---	7.6	6.7	7.0	---	---	---
27	---	---	---	---	---	---	7.6	6.4	6.9	---	---	---
28	---	---	---	---	---	---	7.2	6.5	6.8	---	---	---
29	---	---	---	---	---	---	7.5	6.6	7.0	---	---	---
30	---	---	---	---	---	---	7.5	6.7	7.0	---	---	---
31	---	---	---	---	---	---	7.6	6.7	7.0	---	---	---
MONTH	---	---	---	---	---	---	8.4	6.4	7.2	7.7	6.7	7.0

CHRISTINA RIVER BASIN

01480870 EAST BRANCH BRANDYWINE CREEK BELOW DOWNINGTOWN, PA--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	18.5	15.0	16.5	13.0	12.0	12.5	---	---	---	---	---	---
2	20.0	15.5	17.5	15.0	13.0	14.5	---	---	---	---	---	---
3	19.5	16.0	18.0	16.5	15.0	15.5	---	---	---	---	---	---
4	20.0	18.5	19.0	15.0	10.5	12.0	---	---	---	---	---	---
5	19.5	18.5	19.0	10.5	9.0	10.0	---	---	---	---	---	---
6	21.5	19.5	20.5	10.5	8.5	9.5	---	---	---	---	---	---
7	21.0	19.0	20.0	10.5	8.5	9.5	---	---	---	---	---	---
8	20.0	17.0	18.5	10.5	9.0	10.0	---	---	---	---	---	---
9	18.5	14.5	16.5	9.0	7.5	8.5	---	---	---	---	---	---
10	18.0	14.5	16.0	9.5	7.0	8.0	---	---	---	---	---	---
11	19.0	15.0	17.0	---	---	---	---	---	---	---	---	---
12	19.5	16.0	17.5	---	---	---	---	---	---	---	---	---
13	19.5	16.0	17.5	---	---	---	---	---	---	---	---	---
14	19.5	17.0	17.5	---	---	---	---	---	---	---	---	---
15	18.5	15.0	16.5	---	---	---	---	---	---	---	---	---
16	15.0	13.0	14.0	---	---	---	---	---	---	---	---	---
17	14.5	11.5	13.0	---	---	---	---	---	---	---	---	---
18	15.0	11.5	13.0	---	---	---	---	---	---	---	---	---
19	16.5	12.0	14.0	---	---	---	---	---	---	---	---	---
20	16.5	13.5	15.0	---	---	---	---	---	---	---	---	---
21	17.5	13.0	15.0	9.0	8.0	8.5	---	---	---	---	---	---
22	13.5	11.5	12.5	8.5	6.5	7.0	---	---	---	---	---	---
23	14.0	11.0	13.0	7.5	5.5	6.5	---	---	---	---	---	---
24	16.0	12.5	14.0	7.5	6.5	7.0	---	---	---	---	---	---
25	15.5	13.5	14.5	7.0	5.5	6.5	---	---	---	---	---	---
26	14.5	11.5	13.0	7.0	5.0	6.0	---	---	---	---	---	---
27	---	---	---	8.5	6.0	7.5	---	---	---	---	---	---
28	---	---	---	11.0	8.5	9.5	---	---	---	---	---	---
29	---	---	---	9.5	6.5	7.5	---	---	---	---	---	---
30	---	---	---	6.5	5.0	5.5	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	21.5	11.0	16.1	16.5	5.0	9.1	---	---	---	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	---	---	---	5.5	3.5	4.5	10.0	8.5	9.0	15.0	12.0	13.5
2	---	---	---	6.0	4.5	5.0	9.0	7.5	8.5	16.0	13.0	14.5
3	---	---	---	6.0	4.5	5.5	10.5	7.5	9.0	15.5	13.0	14.0
4	---	---	---	4.5	3.0	4.0	11.5	8.5	10.0	15.0	13.0	14.0
5	---	---	---	7.0	4.0	5.5	11.0	9.0	10.0	17.0	13.5	15.0
6	---	---	---	7.0	7.0	7.0	9.5	7.5	8.5	16.5	13.5	14.5
7	---	---	---	7.0	5.0	6.5	9.5	8.0	8.5	14.5	12.0	13.0
8	---	---	---	5.0	3.0	4.0	10.0	7.0	8.0	14.0	12.5	13.5
9	---	---	---	3.5	2.0	2.5	9.5	7.0	8.0	14.0	13.5	13.5
10	---	---	---	4.0	1.5	3.0	8.5	6.5	7.5	16.0	13.0	14.0
11	---	---	---	5.5	2.5	4.0	11.5	7.5	9.0	18.0	15.0	16.5
12	---	---	---	6.5	4.0	5.5	13.0	9.5	11.0	18.0	14.5	15.5
13	---	---	---	8.0	5.0	6.5	14.0	11.0	12.5	14.5	12.0	13.5
14	---	---	---	9.5	7.0	8.0	13.0	11.0	12.0	14.5	11.5	13.0
15	---	---	---	10.0	8.5	9.0	12.5	9.5	11.0	14.5	12.0	13.5
16	---	---	---	10.0	8.5	9.5	11.0	10.5	10.5	14.0	12.5	13.0
17	---	---	---	9.5	7.5	8.0	10.5	8.5	10.0	15.5	13.0	14.0
18	---	---	---	10.5	7.5	8.5	11.5	8.5	10.0	16.0	14.5	15.0
19	---	---	---	10.0	8.5	9.0	12.5	10.0	11.0	20.0	15.5	17.5
20	---	---	---	8.5	7.0	7.5	14.5	11.5	12.5	21.5	18.0	19.5
21	---	---	---	7.5	6.5	7.0	15.0	12.5	14.0	22.5	19.5	21.0
22	---	---	---	7.5	6.0	6.5	17.0	12.5	14.5	21.5	19.0	20.5
23	---	---	---	7.0	5.5	6.5	18.0	14.5	16.0	20.5	17.5	19.0
24	---	---	---	8.5	5.5	6.5	17.5	13.0	15.0	20.5	18.5	19.5
25	---	---	---	10.5	6.5	8.0	14.5	12.0	13.0	20.0	16.5	18.5
26	---	---	---	10.5	9.0	10.0	14.5	13.0	14.0	18.5	16.0	16.5
27	---	---	---	10.0	7.0	8.5	15.0	12.5	14.0	16.0	15.0	15.5
28	---	---	---	9.0	6.5	7.0	15.0	11.0	13.0	15.0	14.5	14.5
29	---	---	---	7.0	5.5	6.0	15.0	13.0	14.0	14.5	14.0	14.0
30	---	---	---	9.0	5.5	7.0	15.0	14.5	14.5	16.0	12.5	14.0
31	---	---	---	10.0	7.0	8.5	---	---	---	17.0	13.5	15.5
MONTH	---	---	---	10.5	1.5	6.6	18.0	6.5	11.3	22.5	11.5	15.5

CHRISTINA RIVER BASIN

01480870 EAST BRANCH BRANDYWINE CREEK BELOW DOWNINGTOWN, PA--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	18.0	14.5	16.5	21.0	18.5	19.5	21.5	19.5	20.5	23.0	20.0	21.5
2	18.5	15.5	17.0	22.0	20.5	21.0	21.5	19.5	20.5	23.0	19.5	21.5
3	18.5	16.0	16.5	22.0	20.0	21.0	21.0	20.0	20.0	23.5	20.0	21.5
4	18.0	15.5	16.5	21.5	20.0	20.5	21.5	19.5	20.5	22.5	21.5	22.0
5	19.5	17.0	18.0	21.5	19.0	20.5	22.0	20.0	21.0	24.0	21.0	22.5
6	20.0	17.0	18.5	22.5	19.5	21.0	22.5	21.0	22.0	22.5	21.5	22.0
7	20.0	17.5	18.5	23.0	20.5	21.5	23.0	21.5	22.0	23.5	22.0	22.5
8	22.0	18.5	20.0	23.0	21.5	22.0	23.0	21.5	22.0	24.0	21.5	22.5
9	21.5	19.5	20.5	23.5	22.0	23.0	22.5	21.0	21.5	24.0	21.5	22.5
10	21.5	20.0	20.5	23.5	21.0	22.0	22.0	20.5	21.0	24.0	22.0	23.0
11	21.5	20.5	21.0	22.5	20.0	21.5	21.5	20.0	21.0	23.0	21.0	22.0
12	22.0	20.0	21.0	22.0	20.5	21.0	21.0	19.5	20.5	21.0	20.5	21.0
13	22.5	20.0	21.0	21.0	20.5	20.5	19.5	19.0	19.0	21.0	20.0	20.5
14	23.5	20.5	21.5	22.0	20.0	21.0	20.5	18.5	19.0	20.5	18.0	19.0
15	24.0	21.0	22.5	22.0	20.5	21.0	20.5	19.0	20.0	20.0	17.0	18.5
16	24.0	21.0	22.5	22.0	20.5	21.0	21.0	20.0	20.5	18.5	17.5	18.0
17	24.5	21.5	22.5	22.0	20.5	21.0	21.5	20.0	20.5	---	---	---
18	22.5	20.5	21.0	21.5	21.0	21.0	21.5	20.0	21.0	---	---	---
19	21.0	19.5	20.0	22.0	20.5	21.0	21.5	20.5	21.0	---	---	---
20	20.0	19.0	19.5	22.0	20.5	21.5	23.5	21.0	22.0	---	---	---
21	---	---	---	21.5	19.5	20.5	22.0	20.5	21.0	---	---	---
22	21.0	19.0	20.0	21.5	20.0	20.0	24.0	20.5	22.0	---	---	---
23	22.0	20.0	21.0	20.0	19.5	19.5	24.5	21.5	23.0	---	---	---
24	21.5	19.5	20.5	21.0	19.0	20.0	24.0	22.0	23.0	17.0	15.5	16.0
25	22.0	20.0	21.0	22.5	20.5	21.5	23.5	20.5	22.0	17.5	15.5	16.5
26	22.0	19.0	20.5	22.0	21.0	21.5	23.5	20.5	22.0	17.0	14.5	16.0
27	21.5	19.0	20.5	22.0	20.5	21.5	23.5	20.5	21.5	17.5	16.0	17.0
28	21.5	19.5	20.5	22.0	20.5	21.5	23.0	20.5	21.5	18.5	17.0	17.5
29	21.5	19.5	20.0	22.0	21.0	21.5	23.5	21.0	22.0	18.0	16.5	17.0
30	20.0	18.5	19.0	21.0	20.0	20.5	23.5	20.5	22.0	17.0	14.5	16.0
31	---	---	---	20.5	19.5	20.0	23.5	20.5	21.5	---	---	---
MONTH	24.5	14.5	19.9	23.5	18.5	21.0	24.5	18.5	21.2	24.0	14.5	19.8

OXYGEN, DISSOLVED (MG/L), 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	11.9	8.5	9.7	11.2	10.0	10.5	---	---	---	---	---	---
2	11.8	8.2	9.5	11.5	10.3	10.7	---	---	---	---	---	---
3	11.9	8.0	9.5	11.9	10.4	10.9	---	---	---	---	---	---
4	11.4	7.4	8.9	12.2	10.4	11.0	---	---	---	---	---	---
5	---	---	---	11.9	10.2	10.8	---	---	---	---	---	---
6	---	---	---	10.9	8.2	9.9	---	---	---	---	---	---
7	---	---	---	9.6	8.0	8.6	---	---	---	---	---	---
8	---	---	---	9.5	7.9	8.6	---	---	---	---	---	---
9	---	---	---	9.3	7.8	8.3	---	---	---	---	---	---
10	---	---	---	9.6	7.6	8.4	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	11.6	8.0	9.2	---	---	---	---	---	---	---	---	---
14	9.3	7.9	8.3	---	---	---	---	---	---	---	---	---
15	9.9	7.9	8.8	---	---	---	---	---	---	---	---	---
16	11.1	8.7	9.7	---	---	---	---	---	---	---	---	---
17	11.1	9.0	9.7	---	---	---	---	---	---	---	---	---
18	11.4	8.9	9.7	---	---	---	---	---	---	---	---	---
19	11.5	8.7	9.6	---	---	---	---	---	---	---	---	---
20	11.2	8.3	9.4	---	---	---	---	---	---	---	---	---
21	8.8	7.8	8.4	11.6	10.6	11.1	---	---	---	---	---	---
22	9.8	8.8	9.1	12.2	10.6	11.4	---	---	---	---	---	---
23	10.3	8.9	9.4	12.7	11.2	11.8	---	---	---	---	---	---
24	10.3	8.6	9.3	12.7	11.2	11.7	---	---	---	---	---	---
25	9.8	8.1	8.8	12.9	11.3	11.9	---	---	---	---	---	---
26	10.1	8.0	8.7	13.1	11.2	12.0	---	---	---	---	---	---
27	---	---	---	12.7	10.8	11.7	---	---	---	---	---	---
28	---	---	---	12.4	10.4	11.2	---	---	---	---	---	---
29	---	---	---	13.2	10.4	11.8	---	---	---	---	---	---
30	---	---	---	13.6	11.4	12.4	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	11.9	7.4	9.2	13.6	7.6	10.7	---	---	---	---	---	---

CHRISTINA RIVER BASIN

01480870 EAST BRANCH BRANDYWINE CREEK BELOW DOWNINGTOWN, PA--Continued

OXYGEN, DISSOLVED (MG/L), 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	---	---	---	---	---	---	11.5	8.0	10.5	12.4	8.8	10.9
2	---	---	---	---	---	---	8.2	6.5	7.4	12.1	8.6	10.2
3	---	---	---	---	---	---	11.1	8.2	9.9	11.1	8.6	10.1
4	---	---	---	---	---	---	11.3	8.8	9.9	11.7	8.9	10.4
5	---	---	---	---	---	---	11.6	8.8	10.2	11.5	7.7	9.7
6	---	---	---	10.5	9.4	9.8	12.7	10.2	11.4	9.4	7.6	8.6
7	---	---	---	12.5	9.2	10.6	11.7	10.2	10.8	11.5	9.0	10.2
8	---	---	---	---	---	---	13.0	10.2	11.7	11.3	9.0	10.1
9	---	---	---	---	---	---	13.2	10.5	12.0	10.8	8.8	9.5
10	---	---	---	---	---	---	13.7	11.5	12.5	11.0	7.5	9.4
11	---	---	---	---	---	---	13.3	9.8	12.0	9.8	3.2	7.6
12	---	---	---	---	---	---	11.3	8.2	10.0	7.7	2.3	5.9
13	---	---	---	---	---	---	11.7	8.2	9.9	10.5	7.7	9.3
14	---	---	---	---	---	---	12.0	8.5	10.1	12.4	8.5	10.5
15	---	---	---	13.1	10.5	11.3	12.2	9.0	10.5	12.3	9.2	10.9
16	---	---	---	15.3	10.4	12.6	10.1	7.1	8.2	11.2	9.8	10.5
17	---	---	---	16.3	11.7	12.8	12.3	8.8	10.8	11.8	8.9	10.5
18	---	---	---	16.5	11.4	13.7	13.2	11.5	12.3	10.6	7.8	9.3
19	---	---	---	15.7	9.8	12.9	13.5	11.2	12.5	10.2	4.7	8.2
20	---	---	---	11.8	7.9	9.7	11.8	9.4	11.0	8.5	3.5	6.0
21	---	---	---	13.4	11.8	12.7	11.2	8.3	10.0	7.9	2.6	5.0
22	---	---	---	14.6	12.4	13.5	12.9	9.1	11.3	9.5	3.8	6.5
23	---	---	---	15.3	12.5	13.9	10.7	6.5	9.3	11.0	5.2	7.7
24	---	---	---	15.4	12.0	13.8	12.6	6.4	10.2	11.0	5.2	7.7
25	---	---	---	15.1	10.4	13.0	11.6	8.1	10.3	12.2	5.7	8.5
26	---	---	---	14.4	10.3	12.0	11.5	7.5	9.7	12.6	6.7	9.3
27	---	---	---	15.4	10.8	13.2	13.8	10.5	12.0	11.9	8.0	9.6
28	---	---	---	16.0	11.7	13.8	14.2	9.3	12.2	11.6	8.9	10.0
29	---	---	---	12.9	10.8	11.7	12.4	9.0	10.6	10.0	8.6	9.3
30	---	---	---	13.8	10.8	12.5	12.5	9.6	10.9	13.0	8.8	11.1
31	---	---	---	13.6	10.4	12.2	---	---	---	13.6	9.3	11.2
MONTH	---	---	---	16.5	7.9	12.6	14.2	6.4	10.7	13.6	2.3	9.2

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE				JULY			AUGUST			SEPTEMBER		
1	13.7	9.1	11.1	---	---	---	---	---	---	12.3	8.2	9.7
2	14.1	9.0	11.1	---	---	---	---	---	---	12.5	7.9	9.5
3	14.0	8.7	11.2	---	---	---	---	---	---	12.3	8.0	9.6
4	14.5	9.6	11.7	---	---	---	---	---	---	11.5	8.0	9.3
5	12.9	8.0	10.2	---	---	---	---	---	---	12.2	8.0	9.5
6	13.1	8.0	10.3	---	---	---	---	---	---	9.7	7.9	8.6
7	13.6	7.8	10.1	---	---	---	---	---	---	9.9	8.0	8.6
8	12.3	7.1	9.3	---	---	---	---	---	---	10.4	7.5	8.8
9	11.7	6.3	8.4	---	---	---	---	---	---	10.7	7.6	8.8
10	10.2	5.9	7.7	---	---	---	---	---	---	11.0	7.5	8.8
11	---	---	---	---	---	---	---	---	---	9.6	7.6	8.5
12	---	---	---	---	---	---	---	---	---	10.2	8.2	8.9
13	---	---	---	---	---	---	---	---	---	10.3	8.3	9.1
14	---	---	---	---	---	---	---	---	---	10.6	8.5	9.4
15	---	---	---	---	---	---	---	---	---	11.0	8.7	9.6
16	---	---	---	---	---	---	---	---	---	10.6	8.5	9.4
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	9.0	8.0	8.5
25	---	---	---	---	---	---	---	---	---	9.3	8.5	9.0
26	---	---	---	---	---	---	---	---	---	9.9	9.0	9.6
27	---	---	---	---	---	---	12.2	8.4	9.6	9.8	9.1	9.6
28	---	---	---	---	---	---	11.1	8.4	9.5	9.8	8.4	9.3
29	---	---	---	---	---	---	11.5	8.4	9.6	9.4	8.6	9.0
30	---	---	---	---	---	---	11.8	8.2	9.5	10.2	8.5	9.4
31	---	---	---	---	---	---	12.3	8.3	9.7	---	---	---
MONTH	14.5	5.9	10.1	---	---	---	12.3	8.2	9.6	12.5	7.5	9.2

CHRISTINA RIVER BASIN

01480887 VALLEY CREEK AT RAVINE ROAD NEAR DOWNINGTOWN, PA

LOCATION.--Lat 39°59'55", long 75°39'52", Chester County, Hydrologic Unit 02040205, on left bank 20 ft downstream from bridge on Ravine Road, 2.5 mi upstream from mouth, and 2.5 mi east of Downingtown.

DRAINAGE AREA.--14.5 mi².

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

GAGE.--Water-stage recorder. Elevation of gage is 245 ft above sea level, from topographic map.

REMARKS.--Records poor. Several measurements of water temperature were made during the year. Some diversion by quarry upstream.

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	6.7	13	9.6	9.8	28	19	97	34	18	20	17	12
2	5.4	17	9.6	13	e24	20	175	28	17	19	15	11
3	5.2	12	9.3	15	e23	19	44	32	16	36	15	11
4	5.2	12	9.1	12	e21	18	39	28	17	24	15	9.4
5	27	11	9.0	e10	e19	19	36	27	19	18	13	9.8
6	99	9.0	9.7	e9.5	e17	33	35	40	16	17	12	18
7	12	10	9.0	e9.0	e18	98	39	27	16	16	12	13
8	9.5	12	9.3	e8.5	e19	e32	36	28	16	58	11	12
9	6.4	9.6	10	e8.5	37	e23	37	32	25	20	45	13
10	6.4	9.0	10	e8.0	25	e21	41	27	23	14	18	9.2
11	5.8	16	9.4	e8.0	24	e22	36	45	28	13	14	9.5
12	5.6	132	9.5	e8.0	22	22	32	37	34	13	16	9.9
13	5.5	17	9.6	e8.5	19	22	31	26	26	205	153	13
14	53	55	9.7	9.0	19	19	30	25	18	30	26	12
15	39	29	10	9.8	19	23	29	23	18	23	19	11
16	10	18	13	10	18	20	314	27	18	24	21	16
17	8.4	15	11	10	18	20	49	25	21	23	17	e100
18	8.7	14	10	11	18	18	40	24	23	17	16	25
19	8.7	13	11	e700	16	54	38	23	160	105	14	18
20	8.6	12	10	e100	35	65	38	22	38	31	13	17
21	185	11	10	e36	79	25	36	22	89	23	13	16
22	21	11	10	29	29	23	33	21	24	19	13	e70
23	12	10	9.4	26	25	22	34	20	21	23	12	24
24	9.8	11	10	59	26	21	34	18	18	18	e36	20
25	8.8	10	11	43	23	20	30	19	18	16	14	19
26	8.3	10	10	28	21	19	29	19	16	28	11	18
27	8.3	9.0	10	272	20	18	29	19	16	18	15	16
28	52	8.4	10	64	22	21	27	21	15	16	14	21
29	15	10	10	39	20	126	31	25	17	16	13	e40
30	11	9.5	10	35	---	33	48	19	51	32	12	18
31	10	---	10	32	---	27	---	17	---	19	12	---
TOTAL	677.3	535.5	308.2	1640.6	704	942	1547	800	852	954	647	611.8
MEAN	21.8	17.8	9.94	52.9	24.3	30.4	51.6	25.8	28.4	30.8	20.9	20.4
MAX	185	132	13	700	79	126	314	45	160	205	153	100
MIN	5.2	8.4	9.0	8.0	16	18	27	17	15	13	11	9.2
CFSM	1.51	1.23	.69	3.65	1.67	2.10	3.56	1.78	1.96	2.12	1.44	1.41
IN.	1.74	1.37	.79	4.21	1.81	2.42	3.97	2.05	2.19	2.45	1.66	1.57

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 1996, BY WATER YEAR (WY)

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
MEAN	10.5	11.5	15.2	23.3	16.5	31.9	27.2	18.8	14.7	12.3	10.8
MAX	21.8	17.8	28.4	52.9	27.2	62.7	51.6	27.0	28.4	30.8	20.9
(WY)	1996	1996	1994	1996	1994	1994	1996	1990	1996	1996	1996
MIN	4.64	5.76	8.09	7.84	8.41	11.2	10.1	9.51	4.87	5.74	2.24
(WY)	1995	1992	1990	1992	1992	1990	1995	1995	1995	1992	1995

e Estimated.

CHRISTINA RIVER BASIN

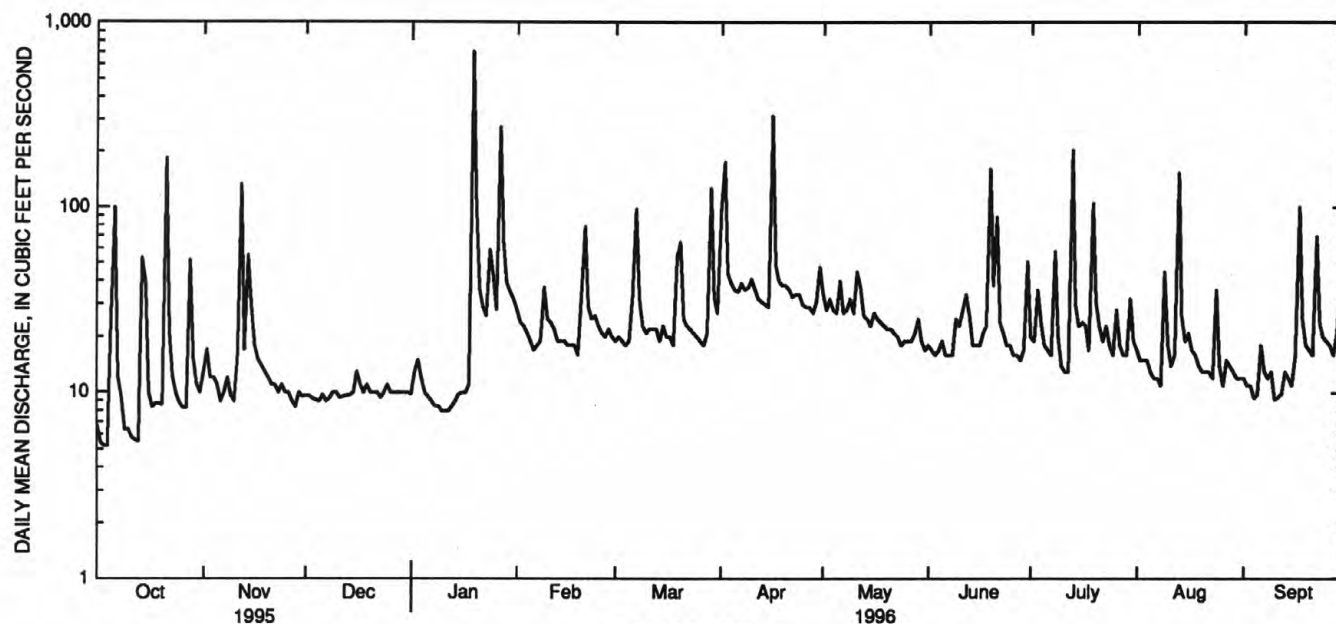
01480887 VALLEY CREEK AT RAVINE ROAD NEAR DOWNINGTOWN, PA--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1990 - 1996	
ANNUAL TOTAL	4508.30		10219.4		17.0	
ANNUAL MEAN	12.4		27.9		27.9	1996
HIGHEST ANNUAL MEAN					9.50	1992
LOWEST ANNUAL MEAN					700	Jan 19 1996
HIGHEST DAILY MEAN	201	Mar 8	e700	Jan 19	.80	Aug 29 1995
LOWEST DAILY MEAN	e.80	Aug 29	5.2	Oct 3,4	.87	Aug 24 1995
ANNUAL SEVEN-DAY MINIMUM	a.87	Aug 24	7.3	Oct 7	1270	Jan 19 1996
INSTANTANEOUS PEAK FLOW			1270	Jan 19	b7.81	Jan 19 1996
INSTANTANEOUS PEAK STAGE			b7.81	Jan 19	1.17	Jan 19 1996
ANNUAL RUNOFF (CFSM)	.85		1.93		15.92	
ANNUAL RUNOFF (INCHES)	11.57		26.22		31	
10 PERCENT EXCEEDS	17		40		10	
50 PERCENT EXCEEDS	8.7		18		4.0	
90 PERCENT EXCEEDS	2.0		9.4			

a Computed using estimated daily discharges.

b From outside gage.

e Estimated.



1-YEAR HYDROGRAPH
OCTOBER 1, 1995 TO SEPTEMBER 30, 1996

CHRISTINA RIVER BASIN

01481000 BRANDYWINE CREEK AT CHADDS FORD, PA

LOCATION.--Lat 39°52'11", long 75°35'37", Delaware County, Hydrologic Unit 02040205, on left bank 27 ft upstream from Penn Central Railroad bridge at Chadds Ford, 150 ft upstream from Harvey Run, and 1,200 ft downstream from highway bridge on U.S. Highway 1.

DRAINAGE AREA.--287 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1911 to September 1953, October 1962 to current year. Prior to October 1911, monthly discharge only, published in WSP 1302.

REVISED RECORDS.--WSP 756: Drainage area. WSP 1202: 1917-18 (M), 1919-20, 1922-31 (M), 1932-33, 1934 (M), 1936, 1938 (P), 1939 (M), 1942, 1944-46 (M).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 150.45 ft above sea level. Prior to May 21, 1927, nonrecording gage at same site and datum.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Flow regulated since November 1973 by Marsh Creek Reservoir (station 01480684) about 17 mi upstream. Satellite telemetry at station.

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	86	205	e240	180	776	546	982	1020	452	628	859	313
2	85	412	235	298	732	567	2350	721	415	471	573	302
3	83	380	216	722	692	563	1040	733	402	548	503	287
4	81	253	214	434	669	502	908	744	418	525	401	283
5	363	266	205	256	602	508	854	680	526	402	364	284
6	1010	246	283	211	608	740	824	984	425	353	340	295
7	229	e250	531	166	630	1370	896	748	379	332	313	509
8	147	e400	501	e158	698	1380	970	752	374	553	e350	372
9	119	287	271	e150	1180	721	881	786	398	451	e1100	356
10	112	197	262	e144	961	648	1040	724	497	351	e700	301
11	111	211	226	e138	754	636	874	712	600	306	e420	291
12	99	2360	253	e134	770	632	792	1360	643	284	e400	295
13	100	768	243	e130	609	618	756	798	609	2140	2460	326
14	214	953	239	e128	603	586	727	717	422	1050	877	406
15	705	1350	257	e126	597	635	703	685	363	653	687	293
16	232	726	301	e125	585	620	3980	724	333	599	601	291
17	145	557	355	e126	567	551	1770	730	435	511	596	1950
18	125	489	263	e130	545	531	1310	670	1900	412	511	873
19	118	461	261	4540	513	597	1110	609	1520	1010	463	581
20	117	409	248	6880	625	1960	911	573	1870	837	432	481
21	1300	373	226	1710	1630	838	862	527	1380	510	423	351
22	1020	287	226	1020	1000	735	811	492	664	446	426	1470
23	283	264	206	920	874	685	795	471	537	499	399	815
24	199	295	201	1190	841	665	833	447	470	444	515	592
25	175	274	196	1560	755	645	726	422	465	390	416	539
26	148	263	188	834	681	632	707	416	423	573	373	487
27	143	256	172	2840	646	605	712	454	364	487	399	464
28	958	245	194	3130	657	583	669	519	338	382	503	459
29	482	e250	178	1260	596	1780	698	580	333	365	363	1200
30	234	e245	170	1120	---	1100	832	592	819	717	343	590
31	194	---	178	899	---	813	---	479	---	864	323	---
TOTAL	9417	13932	7739	31659	21396	23992	31323	20869	18774	18093	17433	16056
MEAN	304	464	250	1021	738	774	1044	673	626	584	562	535
MAX	1300	2360	531	6880	1630	1960	3980	1360	1900	2140	2460	1950
MIN	81	197	170	125	513	502	669	416	333	284	313	283

e Estimated.

CHRISTINA RIVER BASIN

01481000 BRANDYWINE CREEK AT CHADDS FORD, PA--Continued

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

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	255	325	442	551	551	660	633	537	398	364	251	268
MAX	832	693	1125	1664	1308	1713	1509	1097	833	1153	562	905
(WY)	1980	1980	1984	1979	1979	1994	1983	1989	1975	1975	1996	1979
MIN	115	136	130	106	217	195	200	262	154	149	94.5	93.2
(WY)	1987	1982	1981	1981	1992	1981	1985	1985	1985	1977	1995	1980

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR			FOR 1996 WATER YEAR			WATER YEARS 1974 - 1996		
ANNUAL TOTAL	104837			230683					
ANNUAL MEAN	287			630			436		
HIGHEST ANNUAL MEAN							714		
LOWEST ANNUAL MEAN							199		
HIGHEST DAILY MEAN	4730			Mar 9			6880		
LOWEST DAILY MEAN	49			Sep 8a			81		
ANNUAL SEVEN-DAY MINIMUM	50			Sep 7			b128		
INSTANTANEOUS PEAK FLOW							c13000		
INSTANTANEOUS PEAK STAGE							14.23		
INSTANTANEOUS LOW FLOW							38		
10 PERCENT EXCEEDS	483						1040		
50 PERCENT EXCEEDS	231						510		
90 PERCENT EXCEEDS	86						194		

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1911-1953, 1963-1973, BY WATER YEAR (WY) (PRIOR TO REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	219	301	348	444	570	605	530	435	364	309	278	230
MAX	666	625	827	1020	1130	1366	1043	946	1144	802	1089	1050
(WY)	1972	1972	1973	1936	1971	1920	1973	1952	1972	1919	1933	1971
MIN	67.7	98.3	114	145	214	247	226	175	149	91.1	82.1	59.4
(WY)	1964	1942	1966	1966	1934	1931	1963	1926	1963	1963	1930	1932

SUMMARY STATISTICS WATER YEARS 1911-1953
1963-1973

ANNUAL MEAN	385	
HIGHEST ANNUAL MEAN	625	1928
LOWEST ANNUAL MEAN	218	1932
HIGHEST DAILY MEAN	9590	Aug 24 1933
LOWEST DAILY MEAN	42	Sep 12 1966
ANNUAL SEVEN-DAY MINIMUM	45	Sep 7 1966
INSTANTANEOUS PEAK FLOW	c23800	Jun 22 1972
INSTANTANEOUS PEAK STAGE	16.56	Jun 22 1972
INSTANTANEOUS LOW FLOW	4.9	Oct 2 1942
ANNUAL RUNOFF (CFSM)	1.34	
ANNUAL RUNOFF (INCHES)	18.23	
10 PERCENT EXCEEDS	700	
50 PERCENT EXCEEDS	274	
90 PERCENT EXCEEDS	118	

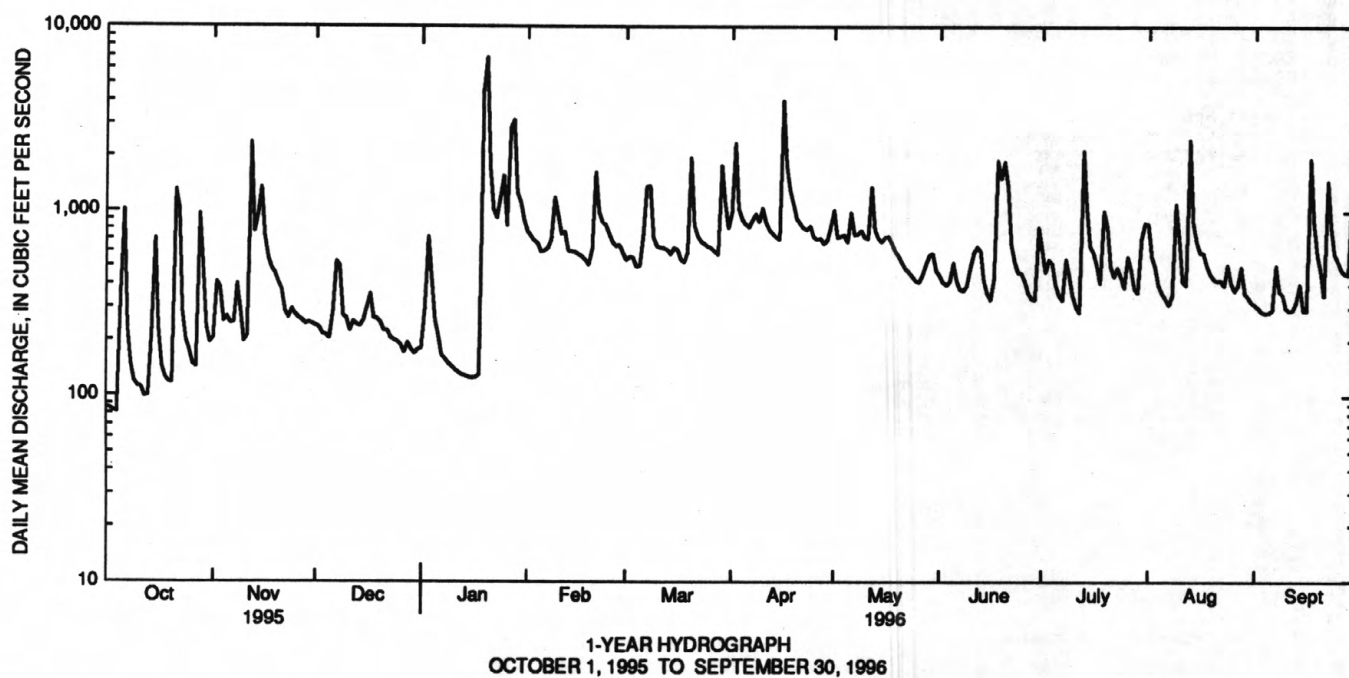
a Also Sept. 12, 13.

b Computed using estimated daily discharges.

c From rating curve extended above 9,000 ft³/s, on basis of area-velocity study.

CHRISTINA RIVER BASIN

01481000 BRANDYWINE CREEK AT CHADDS FORD, PA--Continued



CHRISTINA RIVER BASIN

01481000 BRANDYWINE CREEK AT CHADDS FORD, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1963 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1965 to current year.

pH: October 1965 to September 1966, December 1971 to current year.

WATER TEMPERATURES: October 1964 to current year.

DISSOLVED OXYGEN: October 1971 to current year.

SUSPENDED-SEDIMENT DISCHARGE: October 1963 to September 1978.

INSTRUMENTATION.--Water-quality monitor since August 1971.

REMARKS.--Data collection discontinued during winter months since 1981 water year. Other interruptions in the record were due to malfunctions of the recording instrument.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 556 microsiemens, June 16, 1991; minimum, 42 microsiemens, Nov. 26, 1979.

pH: Maximum, 9.8, Apr. 9, 1975; minimum, 6.1, Feb. 22, 1976.

WATER TEMPERATURE: Maximum, 31.0°C, July 18, 19, 1977, Aug. 15, 1988; minimum, 0.0°C, many days during winter periods.

DISSOLVED OXYGEN: Maximum, 17.1 mg/L, Dec. 5, 1976; minimum, 3.0 mg/L, June 21, 1984.

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

DATE	TIME	AGENCY COL- LECTING SAMPLE (CODE NUMBER) (00027)	AGENCY ANA- LYZING SAMPLE (CODE NUMBER) (00028)	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (μS/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	OXYGEN, DIS- SOLVED (MG/L) (00300)	COLI- FORM, FECAL, 0.45 μM-MF (COLS./ 100 ML) (31616)
OCT 1995									
04...	1300	1028	1028	88	346	7.2	18.5	10.4	K39
NOV									
01...	1400	1028	1028	216	297	7.4	12.0	9.6	K170
07...	1215	1028	1028	262	294	7.3	7.5	10.8	K100
MAR 1996									
05...	1010	1028	1028	480	255	7.6	3.5	12.6	K25
11...	1100	1028	1028	618	267	7.4	3.0	12.6	28
18...	1115	1028	1028	497	258	7.7	8.0	12.1	K15
25...	1035	1028	1028	649	251	7.5	7.5	11.9	43
APR									
03...	0900	1028	1028	1220	220	7.3	7.5	11.3	580
11...	0930	1028	1028	1000	243	7.4	7.5	11.3	57
15...	1055	1028	1028	738	244	7.5	11.0	11.7	41
22...	1130	1028	1028	890	233	7.5	14.5	11.5	78
30...	0820	1028	1028	745	238	7.5	15.5	9.8	85
MAY									
07...	0900	1028	1028	797	231	7.5	12.0	10.3	K1500
15...	1230	1028	1028	712	235	7.6	15.5	10.9	130
21...	1200	1028	1028	503	246	7.8	21.5	9.4	98
29...	1045	1028	1028	527	242	7.8	13.5	10.5	370
JUN									
04...	1230	1028	1028	416	254	7.8	16.5	11.5	110
13...	1235	1028	1028	509	217	7.3	21.5	7.9	2500
19...	1200	1028	1028	929	209	7.3	20.5	8.3	10000
26...	1245	1028	1028	422	264	7.6	21.0	11.1	270
JUL									
01...	1350	1028	1028	569	229	7.4	19.0	11.2	2300
10...	1305	1028	1028	358	266	7.6	23.0	9.9	340
18...	1320	1028	1028	410	255	7.6	22.5	9.9	460
24...	1335	1028	1028	433	256	7.6	20.5	10.1	380
AUG									
01...	1310	1028	1028	837	206	7.2	21.0	9.4	5600
06...	1315	1028	1028	353	250	7.5	22.5	10.2	220
14...	0850	1028	1028	963	177	7.2	18.0	9.6	K26000
21...	0915	1028	1028	399	257	7.6	21.0	8.6	170
27...	0930	1028	1028	358	265	7.3	21.5	10.3	130
SEP									
05...	1135	1028	1028	300	269	7.4	21.5	10.4	K73
12...	0945	1028	1028	300	272	7.4	20.5	8.6	920
19...	0920	1028	1028	569	224	7.0	16.0	10.5	K4400
25...	0945	1028	1028	533	243	7.1	15.5	10.1	360

CHRISTINA RIVER BASIN

01481000 BRANDYWINE CREEK AT CHADDS FORD, PA--Continued

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25° 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	333	326	330	301	291	295	---	---	---	---	---	---
2	341	327	334	309	278	299	---	---	---	---	---	---
3	354	338	345	283	267	271	---	---	---	---	---	---
4	351	344	347	291	269	279	---	---	---	---	---	---
5	351	244	319	298	275	287	---	---	---	---	---	---
6	244	159	193	290	275	284	---	---	---	---	---	---
7	277	216	249	---	---	---	---	---	---	---	---	---
8	309	277	292	---	---	---	---	---	---	---	---	---
9	322	309	315	284	276	279	---	---	---	---	---	---
10	337	322	331	305	278	284	---	---	---	---	---	---
11	338	327	332	312	281	304	---	---	---	---	---	---
12	332	328	329	---	---	---	---	---	---	---	---	---
13	342	330	339	---	---	---	---	---	---	---	---	---
14	349	298	328	---	---	---	---	---	---	---	---	---
15	306	196	235	---	---	---	---	---	---	---	---	---
16	271	239	260	---	---	---	---	---	---	---	---	---
17	290	271	280	---	---	---	---	---	---	---	---	---
18	306	290	302	---	---	---	---	---	---	---	---	---
19	331	303	320	---	---	---	---	---	---	---	---	---
20	337	330	333	---	---	---	---	---	---	---	---	---
21	334	161	264	---	---	---	---	---	---	---	---	---
22	224	175	198	292	273	282	---	---	---	---	---	---
23	280	224	257	302	288	292	---	---	---	---	---	---
24	307	280	294	291	282	287	---	---	---	---	---	---
25	308	298	304	287	283	286	---	---	---	---	---	---
26	319	305	310	291	285	289	---	---	---	---	---	---
27	319	309	316	295	287	291	---	---	---	---	---	---
28	309	195	247	292	286	289	---	---	---	---	---	---
29	241	203	227	292	279	286	---	---	---	---	---	---
30	275	241	259	---	---	---	---	---	---	---	---	---
31	293	275	283	---	---	---	---	---	---	---	---	---
MONTH	354	159	293	312	267	287	---	---	---	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	---	---	---	---	---	---	247	121	236	226	211	217
2	---	---	---	---	---	---	199	155	179	238	222	231
3	---	---	---	---	---	---	227	199	219	240	235	237
4	---	---	---	---	---	---	239	227	234	240	231	234
5	---	---	---	263	231	250	241	239	240	247	236	238
6	---	---	---	268	241	251	246	241	244	238	212	224
7	---	---	---	270	213	252	249	241	245	235	216	229
8	---	---	---	243	202	215	241	232	236	241	232	236
9	---	---	---	339	243	299	243	235	239	248	235	239
10	---	---	---	282	265	270	249	236	241	253	236	242
11	---	---	---	268	253	263	245	235	241	253	241	249
12	---	---	---	259	242	251	244	234	240	241	196	208
13	---	---	---	259	252	256	244	235	240	230	212	223
14	---	---	---	261	254	255	244	236	240	236	229	232
15	---	---	---	277	250	259	244	239	242	236	231	233
16	---	---	---	304	258	275	240	128	168	249	228	233
17	---	---	---	265	256	260	202	150	180	248	232	237
18	---	---	---	271	257	262	210	202	207	237	233	236
19	---	---	---	271	238	264	219	203	208	244	236	240
20	---	---	---	---	---	---	228	219	225	245	239	243
21	---	---	---	---	---	---	232	225	229	253	234	242
22	---	---	---	---	---	---	233	225	229	242	231	237
23	---	---	---	---	---	---	237	228	233	239	230	235
24	---	---	---	---	---	---	239	228	232	237	229	234
25	---	---	---	---	---	---	240	228	237	255	230	235
26	---	---	---	---	---	---	242	233	238	240	232	237
27	---	---	---	---	---	---	238	231	233	236	233	235
28	---	---	---	---	---	---	247	232	237	237	233	235
29	---	---	---	261	118	185	247	240	242	252	232	242
30	---	---	---	234	130	194	240	223	234	249	230	237
31	---	---	---	243	233	238	---	---	---	246	238	242
MONTH	---	---	---	339	118	250	249	121	228	255	196	235

CHRISTINA RIVER BASIN

01481000 BRANDYWINE CREEK AT CHADDS FORD, PA--Continued

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25° 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	251	246	249	242	203	224	216	171	201	273	264	269
2	271	238	250	260	242	254	242	216	229	272	264	268
3	255	246	251	274	244	264	243	236	240	273	265	268
4	255	245	250	258	238	251	260	236	248	272	266	269
5	250	220	242	267	255	263	269	259	263	272	265	269
6	245	204	226	273	265	269	280	255	268	280	269	273
7	226	184	213	275	268	272	283	274	278	279	248	265
8	227	192	212	284	225	262	---	---	---	258	243	251
9	252	195	240	257	227	241	---	---	---	269	257	264
10	261	229	249	267	257	263	---	---	---	276	261	264
11	258	180	235	266	256	263	---	---	---	270	264	267
12	233	185	220	279	263	269	---	---	---	275	265	271
13	242	211	223	269	139	194	265	145	184	277	271	274
14	280	242	252	214	152	187	232	176	208	276	252	259
15	259	255	258	239	214	229	242	232	237	266	251	260
16	266	258	263	249	239	245	252	240	244	277	263	271
17	269	193	259	249	246	248	260	241	246	265	148	193
18	210	139	166	258	248	254	257	245	252	220	181	205
19	217	137	189	264	174	228	258	252	255	241	207	225
20	195	134	166	217	176	195	257	253	255	250	241	245
21	217	129	181	243	217	234	263	254	257	265	249	256
22	239	217	231	254	243	252	259	253	257	278	141	214
23	254	238	249	260	245	254	260	254	258	215	156	187
24	259	253	256	266	254	256	271	236	255	238	215	228
25	269	253	262	269	254	262	256	237	246	248	238	243
26	275	263	265	267	241	259	265	251	259	257	248	250
27	268	257	264	242	230	236	267	260	262	254	251	253
28	263	232	254	262	242	252	269	208	239	256	245	253
29	255	233	247	260	249	254	267	253	261	248	182	211
30	246	198	222	258	198	242	269	264	266	226	200	211
31	---	---	---	220	182	199	269	263	266	---	---	---
MONTH	280	129	235	284	139	244	283	145	247	280	141	248

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	7.6	7.0	7.2	6.9	6.9	6.9	---	---	---	---	---	---
2	7.7	7.1	7.2	6.9	6.7	6.8	---	---	---	---	---	---
3	7.8	7.0	7.3	6.8	6.7	6.7	---	---	---	---	---	---
4	7.5	7.0	7.2	6.9	6.7	6.8	---	---	---	---	---	---
5	7.0	6.8	6.9	7.0	6.9	7.0	---	---	---	---	---	---
6	6.8	6.7	6.7	7.0	7.0	7.0	---	---	---	---	---	---
7	6.8	6.7	6.7	---	---	---	---	---	---	---	---	---
8	6.9	6.8	6.8	---	---	---	---	---	---	---	---	---
9	7.1	6.9	7.0	7.0	6.9	7.0	---	---	---	---	---	---
10	7.2	7.0	7.1	7.0	7.0	7.0	---	---	---	---	---	---
11	7.2	7.0	7.1	7.0	6.7	6.9	---	---	---	---	---	---
12	7.3	7.0	7.1	6.8	6.7	6.7	---	---	---	---	---	---
13	7.4	7.0	7.1	6.7	6.6	6.7	---	---	---	---	---	---
14	7.1	7.0	7.0	6.7	6.6	6.6	---	---	---	---	---	---
15	7.0	6.8	6.9	6.7	6.6	6.7	---	---	---	---	---	---
16	7.0	6.9	7.0	---	---	---	---	---	---	---	---	---
17	7.0	6.9	7.0	---	---	---	---	---	---	---	---	---
18	7.1	6.9	7.0	---	---	---	---	---	---	---	---	---
19	7.2	7.0	7.0	---	---	---	---	---	---	---	---	---
20	7.1	6.9	7.0	---	---	---	---	---	---	---	---	---
21	6.9	6.5	6.8	---	---	---	---	---	---	---	---	---
22	6.6	6.5	6.6	7.1	6.9	7.0	---	---	---	---	---	---
23	6.7	6.6	6.7	7.1	7.1	7.1	---	---	---	---	---	---
24	6.8	6.6	6.7	7.2	7.1	7.2	---	---	---	---	---	---
25	6.9	6.7	6.8	7.2	7.2	7.2	---	---	---	---	---	---
26	6.9	6.9	6.9	7.2	7.2	7.2	---	---	---	---	---	---
27	6.9	6.9	6.9	7.2	7.1	7.2	---	---	---	---	---	---
28	6.9	6.7	6.8	7.1	6.9	7.0	---	---	---	---	---	---
29	6.8	6.7	6.8	7.2	6.9	7.1	---	---	---	---	---	---
30	6.9	6.8	6.8	---	---	---	---	---	---	---	---	---
31	6.9	6.9	6.9	---	---	---	---	---	---	---	---	---
MONTH	7.8	6.5	6.9	7.2	6.6	6.9	---	---	---	---	---	---

CHRISTINA RIVER BASIN

01481000 BRANDYWINE CREEK AT CHADDS FORD, PA--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
FEBRUARY			MARCH			APRIL			MAY			
1	---	---	---	---	---	---	7.5	7.1	7.3	7.7	7.5	7.6
2	---	---	---	---	---	---	7.3	7.0	7.3	7.8	7.5	7.6
3	---	---	---	---	---	---	7.5	7.3	7.4	7.7	7.5	7.6
4	---	---	---	---	---	---	7.6	7.3	7.5	7.7	7.5	7.6
5	---	---	---	8.1	7.5	7.7	7.6	7.4	7.5	7.8	7.5	7.6
6	---	---	---	7.8	7.3	7.5	7.7	7.3	7.5	7.6	7.5	7.5
7	---	---	---	7.3	7.0	7.2	7.5	7.3	7.4	7.7	7.5	7.6
8	---	---	---	7.1	6.9	7.0	7.6	7.3	7.5	7.7	7.5	7.6
9	---	---	---	7.5	7.0	7.4	7.5	7.3	7.4	7.6	7.5	7.6
10	---	---	---	7.5	7.4	7.5	7.6	7.3	7.5	7.7	7.5	7.6
11	---	---	---	7.6	7.4	7.5	7.9	7.4	7.6	7.7	7.5	7.6
12	---	---	---	7.6	7.4	7.5	8.1	7.4	7.7	7.6	7.5	7.5
13	---	---	---	7.7	7.4	7.5	8.5	7.4	7.8	7.6	7.5	7.6
14	---	---	---	8.0	7.4	7.7	8.4	7.5	7.8	7.7	7.5	7.6
15	---	---	---	7.8	7.4	7.6	8.1	7.5	7.8	7.8	7.6	7.7
16	---	---	---	8.3	7.4	7.8	7.7	7.1	7.3	7.7	7.6	7.7
17	---	---	---	8.2	7.5	7.8	7.5	7.3	7.4	7.8	7.6	7.7
18	---	---	---	8.7	7.5	8.0	7.6	7.4	7.5	7.8	7.6	7.7
19	---	---	---	8.5	7.2	7.9	7.6	7.4	7.5	7.9	7.7	7.8
20	---	---	---	---	---	---	7.7	7.4	7.6	7.9	7.7	7.8
21	---	---	---	---	---	---	7.9	7.4	7.6	8.0	7.7	7.8
22	---	---	---	---	---	---	8.2	7.4	7.8	8.0	7.7	7.9
23	---	---	---	---	---	---	8.5	7.5	7.9	8.0	7.7	7.9
24	---	---	---	---	---	---	8.0	7.5	7.7	8.1	7.7	7.9
25	---	---	---	---	---	---	8.1	7.5	7.8	8.1	7.8	7.9
26	---	---	---	---	---	---	7.8	7.5	7.7	8.0	7.8	7.9
27	---	---	---	---	---	---	8.4	7.5	7.9	7.9	7.8	7.9
28	---	---	---	---	---	---	8.3	7.6	7.9	7.9	7.8	7.8
29	---	---	---	7.7	6.7	7.0	7.9	7.5	7.7	7.9	7.7	7.8
30	---	---	---	7.2	6.7	7.0	7.7	7.5	7.6	7.9	7.6	7.8
31	---	---	---	7.5	7.1	7.3	---	---	---	8.0	7.7	7.8
MONTH	---	---	---	8.7	6.7	7.5	8.5	7.0	7.6	8.1	7.5	7.7

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	8.0	7.7	7.8	7.6	7.3	7.4	7.3	7.1	7.2	8.1	7.6	7.9
2	8.1	7.7	7.9	7.7	7.4	7.6	7.4	7.2	7.3	8.0	7.6	7.9
3	8.0	7.7	7.8	7.7	7.5	7.6	7.4	7.3	7.3	8.0	7.6	7.8
4	8.1	7.7	7.9	7.7	7.5	7.6	7.5	7.3	7.4	7.9	7.7	7.8
5	7.9	7.6	7.8	7.9	7.6	7.7	7.6	7.3	7.5	7.8	7.6	7.7
6	8.0	7.6	7.7	8.0	7.6	7.8	7.7	7.4	7.5	7.7	7.6	7.7
7	7.8	7.5	7.6	8.2	7.6	7.9	7.9	7.4	7.6	7.7	7.6	7.6
8	7.8	7.5	7.6	7.9	7.5	7.6	---	---	---	7.7	7.5	7.6
9	7.6	7.4	7.5	7.5	7.3	7.4	---	---	---	7.7	7.6	7.7
10	7.4	7.3	7.4	7.6	7.4	7.5	---	---	---	7.8	7.6	7.7
11	7.4	7.1	7.3	7.7	7.4	7.6	---	---	---	7.7	7.6	7.7
12	7.3	7.2	7.2	7.6	7.5	7.6	---	---	---	7.7	7.4	7.6
13	7.3	7.2	7.3	7.6	7.2	7.3	7.4	7.0	7.2	7.6	7.4	7.5
14	7.4	7.3	7.3	7.4	7.2	7.3	7.3	7.1	7.2	7.6	7.4	7.5
15	7.4	7.3	7.4	7.5	7.4	7.4	7.4	7.3	7.4	7.6	7.4	7.5
16	7.5	7.3	7.4	7.6	7.5	7.5	7.5	7.3	7.4	7.6	7.4	7.5
17	7.5	7.3	7.4	7.6	7.5	7.6	7.5	7.4	7.5	7.5	7.0	7.2
18	7.3	7.0	7.1	7.7	7.5	7.6	7.6	7.4	7.5	7.4	7.1	7.2
19	7.5	7.2	7.2	7.6	7.3	7.5	7.7	7.4	7.5	7.5	7.3	7.4
20	7.2	7.1	7.2	7.4	7.4	7.4	7.8	7.5	7.7	7.6	7.4	7.5
21	7.3	7.0	7.2	7.6	7.4	7.5	7.8	7.5	7.7	7.6	7.4	7.5
22	7.4	7.3	7.3	7.6	7.5	7.5	8.0	7.5	7.7	7.6	7.0	7.3
23	7.4	7.3	7.4	7.6	7.5	7.5	8.1	7.5	7.8	7.4	7.1	7.3
24	7.4	7.4	7.4	7.7	7.4	7.6	8.0	7.5	7.7	7.4	7.3	7.4
25	7.6	7.4	7.5	7.6	7.4	7.6	8.0	7.4	7.7	7.5	7.4	7.4
26	7.6	7.5	7.6	7.6	7.4	7.5	8.1	7.5	7.8	7.5	7.4	7.5
27	7.8	7.5	7.6	7.6	7.4	7.5	8.3	7.6	7.9	7.6	7.4	7.5
28	8.0	7.5	7.8	7.8	7.4	7.6	7.9	7.3	7.6	7.6	7.5	7.5
29	8.1	7.6	7.9	7.7	7.5	7.6	8.0	7.5	7.7	7.5	7.1	7.2
30	7.9	7.3	7.5	7.6	7.4	7.4	8.1	7.6	7.8	7.4	7.2	7.3
31	---	---	---	7.7	7.2	7.3	8.1	7.6	7.9	---	---	---
MONTH	8.1	7.0	7.5	8.2	7.2	7.5	8.3	7.0	7.6	8.1	7.0	7.5

CHRISTINA RIVER BASIN

01481000 BRANDYWINE CREEK AT CHADDS FORD, PA--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	17.5	15.5	16.5	12.5	11.5	12.0	---	---	---	---	---	---
2	18.5	15.5	17.0	14.5	12.5	13.5	---	---	---	---	---	---
3	18.5	16.5	17.5	16.0	14.5	15.5	---	---	---	---	---	---
4	18.5	17.5	18.0	15.5	10.5	13.0	---	---	---	---	---	---
5	19.0	18.5	18.5	10.5	8.5	9.5	---	---	---	---	---	---
6	21.5	19.0	20.5	9.0	8.0	8.5	---	---	---	---	---	---
7	21.0	19.5	20.5	---	---	---	---	---	---	---	---	---
8	19.5	18.0	19.0	---	---	---	---	---	---	---	---	---
9	18.0	16.0	17.0	8.0	6.5	7.0	---	---	---	---	---	---
10	17.0	15.0	16.0	7.0	6.0	6.5	---	---	---	---	---	---
11	17.5	15.0	16.5	10.0	6.5	8.0	---	---	---	---	---	---
12	18.0	15.5	16.5	13.5	9.5	12.0	---	---	---	---	---	---
13	18.0	15.5	17.0	14.5	13.5	14.0	---	---	---	---	---	---
14	18.0	16.5	17.0	14.5	11.5	13.5	---	---	---	---	---	---
15	17.5	15.5	17.0	13.5	11.5	12.5	---	---	---	---	---	---
16	15.5	13.5	14.5	---	---	---	---	---	---	---	---	---
17	13.5	12.0	12.5	---	---	---	---	---	---	---	---	---
18	13.0	11.0	12.0	---	---	---	---	---	---	---	---	---
19	13.5	11.0	12.5	---	---	---	---	---	---	---	---	---
20	15.0	12.0	13.5	---	---	---	---	---	---	---	---	---
21	16.0	13.5	15.0	---	---	---	---	---	---	---	---	---
22	14.0	12.5	13.0	7.5	6.0	6.5	---	---	---	---	---	---
23	13.0	11.5	12.5	6.0	5.0	5.5	---	---	---	---	---	---
24	14.0	12.0	13.0	6.5	6.0	6.0	---	---	---	---	---	---
25	14.5	13.5	14.0	6.0	5.0	5.5	---	---	---	---	---	---
26	13.5	12.0	12.5	5.5	4.5	5.0	---	---	---	---	---	---
27	13.0	11.0	12.0	6.5	5.0	6.0	---	---	---	---	---	---
28	15.0	13.0	14.0	9.0	6.5	8.0	---	---	---	---	---	---
29	14.5	12.0	13.0	8.5	6.5	7.0	---	---	---	---	---	---
30	12.0	10.5	11.0	---	---	---	---	---	---	---	---	---
31	11.5	11.0	11.5	---	---	---	---	---	---	---	---	---
MONTH	21.5	10.5	15.2	16.0	4.5	9.3	---	---	---	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	---	---	---	---	---	---	10.0	8.5	9.5	15.5	13.0	14.5
2	---	---	---	---	---	---	9.5	7.5	8.5	16.0	14.0	15.0
3	---	---	---	---	---	---	11.0	7.5	9.0	16.0	14.0	14.5
4	---	---	---	---	---	---	12.0	9.5	10.5	15.5	13.5	14.5
5	---	---	---	7.0	3.5	5.0	11.5	9.0	10.5	17.5	14.5	16.0
6	---	---	---	7.5	7.0	7.5	9.5	8.0	8.5	17.0	13.5	15.0
7	---	---	---	7.5	4.5	6.5	9.0	8.0	8.5	14.0	12.0	13.5
8	---	---	---	4.5	2.0	3.0	9.5	7.0	8.0	14.0	13.0	13.5
9	---	---	---	2.0	1.0	1.5	9.5	7.0	8.0	14.0	13.5	14.0
10	---	---	---	3.5	.5	2.0	8.5	6.0	7.0	16.0	13.5	14.5
11	---	---	---	5.0	2.0	3.5	11.0	7.5	9.0	18.5	15.5	17.0
12	---	---	---	6.0	3.5	5.0	13.0	10.5	11.5	18.0	15.0	16.0
13	---	---	---	7.5	4.5	6.0	14.5	12.0	13.5	15.0	12.5	13.5
14	---	---	---	9.0	6.5	8.0	14.0	12.5	13.0	14.5	12.0	13.0
15	---	---	---	10.0	8.0	9.0	13.0	10.5	11.5	14.5	12.5	13.5
16	---	---	---	10.0	8.5	9.5	11.5	11.0	11.0	14.0	13.0	13.5
17	---	---	---	9.5	7.5	8.0	11.0	9.5	10.0	15.5	13.0	14.0
18	---	---	---	10.0	7.0	8.5	12.5	8.5	10.0	16.0	15.0	15.5
19	---	---	---	10.0	8.5	8.5	12.5	10.5	11.5	20.0	16.0	18.0
20	---	---	---	---	---	---	15.0	12.5	13.5	22.5	19.0	20.5
21	---	---	---	---	---	---	16.0	14.0	15.0	23.5	20.5	22.0
22	---	---	---	---	---	---	17.5	14.5	16.0	22.5	20.5	21.5
23	---	---	---	---	---	---	19.0	16.5	18.0	21.0	18.5	20.0
24	---	---	---	---	---	---	18.5	15.0	16.0	21.5	19.5	20.5
25	---	---	---	---	---	---	15.0	13.0	14.0	20.5	18.0	19.0
26	---	---	---	---	---	---	15.0	13.5	14.5	19.0	16.0	17.0
27	---	---	---	---	---	---	15.0	13.5	14.5	16.0	14.5	15.0
28	---	---	---	---	---	---	15.0	12.0	13.5	14.5	14.0	14.0
29	---	---	---	6.5	5.5	5.5	15.5	14.0	14.5	14.0	13.5	13.5
30	---	---	---	9.0	5.0	7.0	16.0	15.0	15.5	15.5	12.5	14.0
31	---	---	---	10.5	8.0	9.0	---	---	---	17.0	14.0	15.5
MONTH	---	---	---	10.5	.5	6.3	19.0	6.0	11.8	23.5	12.0	15.9

CHRISTINA RIVER BASIN

01481000 BRANDYWINE CREEK AT CHADDS FORD, PA--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	18.5	15.0	17.0	21.0	18.5	19.5	22.0	20.0	21.0	22.0	20.5	21.5
2	19.0	16.0	17.5	22.0	20.5	21.0	22.5	20.5	21.5	22.0	20.0	21.0
3	18.5	16.5	17.0	22.0	20.5	21.5	22.0	21.0	21.5	22.5	20.5	21.5
4	18.5	16.0	17.0	21.0	19.5	20.0	22.0	20.0	21.0	22.0	21.5	22.0
5	20.5	17.5	19.0	21.5	18.5	20.0	23.0	21.0	22.0	23.0	21.0	22.0
6	20.5	18.0	19.5	22.5	19.5	21.0	24.0	21.5	23.0	22.5	22.0	22.0
7	20.5	18.5	19.5	23.5	21.0	22.0	24.0	22.5	23.5	23.0	22.0	22.5
8	22.5	20.0	21.0	23.0	22.0	22.5	---	---	---	23.5	22.0	22.5
9	22.5	21.5	22.0	24.5	22.0	23.5	---	---	---	23.5	22.0	23.0
10	22.5	21.0	21.5	24.5	22.5	23.0	---	---	---	23.5	22.5	23.0
11	22.0	21.0	21.5	23.0	21.0	22.0	---	---	---	23.5	21.5	22.0
12	22.0	20.0	21.0	22.5	21.0	21.5	---	---	---	21.5	20.5	21.0
13	23.0	20.5	21.5	21.0	20.5	20.5	19.5	18.0	18.5	20.5	20.0	20.5
14	23.5	21.0	22.5	23.0	20.5	21.5	20.0	18.0	19.0	20.0	18.5	19.0
15	24.5	22.0	23.5	22.5	22.0	22.5	21.5	19.5	20.5	19.0	17.5	18.5
16	24.5	22.0	23.5	24.0	21.5	22.5	21.5	20.0	21.0	18.5	17.5	18.0
17	23.5	22.0	23.0	23.5	22.0	23.0	22.5	20.0	21.5	17.5	17.0	17.5
18	22.0	21.0	21.5	23.0	22.0	22.5	22.5	20.5	21.5	18.0	17.0	17.5
19	21.5	20.0	20.5	22.5	21.5	22.0	22.5	20.0	21.5	18.5	16.0	17.0
20	21.0	20.0	20.5	22.5	21.5	22.0	23.0	21.0	22.0	18.0	16.5	17.5
21	22.5	20.5	21.5	22.0	20.0	21.0	22.5	21.0	21.5	17.5	16.0	17.0
22	22.0	20.5	21.5	21.5	20.0	20.5	23.0	20.5	21.5	17.0	16.5	17.0
23	23.0	20.5	22.0	20.0	19.0	19.5	24.0	22.0	23.0	17.0	16.5	17.0
24	22.5	20.5	21.5	21.5	19.0	20.5	24.0	22.5	23.0	16.5	15.5	16.0
25	23.0	20.5	22.0	23.0	20.5	22.0	23.0	21.5	22.5	16.5	15.0	16.0
26	22.5	20.0	21.5	23.5	21.5	22.5	22.5	21.0	22.0	16.0	15.0	15.5
27	22.0	20.0	21.0	23.0	21.0	22.0	22.5	21.5	22.0	17.5	16.0	16.5
28	22.0	20.5	21.0	23.0	20.5	22.0	22.0	20.5	21.5	18.5	17.0	17.5
29	21.5	20.0	20.5	22.5	21.0	21.5	22.5	21.0	22.0	18.0	16.5	17.5
30	20.0	18.5	19.0	21.0	20.0	20.5	22.5	21.0	22.0	16.5	15.5	16.0
31	---	---	---	21.0	19.5	20.0	22.5	21.0	22.0	---	---	---
MONTH	24.5	15.0	20.7	24.5	18.5	21.5	24.0	18.0	21.6	23.5	15.0	19.2

OXYGEN, DISSOLVED (MG/L), 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	11.3	8.6	9.6	9.9	9.4	9.6	---	---	---	---	---	---
2	11.6	9.0	9.9	9.7	9.3	9.5	---	---	---	---	---	---
3	12.4	9.3	10.6	9.7	9.4	9.6	---	---	---	---	---	---
4	10.9	8.2	9.7	10.1	9.4	9.7	---	---	---	---	---	---
5	8.4	7.9	8.2	10.5	10.0	10.2	---	---	---	---	---	---
6	8.1	7.6	7.7	10.6	10.1	10.3	---	---	---	---	---	---
7	7.8	7.4	7.6	---	---	---	---	---	---	---	---	---
8	8.6	7.5	8.0	---	---	---	---	---	---	---	---	---
9	9.3	8.1	8.6	12.2	11.3	11.8	---	---	---	---	---	---
10	9.7	8.5	9.0	12.7	12.0	12.3	---	---	---	---	---	---
11	10.0	8.8	9.2	12.2	10.8	11.7	---	---	---	---	---	---
12	9.6	8.0	8.8	11.0	9.9	10.6	---	---	---	---	---	---
13	9.5	7.9	8.5	11.0	10.4	10.7	---	---	---	---	---	---
14	8.9	8.2	8.5	10.7	10.3	10.5	---	---	---	---	---	---
15	8.4	7.9	8.1	10.7	10.4	10.5	---	---	---	---	---	---
16	9.3	8.4	8.8	---	---	---	---	---	---	---	---	---
17	9.5	8.8	9.1	---	---	---	---	---	---	---	---	---
18	10.1	8.8	9.3	---	---	---	---	---	---	---	---	---
19	10.4	8.8	9.6	---	---	---	---	---	---	---	---	---
20	9.8	8.9	9.4	---	---	---	---	---	---	---	---	---
21	9.4	8.5	9.0	---	---	---	---	---	---	---	---	---
22	9.2	8.6	9.0	11.8	11.2	11.5	---	---	---	---	---	---
23	9.6	9.1	9.4	12.1	11.7	11.9	---	---	---	---	---	---
24	9.5	8.8	9.2	12.1	11.5	11.9	---	---	---	---	---	---
25	9.2	8.8	9.0	12.3	11.8	12.0	---	---	---	---	---	---
26	9.5	9.0	9.2	12.5	12.0	12.2	---	---	---	---	---	---
27	9.9	9.2	9.5	12.2	11.7	12.0	---	---	---	---	---	---
28	9.4	8.8	9.1	11.7	10.9	11.3	---	---	---	---	---	---
29	9.3	8.8	9.0	11.9	10.7	11.4	---	---	---	---	---	---
30	9.9	9.2	9.6	---	---	---	---	---	---	---	---	---
31	9.8	9.5	9.6	---	---	---	---	---	---	---	---	---
MONTH	12.4	7.4	9.0	12.7	9.3	11.0	---	---	---	---	---	---

CHRISTINA RIVER BASIN

01481000 BRANDYWINE CREEK AT CHADDS FORD, PA--Continued

OXYGEN, DISSOLVED (MG/L), 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	---	---	---	---	---	---	11.6	10.6	11.0	10.7	9.1	9.9
2	---	---	---	---	---	---	11.9	10.6	11.2	10.3	9.0	9.7
3	---	---	---	---	---	---	12.3	11.1	11.7	9.8	8.5	9.1
4	---	---	---	---	---	---	12.1	10.8	11.4	10.1	8.8	9.3
5	---	---	---	13.8	11.6	13.0	12.4	10.5	11.4	10.0	8.5	9.1
6	---	---	---	11.6	10.0	10.8	13.2	11.5	12.2	9.0	8.1	8.4
7	---	---	---	10.8	10.0	10.3	12.4	11.2	11.8	10.4	9.0	9.7
8	---	---	---	11.9	10.8	11.4	13.4	11.8	12.4	10.1	9.2	9.6
9	---	---	---	13.9	11.9	13.2	12.7	11.1	11.9	9.8	9.1	9.4
10	---	---	---	14.0	13.1	13.6	13.4	12.0	12.6	10.0	8.9	9.5
11	---	---	---	13.4	12.5	13.0	12.9	11.1	12.0	9.2	7.9	8.7
12	---	---	---	13.1	12.0	12.5	12.3	10.4	11.3	8.6	7.5	8.2
13	---	---	---	12.7	11.4	12.1	12.5	9.8	10.9	9.7	8.6	9.3
14	---	---	---	12.4	11.1	11.7	12.4	9.6	10.8	10.5	9.5	9.8
15	---	---	---	12.0	10.5	11.1	12.7	10.2	11.3	10.4	9.6	9.9
16	---	---	---	12.5	10.5	11.3	11.0	9.2	9.8	9.8	9.4	9.6
17	---	---	---	13.0	10.9	11.9	11.6	9.9	10.9	10.1	9.3	9.7
18	---	---	---	13.5	11.3	12.2	12.1	10.9	11.7	9.7	8.9	9.2
19	---	---	---	12.4	10.5	11.3	11.6	10.7	11.2	9.4	8.2	8.9
20	---	---	---	---	---	---	11.5	10.1	10.7	8.9	7.5	8.1
21	---	---	---	---	---	---	11.2	9.6	10.3	8.8	6.7	7.8
22	---	---	---	---	---	---	11.8	9.4	10.4	9.1	7.3	8.1
23	---	---	---	---	---	---	11.4	8.8	9.8	9.6	7.7	8.6
24	---	---	---	---	---	---	11.1	8.6	9.8	9.5	7.7	8.6
25	---	---	---	---	---	---	12.1	9.6	10.7	10.0	7.9	8.9
26	---	---	---	---	---	---	10.7	9.5	10.1	10.1	8.3	9.1
27	---	---	---	---	---	---	12.0	9.5	10.6	9.9	8.8	9.4
28	---	---	---	---	---	---	12.2	9.8	10.9	10.0	9.2	9.6
29	---	---	---	12.6	11.8	12.0	11.0	9.3	10.0	10.5	9.4	9.8
30	---	---	---	12.0	11.0	11.8	9.9	8.9	9.4	10.9	9.8	10.2
31	---	---	---	12.1	10.7	11.3	---	---	---	10.8	9.5	10.1
MONTH	---	---	---	14.0	10.0	11.9	13.4	8.6	11.0	10.9	6.7	9.2

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	11.0	9.1	9.9	9.3	8.6	8.9	8.2	7.6	7.9	10.3	7.9	9.0
2	11.0	8.8	9.7	9.4	8.2	8.7	8.8	7.7	8.2	10.4	8.1	9.1
3	10.5	8.5	9.5	9.3	8.0	8.5	8.7	7.6	8.1	10.2	8.0	9.0
4	11.0	9.0	9.8	9.5	8.1	8.7	9.2	8.0	8.5	9.5	7.7	8.5
5	10.2	8.6	9.3	10.4	8.6	9.3	9.5	7.9	8.6	9.4	7.8	8.6
6	10.5	8.2	9.2	10.3	8.4	9.2	9.7	7.6	8.6	8.2	7.5	7.8
7	10.4	8.2	9.1	10.5	7.9	9.0	10.0	7.5	8.7	8.1	7.3	7.6
8	9.9	7.9	8.8	8.6	7.3	7.9	---	---	---	8.3	7.2	7.7
9	9.0	7.4	8.1	7.6	6.9	7.3	---	---	---	8.4	7.2	7.7
10	8.3	7.5	7.8	8.1	6.6	7.4	---	---	---	8.5	7.1	7.7
11	7.9	7.0	7.5	8.7	7.2	7.9	---	---	---	7.9	7.2	7.5
12	7.6	6.9	7.3	8.7	7.4	8.0	---	---	---	8.5	7.6	8.0
13	7.5	7.1	7.3	8.0	6.9	7.4	9.2	8.6	8.9	9.0	8.1	8.4
14	7.8	7.2	7.4	7.6	7.2	7.4	8.9	8.4	8.7	9.4	8.4	8.9
15	7.7	7.0	7.3	7.6	7.1	7.3	8.8	8.3	8.5	10.0	8.9	9.4
16	8.1	7.0	7.5	7.9	7.4	7.6	8.8	8.2	8.5	9.9	9.1	9.5
17	8.1	7.2	7.6	8.1	7.3	7.7	8.9	8.2	8.5	9.7	9.3	9.5
18	7.6	7.0	7.4	8.1	7.0	7.8	9.1	8.1	8.6	10.0	9.6	9.8
19	8.4	7.5	7.9	7.8	7.2	7.5	9.5	8.3	8.9	10.3	9.6	10.0
20	8.2	7.5	8.0	7.7	7.3	7.5	9.8	8.2	8.9	10.3	9.5	9.9
21	8.2	7.4	7.8	8.4	7.5	8.0	9.8	8.1	8.9	10.3	9.4	9.8
22	8.4	7.9	8.2	8.6	7.9	8.3	10.2	8.4	9.2	9.6	8.7	9.2
23	8.5	8.0	8.3	8.8	8.3	8.6	10.4	8.0	9.1	9.1	8.8	9.0
24	8.7	8.1	8.5	8.6	7.7	8.3	9.1	7.6	8.3	9.5	9.0	9.3
25	8.6	8.1	8.4	8.5	7.4	7.9	10.2	7.8	8.8	9.6	9.1	9.3
26	9.1	8.0	8.6	8.3	7.1	7.7	10.4	8.0	9.0	9.9	9.1	9.5
27	9.6	8.4	8.9	8.5	7.4	7.9	10.7	7.5	8.9	9.7	9.1	9.4
28	10.0	8.2	9.1	9.1	7.5	8.2	9.4	7.6	8.4	9.1	8.5	8.9
29	10.6	8.4	9.4	8.9	7.4	8.1	10.0	7.7	8.8	8.8	8.5	8.7
30	9.3	8.6	8.8	8.4	7.8	8.1	10.2	7.6	8.8	9.1	8.5	8.9
31	---	---	---	8.3	7.4	8.1	10.5	7.8	9.0	---	---	---
MONTH	11.0	6.9	8.4	10.5	6.6	8.1	10.7	7.5	8.7	10.4	7.1	8.9

DELAWARE RIVER BASIN

01482800 DELAWARE RIVER AT REEDY ISLAND JETTY, DE

LOCATION.--Lat 39°30'03", long 75°34'07", New Castle County, Delaware, Hydrologic Unit 02040205, on platform about 0.4 mi downstream from Reedy Island near Port Penn.

DRAINAGE AREA.--11,200 mi², approximately.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1963 to current year.

pH: February 1970 to current year.

WATER TEMPERATURES: February 1970 to current year.

DISSOLVED OXYGEN: February 1970 to current year.

INSTRUMENTATION.--Water-quality monitor since February 1970. Probes interfaced with a data collection platform since the 1986 water year.

REMARKS.--Interruptions in the record were due to malfunctions of the recording instrument.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 35,600 microsiemens, Nov. 15, 1978; minimum, 100 microsiemens, several days in 1969, 1970, 1974 and 1979.

pH: Maximum, 8.9, Mar. 4, 1980; minimum, 5.4, Dec. 31, 1972.

WATER TEMPERATURE: Maximum, 32.5°C, July 23, 1987; minimum, 0.0°C, many days during winter periods.

DISSOLVED OXYGEN: Maximum, 17.1 mg/L, Dec. 16, 19, 1976; minimum, 0.3 mg/L, Sept. 16, 17, 1971.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 22,800 microsiemens, Jan. 19; minimum, 180 microsiemens, May 5.

pH: Maximum, 7.9, Nov. 5-7, Sept. 29; minimum, 6.6, May 19, 20, June 16, 21.

WATER TEMPERATURE: Maximum, 28.5°C, Sept. 3; minimum, 0.0°C, Jan. 7.

DISSOLVED OXYGEN: Maximum, 14.4 mg/L, Mar. 18; minimum, 5.1 mg/L, June 26, 28.

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25° 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	21700	15100	17900	---	---	---	10400	2130	4860	19200	9360	13400
2	21400	15400	17800	---	---	---	5180	1750	2640	19400	9700	13900
3	21600	15400	17700	---	---	---	7270	1730	3520	21200	10900	15200
4	20500	15600	17700	---	---	---	7900	1900	3770	17700	9780	13600
5	20800	15400	17400	10200	2720	5030	8810	2150	4030	18500	8930	13400
6	20500	14400	17100	11500	2920	5640	7720	2400	4050	14700	8770	11000
7	18700	13700	15700	13600	3740	7180	7970	2240	3690	17700	9600	13100
8	18900	12900	15300	11300	2950	5740	8460	2200	3490	---	---	---
9	18700	12600	14900	9340	2730	4630	9110	2160	4350	---	---	---
10	18200	12800	14900	12200	2960	6040	7440	2140	3940	---	---	---
11	17400	12500	14500	11000	3140	6150	4690	1430	2610	---	---	---
12	16700	12000	13900	9370	1360	3540	9000	1430	4520	---	---	---
13	16900	11700	13400	6400	1300	2910	10800	2280	6410	---	---	---
14	18000	11900	14000	11400	1580	5220	11900	3780	7670	20100	15300	16500
15	15400	11000	12600	11400	2150	6100	11900	4260	7660	19000	12600	15300
16	14700	9820	11600	7400	1200	3340	14600	4630	9360	21100	12300	16000
17	16900	9060	12400	8500	1420	3800	14200	5600	10000	21600	11800	15900
18	19700	10900	15900	8420	1340	4020	15200	4650	9290	20300	12300	15200
19	21000	11300	15500	8550	1670	3670	15600	6340	10000	22800	12800	17000
20	21700	12100	16100	8830	1700	3990	19200	7290	12500	12800	2900	7650
21	21700	12800	17200	8810	1980	4090	16600	7280	10600	5730	1010	2460
22	17900	10100	13900	8440	1780	3600	11600	6320	8060	1860	880	1460
23	14800	8000	11000	9140	1800	3550	17400	6570	10200	1720	910	1210
24	13200	6920	9710	7010	1800	2940	16700	7490	11100	2080	1130	1400
25	10900	5930	8040	8180	1840	3420	16100	7760	10900	2080	1130	1620
26	12500	5460	7720	8840	1850	4000	13100	7380	9700	1590	1040	1230
27	13600	5270	8480	7860	1960	3730	13300	6720	9230	1250	880	1050
28	---	---	---	4400	1800	2570	17000	6720	11400	1310	530	975
29	---	---	---	7100	1850	3020	16700	6710	11900	780	500	608
30	---	---	---	8860	2100	4790	17500	7840	11800	580	430	499
31	---	---	---	---	---	---	17700	8370	12100	640	470	534
MONTH	21700	5270	14200	13600	1200	4330	19200	1430	7590	22800	430	8410

DELAWARE RIVER BASIN

01482800 DELAWARE RIVER AT REEDY ISLAND JETTY, DE--Continued

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25° CELSIUS, 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	4470	530	1330	7230	900	3690	---	---	---	2470	430	784
2	5100	600	1650	8750	2210	4560	---	---	---	2470	290	547
3	8670	700	3060	8680	1260	3930	6490	1710	3460	680	260	390
4	10700	2180	5400	2350	620	1340	6680	1720	2960	410	230	305
5	10700	2070	5610	3450	700	1420	5960	1510	2700	360	180	299
6	---	---	---	2930	680	1190	7020	1560	3120	460	320	366
7	---	---	---	6240	920	2300	7500	1700	3750	500	370	425
8	---	---	---	5010	720	1810	7720	1690	3610	420	290	369
9	6880	2140	3650	3370	620	1190	8270	1790	3540	400	330	366
10	7440	2030	3530	4160	750	1430	6140	1630	2830	400	240	318
11	7300	2080	3730	7080	920	2540	5350	1090	2090	310	190	257
12	6470	1520	2870	8320	1370	3690	7410	1280	3080	380	290	340
13	7660	1490	3670	9690	1440	4310	8170	1560	3730	4040	300	784
14	10200	1970	4780	9470	2120	4150	7910	1990	4010	5000	260	1010
15	11400	2260	5480	9330	2290	4270	8620	1760	3510	5000	390	864
16	10900	3070	5540	8770	2160	3950	9080	1770	4580	2080	390	702
17	12100	3440	6550	8330	2110	3580	5250	780	1890	1790	270	533
18	12100	3370	6250	6830	1840	3160	1400	680	1010	1960	300	530
19	10400	3380	5450	11400	2060	3890	980	460	703	1310	200	448
20	11300	3760	6280	11400	2330	4900	670	400	541	1870	190	473
21	10200	3290	5780	5670	1710	3110	680	420	537	2550	220	536
22	8200	2700	4850	---	---	---	670	410	505	2410	250	655
23	6230	2290	3620	---	---	---	540	350	453	3700	260	1090
24	5980	2290	3260	---	---	---	830	490	660	4060	310	1510
25	3300	1560	2220	---	---	---	2730	380	1100	5860	840	2740
26	3690	1150	1770	---	---	---	2560	500	936	7100	1310	3720
27	4970	1100	2590	---	---	---	2510	350	789	7520	1660	4200
28	6900	1230	3130	---	---	---	4360	390	1630	7580	2540	4780
29	5210	1090	2130	---	---	---	3040	420	1170	9300	2990	5170
30	---	---	---	---	---	---	3330	410	1170	10000	2570	4930
31	---	---	---	---	---	---	---	---	---	10000	2890	5220
MONTH	12100	530	4010	11400	620	3070	9080	350	2150	10000	180	1440
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE				JULY			AUGUST			SEPTEMBER		
1	9780	3190	5030	13200	4830	7370	9200	2700	4710	11200	5350	7640
2	9240	3120	4940	12800	4890	7390	7740	2350	4110	13300	6010	9270
3	9290	3290	5070	12700	4910	7560	7480	2450	4030	10600	5870	8080
4	9650	3620	5640	12100	4750	7400	7010	2470	3970	12700	6020	8220
5	9320	3240	5130	12000	4630	7260	6760	2380	3770	12400	6330	8320
6	8290	3200	4780	11100	4690	6780	7410	2350	3660	12300	6710	9050
7	8460	3390	4840	9520	4550	6410	8120	2470	4080	11100	5020	7780
8	7440	3260	4590	10000	4560	6600	8400	2550	4220	11800	4930	7550
9	6940	3050	4390	10500	4620	6560	8500	2470	4190	11600	5260	7170
10	7080	3080	4340	10700	4370	6340	9960	2160	3980	11700	5130	7110
11	7160	2980	4220	11600	4210	6250	11800	2570	5210	11700	5160	7190
12	6300	2890	3970	11600	4310	6390	11800	3580	6070	12100	5500	8080
13	6330	2370	3500	13100	3220	7110	11400	3410	6160	14200	6580	10000
14	6330	2170	3190	7840	3130	4790	12000	3140	6370	12600	6660	9230
15	6430	1950	2960	8960	2730	4630	10500	3290	5550	13200	6750	9360
16	6730	1890	3120	5610	2000	3170	10200	3330	5730	12500	6590	8920
17	6900	1990	3540	6030	1530	2880	10100	3390	5630	12300	6380	8440
18	7300	1850	3310	5810	1270	2550	10300	3330	5570	12000	5290	8120
19	7900	2260	3940	6350	1480	2730	9530	3250	5530	13200	5290	8340
20	7110	2020	3570	4590	1140	1670	10600	3670	6440	14000	5830	8870
21	7100	1820	3400	6240	870	2760	10000	3910	6150	13400	5560	8510
22	7510	1770	4390	7170	1200	3860	10500	3340	5520	12500	6010	8350
23	9060	1760	4460	8590	2050	4750	10800	3430	5870	13600	5100	7540
24	10000	2150	5860	8860	2380	5790	11400	3490	5790	14100	5510	8560
25	10900	3200	6430	---	---	---	12200	3610	6240	12600	5600	8210
26	11500	2910	6620	---	---	---	12700	4240	6680	12100	5580	7700
27	14100	3820	7730	9500	2740	4860	12700	4370	6750	12400	5660	8070
28	15300	4640	8240	10500	2430	4530	12400	4600	7160	11600	5750	7970
29	15300	5180	9060	10500	2760	4690	12300	5030	7660	10000	4770	6810
30	15100	6360	9050	10600	2940	5040	11000	4980	7300	9730	4400	6190
31	---	---	---	10100	3020	5190	11300	5130	7530	---	---	---
MONTH	15300	1760	4980	13200	870	5290	12700	2160	5540	14200	4400	8150
YEAR	22800	180	5770									

DELAWARE RIVER BASIN

01482800 DELAWARE RIVER AT REEDY ISLAND JETTY, DE--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	7.6	7.5	7.6	---	---	---	7.6	7.3	7.4	7.7	7.5	7.6
2	7.6	7.5	7.6	---	---	---	7.4	7.3	7.3	7.7	7.5	7.6
3	7.6	7.5	7.5	---	---	---	7.5	7.3	7.4	7.7	7.6	7.6
4	7.5	7.5	7.5	---	---	---	7.5	7.3	7.4	7.7	7.6	7.6
5	7.6	7.5	7.5	7.9	7.7	7.8	7.6	7.3	7.4	7.7	7.5	7.6
6	7.6	7.5	7.5	7.9	7.7	7.8	7.6	7.4	7.5	7.6	7.5	7.6
7	7.5	7.3	7.4	7.9	7.6	7.7	7.6	7.3	7.5	7.7	7.6	7.7
8	7.4	7.3	7.4	7.8	7.6	7.7	7.5	7.3	7.4	---	---	---
9	7.4	7.3	7.4	7.8	7.6	7.7	7.6	7.4	7.4	---	---	---
10	7.4	7.3	7.4	7.8	7.6	7.7	7.6	7.4	7.5	---	---	---
11	7.4	7.3	7.4	7.8	7.6	7.7	7.5	7.3	7.4	---	---	---
12	7.4	7.3	7.4	7.7	7.5	7.6	7.6	7.3	7.4	---	---	---
13	7.4	7.3	7.4	---	---	---	7.6	7.4	7.5	---	---	---
14	7.5	7.4	7.4	---	---	---	7.6	7.4	7.5	---	---	---
15	7.5	7.4	7.4	---	---	---	7.6	7.3	7.4	7.7	7.6	7.6
16	7.5	7.4	7.5	---	---	---	7.6	7.3	7.4	7.7	7.6	7.6
17	7.6	7.3	7.5	7.8	7.5	7.6	7.7	7.4	7.6	7.7	7.5	7.6
18	7.6	7.4	7.5	7.5	7.2	7.3	7.7	7.4	7.6	7.7	7.5	7.6
19	7.6	7.5	7.5	7.5	7.2	7.3	7.7	7.5	7.6	7.7	7.5	7.6
20	7.6	7.5	7.5	7.5	7.2	7.3	7.8	7.6	7.7	7.6	7.3	7.4
21	7.6	7.6	7.6	7.5	7.2	7.3	7.7	7.6	7.6	7.4	7.2	7.3
22	7.6	7.6	7.6	7.5	7.2	7.3	7.6	7.5	7.6	7.3	7.1	7.2
23	7.7	7.5	7.6	7.5	7.2	7.3	7.7	7.5	7.6	7.2	7.1	7.1
24	7.7	7.6	7.7	7.4	7.2	7.3	7.7	7.6	7.6	7.2	7.1	7.1
25	7.7	7.6	7.6	7.5	7.3	7.3	7.7	7.6	7.6	7.2	7.1	7.2
26	7.7	7.6	7.6	7.5	7.2	7.3	7.7	7.6	7.6	7.1	7.0	7.1
27	7.7	7.6	7.6	7.5	7.2	7.3	7.7	7.6	7.6	7.2	7.0	7.1
28	---	---	---	7.3	7.2	7.3	7.8	7.6	7.7	7.2	7.0	7.1
29	---	---	---	7.5	7.3	7.3	7.8	7.6	7.7	7.1	7.0	7.1
30	---	---	---	7.5	7.3	7.4	7.8	7.5	7.6	7.1	7.0	7.0
31	---	---	---	---	---	---	7.7	7.5	7.6	7.0	7.0	7.0
MONTH	7.7	7.3	7.5	7.9	7.2	7.5	7.8	7.3	7.5	7.7	7.0	7.4

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	7.2	7.0	7.1	7.3	7.2	7.3	---	---	---	7.2	7.0	7.1
2	7.2	7.0	7.1	7.3	7.2	7.3	---	---	---	7.2	6.9	7.0
3	7.4	7.1	7.2	7.3	7.2	7.3	---	---	---	7.1	6.9	7.0
4	7.5	7.2	7.4	7.3	7.2	7.3	7.2	7.0	7.1	7.0	6.9	6.9
5	7.6	7.2	7.4	7.3	7.2	7.2	7.2	7.1	7.1	7.0	6.7	6.9
6	7.4	7.2	7.3	7.3	7.2	7.2	7.2	7.0	7.1	7.0	6.9	7.0
7	---	---	---	7.3	7.2	7.3	7.2	7.1	7.1	7.0	7.0	7.0
8	---	---	---	7.3	7.2	7.3	7.2	7.0	7.1	7.1	6.9	7.0
9	---	---	---	7.3	7.3	7.3	7.3	7.1	7.1	7.1	7.0	7.0
10	---	---	---	7.3	7.2	7.3	7.2	7.1	7.1	7.1	6.9	7.0
11	---	---	---	7.4	7.2	7.3	7.2	6.9	7.0	7.0	6.7	6.9
12	---	---	---	7.4	7.2	7.3	7.2	6.8	7.0	7.1	7.0	7.0
13	---	---	---	7.4	7.1	7.3	7.3	7.0	7.1	7.2	7.0	7.1
14	---	---	---	7.4	7.2	7.3	7.3	6.9	7.1	7.2	7.0	7.1
15	---	---	---	7.4	7.2	7.3	7.3	7.1	7.2	7.2	7.1	7.1
16	---	---	---	7.3	7.1	7.2	7.5	7.1	7.2	7.2	7.0	7.1
17	---	---	---	7.4	7.2	7.2	7.5	7.1	7.2	7.1	6.8	7.0
18	---	---	---	7.3	7.1	7.2	7.5	7.1	7.3	7.0	6.9	7.0
19	---	---	---	7.3	7.2	7.2	7.4	6.9	7.2	7.0	6.6	6.8
20	---	---	---	7.3	7.2	7.3	7.1	7.0	7.0	6.9	6.6	6.8
21	---	---	---	7.3	7.2	7.2	7.0	6.9	7.0	6.9	6.8	6.9
22	---	---	---	---	---	---	7.1	7.0	7.0	7.0	6.8	6.9
23	---	---	---	---	---	---	7.1	6.9	7.1	7.0	6.8	6.9
24	---	---	---	---	---	---	7.3	7.1	7.2	7.0	6.8	6.9
25	---	---	---	---	---	---	7.3	7.0	7.1	7.1	7.0	7.1
26	---	---	---	---	---	---	7.2	7.1	7.1	7.1	7.0	7.1
27	---	---	---	---	---	---	7.2	7.1	7.2	7.1	7.0	7.0
28	7.3	7.1	7.2	---	---	---	7.3	7.0	7.2	7.2	7.1	7.1
29	7.3	7.2	7.3	---	---	---	7.2	7.0	7.1	7.2	7.1	7.1
30	---	---	---	---	---	---	7.2	7.0	7.1	7.2	7.1	7.1
31	---	---	---	---	---	---	---	---	---	7.2	6.9	7.1
MONTH	7.6	7.0	7.2	7.4	7.1	7.3	7.5	6.8	7.1	7.2	6.6	7.0

DELAWARE RIVER BASIN

01482800 DELAWARE RIVER AT REEDY ISLAND JETTY, DE--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	7.0	7.1	7.1	6.9	7.1	7.3	7.2	7.3	7.3	7.2	7.3
2	7.1	7.0	7.0	7.1	7.0	7.1	7.2	7.2	7.2	7.3	7.3	7.3
3	7.1	7.0	7.1	7.2	7.0	7.1	7.3	7.1	7.2	7.3	7.2	7.3
4	7.2	7.0	7.1	7.3	7.1	7.2	7.2	7.1	7.2	7.3	7.2	7.3
5	7.2	6.8	7.0	7.3	7.1	7.2	7.2	7.1	7.2	7.3	7.2	7.3
6	7.1	6.8	7.0	7.3	7.0	7.1	7.2	7.1	7.2	7.5	7.3	7.3
7	7.1	7.0	7.0	7.3	7.1	7.2	7.3	7.1	7.2	7.7	7.4	7.5
8	7.2	6.9	7.0	7.3	7.2	7.3	7.3	7.2	7.2	7.6	7.4	7.5
9	7.1	7.0	7.1	7.3	7.2	7.3	7.3	7.2	7.2	7.6	7.3	7.5
10	7.2	7.0	7.1	7.4	7.2	7.3	7.3	7.2	7.3	7.5	7.3	7.4
11	7.2	7.1	7.1	7.4	7.2	7.3	7.4	7.3	7.3	7.4	7.3	7.4
12	7.2	7.1	7.1	7.4	7.3	7.3	7.4	7.3	7.3	7.4	7.3	7.4
13	7.1	6.9	7.0	7.4	7.3	7.4	7.5	7.4	7.4	7.4	7.3	7.4
14	7.0	6.8	6.9	7.5	7.3	7.4	7.5	7.3	7.4	7.5	7.4	7.4
15	7.0	6.7	6.9	7.4	7.3	7.3	7.4	7.3	7.4	7.4	7.3	7.4
16	7.0	6.6	6.9	7.4	7.3	7.3	7.4	7.3	7.4	7.4	7.3	7.3
17	6.9	6.8	6.9	7.4	7.2	7.3	7.4	7.3	7.3	7.4	7.3	7.3
18	6.9	6.7	6.9	7.4	7.2	7.3	7.4	7.3	7.3	7.5	7.3	7.4
19	6.9	6.9	6.9	7.3	7.2	7.3	7.4	7.3	7.3	7.5	7.4	7.4
20	6.9	6.7	6.8	7.4	7.1	7.3	7.4	7.3	7.4	7.5	7.4	7.5
21	6.9	6.6	6.8	7.4	7.3	7.3	7.4	7.3	7.3	7.5	7.4	7.5
22	7.0	6.8	6.9	7.4	7.3	7.3	7.4	7.3	7.3	7.6	7.5	7.5
23	7.0	6.9	6.9	7.3	7.2	7.3	7.5	7.3	7.3	7.7	7.5	7.6
24	7.1	6.9	7.0	7.3	7.2	7.3	7.4	7.3	7.3	7.7	7.6	7.6
25	7.0	6.9	7.0	---	---	---	7.5	7.3	7.4	7.8	7.7	7.7
26	7.1	6.9	7.0	---	---	---	7.5	7.3	7.4	7.8	7.7	7.7
27	7.1	6.9	7.0	7.6	7.4	7.6	7.4	7.3	7.3	7.8	7.7	7.7
28	7.1	6.8	6.9	7.6	7.4	7.5	7.4	7.3	7.3	7.8	7.7	7.8
29	7.1	7.0	7.0	7.5	7.3	7.4	7.3	7.3	7.3	7.9	7.7	7.8
30	7.1	7.0	7.1	7.4	7.3	7.4	7.3	7.2	7.3	7.8	7.7	7.8
31	---	---	---	7.4	7.3	7.3	7.3	7.2	7.3	---	---	---
MONTH	7.2	6.6	7.0	7.6	6.9	7.3	7.5	7.1	7.3	7.9	7.2	7.5
YEAR	7.9	6.6	7.3									

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	20.5	19.5	20.0	---	---	---	6.5	5.5	6.0	1.5	1.0	1.0
2	21.0	19.5	20.0	---	---	---	6.5	5.5	6.0	1.5	1.0	1.5
3	21.0	20.0	20.5	---	---	---	6.5	5.5	6.0	1.5	1.0	1.5
4	21.0	20.5	20.5	---	---	---	6.5	6.0	6.0	1.0	.5	1.0
5	21.0	20.5	20.5	14.0	13.5	14.0	6.0	5.5	6.0	1.0	.5	1.0
6	21.5	20.5	21.0	14.0	13.0	13.5	6.0	5.5	6.0	1.0	.0	.5
7	21.5	21.0	21.0	13.0	12.5	12.5	6.0	5.5	5.5	---	---	---
8	21.5	20.5	21.0	13.0	11.5	12.0	5.5	5.0	5.0	---	---	---
9	21.5	20.5	20.5	12.0	10.5	11.0	5.0	4.5	5.0	---	---	---
10	21.0	20.5	20.5	11.0	10.0	10.5	4.5	2.5	4.0	---	---	---
11	21.0	20.0	20.5	11.5	10.5	11.0	4.0	2.0	2.5	---	---	---
12	21.0	20.0	20.5	10.5	8.5	9.5	3.0	1.5	2.5	---	---	---
13	21.0	20.0	20.5	9.5	9.0	9.5	2.5	1.5	2.0	---	---	---
14	21.0	20.5	20.5	9.5	9.0	9.0	2.5	2.0	2.0	---	---	---
15	20.5	19.5	20.0	9.0	8.5	9.0	2.5	2.0	2.5	---	---	---
16	20.0	18.5	19.5	8.5	8.0	8.5	2.5	2.5	2.5	---	---	---
17	19.0	18.0	18.5	8.5	8.0	8.0	3.0	2.5	2.5	---	---	---
18	18.5	17.5	18.5	8.0	8.0	8.0	3.0	2.5	2.5	---	---	---
19	19.0	17.5	18.5	8.5	8.0	8.0	2.5	2.0	2.5	---	---	---
20	19.0	18.0	18.5	8.5	7.5	8.0	2.5	2.0	2.0	---	---	---
21	18.5	18.0	18.0	8.5	8.0	8.0	2.0	1.5	2.0	2.0	1.0	1.5
22	18.0	17.5	17.5	8.0	7.0	7.5	2.0	1.0	1.5	2.0	1.0	1.5
23	18.5	17.5	17.5	7.5	6.5	7.0	2.0	1.5	1.5	1.5	1.5	1.5
24	18.0	17.5	17.5	7.0	6.5	7.0	2.0	1.5	1.5	2.5	1.5	2.0
25	18.0	17.0	17.5	7.0	6.0	6.5	1.5	1.0	1.5	2.0	1.0	1.5
26	17.5	16.5	17.0	7.0	6.0	6.5	1.5	.5	1.0	1.5	1.0	1.5
27	17.0	16.5	17.0	7.0	6.5	6.5	1.0	.5	1.0	2.5	1.5	2.0
28	---	---	---	7.5	6.5	7.0	1.0	.5	.5	2.5	1.5	2.0
29	---	---	---	7.0	6.0	6.5	1.0	.5	.5	3.0	2.0	2.5
30	---	---	---	6.5	5.5	6.0	1.0	.5	.5	3.5	2.5	3.0
31	---	---	---	---	---	---	1.5	.5	1.0	3.5	2.5	3.0
MONTH	21.5	16.5	19.4	14.0	5.5	8.9	6.5	.5	3.0	3.5	.0	1.7

01482800 DELAWARE RIVER AT REEDY ISLAND JETTY, 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
FEBRUARY				MARCH			APRIL			MAY		
1	3.0	2.5	2.5	4.5	3.0	3.5	---	---	---	16.0	14.5	15.0
2	2.5	2.0	2.5	4.5	3.0	3.5	---	---	---	16.5	15.0	15.5
3	2.0	1.0	1.5	4.0	3.5	3.5	9.0	7.5	8.0	16.0	15.0	15.5
4	1.5	.5	1.0	4.0	3.0	3.5	9.0	7.5	8.5	16.5	15.5	16.0
5	1.0	.0	.5	5.5	3.5	4.0	8.5	8.0	8.5	17.0	15.5	16.0
6	---	---	---	4.5	4.0	4.5	8.5	7.5	8.0	16.5	15.5	16.0
7	---	---	---	4.0	4.0	4.0	8.0	7.5	8.0	16.0	15.0	15.5
8	---	---	---	4.0	3.0	3.5	8.5	7.5	8.0	16.5	15.5	16.0
9	---	---	---	3.5	2.5	3.0	8.0	7.0	7.5	16.0	15.5	15.5
10	---	---	---	3.5	2.5	3.0	8.0	7.0	7.5	17.0	15.5	16.0
11	---	---	---	3.5	2.5	3.0	9.0	7.5	8.0	18.5	16.0	17.0
12	---	---	---	4.0	2.5	3.5	9.5	8.0	8.5	17.0	16.0	16.5
13	---	---	---	5.0	3.0	4.0	10.0	8.5	9.0	16.5	15.0	16.0
14	---	---	---	5.5	3.5	4.5	10.5	9.0	9.5	16.5	15.0	15.5
15	---	---	---	6.0	4.5	5.0	9.5	9.0	9.5	16.0	15.0	15.5
16	---	---	---	6.5	4.5	5.5	11.0	9.5	10.0	15.5	15.0	15.5
17	---	---	---	6.0	5.0	5.5	10.5	9.5	10.0	16.5	15.5	15.5
18	---	---	---	6.5	5.5	6.0	12.0	9.5	10.5	16.5	15.5	16.0
19	---	---	---	6.5	5.5	6.0	12.0	10.5	11.5	18.5	16.0	17.0
20	---	---	---	6.5	6.0	6.0	12.5	11.0	11.5	19.5	16.5	17.5
21	---	---	---	6.5	6.0	6.0	13.5	12.0	12.5	20.0	17.5	18.5
22	---	---	---	6.0	6.0	6.0	13.5	12.5	13.0	20.0	18.0	19.0
23	---	---	---	---	---	---	15.0	13.0	14.0	20.5	18.5	19.5
24	---	---	---	---	---	---	15.0	13.5	14.0	21.0	19.5	20.0
25	---	---	---	---	---	---	15.0	13.5	14.0	20.5	19.0	20.0
26	---	---	---	---	---	---	15.0	14.0	14.5	20.0	19.0	19.5
27	4.0	3.5	3.5	---	---	---	15.0	14.0	14.5	19.5	18.5	19.0
28	4.5	3.5	4.0	---	---	---	15.5	14.0	14.5	18.5	18.0	18.5
29	4.0	3.5	4.0	---	---	---	16.0	14.5	15.0	18.0	17.5	18.0
30	---	---	---	---	---	---	15.5	15.0	15.5	18.5	17.5	18.0
31	---	---	---	---	---	---	---	---	---	19.0	17.5	18.0
MONTH	4.5	.0	2.4	6.5	2.5	4.4	16.0	7.0	10.8	21.0	14.5	17.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE				JULY			AUGUST			SEPTEMBER		
1	19.5	17.5	18.5	25.5	24.5	25.0	25.5	24.5	25.0	27.5	26.5	27.0
2	19.5	18.0	18.5	25.5	24.5	25.0	25.5	24.5	25.0	27.5	26.5	27.0
3	19.0	18.5	18.5	25.5	24.5	25.0	25.0	25.0	25.0	28.5	27.0	27.5
4	19.5	18.0	18.5	25.0	24.5	24.5	26.0	24.5	25.0	28.0	27.0	27.5
5	20.0	18.5	19.5	25.0	24.0	24.5	26.5	25.0	25.5	27.5	26.5	27.0

DELAWARE RIVER BASIN

01482800 DELAWARE RIVER AT REEDY ISLAND JETTY, DE--Continued

OXYGEN, DISSOLVED (MG/L), 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	---	---	---	---	---	---	11.3	10.6	11.1	13.2	12.9	13.0
2	---	---	---	---	---	---	11.4	11.1	11.2	13.1	12.9	13.0
3	---	---	---	---	---	---	11.2	10.2	11.0	13.1	12.8	13.0
4	---	---	---	---	---	---	11.1	10.8	11.0	13.1	12.0	12.9
5	---	---	---	8.9	8.0	8.7	11.5	10.8	11.1	13.2	12.9	13.0
6	---	---	---	9.1	8.3	8.8	11.3	11.0	11.1	13.2	11.3	12.8
7	7.2	7.0	7.1	9.1	8.2	8.5	11.3	11.0	11.1	13.1	12.5	13.0
8	7.1	6.4	6.9	8.9	8.6	8.8	11.4	11.0	11.2	---	---	---
9	7.2	6.8	7.0	9.3	8.8	9.0	11.5	11.2	11.3	---	---	---
10	7.3	6.9	7.1	9.9	9.0	9.4	11.6	11.1	11.3	---	---	---
11	7.3	7.1	7.2	10.2	9.4	9.8	11.7	11.2	11.5	---	---	---
12	7.5	7.2	7.3	10.0	9.5	9.7	12.1	11.5	11.8	---	---	---
13	7.5	7.3	7.4	10.0	9.6	9.8	12.2	11.9	12.0	13.6	11.6	12.5
14	7.8	7.4	7.6	10.6	9.2	10.1	12.2	11.2	12.0	13.6	12.4	13.0
15	8.0	7.6	7.8	10.5	10.1	10.3	12.3	11.4	12.0	12.9	11.8	12.4
16	8.3	7.7	8.1	10.4	10.0	10.2	12.3	12.1	12.2	12.3	11.4	11.7
17	---	---	---	10.2	9.7	10.0	12.3	11.7	12.2	13.0	11.5	11.9
18	8.6	7.8	8.2	10.1	9.6	9.8	12.3	11.9	12.2	13.2	11.5	12.0
19	8.8	7.8	8.0	10.0	9.7	9.8	12.4	12.0	12.2	14.1	11.5	12.8
20	8.3	7.7	8.0	10.1	9.2	9.8	12.4	12.2	12.3	12.5	11.2	11.7
21	8.2	7.8	8.0	10.2	9.7	10.0	12.7	12.3	12.5	13.3	11.1	12.5
22	8.6	7.8	8.0	10.5	9.7	10.1	12.8	12.4	12.7	12.9	11.7	12.1
23	8.1	7.6	7.8	10.5	9.8	10.1	12.9	12.7	12.8	11.8	11.6	11.7
24	8.0	7.6	7.8	10.6	10.3	10.4	12.9	12.7	12.8	12.6	11.7	12.1
25	7.9	7.7	7.8	10.8	10.3	10.5	12.9	12.7	12.8	12.1	11.5	11.8
26	7.9	7.6	7.7	11.2	10.5	10.8	13.0	12.7	12.8	12.9	11.4	12.3
27	7.8	7.5	7.7	11.1	10.0	10.8	13.0	12.8	12.9	13.5	12.6	13.0
28	---	---	---	11.0	9.7	10.6	13.2	12.6	13.0	13.2	12.6	12.9
29	---	---	---	10.9	10.6	10.7	13.2	12.6	13.0	13.0	12.6	12.9
30	---	---	---	10.9	10.4	10.7	13.3	11.6	12.8	13.8	12.9	13.2
31	---	---	---	---	---	---	13.2	12.1	12.9	13.4	12.8	13.2
MONTH	8.8	6.4	7.6	11.2	8.0	9.9	13.3	10.2	12.0	14.1	11.1	12.6
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	13.2	12.7	12.9	12.2	11.8	11.9	---	---	---	9.3	8.7	9.0
2	13.1	12.8	13.0	12.1	11.8	12.0	---	---	---	9.0	8.6	8.8
3	13.4	12.7	13.0	12.3	11.9	12.0	---	---	---	8.8	8.5	8.6
4	13.6	12.4	13.1	12.2	11.9	12.1	11.2	10.7	11.0	8.7	8.4	8.5
5	13.6	12.8	13.2	12.9	12.0	12.4	10.8	10.4	10.6	8.6	8.3	8.4
6	---	---	---	12.7	12.2	12.5	11.3	10.4	10.9	8.7	8.3	8.4
7	---	---	---	12.4	12.1	12.2	11.2	10.9	11.1	8.7	8.2	8.4
8	---	---	---	12.4	12.2	12.2	11.3	10.9	11.1	8.6	8.3	8.5
9	14.2	13.2	13.4	12.3	12.0	12.1	11.3	11.0	11.2	8.6	8.3	8.4
10	13.8	12.8	13.2	12.3	12.0	12.1	11.3	11.0	11.1	8.5	8.2	8.3
11	12.9	12.0	12.3	12.3	12.1	12.2	11.6	11.1	11.4	8.7	8.1	8.4
12	12.1	10.6	11.2	12.5	12.1	12.3	11.8	11.2	11.5	9.1	8.6	8.8
13	11.6	9.7	10.2	12.8	11.1	12.2	11.5	11.2	11.4	9.3	8.7	9.1
14	12.0	10.0	10.8	12.9	12.0	12.4	11.4	10.8	11.2	9.1	8.8	9.0
15	11.1	10.2	10.6	12.7	12.2	12.4	11.1	10.7	10.9	9.2	8.6	9.0
16	10.8	9.8	10.0	12.7	12.0	12.4	11.2	10.6	11.0	9.2	8.8	9.1
17	10.8	9.8	10.4	12.7	12.2	12.3	11.1	10.4	10.6	9.0	8.6	8.8
18	11.1	10.1	10.5	14.4	12.1	12.6	11.4	10.2	10.7	8.7	8.5	8.5
19	11.2	10.0	10.7	13.6	12.2	12.5	10.8	10.2	10.4	8.7	8.2	8.4
20	12.3	11.1	11.8	13.6	12.2	12.5	10.2	9.9	10.0	8.5	8.1	8.2
21	12.9	11.9	12.4	12.4	12.1	12.2	10.0	9.9	9.9	8.6	8.0	8.1
22	---	---	---	---	---	---	9.9	9.6	9.7	8.6	7.8	8.1
23	13.1	12.1	12.4	---	---	---	9.7	9.5	9.6	8.7	7.7	8.1
24	13.2	12.2	12.8	---	---	---	9.9	9.5	9.7	8.5	7.9	8.1
25	13.5	11.4	12.8	---	---	---	9.7	9.4	9.5	9.4	8.1	8.5
26	13.5	12.9	13.1	---	---	---	9.6	9.2	9.5	8.8	8.1	8.4
27	13.0	12.4	12.8	---	---	---	9.6	9.2	9.4	8.5	8.1	8.3
28	12.8	12.0	12.7	---	---	---	9.4	9.1	9.3	8.3	7.9	8.1
29	12.1	11.8	12.0	---	---	---	9.3	9.0	9.2	8.1	7.8	7.9
30	---	---	---	---	---	---	9.2	8.7	9.1	8.4	7.7	8.0
31	---	---	---	---	---	---	---	---	---	8.3	7.9	8.0
MONTH	14.2	9.7	12.1	14.4	11.1	12.3	11.8	8.7	10.4	9.4	7.7	8.5

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 crest-stage partial-record stations are presented in the following table. Discharge measurements made at low-flow partial-record sites and at miscellaneous sites and for special studies are given in separate tables.

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.

Annual maximum discharge at crest-stage partial-record stations during water year 1996

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)
<u>DELAWARE RIVER BASIN</u>								
LACKAWAXEN RIVER BASIN								
Dyberry Creek above Reser- voir near Honesdale, Pa. (01429300)	Lat 41°39'26", long 75°17'12", Wayne County, Hydrologic Unit 02040103, on right bank 955 ft downstream from bridge on West Branch Dyberry Creek at Tanners Falls, 0.2 mi downstream from confluence of the East and West Branches of Dyberry Creek, and 6 mi north of Dyberry. Datum of gage is 1,023.43 ft above sea level. Drainage area is 45.8 mi ² .	1975-96	1-19-96	8.96	1,590	9-27-85	11.75	5,140
VANDERMARK CREEK BASIN								
Vandermark Creek at Milford, Pa. (01438300)	Lat 41°19'35", long 74°47'50", Pike County, Hydrologic Unit 02040104, at stone bridge on Broad Street in Milford, and 0.4 mi upstream of mouth. Datum of gage is 490.50 ft above sea level. Drainage area is 5.36 mi ² .	1962-96	1-19-96	2.99	340	9-25-75	3.65	372
BRODHEAD CREEK BASIN								
Mill Creek at Mountain- home, Pa. (01440300)	Lat 41°09'50", long 75°16'00", Monroe County, Hydrologic Unit 02040104, at stone-arch bridge on macadam road 0.5 mi east of Mountainhome, and 1.5 mi upstream of mouth. Drainage area is 5.84 mi ² .	1961-96	1-19-96	a	e600	7-28-69	12.65	1,650
Martins Creek above Little Martins Creek at Martins Creek (01446640)	Lat 40°47'14", long 75°11'11", Northampton County, Hydro- logic Unit 02040105, at bridge (NH#42) on Little Creek Road in Martins Creek, and 0.4 mi northeast of SR 611. Drainage area is 36.5 mi ² .	1996	1-19-96	5.66	1,580	1-19-96	5.66	1,580
LEHIGH RIVER BASIN								
Coplay Creek near Coplay (01451145)	Lat 40°39'39", long 75°30'34", Lehigh County, Hydrologic Unit 02040106, at bridge on Center Street in Coplay, 0.1 mi east of SR 145, and 2.9 mi north of junction of U.S. Highway 22 and SR 145 in Allentown. Drainage area is 14.5 mi ² .	1996	1-19-96	7.60	361	1-19-96	7.60	361

a No peaks recorded.

e Estimated.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Crest-stage partial-record stations

Annual maximum discharge at crest-stage partial-record stations during water year 1996--Continued

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)
DELAWARE RIVER BASIN--Continued								
LEHIGH RIVER BASIN--Continued								
Lehigh River at Allen- town, Pa. (01451192)	Lat 40°36'23", long 75°27'17", Lehigh County, Hydrologic Unit 02040106, on upstream side of bridge on Hamilton Street in Allentown, 200 ft downstream from lock and dam, and 0.7 mi upstream from Little Lehigh Creek. Drain- age area is 1,033 mi ² .	1977-81* 1982-94 1995-96†	1-20-96	48.25	Unknown	1-20-96	48.25	Unknown
SCHUYLKILL RIVER BASIN								
Schuylkill River at Birdsboro, Pa. (01471660)	Lat 40°16'05", long 75°48'40", Berks County, Hydrologic Unit 02040203, on railroad bridge, on right bank 1,000 ft upstream from bridge on SR 82 in Birdsboro. Drain- age area is 976 mi ² .	1981-94 1996	1-20-96	157.59	27,900	4-16-83	158.72	30,700
Schuylkill River at Phoenixville, Pa. (01472162)	Lat 40°08'11", long 75°30'41", Chester County, Hydrologic Unit 02040203, on the down- stream end of the left bank wingwall of Reading Railroad bridge across the mouth of French Creek at Phoenixville. Drainage area is 1,280 mi ² .	1971-94 1996	1-20-96	91.13	45,500	6-23-72	100.58	79,100
CHRISTINA RIVER BASIN								
BRANDYWINE CREEK BASIN								
WEST BRANCH BRANDYWINE CREEK BASIN								
Sucker Run near Coates- ville, Pa. (01480610)	Lat 39°58'20", long 75°51'03", Chester County, Hydrologic Unit 02040205, at concrete bridge on South Park Avenue on SR 372, 1.6 mi upstream of mouth, and 2.0 mi west of Coatesville. Drainage area is 2.57 mi ² .	1964-96	1-19-96	6.81	640	7-21-79	8.49	1,500

* Operated as a low-flow partial-record station.

† Also operated as a miscellaneous site.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Miscellaneous sites

Discharge measurements made at miscellaneous sites during water year 1996

Stream	Tributary to	Location	Drainage area (mi ²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft ³ /s)
DELAWARE RIVER BASIN						
LACKAWAXEN RIVER BASIN						
01431600 Wallen- paupack Creek	Lackawaxen River	Lat 41°20'10", long 75°20'25", Wayne County, Hydrologic Unit 02040103, at bridge on dirt road 2.6 mi south of intersection of State Routes 84 and 191, and at East Sterling, Pa.	33.4	1944-57 1978-81 1989-95	12-05-95 3-12-96 4-22-96 6-11-96 7-29-96 9-16-96	154 170 255 223 93 21
01432110 Lacka- waxen River	Delaware River	Lat 41°28'33", long 75°02'12", Pike County, Hydrologic Unit 02040103, at mouth, and downstream from bridge on SR 590 at Rowland, Pa. Regulated by lakes and reservoirs upstream.	588	1949a 1989-95	11-27-95 3-04-96 4-22-96 6-11-96 7-29-96 9-16-96	1270 1930 2560 607 1700 1550
BRODHEAD CREEK PARADISE CREEK						
01440485 Swiftwater Creek	Forest Hills Run	Lat 41°05'38", long 75°19'21", Monroe County, Hydrologic Unit 02040104, on right bank, at Connaught Laboratories at Swiftwater, and 3.0 miles upstream of mouth.	6.59	1995	10-02-95 11-21-95 4-03-96 5-15-96 6-12-96 9-04-96	5.1 25 26 33 14 8.3
LEHIGH RIVER BASIN						
b01451192 Lehigh River	Delaware River	Lat 40°36'23", long 75°27'17", Lehigh County, Hydrologic Unit 02040106, on upstream side of bridge on Hamilton Street in Allentown, 200 ft downstream from lock and dam, and 0.7 mi upstream from Little Lehigh Creek.	1,033	1977-96	11-02-95 9-06-96 9-30-96	2,240 592 1,060
NESHAMINY CREEK BASIN						
01464690 Pine Run	North Branch Neshaminy Creek	Lat 40°20'04", long 75°08'24", Bucks County, Hydrologic Unit 02040201, at bridge on SR 313, and 0.8 mi south- east of Fountainville, Pa.	7.00	1995	5-23-96 7-29-96 9-04-96	6.3 5.6 2.2
01464693 Pine Run	North Branch Neshaminy Creek	Lat 40°19'17", long 75°09'48", Bucks County, Hydrologic Unit 02040201, at bridge on Rickerts Road, and 1.2 mi northwest of Doylestown, Pa.	8.44	1995	2-13-96 5-23-96 9-05-96	12.3 7.2 2.3
01464742 Neshaminy Creek	Delaware River	Lat 40°17'21", long 75°10'45", Bucks County, Hydrologic Unit 02040201, at bridge on Upper State Road, and 0.8 mi southeast of U.S. Highway 202 in New Britain, Pa.	61.5	1995	12-08-95 5-24-96 7-18-96 9-04-96	30 37 66 12
01464750 Neshaminy Creek	Delaware River	Lat 40°15'33", long 75°02'06", Bucks County, Hydrologic Unit 02040201, on left bank on bridge on Rushland Road at Rushland, and 2000 ft upstream from confluence with Little Neshaminy Creek. Prior to October 1992 published as "near" Rushland.	91.0	1933 1950 1963-64 1987-92† 1995	12-07-95	65
01465045 Mill Creek	Neshaminy Creek	Lat 40°18'02", long 75°02'56", Bucks County, Hydrologic Unit 02040201, at Lower Mountain Road bridge, 0.4 mi downstream from confluence with Watson Creek, and 1.1 mi southeast of Buckingham, Pa.	12.7	---	8-23-95 8-28-95 9-15-95 12-07-95 2-12-96 5-20-96 9-06-96	1.1 1.2 0.67 11 25 18 4.1
01465055 Mill Creek	Neshaminy Creek	Lat 40°17'21", long 75°02'07", Bucks County, Hydrologic Unit 02040201, at New Hope Road bridge, 2.3 mi downstream from confluence with Watson Creek, and 1.0 mi northwest of Wycombe, Pa.	14.2	---	8-23-95 8-28-95 9-15-95 12-07-95 2-12-96 5-20-96 9-06-96	1.4 1.1 0.57 10 22 16 4.1

† Operated as a continuous-record station.

a Prior to October 1988 at latitude 41°28'19", longitude 75°02'25".

b Also operated as a crest-stage gage.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Miscellaneous sites

Discharge measurements made at miscellaneous sites during water year 1996

Discharge Measurements Made at Miscellaneous Sites During Water Year 1996						
Stream	Tributary to	Location	Drainage area (mi ²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft ³ /s)
<u>DELAWARE RIVER BASIN</u>						
NESHAMINY CREEK BASIN--Continued						
01465460 Iron Works Creek	Mill Creek	Lat 40°11'54", long 75°00'40", Bucks County, Hydrologic Unit 02040201, at lower Holland Road bridge 300 ft east of Bustleton Pike, and 1.3 mi south of Richboro.	3.69	1981*	10-11-95	1.2
				1982-86	12-07-95	3.0
				1991-95	5-20-96	4.4
					9-05-96	1.4
<u>SCHUYLKILL RIVER BASIN</u>						
†01472190 Pickering Creek	Schuylkill River	Lat 40°06'33", long 75°31'42", Chester County, Hydrologic Unit 02040203, at bridge on Creek Road at SR 29, 0.3 mi downstream from Conrail bridge, 1.0 mi south of Phoenixville, and 2.6 mi up- stream from Pickering Creek Dam.	31.4	1967-68†	10-11-95	11
				1975-95	6-25-96	31
				1981-84*	8-15-96	39
				1994-95		
01473110 Skeppack Creek	Perkiomen Creek	Lat 40°10'17", long 75°25'52", Montgomery County, Hydrologic Unit 02040203, at bridge on U.S. Highway 422, 0.4 mi east of Evansburg, and about 2.0 mi east of Collegeville.	52.9		10-03-95	7.3
					12-08-95	28
					5-02-96	95
					7-29-96	19
		9-26-96	47			
<u>RIDLEY CREEK BASIN</u>						
01476480 Ridley Creek	Delaware River	Lat 39°54'58", long 75°24'13", Delaware County, Hydrologic Unit 02040202, on right bank 400 ft downstream from bridge on U.S. Highway 1 (Baltimore Pike) at Media.	30.5	1986-95†	10-03-95	6.7
					11-22-95	24
					1-18-96	31
					5-09-96	120
					7-10-96	31
		9-12-96	26			
<u>CHRISTINA RIVER BASIN</u>						
01478230 Middle Branch White Clay Creek	White Clay Creek	Lat 39°45'02", long 75°46'19", Chester County, Hydrologic Unit 02040205, at bridge on Sharpless Road, 2.0 mi south of Landenberg, and 6.0 mi south of Avondale, Pa. Formerly published as "White Clay Creek".	60	1989-93	4-22-94	35
					5-25-94	27
					7-11-94	9.0
					8-22-94	42
					10-17-95	11
					11-21-95	10
					1-29-96	47
					5-06-96	73
					7-09-96	25
					9-10-96	18
<u>BIG ELK CREEK BASIN</u>						
01494990 Big Elk Creek	Elk River	Lat 39°43'50", long 75°50'55", Chester County, Hydrologic Unit 02060002, at bridge on Lewisville Road, 1.5 mi east of Lewisville, and 9.2 mi north of Elkton, Md.	41	1989-93	4-26-94	59
					5-26-94	61
					7-18-94	34
					8-22-94	188
					8-22-94	132
					10-17-95	17
					11-21-95	35
					1-29-96	90
					5-06-96	136
					7-09-96	42
9-10-96	30					

† Operated as a water-quality partial-record station since 1974.

‡ Operated as a continuous-record station.

* Operated as a low-flow partial-record station.

ANALYSIS OF STREAMFLOW SAMPLES COLLECTED AT PARTIAL-RECORD STATIONS

Water-quality partial-record stations are particular sites where chemical-quality, biological, or sediment data are collected systematically over a period of years for use in hydrologic analyses. The data are usually collected less than quarterly.

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

DATE	TIME	AGENCY COL- LECTING SAMPLE (CODE NUMBER) (00027)	AGENCY ANA- LYZING SAMPLE (CODE NUMBER) (00028)	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (μ S/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)
01472080		PIGEON CREEK NEAR PARKER FORD, PA. (LAT 40 12 03N LONG 075 37 10W)					
NOV 1995 22...	1045	1028	80020	11	177	6.9	5.5
01472109		STONY RUN NEAR SPRING CITY, PA. (LAT 40 10 11N LONG 075 34 45W)					
NOV 1995 13...	1230	1028	80020	2.1	239	7.0	5.5
01472138		FRENCH CREEK NEAR COVENTRYVILLE, PA. (LAT 40 10 14N LONG 075 41 50W)					
NOV 1995 06...	0900	1028	80020	14	134	7.1	5.5
01472140		SOUTH BRANCH FRENCH CREEK AT COVENTRYVILLE, PA. (LAT 40 09 18N LONG 075 42 52W)					
NOV 1995 06...	1135	1028	80020	8.4	201	7.1	6.0
01472154		FRENCH CREEK NEAR PUGHTOWN, PA. (LAT 40 09 17N LONG 075 38 25W)					
NOV 1995 06...	1410	1028	80020	29	165	7.4	6.5
014721612		FRENCH CREEK AT RAILROAD BRIDGE AT PHOENIXVILLE, PA. (LAT 40 08 10N LONG 075 30 41W)					
NOV 1995 07...	0755	1028	80020	47	225	7.6	5.5
01472170		PICKERING CREEK NEAR EAGLE, PA. (LAT 40 04 43N LONG 075 39 14W)					
OCT 1995 12...	1456	1028	80020	0.82	250	7.5	17.0
01472174		PICKERING CREEK NEAR CHESTER SPRINGS, PA. (LAT 40 05 22N LONG 075 37 50W)					
OCT 1995 12...	1250	1028	80020	2.3	228	7.6	15.0
014721854		PICKERING CREEK AT MERLIN, PA. (LAT 40 06 25N LONG 075 35 34W)					
OCT 1995 12...	0900	1028	80020	7.1	230	7.6	13.0
014721884		PICKERING CR AT CHARLESTOWN RD BR AT CHARLESTOWN, PA. (LAT 40 05 57N LONG 075 33 20W)					
OCT 1995 11...	1330	1028	80020	9.7	250	7.9	16.0
01472190		PICKERING CREEK NEAR PHOENIXVILLE, PA. (LAT 40 06 33N LONG 075 31 42W)					
OCT 1995 11...	1015	1028	80020	11	248	7.7	13.5
01473167		LITTLE VALLEY CREEK AT HOWELLVILLE, PA. (LAT 40 04 00N LONG 075 28 22W)					
OCT 1995 30...	0845	1028	80020	6.4	613	7.9	9.5
01473168		VALLEY CREEK NEAR VALLEY FORGE, PA. (LAT 40 04 11N LONG 075 28 25W)					
OCT 1995 30...	1045	1028	80020	13	594	8.2	10.0

ANALYSIS OF STREAMFLOW SAMPLES COLLECTED AT PARTIAL-RECORD STATIONS

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

DATE	OXYGEN, DIS- SOLVED (MG/L) (00300)	ALKA- LINITY WAT WH TOT IT FIELD (MG/L AS CACO3) (00419)	CHLO- RIDE, DIS- SOLVED (MG/L) AS CL) (00940)	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)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L) AS P) (00671)
01472080	PIGEON CREEK NEAR PARKER FORD, PA. (LAT 40 12 03N LONG 075 37 10W)						
NOV 1995 22...	12.9	30	12	0.020	2.80	<0.015	0.020
01472109	STONY RUN NEAR SPRING CITY, PA. (LAT 40 10 11N LONG 075 34 45W)						
NOV 1995 13...	12.0	33	17	0.030	5.20	0.030	0.070
01472138	FRENCH CREEK NEAR COVENTRYVILLE, PA. (LAT 40 10 14N LONG 075 41 50W)						
NOV 1995 06...	12.1	29	8.4	<0.010	0.660	<0.015	<0.010
01472140	SOUTH BRANCH FRENCH CREEK AT COVENTRYVILLE, PA. (LAT 40 09 18N LONG 075 42 52W)						
NOV 1995 06...	13.4	59	14	0.010	2.70	<0.015	<0.010
01472154	FRENCH CREEK NEAR PUGHTOWN, PA. (LAT 40 09 17N LONG 075 38 25W)						
NOV 1995 06...	12.3	41	11	0.020	1.20	<0.015	<0.010
014721612	FRENCH CREEK AT RAILROAD BRIDGE AT PHOENIXVILLE, (LAT 40 08 10N LONG 075 30 41W)						
NOV 1995 07...	12.1	50	16	0.010	1.60	<0.015	<0.010
01472170	PICKERING CREEK NEAR EAGLE, PA. (LAT 40 04 43N LONG 075 39 14W)						
OCT 1995 12...	10.2	44	25	<0.010	1.80	<0.015	0.010
01472174	PICKERING CREEK NEAR CHESTER SPRINGS, PA. (LAT 40 05 22N LONG 075 37 50W)						
OCT 1995 12...	9.6	46	17	<0.010	1.80	<0.015	0.010
014721854	PICKERING CREEK AT MERLIN, PA (LAT 40 06 25N LONG 075 35 34W)						
OCT 1995 12...	10.0	46	21	<0.010	1.30	<0.015	0.020
014721884	PICKERING CR AT CHARLESTOWN RD BR AT CHARLESTOWN, PA. (LAT 40 05 57N LONG 075 33 20W)						
OCT 1995 11...	11.6	55	22	<0.010	1.20	<0.015	0.010
01472190	PICKERING CREEK NEAR PHOENIXVILLE, PA. (LAT 40 06 33N LONG 075 31 42W)						
OCT 1995 11...	10.9	28	22	<0.010	1.10	<0.015	0.020
01473167	LITTLE VALLEY CREEK AT HOWELLVILLE, PA. (LAT 40 04 00N LONG 075 28 22W)						
OCT 1995 30...	11.4	154	58	<0.010	1.80	<0.015	0.020
01473168	VALLEY CREEK NEAR VALLEY FORGE, PA. (LAT 40 04 11N LONG 075 28 25W)						
OCT 1995 30...	11.7	184	41	<0.010	2.10	0.020	0.020

ANALYSIS OF STREAMFLOW SAMPLES COLLECTED AT PARTIAL-RECORD STATIONS

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

DATE	TIME	AGENCY COL- LECTING SAMPLE (CODE NUMBER) (00027)	AGENCY ANA- LYZING SAMPLE (CODE NUMBER) (00028)	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (μ S/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)
01475840 CRUM CREEK AT WHITEHORSE, PA. (LAT 39 59 54N LONG 075 27 38W)							
OCT 1995 19...	1130	1028	80020	4.5	204	7.5	11.0
01476430 RIDLEY CREEK AT GOSHENVILLE, PA. (LAT 39 59 28N LONG 075 32 40W)							
OCT 1995 25...	1320	1028	80020	3.5	248	7.3	13.5
01476435 RIDLEY CREEK AT DUTTON MILL NEAR WEST CHESTER, PA. (LAT 39 58 52N LONG 075 31 02W)							
OCT 1995 23...	0945	1028	80020	10	237	7.3	10.5
01476790 EAST BRANCH CHESTER CREEK AT GREEN HILL, PA. (LAT 39 59 49N LONG 075 35 40W)							
OCT 1995 23...	1328	1028	80020	1.2	384	7.0	13.5
01476830 EAST BRANCH CHESTER CREEK AT MILLTOWN, PA. (LAT 39 58 21N LONG 075 32 57W)							
OCT 1995 24...	0925	1028	80020	4.7	327	7.4	12.5
01476835 EAST BRANCH CHESTER CREEK AT WESTTOWN, PA. (LAT 39 56 26N LONG 075 32 30W)							
OCT 1995 24...	1135	1028	80020	8.6	334	7.3	13.5
01476840 GOOSE CR TRIBUTARY TO EAST BR CHESTER CR NR WEST CHESTER, PA. (LAT 39 56 04N LONG 075 33 31W)							
OCT 1995 25...	0940	1028	80020	11	698	7.3	15.0
01476848 EAST BR CHESTER CR BELOW GOOSE CREEK NR WEST CHESTER, PA. (LAT 39 55 45N LONG 075 32 00W)							
OCT 1995 24...	1350	1028	80020	24	502	7.3	15.5
01478120 EAST BRANCH WHITE CLAY CREEK AT AVONDALE, PA. (LAT 39 49 42N LONG 075 46 52W)							
NOV 1995 09...	0845	1028	80020	8.2	347	7.4	5.5
01478190 MIDDLE BRANCH WHITE CLAY CREEK AT WICKERTON, PA. (LAT 39 47 44N LONG 075 49 27W)							
NOV 1995 09...	1150	1028	80020	6.4	241	7.1	5.5
01478220 WEST BRANCH WHITE CLAY CREEK NEAR CHESTERTVILLE, PA. (LAT 39 45 56N LONG 075 47 47W)							
NOV 1995 09...	1430	1028	80020	5.7	194	7.0	5.5
01479680 WEST BRANCH RED CLAY CREEK AT KENNETT SQUARE, PA. (LAT 39 50 13N LONG 075 43 33W)							
OCT 1995 18...	1015	1028	80020	4.8	361	7.5	10.5
01479800 EAST BRANCH RED CLAY CREEK NEAR FIVE POINT, PA. (LAT 39 49 11N LONG 075 41 29W)							
OCT 1995 18...	1330	1028	80020	4.9	399	7.7	11.0

ANALYSIS OF STREAMFLOW SAMPLES COLLECTED AT PARTIAL-RECORD STATIONS

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

DATE	OXYGEN, DIS- SOLVED (MG/L) (00300)	ALKA- LINITY WAT WH TOT IT FIELD (MG/L AS CACO3) (00419)	CHLO- RIDE, DIS- SOLVED (MG/L) AS CL) (00940)	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)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L) AS P) (00671)
01475840	CRUM CREEK AT WHITEHORSE, PA. (LAT 39 59 54N LONG 075 27 38W)						
OCT 1995 19...	11.5	48	16	0.010	1.40	<0.015	0.010
01476430	RIDLEY CREEK AT GOSHENVILLE, PA. (LAT 39 59 28N LONG 075 32 40W)						
OCT 1995 25...	10.8	51	25	<0.010	2.20	<0.015	0.040
01476435	RIDLEY CREEK AT DUTTON MILL NEAR WEST CHESTER, PA. (LAT 39 58 52N LONG 075 31 02W)						
OCT 1995 23...	10.4	45	21	<0.010	2.40	0.020	0.170
01476790	EAST BRANCH CHESTER CREEK AT GREEN HILL, PA. (LAT 39 59 49N LONG 075 35 40W)						
OCT 1995 23...	9.8	56	55	<0.010	4.20	<0.015	0.020
01476830	EAST BRANCH CHESTER CREEK AT MILLTOWN, PA. (LAT 39 58 21N LONG 075 32 57W)						
OCT 1995 24...	10.1	66	37	0.040	1.80	0.030	0.030
01476835	EAST BRANCH CHESTER CREEK AT WESTTOWN, PA. (LAT 39 56 26N LONG 075 32 30W)						
OCT 1995 24...	9.7	46	38	0.030	2.40	0.060	0.130
01476840	GOOSE CR TRIBUTARY TO EAST BR CHESTER CR NR WEST CHESTER, PA. (LAT 39 56 04N LONG 075 33 31W)						
OCT 1995 25...	8.5	72	86	0.690	12.0	0.320	2.00
01476848	EAST BR CHESTER CR BELOW GOOSE CREEK NR WEST CHESTER, PA. (LAT 39 55 45N LONG 075 32 00W)						
OCT 1995 24...	9.6	70	58	0.370	6.80	0.470	1.00
01478120	EAST BRANCH WHITE CLAY CREEK AT AVONDALE, PA. (LAT 39 49 42N LONG 075 46 52W)						
NOV 1995 09...	12.3	100	17	0.010	3.90	<0.015	0.020
01478190	MIDDLE BRANCH WHITE CLAY CREEK AT WICKERTON, PA. (LAT 39 47 44N LONG 075 49 27W)						
NOV 1995 09...	12.8	43	16	0.030	4.90	<0.015	0.170
01478220	WEST BRANCH WHITE CLAY CREEK NEAR CHESTERVILLE, PA. (LAT 39 45 56N LONG 075 47 47W)						
NOV 1995 09...	12.5	30	15	0.020	2.80	<0.015	<0.010
01479680	WEST BRANCH RED CLAY CREEK AT KENNETT SQUARE, PA. (LAT 39 50 13N LONG 075 43 33W)						
OCT 1995 18...	10.9	89	18	0.010	4.80	0.040	0.050
01479800	EAST BRANCH RED CLAY CREEK NEAR FIVE POINT, PA. (LAT 39 49 11N LONG 075 41 29W)						
OCT 1995 18...	11.8	68	26	<0.010	3.70	<0.015	0.060

ANALYSIS OF STREAMFLOW SAMPLES COLLECTED AT PARTIAL-RECORD STATIONS

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

DATE	TIME	AGENCY COL- LECTING SAMPLE (CODE NUMBER) (00027)	AGENCY ANA- LYZING SAMPLE (CODE NUMBER) (00028)	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (μ S/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	OXYGEN, DIS- SOLVED (MG/L) (00300)	ALKA- LINITY WAT WH TOT IT FIELD (MG/L AS CACO3) (00419)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)
01480434 WEST BRANCH BRANDYWINE CREEK AT ROCK RUN, PA. (LAT 39 59 36N LONG 075 49 41W)											
OCT 1995											
17...	1007	1028	80020	15	252	7.4	8.5	11.0	47	16	<0.010
01480629 BUCK RUN AT DOE RUN, PA. (LAT 39 55 46N LONG 075 49 24W)											
NOV 1995											
28...	1220	1028	80020	21	240	7.7	8.5	12.9	42	18	0.020
28...	1300	1028	80020	--	--	--	--	--	--	--	--
01480632 DOE RUN AT SPRINGDELL, PA. (LAT 39 54 25N LONG 075 49 42W)											
NOV 1995											
28...	0910	1028	80020	10	156	7.1	8.5	12.1	24	11	<0.010
28...	1015	1028	80020	--	--	--	--	--	--	--	--
01480640 WEST BRANCH BRANDYWINE CREEK AT WAWASET, PA. (LAT 39 55 34N LONG 075 39 47W)											
NOV 1995											
20...	0945	1028	80020	181	253	7.2	6.5	12.1	46	18	0.010
01480648 EAST BRANCH BRANDYWINE CREEK NEAR CUPOLA, PA. (LAT 40 05 41N LONG 075 51 14W)											
NOV 1995											
27...	0935	1028	80020	5.4	207	7.0	4.5	12.7	57	13	0.020
27...	1035	1028	80020	--	--	--	--	--	--	--	--
01480653 EAST BRANCH BRANDYWINE CREEK AT GLENMOORE, PA. (LAT 40 05 48N LONG 075 46 44W)											
DEC 1995											
01...	0930	1028	80020	13	196	7.3	4.0	13.1	49	13	0.010
01...	1030	1028	80020	--	--	--	--	--	--	--	--
01480656 INDIAN RUN NEAR SPRINGTON, PA. (LAT 40 04 33N LONG 075 46 52W)											
NOV 1995											
27...	1215	1028	80020	--	--	--	--	--	--	--	--
27...	1245	1028	80020	2.5	182	7.2	6.5	13.0	46	11	0.010
01480903 VALLEY CREEK AT MULLSTEINS MEADOWS NR DOWNINGTOWN, PA. (LAT 39 58 31N LONG 075 39 48W)											
NOV 1995											
21...	0930	1028	80020	--	--	--	--	--	--	--	--
21...	1030	1028	80020	21	415	7.9	8.5	13.2	118	29	0.010
01480950 EAST BRANCH BRANDYWINE CREEK AT WAWASET, PA. (LAT 39 55 35N LONG 075 38 54W)											
NOV 1995											
20...	1206	1028	80020	138	271	7.3	8.0	12.3	60	22	0.020
01481030 BRANDYWINE CREEK NEAR CHADDS FORD, PA. (LAT 39 51 15N LONG 075 35 58W)											
OCT 1995											
13...	0900	1028	80020	159	345	7.6	16.0	9.2	77	31	<0.010
01494900 EAST BRANCH BIG ELK CREEK AT ELKVIEW, PA. (LAT 39 48 45N LONG 075 54 04W)											
NOV 1995											
30...	1000	1028	80020	8.7	180	7.4	3.5	14.3	24	16	<0.010
01494950 WEST BRANCH BIG ELK CREEK NEAR OXFORD, PA. (LAT 39 46 45N LONG 075 55 27W)											
NOV 1995											
30...	1210	1028	80020	8.2	237	7.0	4.5	14.9	32	28	0.010

ANALYSIS OF STREAMFLOW SAMPLES COLLECTED AT PARTIAL-RECORD STATIONS

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

DATE	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	ARSENIC TOTAL IN BOT- TOM MA- TERIAL (µG/G AS AS) (01003)	CADMIUM RECOV. FM BOT- TOM MA- TERIAL (µG/G AS CD) (01028)	CHRO- MIUM, RECOV. FM BOT- TOM MA- TERIAL (µG/G AS CU) (01029)	COPPER, RECOV. FM BOT- TOM MA- TERIAL (µG/G AS CU) (01043)	IRON, RECOV. FM BOT- TOM MA- TERIAL (µG/G AS FE) (01170)	LEAD, RECOV. FM BOT- TOM MA- TERIAL (µG/G AS PB) (01052)	MANGA- NESE, RECOV. FM BOT- TOM MA- TERIAL (µG/G) (01053)
01480434	WEST BRANCH BRANDYWINE CREEK AT ROCK RUN, PA. (LAT 39 59 36N LONG 075 49 41W)									
OCT 1995 17...	2.80	<0.015	0.190	--	--	--	--	--	--	--
01480629	BUCK RUN AT DOE RUN, PA. (LAT 39 55 46N LONG 075 49 24W)									
NOV 1995 28...	5.50	<0.015	0.020	--	--	--	--	--	--	--
28...	--	--	--	3	<1	6	11	1800	20	350
01480632	DOE RUN AT SPRINGDELL, PA. (LAT 39 54 25N LONG 075 49 42W)									
NOV 1995 28...	5.00	<0.015	<0.010	--	--	--	--	--	--	--
28...	--	--	--	2	<1	5	5	1600	10	250
01480640	WEST BRANCH BRANDYWINE CREEK AT WAWASET, PA. (LAT 39 55 34N LONG 075 39 47W)									
NOV 1995 20...	3.70	<0.015	0.040	--	--	--	--	--	--	--
01480648	EAST BRANCH BRANDYWINE CREEK NEAR CUPOLA, PA. (LAT 40 05 41N LONG 075 51 14W)									
NOV 1995 27...	3.30	0.110	0.010	--	--	--	--	--	--	--
27...	--	--	--	1	<1	2	3	1400	<10	220
01480653	EAST BRANCH BRANDYWINE CREEK AT GLENMOORE, PA. (LAT 40 05 48N LONG 075 46 44W)									
DEC 1995 01...	3.70	0.070	0.010	--	--	--	--	--	--	--
01...	--	--	--	2	<1	3	3	2700	<10	110
01480656	INDIAN RUN NEAR SPRINGTON, PA. (LAT 40 04 33N LONG 075 46 52W)									
NOV 1995 27...	--	--	--	2	<1	4	2	1600	<10	120
27...	3.80	<0.015	0.060	--	--	--	--	--	--	--
01480903	VALLEY CREEK AT MULLSTEINS MEADOWS NR DOWNINGTOWN, PA. (LAT 39 58 31N LONG 075 39 48W)									
NOV 1995 21...	--	--	--	2	<1	10	14	1400	20	260
21...	2.10	<0.015	<0.010	--	--	--	--	--	--	--
01480950	EAST BRANCH BRANDYWINE CREEK AT WAWASET, PA. (LAT 39 55 35N LONG 075 38 54W)									
NOV 1995 20...	2.10	0.090	0.090	--	--	--	--	--	--	--
01481030	BRANDYWINE CREEK NEAR CHADDS FORD, PA. (LAT 39 51 15N LONG 075 35 58W)									
OCT 1995 13...	3.00	<0.015	0.100	--	--	--	--	--	--	--
01494900	EAST BRANCH BIG ELK CREEK AT ELKVIEW, PA. (LAT 39 48 45N LONG 075 54 04W)									
NOV 1995 30...	5.10	<0.015	0.080	--	--	--	--	--	--	--
01494950	WEST BRANCH BIG ELK CREEK NEAR OXFORD, PA. (LAT 39 46 45N LONG 075 55 27W)									
NOV 1995 30...	5.30	<0.015	0.030	--	--	--	--	--	--	--

ANALYSIS OF STREAMFLOW SAMPLES COLLECTED AT PARTIAL-RECORD STATIONS

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

[illegible]

SPECIAL NOTES, REMARK CODES, AND SELECTED CONSTITUENT DEFINITIONS

NOTES--Traditionally, dissolved trace-element concentrations have been reported at the microgram per liter ($\mu\text{G/L}$) 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 $\mu\text{G/L}$ 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 at some stations in water year 1994. Full implementation of the protocols took place during the 1995 water year.

--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).

--In March 1989 a bias was discovered in the turbidimetric method for **sulfate analysis** for those samples analyzed by the U.S. Geological Survey National Water-Quality Laboratory indicating that values below 75 mg/L have a median positive bias of 2 mg/L above the true value for the period between 1982 and 1989.

--**Methylene blue active substance (MBAS)** determinations made from January 1, 1970, through August 29, 1993, at the National Water Quality Laboratory in Denver (Analyzing Agency Code 80020) are positively biased. These data can be corrected on the basis of the following equation, if concentrations of dissolved nitrate plus nitrite, as nitrogen, and dissolved chloride, determined concurrently with the MBAS data are applied:

$$\text{MBASCOR} = \text{M} - 0.0088\text{N} - 0.00019\text{C}$$

where:

MBASCOR = corrected MBAS concentration, in mg/L ;
 M = reported MBAS concentration, in mg/L ;
 N = dissolved nitrate plus nitrite, as nitrogen, in mg/L ; and
 C = dissolved chloride concentration, in mg/L .

The detection limit of the new method is 0.02 mg/L , whereas the detection limit for the old method was 0.01 mg/L . A detection limit of 0.02 mg/L should be used with corrected MBAS data from January 1, 1970, through August 29, 1993.

Remark Codes--The following remark codes may appear with the data tables in this report:

<u>PRINTED OUTPUT</u>	<u>REMARK</u>
E,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
ND	Material specifically analyzed for but not detected

EXPLANATION OF CODES USED TO DEFINE SAMPLE COLLECTION PROCEDURES (partial listing)

(71999) SAMPLE PURPOSE CODES:

10--Routine
 15--NAWQA
 20--NASQAN
 30--Benchmark

(82398) SAMPLE METHOD CODES:

10--Equal width increment
 20--Equal discharge increment
 30--Single vertical
 40--Multiple verticals
 50--Point sample
 70--Grab sample
 120--Velocity integrated
 8010--Other

(84164) SAMPLER TYPE: (partial list)

110--Sewage sampler
 3011--US D-77
 3035--DH-76 Trace metal sampler with
 teflon gasket and nozzle
 3039--D-77 Trace metal
 3040--D-77 Trace metal modified teflon
 bag sampler
 3045--DH-81 with Teflon cap and
 nozzle
 8010--Other (other than a defined
 sampler type)

WATER RESOURCES DATA - PENNSYLVANIA, 1996

SPECIAL NOTES, REMARK CODES AND SELECTED CONSTITUENT DEFINITIONS--Continued

Explanation of selected abbreviations used in constituent definitions in water-quality tables:

AC-FT	acre-feet
BOT MAT	bottom material (Unconsolidated material of which a streambed, lake, pond, reservoir, or estuary bottom is composed.)
COLS/100 ML	colonies per 100 milliliters
DIS	dissolved
FET	fixed end-point titration
FLD	field (Measurement determined at field site.)
F/S	feet per second
G/M	gallons per minute
G/SQM; MG/M2	grams or milligrams per square meter
IT	incremental titration
KF AGAR	nutrient medium for growth of fecal streptococcal bacteria
μG/L	micrograms per liter
μS/CM	microsiemens per centimeter
MG/L	milligrams per liter
MG/M2	milligrams per square meter
MM OF HG	millimeters of mercury
NONCARB	noncarbonate
NTU	nephelometric turbidity unit
PCI/L	picocuries per liter
REC	recoverable
TOT	total
T/DAY	tons per day
WH IT	whole water, incremental titration (Alkalinity, bicarbonate, and carbonate as determined by incremental titration of unfiltered water at the field site.)
2 SIGMA	Counting statistic that represents error in the reported radon, uranium, or tritium value caused by variations in sample counting, background radiation, volume of sample, and decay since sample was collected.
0.7μ GF	0.7 micron glass-fiber filter (Water filtered through a glass-fiber membrane filter with openings that are 0.7 microns in size.)

(00027) AGENCY COLLECTING SAMPLE CODES:

1028--U.S. Geological Survey
42011--Susquehanna River Basin Commission

(00028) AGENCY ANALYZING SAMPLE CODES:

1028--U.S. Geological Survey
80020--U.S. Geological Survey, National Water-
Quality Laboratory, Denver, Colorado
9813--Pennsylvania Department of Environmental Protection

GROUND-WATER-LEVEL STATION RECORDS

BERKS COUNTY

402615075530501. Local number, BE 623.

LOCATION.--Lat 40°26'15", long 75°53'05", Hydrologic Unit 02040203, at Wesner Road, Blandon.

Owner: Maiden Creek Township Water Authority.

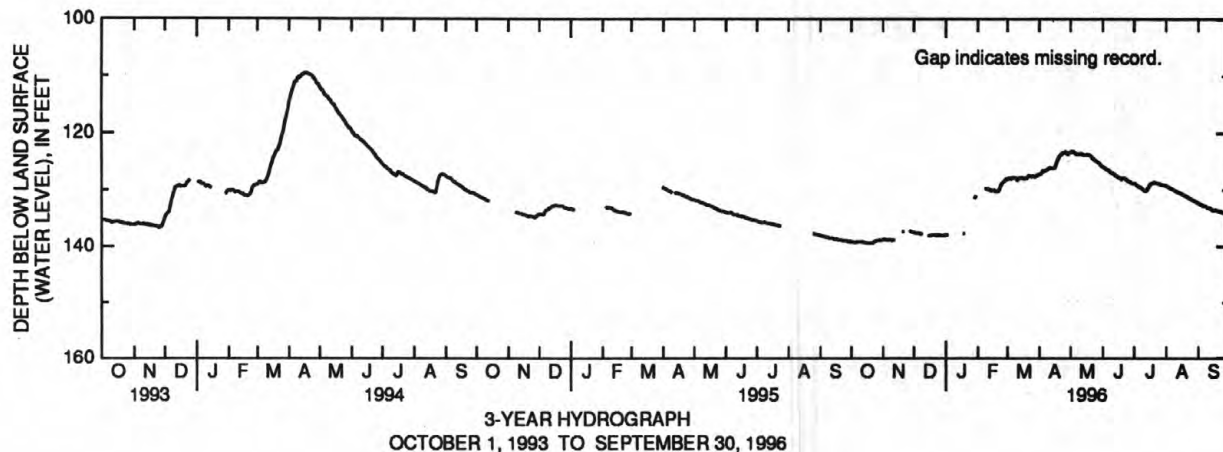
AQUIFER.--Dolomite of Leithsville Formation of Early and Middle Cambrian age.**WELL CHARACTERISTICS.**--Drilled unused artesian well, diameter 8 in., depth 385 ft, casing information not available.**INSTRUMENTATION.**--Data collection platform. Satellite telemetry at station.**DATUM.**--Elevation of land-surface datum is 430 ft above sea level. Measuring point: Top of plywood shelf, 1.7 ft above land-surface datum. Prior to Apr. 30, 1981, top of casing, 1.30 ft above land-surface datum.**REMARKS.**--In addition to the daily maximum water level table shown below, daily minimum and mean water levels, since October 1994, are also available from the District Office.**PERIOD OF RECORD.**--January 1975 to current year.**EXTREMES FOR PERIOD OF RECORD.**--The extremes shown are extremes of the daily maximum depth below land surface for the period of record indicated above.

Highest water level, 109.44 ft below land-surface datum, Apr. 19, 1994; lowest, 140.82 ft below land-surface datum, Dec. 23, 1981.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	139.12	138.79	137.47	137.98	---	128.01	127.19	123.32	125.88	128.80	129.24	132.24
2	139.17	138.71	137.61	137.96	---	127.86	127.16	123.20	125.99	128.85	129.36	132.38
3	139.19	138.74	137.56	137.94	---	127.91	126.88	123.23	126.02	129.01	129.46	132.49
4	139.26	138.84	137.64	---	---	128.00	126.65	123.21	126.31	129.23	129.56	132.61
5	139.26	138.84	137.64	137.33	---	127.89	126.66	123.36	126.34	129.36	129.65	132.72
6	139.20	138.89	137.65	---	---	127.76	126.63	123.57	126.43	129.40	129.70	132.72
7	139.16	138.75	137.72	---	---	127.76	126.48	123.61	126.55	129.45	129.84	132.79
8	139.15	138.87	137.79	---	129.67	127.79	126.41	123.49	126.79	129.59	129.89	132.86
9	139.16	138.93	137.73	---	129.72	127.90	126.32	123.65	126.93	129.75	130.00	132.97
10	139.18	138.92	---	---	129.79	128.20	126.13	123.65	126.96	129.99	130.13	133.06
11	139.20	138.85	---	---	129.72	128.10	126.07	123.48	127.02	130.05	130.24	133.12
12	139.22	138.89	---	---	129.96	127.87	126.10	123.58	127.15	130.09	130.28	133.19
13	139.25	---	---	---	130.01	127.82	126.11	123.68	127.31	130.07	130.34	133.29
14	139.27	---	---	---	129.91	127.81	126.16	123.75	127.51	129.66	130.44	133.41
15	139.34	---	137.99	---	130.04	127.78	126.16	123.75	127.59	129.43	130.55	133.51
16	139.42	---	138.01	---	130.04	127.94	125.86	123.72	127.71	128.99	130.62	133.54
17	139.44	---	138.05	---	129.97	127.94	125.20	123.70	127.79	128.81	130.71	133.52
18	139.41	---	137.99	137.73	130.19	127.92	124.81	123.76	127.96	128.75	130.86	133.52
19	139.45	---	137.91	137.69	130.22	127.90	124.35	123.78	128.03	128.64	130.96	133.60
20	139.45	137.39	137.95	---	130.19	127.66	124.00	123.83	127.89	128.62	131.02	133.64
21	139.45	137.38	137.95	---	130.09	127.45	123.77	124.06	127.84	128.66	131.12	133.67
22	139.41	---	137.99	---	129.68	127.44	123.72	124.33	127.88	128.67	131.24	133.67
23	139.20	---	138.01	---	129.25	127.52	123.42	124.49	128.08	128.71	131.36	133.89
24	139.07	---	137.98	---	128.84	127.57	123.44	124.67	128.13	128.79	131.47	133.89
25	139.00	---	137.98	---	128.61	127.45	123.35	124.76	128.36	128.85	131.54	134.03
26	138.96	---	137.97	133.91	128.40	127.53	123.25	124.88	128.44	128.87	131.65	134.05
27	138.94	137.20	138.03	---	128.29	127.66	123.54	125.06	128.49	129.00	131.78	134.08
28	138.89	137.31	138.03	---	128.05	127.58	123.60	125.12	128.67	129.03	131.87	134.11
29	138.92	137.44	138.06	131.44	128.06	127.35	123.53	125.33	128.76	129.06	131.99	134.25
30	138.91	137.43	138.03	130.95	---	127.34	123.31	125.58	128.76	129.08	132.08	134.31
31	138.84	---	137.95	---	---	127.25	---	125.74	---	129.10	132.16	---
MEAN	139.19	138.34	137.87	135.88	129.49	127.74	125.21	124.04	127.45	129.17	130.68	133.37
MAX	139.45	138.93	138.06	137.98	130.22	128.20	127.19	125.74	128.76	130.09	132.16	134.31
MIN	138.84	137.20	137.47	130.95	128.05	127.25	123.25	123.20	125.88	128.62	129.24	132.24

WTR YR 1996: HIGHEST 123.20, MAY 2; LOWEST 139.45, OCTOBER 19-21.



BUCKS COUNTY

402643075150501. Local number, BK 929.

LOCATION.--Lat 40°26'43", long 75°15'05", Hydrologic Unit 02040105, at Nockamixon State Park.

Owner: U.S. Geological Survey.

AQUIFER.--Shale of Brunswick Formation of Late Triassic age.

WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in., depth 116 ft, cased to 27 ft, open hole.

INSTRUMENTATION.--Digital recorder with 60-minute recording interval.

DATUM.--Elevation of land-surface datum is 490 ft above sea level. Measuring point: Top of plywood shelf, 3.0 ft above land-surface datum. Prior to Mar. 17, 1980, top of casing, 1.05 ft above land-surface datum. Prior to June 1970, land surface datum was approximately 16 feet lower.

REMARKS.--In addition to the daily maximum water level table shown below, daily minimum and mean water levels, since October 1994, are also available from the District Office.

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

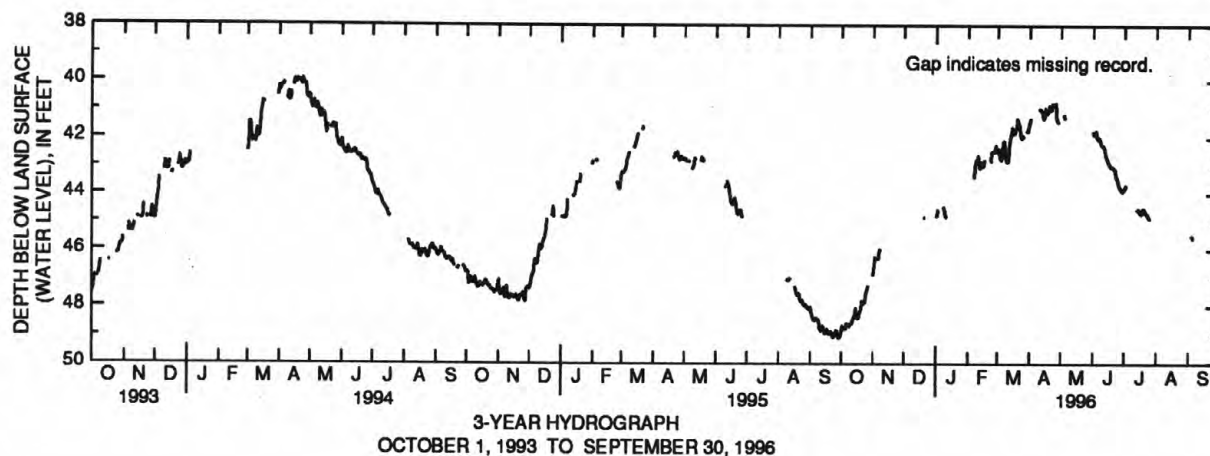
EXTREMES FOR PERIOD OF RECORD.--The extremes shown are extremes of the daily maximum depth below land surface for the period of record indicated above.

Highest water level, 39.29 ft below land-surface datum, Mar. 28, 1991; lowest, 59.75 ft below land-surface datum, Nov. 26, 1968.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	48.89	46.90	---	44.80	---	42.47	41.44	---	41.77	43.80	---	---
2	48.68	46.59	---	44.75	---	42.36	41.30	---	41.85	43.72	---	---
3	48.74	46.24	---	44.55	---	42.68	---	---	41.84	43.66	---	---
4	48.78	---	---	---	---	42.77	---	41.17	41.75	---	---	45.47
5	48.78	---	---	---	---	42.65	---	41.29	41.95	---	---	45.55
6	48.61	46.35	---	---	43.37	42.14	---	---	42.03	---	---	45.55
7	48.62	46.05	---	---	43.37	42.09	---	---	41.98	---	---	---
8	48.66	45.98	---	44.44	42.95	42.33	---	---	42.07	---	---	---
9	48.68	---	---	44.55	42.78	42.77	---	---	42.21	---	---	---
10	48.61	---	---	44.75	42.84	42.84	40.99	---	42.25	---	---	---
11	48.59	---	---	44.84	42.61	42.78	40.97	40.91	42.25	---	---	---
12	48.48	---	---	---	43.04	42.29	40.99	---	42.34	---	---	---
13	48.39	---	---	---	43.06	41.98	41.05	---	42.57	44.58	---	---
14	48.33	---	---	---	42.84	41.86	41.28	---	42.67	44.54	---	---
15	48.05	---	---	---	42.99	41.63	41.30	---	42.76	44.54	---	---
16	48.35	---	---	---	42.99	41.84	40.95	---	42.89	44.66	---	---
17	48.41	---	---	---	42.77	41.83	41.02	---	42.93	44.68	---	---
18	48.35	---	---	---	---	41.72	41.12	---	43.01	44.68	---	---
19	48.17	---	---	---	---	41.66	41.01	40.67	43.02	44.51	---	---
20	48.10	---	44.83	---	---	41.32	40.86	---	43.00	44.52	---	---
21	47.81	44.80	44.84	---	---	41.47	40.97	---	43.06	44.63	---	---
22	47.90	---	---	---	---	41.55	41.00	---	43.09	44.68	---	---
23	47.88	---	---	---	42.82	41.87	40.75	---	43.36	44.69	---	---
24	47.81	---	---	43.78	42.51	42.00	---	---	43.39	44.82	---	---
25	47.51	---	---	---	42.47	41.90	---	---	43.55	44.84	---	---
26	47.41	---	44.79	---	42.47	41.97	40.74	---	43.70	44.85	---	---
27	47.26	44.71	---	---	42.47	---	41.28	---	43.77	---	---	---
28	---	---	---	---	42.24	---	41.42	---	43.83	---	---	---
29	---	---	---	---	42.47	41.73	41.40	---	43.89	---	---	---
30	---	---	---	---	---	41.77	---	---	43.83	---	---	---
31	---	---	---	---	---	41.60	---	---	---	---	---	---
MEAN	48.29	45.95	44.82	44.56	42.79	42.06	41.09	41.01	42.75	44.49	---	45.52
MAX	48.89	46.90	44.84	44.84	43.37	42.84	41.44	41.29	43.89	44.85	---	45.55
MIN	47.26	44.71	44.79	43.78	42.24	41.32	40.74	40.67	41.75	43.66	---	45.47

WTR YR 1996: HIGHEST RECORDED 40.67, MAY 19; LOWEST RECORDED 48.89, OCTOBER 1.



BUCKS COUNTY

401157075032001. Local number, BK 1020

LOCATION.--Lat 40°11'57", long 75°03'20", Hydrologic Unit 02040201, at Naval Air Development Center in Warminster Township.

Owner: United States Navy.

AQUIFER.--Sandstone and shale of Stockton Formation of Late Triassic age.

WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in., depth 400 ft, cased to 57 ft, open hole.

INSTRUMENTATION.--Data collection platform. Satellite telemetry at station.

DATUM.--Elevation of land-surface datum is 370 ft above sea level. Measuring point: Top of plywood shelf, 1.9 ft above land-surface datum.

REMARKS.--Operated by Bucks County Planning Commission September 1975 to March 1988. In addition to the daily maximum water level table shown below, daily minimum and mean water levels, since October 1994, are also available from the District Office.

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

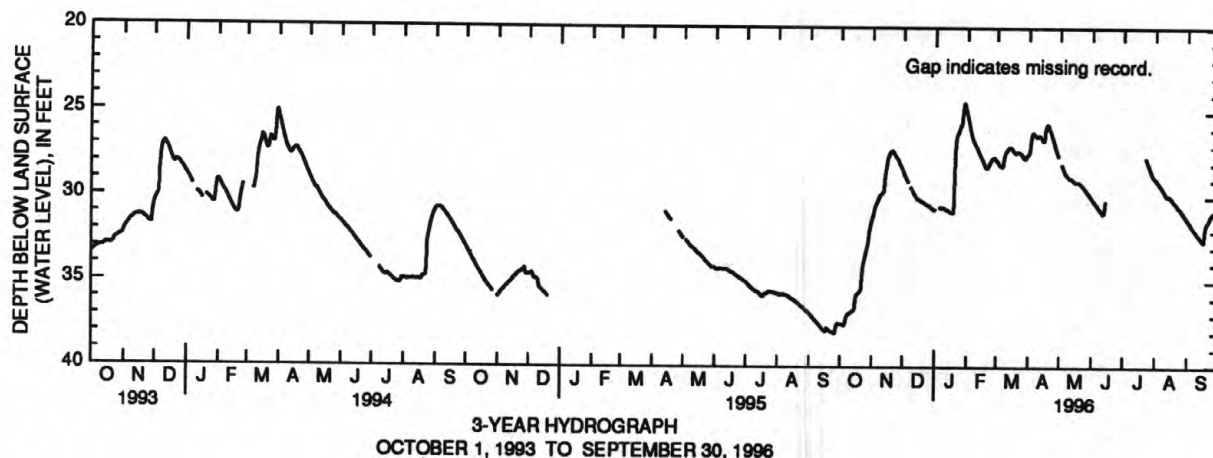
EXTREMES FOR PERIOD OF RECORD.--The extremes shown are extremes of the daily maximum depth below land surface for the period of record indicated above.

Highest water level, 23.12 ft below land-surface datum, Mar. 30, Apr. 2, 1993; lowest, 41.36 ft below land-surface datum, Sept. 26, 1985.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	37.49	31.25	28.39	30.75	24.99	27.79	27.37	---	30.05	---	28.84	31.29
2	37.49	31.04	28.60	---	25.25	27.84	27.20	---	30.13	---	28.92	31.37
3	37.49	30.71	28.70	---	25.55	27.97	26.57	28.01	30.21	---	29.02	31.47
4	37.53	30.50	28.86	---	25.85	28.09	26.29	28.16	30.31	---	29.10	31.55
5	37.54	30.37	28.98	30.59	26.11	28.11	26.17	28.33	30.39	---	29.18	31.67
6	37.37	30.22	29.10	30.61	26.39	28.14	26.21	28.49	30.47	---	29.28	31.75
7	37.06	30.09	---	30.61	26.55	28.04	26.27	28.59	30.55	---	29.36	31.85
8	36.94	29.91	29.38	30.57	26.71	27.66	26.33	28.67	30.65	---	29.47	31.91
9	36.88	29.83	29.46	30.59	26.83	27.36	26.37	28.75	30.73	---	29.57	31.97
10	36.84	29.80	29.56	30.66	26.96	27.24	26.37	28.81	30.81	---	29.67	32.07
11	36.80	29.73	29.70	30.70	27.07	27.17	26.31	28.85	30.89	---	29.79	32.16
12	36.76	29.60	29.82	30.70	27.23	27.08	26.33	28.84	30.95	---	29.90	32.24
13	36.71	28.88	29.94	30.74	27.35	27.01	26.41	28.89	30.73	---	29.90	32.28
14	36.67	28.44	30.00	30.76	27.45	27.01	26.55	28.96	30.19	---	29.85	32.40
15	36.53	27.98	30.10	30.84	27.61	27.02	26.63	29.02	---	---	29.92	32.50
16	35.92	27.68	30.12	30.86	27.71	27.13	26.63	29.04	---	---	29.99	32.56
17	35.75	27.50	30.14	30.88	27.85	27.19	26.05	29.06	---	---	30.03	32.56
18	35.68	27.38	30.21	30.89	28.01	27.29	25.77	29.07	---	---	30.15	31.97
19	35.63	27.28	30.21	30.88	28.17	27.33	25.69	29.08	---	---	30.23	31.61
20	35.55	27.25	30.25	28.92	28.23	27.33	25.73	29.11	---	---	30.29	31.50
21	35.44	27.25	30.29	27.09	28.23	27.27	25.90	29.15	---	---	30.37	31.38
22	34.67	27.35	30.35	26.44	28.07	27.27	26.05	29.22	---	---	30.45	31.28
23	34.08	27.45	30.39	26.22	27.95	27.31	26.21	29.29	---	27.60	30.55	31.11
24	33.74	27.55	30.43	26.16	27.84	27.35	26.43	29.37	---	27.76	30.61	31.01
25	33.44	27.65	30.45	25.94	27.72	27.39	26.59	29.45	---	27.94	30.67	30.93
26	33.18	27.73	30.47	25.74	27.65	27.49	26.81	29.53	---	28.06	30.75	30.88
27	32.93	27.83	30.53	25.70	27.63	27.61	27.03	29.61	---	28.26	30.83	30.84
28	32.66	28.03	30.59	25.04	27.63	27.65	27.24	29.69	---	28.44	30.93	30.80
29	32.02	28.13	30.65	24.50	27.71	27.65	27.39	29.77	---	28.60	31.03	30.74
30	31.71	28.27	30.69	24.46	---	27.49	27.53	29.87	---	28.74	31.11	30.64
31	31.47	---	30.71	24.70	---	27.43	---	29.95	---	28.80	31.19	---
MEAN	35.48	28.76	29.90	28.66	27.18	27.47	26.48	29.06	30.50	28.24	30.03	31.61
MAX	37.54	31.25	30.71	30.89	28.23	28.14	27.53	29.95	30.95	28.80	31.19	32.56
MIN	31.47	27.25	28.39	24.46	24.99	27.01	25.69	28.01	30.05	27.60	28.84	30.64

WTR YR 1996: HIGHEST 24.46, JANUARY 30; LOWEST 37.54, OCTOBER 5.



CARBON COUNTY

410123075425401. Local number, CB 104.

LOCATION.--Lat 41°01'23", long 75°42'54", Hydrologic Unit 02040106, at Hickory Run State Park.

Owner: U.S. Geological Survey.

AQUIFER.--Shale of Lower Member of Mauch Chunk Formation of Late Mississippian age.

WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in., depth 125 ft, cased to 20 ft, open hole.

INSTRUMENTATION.--Data collection platform. Satellite telemetry at station.

DATUM.--Elevation of land-surface datum is 1,305 ft above sea level. Measuring point: Top of plywood shelf, 3.1 ft above land-surface datum. Prior to May 28, 1980, top of casing 3.00 ft above land-surface datum.

REMARKS.--In addition to the daily maximum water level table shown below, daily minimum and mean water levels, since October 1994, are also available from the District Office.

PERIOD OF RECORD.--September 1969 to current year.

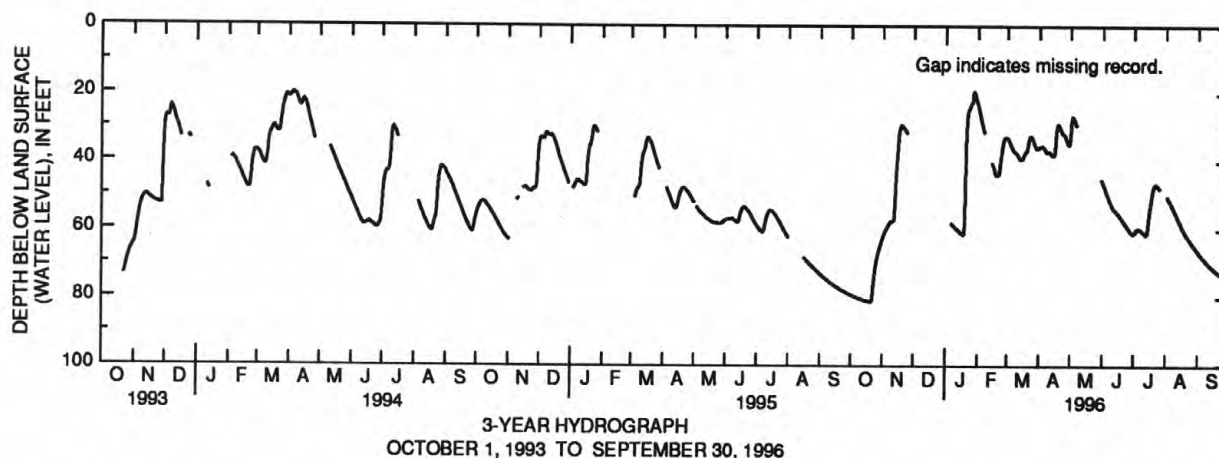
EXTREMES FOR PERIOD OF RECORD.--The extremes shown are extremes of the daily maximum depth below land surface for the period of record indicated above.

Highest water level, 18.44 ft below land-surface datum, Apr. 17, 1983; lowest, 90.58 ft below land-surface datum, Jan. 31, 1981.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	79.19	62.41		---	22.72	33.07	35.57	32.84	46.02	61.07	---	66.36
2	79.35	61.47		---	23.89	33.33	35.56	27.87	46.82	60.68	50.17	66.78
3	79.50	60.68		---	25.32	34.18	35.56	26.71	47.54	60.08	50.67	67.17
4	79.63	60.08		---	26.77	34.84	35.35	27.06	48.39	59.74	51.20	67.55
5	79.76	59.57		---	28.11	35.51	35.70	27.69	49.26	59.64	51.75	67.93
6	79.92	58.91		58.13	29.51	36.33	36.13	28.70	49.99	59.64	52.34	68.24
7	80.04	58.32		58.19	30.54	36.80	36.73	29.41	50.76	59.72	52.95	68.62
8	80.15	57.73		58.61	31.60	37.01	37.18	---	51.59	59.90	53.50	68.96
9	80.26	57.64		58.88	---	37.36	37.18	31.03	52.35	60.20	54.15	69.28
10	80.36	57.58		59.35	---	37.68	37.06	---	53.07	60.60	54.86	69.63
11	80.49	57.33		59.54	---	38.03	37.11	---	53.52	60.92	55.53	69.90
12	80.61	56.77		59.66	---	38.54	37.59	---	53.87	61.21	56.19	70.23
13	80.72	50.50		60.06	---	39.04	38.01	---	54.19	61.27	56.85	70.56
14	80.87	43.66		60.31	---	39.21	38.09	---	54.46	60.76	57.53	70.87
15	80.93	38.97		60.80	40.24	39.21	38.09	---	54.84	57.62	58.19	71.17
16	80.95	35.06		60.93	41.10	38.85	37.00	---	55.20	54.99	58.82	71.42
17	80.96	31.54		61.30	42.00	38.02	32.46	---	55.58	52.79	59.43	71.75
18	81.02	29.99		61.40	43.20	37.29	29.80	---	56.03	50.79	60.05	71.99
19	81.07	29.38		61.33	43.96	37.05	28.99	---	56.46	48.68	60.64	72.24
20	81.14	29.55		50.82	43.97	36.75	29.29	---	56.90	47.41	61.16	72.39
21	81.22	29.91		34.26	43.96	35.15	30.05	---	57.40	46.81	61.65	72.63
22	80.30	30.39		27.42	43.37	33.35	30.67	---	57.82	46.55	62.12	72.88
23	76.55	30.65		25.10	40.58	32.57	31.51	---	58.31	46.74	62.55	73.16
24	73.53	31.25		24.39	37.86	32.63	31.80	---	58.67	47.11	63.03	73.34
25	71.19	31.79		23.88	35.90	32.95	31.82	---	59.19	47.51	63.45	73.53
26	69.22	---		22.77	34.12	33.79	32.54	---	59.60	47.87	63.88	73.76
27	67.70	---		22.49	33.30	34.53	33.40	---	59.99	---	64.33	73.94
28	66.34	---		19.36	32.86	35.23	34.17	---	60.44	---	64.74	74.08
29	65.46	---		19.32	32.88	36.12	34.90	---	60.81	---	65.17	74.32
30	64.44	---		20.38	---	36.19	34.90	---	61.07	---	65.59	74.33
31	63.37	---		21.66	---	35.97	---	45.17	---	---	65.98	---
MEAN	76.98	46.05		44.24	35.12	36.02	34.47	30.72	54.67	55.40	58.62	70.97
MAX	81.22	62.41		61.40	43.97	39.21	38.09	45.17	61.07	61.27	65.98	74.33
MIN	63.37	29.38		19.32	22.72	32.57	28.99	26.71	46.02	46.55	50.17	66.36

WTR YR 1996: HIGHEST 19.32, JANUARY 29; LOWEST 81.22, OCTOBER 21.



CHESTER COUNTY

395450075485401. Local number, CH 10.

LOCATION.--Lat 39°54'50", long 75°48'54", Hydrologic Unit 02040205, near intersection of SR 82 and 841, at Doe Run.

Owner: Robert J. Kieberg, Jr.

AQUIFER.--Cockeysville Marble of Paleozoic age.

WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 6 in., depth 34 ft, casing information not available.

INSTRUMENTATION.--Data collection platform. Satellite telemetry at station.

DATUM.--Elevation of land-surface datum is 300 ft above sea level. Measuring point: Top of plywood shelf, 5.2 ft above land-surface datum. Prior to June 24, 1981, top of casing 1.00 ft above land-surface datum.

REMARKS.--In addition to the daily maximum water level table shown below, daily minimum and mean water levels, since October 1994, are also available from the District Office.

PERIOD OF RECORD.--August 1951 to April 1965, instantaneous water levels obtained several times per month.

February 1966 to current year.

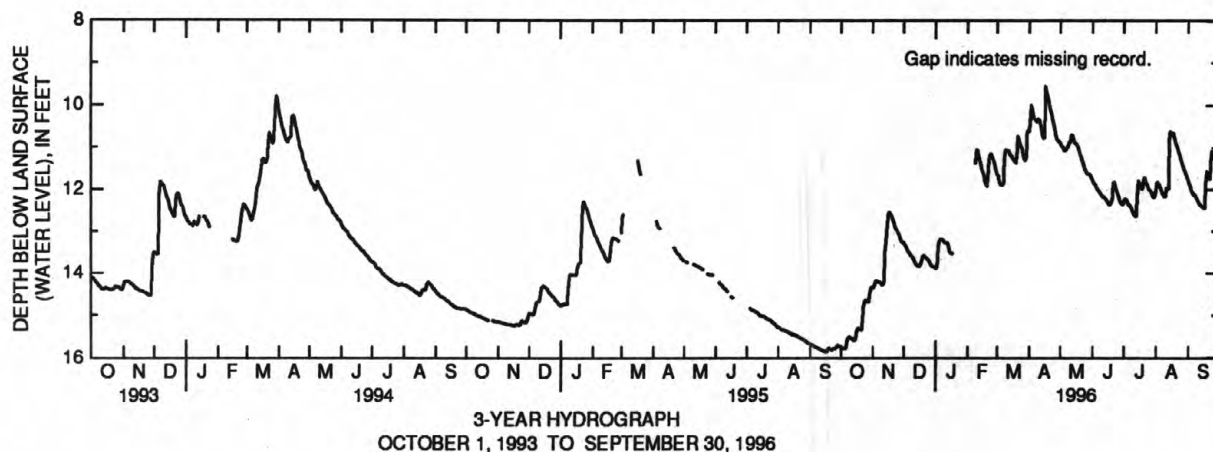
EXTREMES FOR PERIOD OF RECORD.--The extremes shown are extremes of the daily maximum depth below land surface for the period of record indicated above.

Highest water level, 7.77 ft below land-surface datum, Mar. 25, 1993; lowest, 16.22 ft below land-surface datum, Nov. 3, 1963.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15.74	14.35	13.26	13.87	---	11.64	10.61	10.86	11.78	12.30	12.01	11.78
2	15.76	14.34	13.32	13.88	---	11.67	10.40	10.94	11.83	12.22	11.82	11.85
3	15.78	14.26	13.33	13.76	---	11.82	10.00	10.97	11.86	12.22	11.84	11.93
4	15.79	14.19	13.39	13.35	---	11.88	10.08	10.99	11.89	12.25	11.88	12.01
5	15.79	14.18	13.45	13.23	---	11.88	10.23	11.06	11.95	12.34	11.94	12.07
6	15.72	14.20	13.48	13.20	---	11.88	10.30	11.06	11.99	12.36	12.00	12.12
7	15.58	14.21	13.51	13.20	---	11.84	10.32	11.01	12.02	12.38	12.07	12.12
8	15.52	14.21	13.57	13.20	11.36	11.22	10.36	11.00	12.07	12.42	12.12	12.14
9	15.50	14.24	13.59	13.22	11.36	11.04	10.38	10.92	12.10	12.47	12.16	12.20
10	15.51	14.27	13.62	13.26	11.04	11.08	10.32	10.87	12.14	12.54	12.16	12.25
11	15.53	14.27	13.67	13.27	11.05	11.08	10.35	10.87	12.17	12.59	11.96	12.30
12	15.55	14.19	13.72	13.27	11.21	11.06	10.44	10.70	12.17	12.63	11.98	12.33
13	15.58	13.46	13.77	13.28	11.30	11.14	10.56	10.69	12.20	12.63	11.98	12.37
14	15.58	13.26	13.79	13.36	11.37	11.19	10.72	10.80	12.23	12.20	10.82	12.39
15	15.56	12.88	13.82	13.48	11.52	11.20	10.77	10.87	12.27	11.80	10.62	12.40
16	15.40	12.60	13.83	13.51	11.58	11.25	10.74	10.88	12.31	11.83	10.69	12.43
17	15.32	12.54	13.82	13.51	11.65	11.29	9.56	10.91	12.36	11.89	10.68	12.43
18	15.30	12.56	13.76	13.54	11.79	11.33	9.67	10.96	12.36	11.97	10.65	11.84
19	15.32	12.62	13.69	---	11.87	11.36	9.77	11.04	12.29	11.98	10.76	11.57
20	15.33	12.66	13.59	---	11.91	11.13	9.86	11.13	12.21	11.79	10.86	11.65
21	15.34	12.73	13.57	---	11.68	10.72	10.04	11.21	11.84	11.71	10.93	11.73
22	15.09	12.82	13.60	---	11.28	10.79	10.11	11.29	11.83	11.81	11.00	11.75
23	14.80	12.90	13.62	---	11.19	10.90	10.22	11.36	11.92	11.85	11.09	11.30
24	14.70	12.96	13.65	---	11.14	10.96	10.36	11.46	12.01	11.91	11.16	11.07
25	14.64	12.99	13.67	---	11.20	11.01	10.43	11.53	12.07	11.98	11.27	11.13
26	14.66	13.04	13.70	---	11.28	11.16	10.56	11.57	12.16	12.00	11.34	11.23
27	14.69	13.08	13.75	---	11.33	11.26	10.71	11.62	12.23	12.02	11.45	11.28
28	14.69	13.18	13.80	---	11.45	11.30	10.80	11.62	12.29	12.09	11.51	11.31
29	14.50	13.23	13.83	---	11.57	11.23	10.82	11.63	12.34	12.16	11.57	11.32
30	14.38	13.26	13.84	---	---	10.65	10.86	11.66	12.35	12.18	11.63	11.10
31	14.34	---	13.85	---	---	10.59	---	11.72	---	12.13	11.71	---
MEAN	15.26	13.46	13.64	13.41	11.42	11.24	10.35	11.14	12.11	12.15	11.47	11.85
MAX	15.79	14.35	13.85	13.88	11.91	11.88	10.86	11.72	12.36	12.63	12.16	12.43
MIN	14.34	12.54	13.26	13.20	11.04	10.59	9.56	10.69	11.78	11.71	10.62	11.07

WTR YR 1996: HIGHEST 9.56, APRIL 17; LOWEST 15.79, OCTOBER 4, 5.



DELAWARE COUNTY

395040075341801. Local number, DE 3.

LOCATION.--Lat 39°50'40", long 75°34'18", Hydrologic Unit 02040205, at Birmingham Township.

Owner: Mrs. Hope W. Ebert.

AQUIFER.--Oligoclase-mica schist of Wissahickon Formation (age uncertain, Early Paleozoic to Precambrian).

WELL CHARACTERISTICS.--Dug unused water-table well, diameter 42 in., depth 18.4 ft, (formerly reported as 22 ft), cased with stone.

INSTRUMENTATION.--Once daily observer readings with chalked steel tape.

DATUM.--Elevation of land-surface datum is 280 ft above sea level. Measuring point: Top of concrete base, 1.8 ft above land-surface datum.

REMARKS.--Well is dry at 18.2 feet.

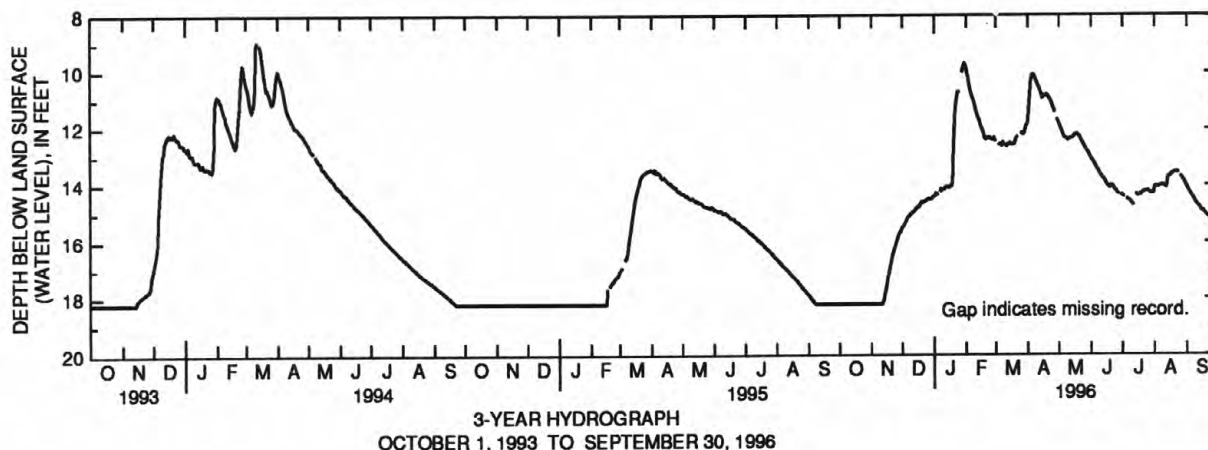
PERIOD OF RECORD.--June 1951 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 7.90 ft below land-surface datum, Aug. 22, 1955; lowest measured, dry many times since 1964.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18.20	18.20	15.47	14.38	9.82	12.45	11.76	11.82	13.05	14.37	14.08	14.04
2	18.20	18.20	15.45	14.36	9.99	---	11.27	11.90	13.12	14.38	14.03	14.13
3	18.20	18.20	15.39	14.28	10.15	---	10.78	12.00	13.17	14.39	14.05	14.19
4	18.20	18.20	15.31	14.32	10.37	12.59	10.32	12.08	13.21	---	14.05	14.26
5	18.20	18.20	15.25	14.31	10.55	12.55	10.11	12.19	13.29	14.49	14.04	14.32
6	18.20	18.20	15.16	---	10.73	12.55	10.08	12.30	13.36	14.50	14.02	14.38
7	18.20	18.20	15.11	14.23	10.86	12.61	10.09	12.33	13.42	14.52	14.02	14.43
8	18.20	18.20	15.09	14.13	10.96	12.49	10.22	12.34	13.47	14.54	14.00	14.50
9	18.20	18.20	15.02	14.19	11.05	12.60	10.31	12.38	13.56	14.56	13.99	14.57
10	18.20	18.20	15.00	14.13	11.24	---	10.38	12.40	13.62	14.63	14.00	14.63
11	18.20	18.20	14.95	14.14	11.39	12.65	10.49	12.37	13.68	14.68	14.05	14.69
12	18.20	18.18	14.93	14.08	11.50	12.57	10.55	12.34	13.72	14.70	14.07	14.73
13	18.20	18.03	14.90	14.05	11.63	12.57	10.68	12.34	13.76	---	13.93	14.76
14	18.20	17.87	14.85	14.07	11.67	12.55	10.76	12.33	13.82	14.31	13.70	14.81
15	18.20	17.67	14.80	14.05	11.85	12.51	10.91	12.30	13.89	14.33	13.70	14.87
16	18.20	17.50	14.76	14.09	11.97	12.56	10.83	12.24	13.97	14.36	13.67	14.92
17	18.20	17.28	14.77	14.01	12.05	12.57	10.81	12.20	14.02	14.36	13.62	14.91
18	18.20	17.10	14.71	14.03	12.17	12.56	10.84	12.21	14.05	14.35	13.59	14.96
19	18.20	16.88	14.64	13.87	12.32	12.54	10.79	12.21	14.10	14.30	13.57	15.01
20	18.20	16.71	14.59	12.70	12.38	12.40	10.80	12.24	14.02	14.27	13.55	15.06
21	18.20	16.54	14.60	11.88	12.32	12.32	10.88	12.28	14.00	14.25	13.53	15.09
22	18.20	16.39	14.59	11.20	12.31	12.30	10.95	12.37	14.04	14.24	13.53	15.10
23	18.20	16.27	14.58	10.93	12.35	---	10.99	12.46	14.12	14.22	13.55	15.16
24	18.20	16.14	14.54	10.70	12.31	---	11.10	12.52	14.16	14.22	13.56	15.17
25	18.20	16.04	14.53	10.69	12.37	12.18	11.20	12.59	14.18	14.22	---	15.20
26	18.20	15.93	14.49	10.68	12.38	12.17	11.28	12.65	14.26	14.20	13.67	15.25
27	18.20	15.79	14.47	---	12.39	12.21	11.42	12.71	14.29	14.25	13.72	15.27
28	18.20	15.70	14.48	10.00	12.33	12.19	---	12.78	14.30	14.27	13.78	15.28
29	18.20	15.65	14.49	9.89	12.42	12.08	11.65	12.82	---	14.28	13.84	15.31
30	18.20	15.57	14.47	9.72	---	11.93	11.71	12.90	14.33	14.28	13.90	15.35
31	18.20	---	14.41	9.69	---	11.86	---	12.98	---	14.28	13.99	---
MEAN	18.20	17.25	14.83	12.86	11.58	12.41	10.83	12.37	13.79	14.37	13.83	14.81
MAX	18.20	18.20	15.47	14.38	12.42	12.65	11.76	12.98	14.33	14.70	14.08	15.35
MIN	18.20	15.57	14.41	9.69	9.82	11.86	10.08	11.82	13.05	14.20	13.53	14.04

WTR YR 1996: HIGHEST 9.69, JANUARY 31; LOWEST 18.20 (dry), many days during year.



DELAWARE COUNTY

395512075293701, Local number, DE 723.

LOCATION.--Lat 39°55'12", long 75°29'37", Hydrologic Unit 02040203, at Glen Mills School, in Thornbury Township.

Owner: Glen Mills School.

AQUIFER.--Felsic Hornblende bearing Gneiss of Precambrian Age.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 6 in., depth 300 ft, casing information not available.

INSTRUMENTATION.--Digital recorder with 60-minute recording interval.

DATUM.--Elevation of land-surface datum is 280 ft above sea level. Measuring point: Top of plywood shelf, 2.7 ft above land-surface datum. Prior to May 11, 1984, top of plywood shelf 1.20 ft above land-surface datum.

REMARKS.--In addition to the daily maximum water level table shown below, daily minimum and mean water levels, since October 1994, are also available from the District Office.

PERIOD OF RECORD.--April 1983 to current year.

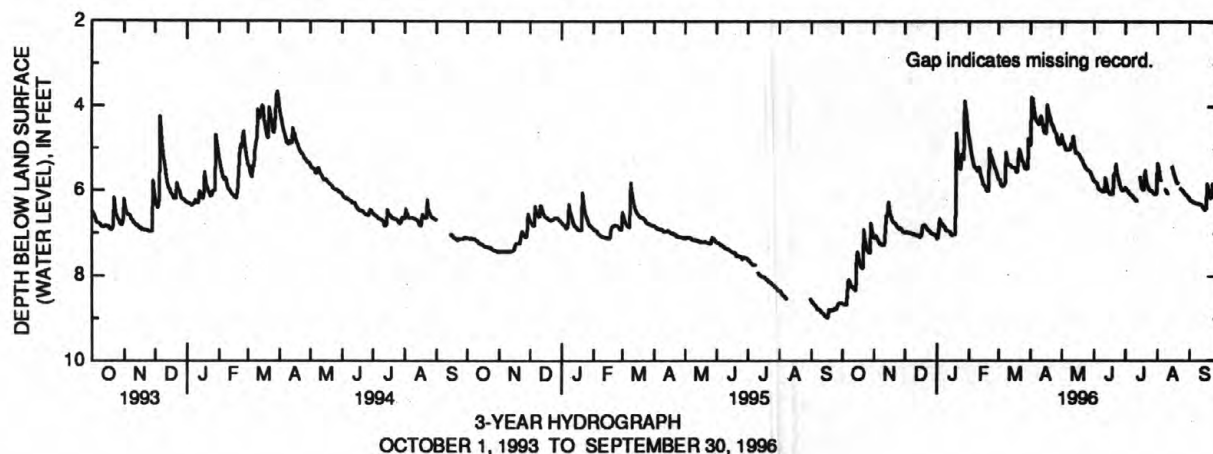
EXTREMES FOR PERIOD OF RECORD.--The extremes shown are extremes of the daily maximum depth below land surface for the period of record indicated above.

Highest water level, 2.80 ft below land-surface datum, Apr. 6, 1984; lowest, 9.95 ft below land-surface datum, Aug. 3, 1983.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.65	7.10	6.98	7.11	4.71	5.72	4.90	4.66	5.76	5.92	5.33	6.17
2	8.66	7.10	6.96	7.11	4.84	5.72	3.78	4.82	5.78	5.94	5.41	6.22
3	8.66	7.06	6.98	6.89	5.04	5.86	3.83	4.87	5.78	5.97	5.64	6.23
4	8.67	7.12	6.97	6.66	5.18	5.88	4.02	4.91	5.81	6.00	5.75	6.24
5	8.67	7.15	6.99	6.75	5.28	5.88	4.21	5.01	5.92	6.06	---	6.26
6	8.37	7.23	6.99	6.79	5.41	5.85	4.30	5.01	5.95	6.08	---	6.26
7	8.09	7.23	6.98	6.79	5.43	5.80	4.35	5.01	5.96	6.09	---	6.28
8	8.12	7.26	7.02	6.84	5.44	5.08	4.40	5.01	5.98	6.11	5.96	6.30
9	8.19	7.27	7.02	6.86	5.52	5.26	4.42	4.99	6.00	6.16	5.97	6.30
10	8.24	7.27	7.02	6.93	5.43	5.36	4.29	4.88	6.00	6.17	6.01	6.30
11	8.27	7.27	7.03	6.94	5.43	5.36	4.23	4.89	6.01	6.21	6.05	6.31
12	8.30	6.95	7.04	6.94	5.58	5.36	4.35	4.70	5.69	6.22	6.05	6.31
13	8.32	6.58	7.05	6.95	5.67	5.41	4.46	4.88	5.84	6.22	---	6.32
14	8.34	6.60	7.05	6.97	5.73	5.43	4.60	5.04	5.97	---	---	6.39
15	7.55	6.27	7.06	7.04	5.86	5.43	4.62	5.09	6.01	5.65	5.40	6.42
16	7.44	6.44	7.08	7.04	5.86	5.43	4.61	5.09	6.06	5.80	5.49	6.43
17	7.56	6.57	7.03	7.03	5.89	5.45	3.96	5.11	6.07	5.94	5.58	6.39
18	7.68	6.62	6.83	7.03	5.98	5.53	4.10	5.14	6.07	5.96	5.66	5.83
19	7.76	6.71	6.82	7.00	5.99	5.54	4.20	5.21	6.07	5.96	5.75	5.99
20	7.81	6.74	6.80	4.63	5.99	5.22	4.26	5.24	5.61	5.50	5.79	6.12
21	7.81	6.76	6.83	5.06	4.98	5.00	4.41	5.28	5.61	5.73	5.81	6.15
22	6.92	6.77	6.87	5.31	5.14	5.09	4.44	5.35	5.35	5.83	---	6.15
23	7.11	6.83	6.91	5.46	5.18	5.20	4.48	5.39	5.56	5.90	5.93	5.83
24	7.24	6.86	6.94	5.47	5.26	5.29	4.58	5.44	5.65	5.96	5.95	5.93
25	7.37	6.88	6.94	5.13	5.36	5.32	4.60	5.47	5.76	5.97	5.97	6.11
26	7.43	6.88	6.98	5.24	5.43	5.42	4.66	5.50	5.86	5.98	6.00	6.15
27	7.45	6.87	7.00	5.24	5.49	5.47	4.81	5.51	5.93	6.01	6.04	6.19
28	7.45	6.91	7.02	3.87	5.57	5.47	4.87	5.53	5.97	6.04	6.07	6.19
29	6.77	6.97	7.02	4.04	5.67	5.44	4.87	5.57	5.98	6.06	6.08	6.19
30	6.92	6.97	7.03	4.23	---	4.76	4.86	5.66	5.98	6.06	6.12	6.12
31	7.04	---	7.03	4.52	---	4.85	---	5.71	---	6.06	6.15	---
MEAN	7.83	6.91	6.98	6.12	5.46	5.42	4.42	5.16	5.87	5.99	5.84	6.20
MAX	8.67	7.27	7.08	7.11	5.99	5.88	4.90	5.71	6.07	6.22	6.15	6.43
MIN	6.77	6.27	6.80	3.87	4.71	4.76	3.78	4.66	5.35	5.50	5.33	5.83

WTR YR 1996: HIGHEST 3.78, APRIL 2; LOWEST 8.67, OCTOBER 4, 5.



LEBANON COUNTY

402207076180801. Local number, LB 372.

LOCATION.--Lat 40°22'07", long 76°18'08", Hydrologic Unit 02040203, at Myerstown.

Owner: Kohl Brothers, Inc.

AQUIFER.--Dolomite of Ontelaunee Formation of Middle Ordovician age.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 6 in., depth 80 ft, casing information not available, open hole.

INSTRUMENTATION.--Data collection platform. Satellite telemetry at station.

DATUM.--Elevation of land-surface datum is 444 ft above sea level. Measuring point: Top of plywood shelf, 2.7 ft above land-surface datum. Prior to Apr. 22, 1981, measuring point was 3.50 ft above land-surface datum.

REMARKS.--In addition to the daily maximum water level table shown below, daily minimum and mean water levels, since October 1994, are also available from the District Office.

PERIOD OF RECORD.--July 1973 to current year.

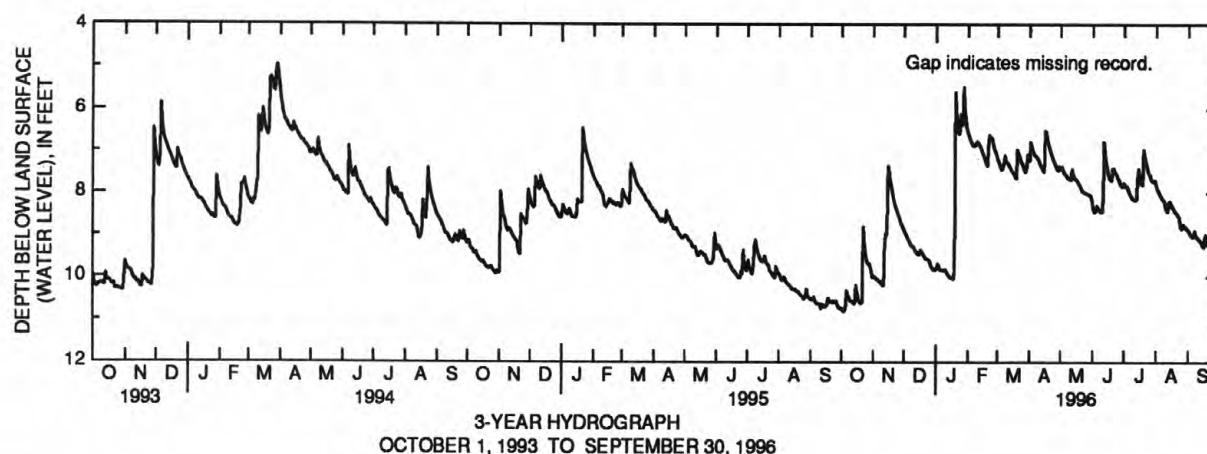
EXTREMES FOR PERIOD OF RECORD.--The extremes shown are extremes of the daily maximum depth below land surface for the period of record indicated above.

Highest water level, 4.02 ft below land-surface datum, Jan. 27, 1976; lowest, 11.32 ft below land-surface datum, Jan. 23, 30, 1981.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10.74	10.00	8.89	9.81	6.54	7.19	7.22	---	8.33	7.75	7.81	8.89
2	10.78	9.99	8.96	9.77	6.62	7.24	6.78	7.35	8.42	7.83	7.89	8.93
3	10.80	10.02	8.98	9.69	6.69	7.34	6.88	7.43	8.45	7.83	7.93	8.99
4	10.80	10.05	9.06	9.77	6.75	7.40	6.98	7.48	8.37	7.83	7.99	9.02
5	10.66	10.05	9.12	9.83	6.80	7.43	7.04	7.53	8.30	7.89	8.05	9.04
6	10.33	10.09	9.14	9.83	6.86	7.34	7.10	7.55	8.35	7.97	8.08	9.04
7	10.43	10.12	9.22	9.83	6.86	7.28	7.10	7.60	8.39	8.03	8.14	8.91
8	10.47	10.09	9.26	9.85	6.86	7.10	7.14	7.63	8.43	8.07	8.16	8.98
9	10.55	10.16	9.26	9.83	6.82	7.22	7.18	7.63	8.45	8.12	8.19	9.03
10	10.56	10.19	9.28	9.83	6.76	7.26	7.22	7.65	8.43	8.13	8.31	9.07
11	10.57	10.20	9.34	9.87	6.78	7.29	7.30	7.67	8.13	8.15	8.42	9.10
12	10.60	9.17	9.39	9.92	6.82	7.34	7.36	7.43	6.78	8.15	8.43	9.13
13	10.62	8.97	9.42	9.95	6.88	7.38	7.39	7.53	7.10	8.15	8.23	9.14
14	10.62	8.99	9.45	9.99	6.92	7.44	7.46	7.61	7.29	7.71	8.19	9.20
15	10.20	7.35	9.46	10.01	7.01	7.47	7.48	7.65	7.41	7.41	8.25	9.25
16	10.35	7.43	9.46	10.02	7.08	7.50	6.52	7.66	7.54	7.56	8.29	9.28
17	10.48	7.65	9.36	10.03	7.14	7.55	6.52	7.70	7.63	7.69	8.33	9.05
18	10.56	7.79	9.42	10.04	7.22	7.61	6.69	7.75	7.67	7.77	8.39	8.99
19	10.61	7.93	9.44	9.80	7.30	7.64	6.80	7.79	7.69	7.79	8.43	9.13
20	10.62	8.05	9.49	5.60	7.34	6.95	6.88	7.83	7.41	6.95	8.47	9.23
21	10.60	8.18	9.53	6.10	6.87	7.04	6.98	7.89	7.40	7.12	8.49	9.26
22	8.81	8.29	9.57	6.40	6.62	7.10	7.04	7.95	7.47	7.24	8.54	9.27
23	9.17	8.35	9.58	6.56	6.68	7.19	7.14	7.95	7.51	7.33	8.57	9.29
24	9.40	8.43	9.59	6.59	6.66	7.26	7.20	7.99	7.55	7.45	8.73	9.33
25	9.57	8.50	9.60	6.12	6.72	7.30	7.26	7.99	7.62	7.52	8.83	9.33
26	9.66	8.57	9.63	6.36	6.86	7.39	7.32	8.01	7.66	7.54	8.85	9.35
27	9.70	8.65	9.73	6.37	6.96	7.46	7.38	8.01	7.73	7.64	8.76	9.37
28	9.69	8.74	9.77	5.48	7.00	7.49	7.44	8.03	7.79	7.70	8.79	9.37
29	9.76	8.76	9.81	5.96	7.10	7.34	7.45	8.03	7.83	7.71	8.81	9.13
30	9.88	8.84	9.83	6.22	---	7.08	7.34	8.07	7.83	7.71	8.85	9.25
31	10.00	---	9.83	6.42	---	7.17	---	8.13	---	7.69	8.85	---
MEAN	10.24	8.99	9.42	8.45	6.88	7.32	7.12	7.75	7.83	7.72	8.39	9.15
MAX	10.80	10.20	9.83	10.04	7.34	7.64	7.48	8.13	8.45	8.15	8.85	9.37
MIN	8.81	7.35	8.89	5.48	6.54	6.95	6.52	7.35	6.78	6.95	7.81	8.89

WTR YR 1996: HIGHEST 5.48, JANUARY 28; LOWEST 10.80, OCTOBER 3, 4.



LEHIGH COUNTY

403429075392401. Local number, LE 644.

LOCATION.--Lat 40°34'29", long 75°39'24", Hydrologic Unit 02040106, at Haafsville.

Owner: Charles J. Haaf.

AQUIFER.--Beekmantown Group of Middle Ordovician age.

WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 10 in., depth 184 ft, cased to 63 ft, open hole.

INSTRUMENTATION.--Data collection platform. Satellite telemetry at station.

DATUM.--Elevation of land-surface datum is 470 ft above sea level. Measuring point: Top of plywood shelf, 2.6 ft above land-surface datum. Prior to Mar. 18, 1981, top of casing, 1.45 ft above land-surface datum.

REMARKS.--In addition to the daily maximum water level table shown below, daily minimum and mean water levels, since October 1994, and water-quality records for 1973-75 are also available from the District Office.

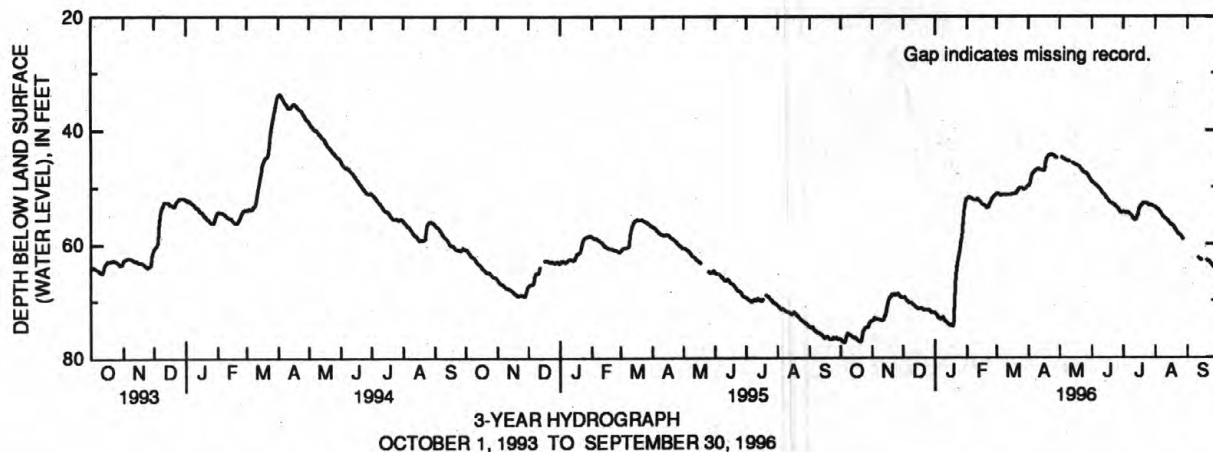
PERIOD OF RECORD.--January 1971 to current year.

EXTREMES FOR PERIOD OF RECORD.--The extremes shown are extremes of the daily maximum depth below land surface for the period of record indicated above. Highest water level, 33.72 ft below land-surface datum, Apr. 3, 1994; lowest, 93.42 ft below land-surface datum, Feb. 6, 1971.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	76.76	73.54	69.43	72.15	52.02	51.22	49.65	---	49.00	54.31	53.56	---
2	76.97	73.44	69.45	72.38	51.78	51.10	49.41	44.67	49.21	54.37	53.77	---
3	77.18	73.07	69.41	72.58	51.73	51.29	48.36	44.74	49.30	54.47	53.84	---
4	77.30	73.22	69.82	72.90	51.86	51.43	47.75	44.82	49.55	54.44	54.03	---
5	77.34	73.20	70.01	73.09	51.92	51.43	47.42	44.96	49.66	54.42	54.28	---
6	76.91	73.26	70.17	73.20	52.08	51.30	47.33	45.14	49.84	54.55	54.54	---
7	76.07	73.26	70.40	73.21	52.13	51.29	47.06	45.23	50.03	54.61	54.84	---
8	75.74	73.33	70.40	72.98	52.18	51.31	46.89	45.20	50.22	54.86	55.10	---
9	75.83	73.40	70.35	72.92	52.25	51.32	46.86	45.38	50.43	55.02	55.37	---
10	76.00	73.51	70.52	73.38	52.17	51.34	46.75	45.39	50.75	55.38	55.50	---
11	76.13	73.53	70.73	73.65	51.97	51.31	46.77	45.34	51.00	55.57	55.54	62.39
12	76.27	73.32	70.90	73.69	52.24	51.28	46.96	---	51.20	55.74	55.82	62.55
13	76.45	72.78	71.16	73.90	52.41	51.33	46.96	45.60	51.42	55.74	56.00	62.68
14	76.52	72.42	71.17	74.09	52.54	51.30	47.00	45.76	51.64	55.21	56.25	62.86
15	76.49	71.38	71.39	74.34	52.88	51.23	47.02	45.88	51.94	54.82	56.50	62.88
16	76.59	70.49	71.39	74.34	53.01	51.19	47.00	45.91	52.15	53.88	56.63	---
17	76.82	69.89	71.39	74.32	53.08	51.17	45.68	46.04	52.38	53.41	56.71	---
18	76.99	69.52	71.36	74.44	53.26	51.11	45.01	46.16	52.61	53.20	56.79	---
19	77.14	69.22	71.33	74.44	53.47	51.09	44.67	46.18	52.78	53.00	57.12	62.81
20	77.23	69.04	71.46	70.70	53.61	50.86	44.43	46.42	52.81	52.75	57.44	62.98
21	77.21	68.88	71.60	66.45	53.61	50.52	44.31	46.66	52.95	52.75	57.68	63.09
22	76.33	68.95	71.60	64.25	53.20	50.25	44.27	46.92	53.03	52.75	57.97	63.13
23	75.47	68.94	71.67	62.94	52.82	50.16	44.25	47.13	53.30	52.79	58.30	63.39
24	75.07	68.94	71.67	62.07	52.44	50.19	44.34	47.35	53.44	52.91	58.33	63.58
25	74.82	68.89	71.65	61.03	52.05	50.14	44.35	47.43	53.59	53.11	58.41	63.80
26	74.75	68.82	71.60	59.68	51.72	50.23	44.54	47.45	53.82	53.17	58.61	64.07
27	74.67	68.92	71.76	58.67	51.58	50.35	44.72	47.62	54.02	53.12	59.00	64.09
28	74.61	69.26	71.94	56.21	51.31	50.30	44.78	47.86	54.33	53.24	59.25	64.07
29	73.96	69.35	72.14	54.12	51.25	50.10	44.78	48.18	54.43	53.32	---	64.05
30	73.72	69.51	72.08	52.83	---	49.93	---	48.53	54.43	53.38	---	64.24
31	73.63	---	72.07	52.15	---	49.77	---	48.82	---	53.44	---	---
MEAN	76.03	71.18	71.03	68.29	52.36	50.87	46.18	46.30	51.84	53.99	56.33	63.33
MAX	77.34	73.54	72.14	74.44	53.61	51.43	49.65	48.82	54.43	55.74	59.25	64.24
MIN	73.63	68.82	69.41	52.15	51.25	49.77	44.25	44.67	49.00	52.75	53.56	62.39

WTR YR 1996: HIGHEST 44.25, APRIL 23; LOWEST 77.34, OCTOBER 5.



MONROE COUNTY

411223075234901. Local number, MO 190.

LOCATION.--Lat 41°12'23", long 75°23'49", Hydrologic Unit 02040106, at Tobyhanna State Park.

Owner: U.S. Geological Survey.

AQUIFER.--Sandstone of Catskill Formation of Late Devonian age.

WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in., depth 98 ft, cased to 59 ft, open hole.

INSTRUMENTATION.--Data collection platform. Satellite telemetry at station.

DATUM.--Elevation of land-surface datum is 1,990 ft above sea level. Measuring point: Top of plywood shelf, 3.0 ft above land-surface datum. Prior to Mar. 28, 1980, top of plywood shelf, 2.6 ft above land-surface datum.

REMARKS.--In addition to the daily maximum water level table shown below, daily minimum and mean water levels, since October 1994, are also available from the District Office.

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

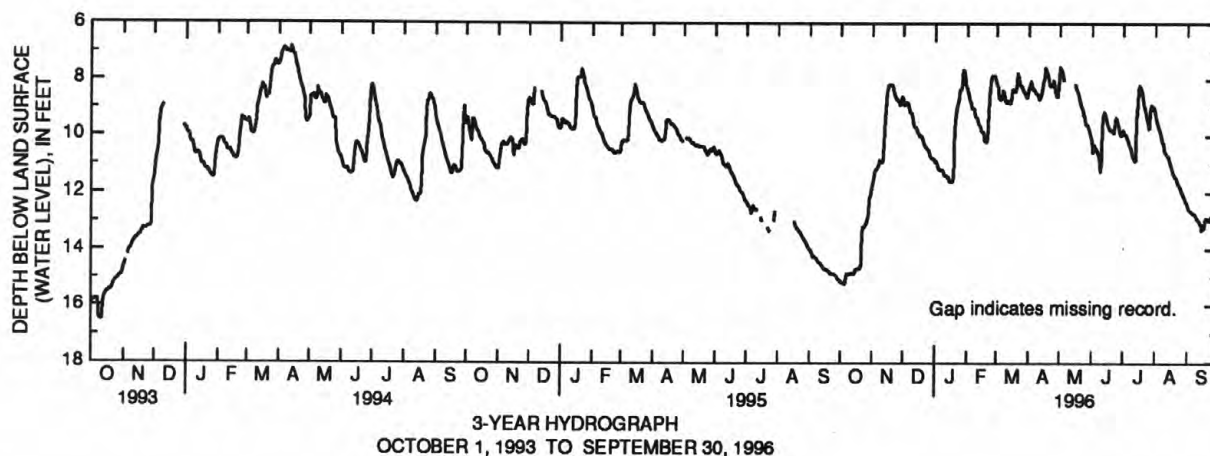
EXTREMES FOR PERIOD OF RECORD.--The extremes shown are extremes of the daily maximum depth below land surface for the period of record indicated above.

Highest water level, 6.62 ft below land-surface datum, Apr. 13,14, 1994; lowest, 16.87 ft below land-surface datum, Oct. 24, 25, 1980.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15.13	11.70	8.65	10.90	8.28	8.15	8.28	7.53	10.14	9.79	9.18	12.43
2	15.17	11.54	8.90	10.90	8.41	8.23	8.19	7.59	10.57	9.89	9.38	12.56
3	15.19	11.30	8.90	10.99	8.59	8.63	8.04	7.67	10.29	9.94	9.54	12.59
4	15.20	11.20	8.82	11.11	8.75	8.68	8.18	7.85	10.39	9.96	9.66	12.64
5	15.23	11.17	8.82	11.19	8.83	8.68	8.34	8.01	10.43	10.08	9.77	12.66
6	15.09	11.10	8.86	11.20	9.02	8.61	8.34	---	10.52	10.16	9.90	12.72
7	14.89	11.02	9.03	11.19	9.02	8.38	8.42	---	10.61	10.30	10.05	12.72
8	14.86	10.86	9.18	11.19	9.02	8.47	8.49	---	10.74	10.37	10.22	12.71
9	14.88	10.92	9.18	11.25	9.28	8.72	8.49	---	11.24	10.48	10.27	12.81
10	14.86	10.92	9.28	11.39	9.34	8.81	8.55	---	10.89	10.68	10.53	12.89
11	14.85	10.91	9.53	11.39	9.36	8.81	8.70	---	9.69	10.77	10.59	12.93
12	14.85	10.39	9.66	11.39	9.57	8.74	8.62	---	9.29	10.86	10.68	12.97
13	14.87	9.60	9.71	11.45	9.60	8.83	8.54	---	9.15	10.86	10.68	13.06
14	14.87	9.06	9.71	11.45	9.66	8.83	8.32	---	9.22	9.43	10.79	13.10
15	14.78	8.50	9.86	11.60	9.84	8.66	8.06	---	9.38	8.89	10.91	13.31
16	14.71	8.30	9.90	11.60	9.85	8.36	7.92	8.13	9.57	8.31	11.04	13.24
17	14.69	8.17	10.01	11.60	9.87	8.33	7.55	8.31	9.65	8.19	11.14	13.24
18	14.68	8.16	10.01	11.58	10.13	8.41	7.65	8.39	9.76	8.27	11.30	12.97
19	14.67	8.18	10.01	11.40	10.21	8.41	7.76	8.48	9.79	8.41	11.37	12.88
20	14.67	8.18	10.12	9.82	10.21	8.20	7.88	8.67	9.76	8.60	11.45	12.91
21	14.55	8.22	10.23	9.34	10.03	7.76	8.16	8.83	9.83	8.88	11.47	12.96
22	13.37	8.44	10.36	9.05	9.13	7.87	8.22	8.95	9.89	8.99	11.58	12.97
23	13.21	8.55	10.37	8.86	8.47	8.13	8.21	9.02	9.64	9.16	11.68	12.87
24	13.21	8.68	10.44	8.73	8.04	8.21	8.19	9.21	9.33	9.36	11.73	12.83
25	13.13	8.68	10.45	8.35	7.84	8.20	8.01	9.31	9.40	9.52	11.82	12.89
26	13.07	8.74	10.53	8.35	7.84	8.32	8.21	9.59	9.57	9.73	11.92	12.91
27	12.95	8.79	10.68	8.24	7.86	8.43	8.44	9.59	9.70	9.18	12.00	12.92
28	12.74	8.89	10.75	7.64	7.84	8.43	8.58	9.61	9.90	8.90	12.10	12.92
29	12.20	8.78	10.80	7.64	8.00	8.57	8.57	9.72	9.97	9.04	12.16	12.92
30	12.08	8.60	10.80	7.80	---	8.63	8.09	9.87	9.97	8.95	12.30	12.91
31	11.88	---	10.83	8.15	---	8.46	---	10.01	---	9.00	12.32	---
MEAN	14.21	9.59	9.82	10.22	9.03	8.45	8.23	8.78	9.94	9.51	10.95	12.88
MAX	15.23	11.70	10.83	11.60	10.21	8.83	8.70	10.01	11.24	10.86	12.32	13.31
MIN	11.88	8.16	8.65	7.64	7.84	7.76	7.55	7.53	9.15	8.19	9.18	12.43

WTR YR 1996: HIGHEST 7.53, MAY 1; LOWEST 15.23, OCTOBER 5.



MONTGOMERY COUNTY

400808075210401. Local number, MG 225.

LOCATION.--Lat 40°08'08", long 75°21'04", Hydrologic Unit 02040203, at Willow and Locust Streets, Norristown.

Owner: Norristown State Hospital.

AQUIFER.--Sandstone of Stockton Formation of Late Triassic age.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 12 in., depth 486 ft (previously reported as 300 ft), casing information not available.

INSTRUMENTATION.--Digital recorder with 60-minute recording interval.

DATUM.--Elevation of land-surface datum is 165 ft above sea level. Measuring point: Top of plywood shelf, 2.4 ft above land-surface datum. Prior to Mar. 17, 1981, top of casing 0.8 ft above land-surface datum.

REMARKS.--In addition to the daily maximum water level table shown below, daily minimum and mean water levels, since October 1994, are also available from the District Office.

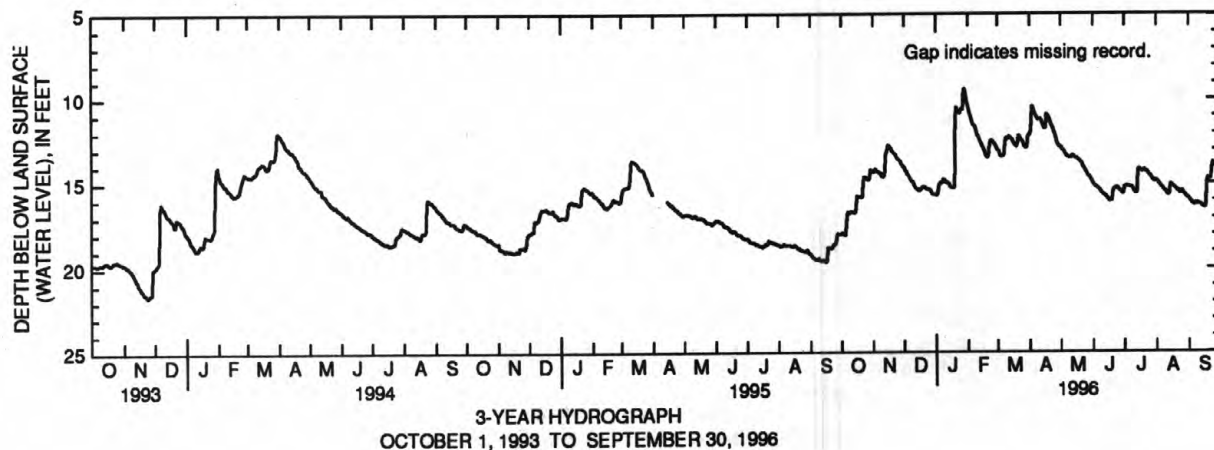
PERIOD OF RECORD.--September 1956 to current year.

EXTREMES FOR PERIOD OF RECORD.--The extremes shown are extremes of the daily maximum depth below land surface for the period of record indicated above. Highest water level, 9.43 ft below land-surface datum, Jan. 29, 1996; lowest, 60.25 ft below land-surface datum, Nov. 5, 6, 1963.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17.96	14.33	14.04	15.70	10.42	13.05	12.12	12.85	15.04	15.24	14.88	15.95
2	17.93	14.27	14.30	15.68	10.66	13.09	11.80	12.99	15.13	15.23	14.95	16.03
3	17.99	14.13	14.30	15.43	10.93	13.33	10.50	13.05	15.16	15.18	15.03	16.11
4	18.01	14.28	14.48	15.05	11.08	13.42	10.50	13.11	15.23	15.17	15.11	16.18
5	18.01	14.32	14.51	14.99	11.32	13.42	10.76	13.24	15.28	15.21	15.19	16.26
6	17.24	14.36	14.65	14.99	11.54	13.38	10.91	13.33	15.35	15.22	15.27	16.30
7	16.71	14.36	14.79	14.96	11.60	13.29	11.06	13.44	15.39	15.24	15.35	16.20
8	16.75	14.42	14.89	14.79	11.61	12.59	11.17	13.45	15.48	15.26	15.43	16.27
9	16.77	14.57	14.90	14.82	11.86	12.31	11.24	13.50	15.57	15.31	15.49	16.20
10	16.65	14.60	15.00	14.88	12.15	12.37	11.19	13.49	15.61	15.45	15.52	16.20
11	16.68	14.61	15.15	14.97	12.19	12.33	11.19	13.47	15.67	15.53	15.63	16.26
12	16.70	14.32	15.26	14.97	12.39	12.25	11.29	13.36	15.74	15.58	15.70	16.29
13	16.72	13.25	15.33	15.01	12.53	12.32	11.45	13.39	15.78	15.53	15.65	16.31
14	16.74	13.13	15.35	15.06	12.62	12.36	11.68	13.46	15.85	14.27	15.09	16.39
15	16.51	12.73	15.44	15.25	12.86	12.42	11.75	13.53	15.93	14.16	15.12	16.43
16	15.73	12.76	15.44	15.25	12.92	12.60	11.74	13.53	16.02	14.24	15.15	16.46
17	15.77	12.87	15.34	15.28	13.06	12.68	10.93	13.58	16.06	14.29	15.21	16.37
18	15.78	12.93	15.30	15.27	13.31	12.77	10.98	13.64	16.04	14.33	15.28	14.97
19	15.82	13.07	15.23	15.18	13.44	12.82	11.08	13.68	16.05	14.29	15.35	14.72
20	15.83	13.15	15.20	11.14	13.47	12.61	11.21	13.75	15.51	14.22	15.40	14.75
21	15.80	13.22	15.22	10.52	13.36	12.18	11.46	13.85	15.37	14.28	15.44	14.78
22	14.91	13.26	15.30	10.73	12.68	12.24	11.58	14.00	15.34	14.33	15.50	14.75
23	14.62	13.39	15.33	10.87	12.52	12.39	11.70	14.11	15.28	14.36	15.58	14.11
24	14.62	13.53	15.36	10.87	12.47	12.48	11.92	14.24	15.28	14.45	15.56	13.80
25	14.70	13.57	15.37	10.64	12.52	12.51	12.07	14.32	15.33	14.53	15.46	13.82
26	14.76	13.63	15.39	10.65	12.63	12.71	12.28	14.43	15.42	14.58	15.54	13.90
27	14.78	13.67	15.48	10.64	12.69	12.88	12.55	14.56	15.48	14.70	15.63	13.93
28	14.73	13.87	15.58	9.49	12.82	12.90	12.72	14.61	15.53	14.81	15.71	13.93
29	14.21	13.95	15.65	9.43	12.95	12.86	12.80	14.68	15.62	14.87	15.78	13.92
30	14.24	14.04	15.66	9.71	---	12.29	12.86	14.82	15.58	14.90	15.85	13.85
31	14.29	---	15.66	10.11	---	12.14	---	14.93	---	14.87	15.90	---
MEAN	16.06	13.75	15.13	13.30	12.30	12.68	11.55	13.75	15.54	14.83	15.41	15.38
MAX	18.01	14.61	15.66	15.70	13.47	13.42	12.86	14.93	16.06	15.58	15.90	16.46
MIN	14.21	12.73	14.04	9.43	10.42	12.14	10.50	12.85	15.04	14.16	14.88	13.80

WTR YR 1996: HIGHEST 9.43, JANUARY 29; LOWEST 18.01, OCTOBER 4, 5.



PHILADELPHIA COUNTY

395342075102101. Local number, PH 12.

LOCATION.--Lat 39°53'42", long 75°10'21", Hydrologic Unit 02040202, at Barracks and East Fourth Streets, Philadelphia.

Owner: U.S. Naval Base.

AQUIFER.--Middle Sand Unit of Potomac-Raritan-Magothy aquifer system of Late Cretaceous age.

WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 8 in., depth 101 ft, cased to 93 ft, screened from 93-101 ft.

INSTRUMENTATION.--Digital recorder with 60-minute recording interval.

DATUM.--Elevation of land-surface datum is 8.6 ft above sea level. Measuring point: Top of casing, 1.8 ft above land-surface datum.

REMARKS.--In addition to the daily maximum water level table shown below, daily minimum and mean water levels, since October 1994, are also available from the District Office. Mean daily fluctuation caused by tidal loading, 0.20 ft.

PERIOD OF RECORD.--January 1952 to current year.

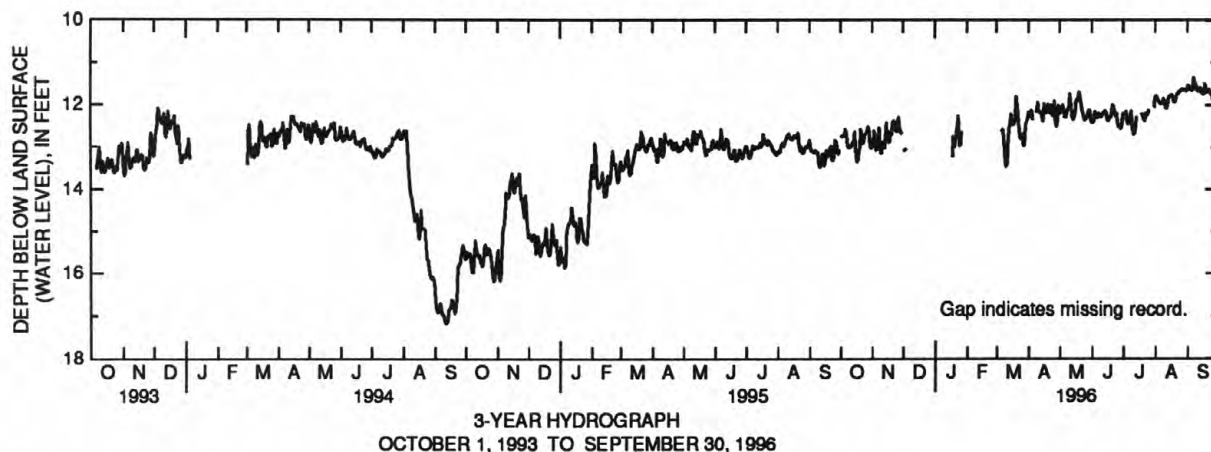
EXTREMES FOR PERIOD OF RECORD.--The extremes shown are extremes of the daily maximum depth below land surface for the period of record indicated above.

Highest water level, 11.35 ft below land-surface datum, Sept. 7, 1996; lowest, 39.60 ft below land-surface datum, July 20, 1955.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	13.00	---	---	---	---	12.17	12.20	12.41	12.21	11.82	11.60
2	12.72	12.93	13.06	---	---	---	12.25	12.10	12.41	12.18	11.78	11.54
3	12.74	12.60	13.06	---	---	---	12.25	12.09	12.35	---	11.82	11.57
4	12.72	12.88	13.03	---	---	---	12.12	12.00	12.15	12.12	11.88	11.62
5	12.73	13.06	---	---	---	---	12.31	12.09	12.20	12.39	11.92	11.64
6	12.58	12.97	13.05	---	---	12.62	12.31	12.27	12.28	12.43	11.96	11.64
7	12.66	12.80	---	---	---	12.57	---	12.27	12.28	12.36	11.95	11.35
8	12.90	12.54	---	---	---	12.78	12.15	12.15	12.19	12.28	11.94	11.44
9	13.00	13.03	---	---	---	13.30	12.13	12.09	12.24	12.13	11.85	11.50
10	13.00	13.14	---	---	---	13.45	11.93	12.04	12.27	12.53	11.92	11.62
11	12.98	12.92	---	---	---	13.36	12.14	11.74	12.23	12.67	12.05	11.66
12	12.95	12.86	---	---	---	12.88	12.16	11.99	12.19	12.67	12.05	11.66
13	12.89	13.02	---	---	---	12.53	12.17	12.25	12.15	12.53	11.96	11.60
14	12.87	12.81	---	---	---	12.44	12.24	12.33	12.13	12.28	11.79	11.60
15	12.64	12.42	---	---	---	12.21	12.37	12.27	12.19	12.28	11.79	11.69
16	13.07	12.75	---	---	---	12.43	11.96	12.16	12.34	---	11.78	11.73
17	13.34	12.87	---	---	---	12.47	12.04	11.88	12.36	---	11.75	11.72
18	13.30	12.86	---	13.22	---	12.41	12.18	11.89	12.28	---	11.81	11.49
19	13.07	12.64	---	12.74	---	12.30	12.10	11.80	12.29	12.19	11.92	11.62
20	13.01	12.69	---	12.98	---	11.80	11.98	11.69	12.18	12.23	11.92	11.69
21	12.58	12.42	---	12.81	---	12.03	12.16	11.81	12.00	12.31	11.84	11.69
22	12.75	12.37	---	12.69	---	12.33	12.18	12.01	12.03	12.36	11.73	11.63
23	12.90	12.40	---	12.49	---	12.63	11.99	12.15	12.16	12.20	11.73	11.70
24	12.81	12.60	---	12.25	---	12.79	12.24	12.24	12.25	12.23	11.68	11.74
25	12.68	12.62	---	12.95	---	12.73	12.23	12.34	12.19	12.18	11.67	11.77
26	12.67	12.39	---	12.92	---	12.68	11.90	12.32	12.43	12.10	11.65	11.91
27	12.64	12.28	---	12.63	---	12.95	12.35	12.28	12.51	---	11.62	11.91
28	12.51	12.53	---	---	---	12.90	12.50	12.22	12.46	---	11.64	11.82
29	12.57	12.65	---	---	---	12.46	12.38	12.12	12.55	---	11.63	11.74
30	12.99	12.66	---	---	---	12.40	12.01	12.12	12.45	---	11.64	11.91
31	13.01	---	---	---	---	12.29	---	12.31	---	12.04	11.66	---
MEAN	12.84	12.72	13.05	12.77	---	12.61	12.17	12.10	12.27	12.30	11.81	11.66
MAX	13.34	13.14	13.06	13.22	---	13.45	12.50	12.34	12.55	12.67	12.05	11.91
MIN	12.51	12.28	13.03	12.25	---	11.80	11.90	11.69	12.00	12.04	11.62	11.35

WTR YR 1996: HIGHEST 11.35, SEPTEMBER 7; LOWEST 13.45, MARCH 10.



PIKE COUNTY

410940074583401. Local number, PI 200.

LOCATION.--Lat 41°09'40", long 74°58'34", Hydrologic Unit 02040104, at Pocono Mountain Lake Estates.

Owner: Pocono Mountain Lake Estates.

AQUIFER.--Sandstone and siltstone of Towamensing Member of Catskill Formation of Late Devonian age.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 8 in., depth 799 ft, cased to 86 ft, open hole.

INSTRUMENTATION.--Data collection platform. Satellite telemetry at station.

DATUM.--Elevation of land-surface datum is 1,180 ft above sea level. Measuring point: Top of plywood shelf, 3.3 ft above land-surface datum. Prior to October 1983, published as 1.4 ft above land-surface datum.

REMARKS.--In addition to the daily maximum water level table shown below, daily minimum and mean water levels, since October 1994, are also available from the District Office.

PERIOD OF RECORD.--July 1981 to current year.

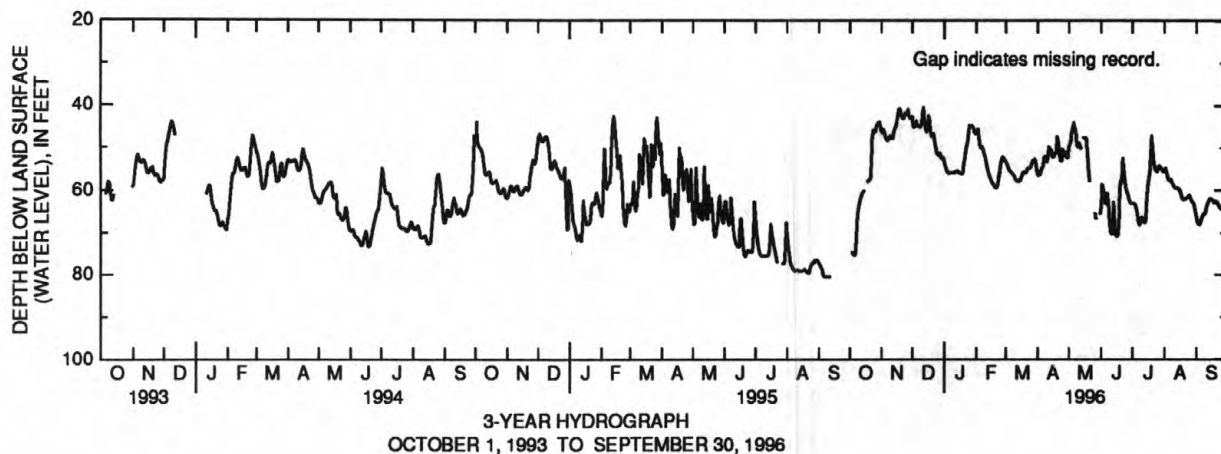
EXTREMES FOR PERIOD OF RECORD.--The extremes shown are extremes of the daily maximum depth below land surface for the period of record indicated above.

Highest water level, 24.30 ft below land-surface datum, June 1, 1984; lowest, 84.36 ft below land-surface datum, Sept. 6, 1993.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	46.17	42.51	53.02	46.62	53.21	56.29	49.88	63.79	63.10	55.51	66.44
2	---	46.41	44.75	54.22	45.67	53.67	56.39	49.01	58.62	63.08	54.67	67.55
3	74.47	45.65	45.14	54.93	45.57	54.36	56.07	48.58	59.51	63.12	55.55	67.96
4	74.98	46.25	44.42	55.50	47.42	55.08	55.29	46.10	61.56	63.56	56.64	67.96
5	75.33	47.13	43.65	55.86	49.22	55.44	54.62	45.27	63.05	64.45	57.40	67.27
6	75.33	47.99	44.84	55.87	49.98	55.68	54.33	44.05	63.22	65.83	57.53	66.39
7	72.04	48.16	44.82	55.81	49.72	55.95	52.37	45.34	60.64	67.56	57.30	65.87
8	66.74	47.91	44.80	55.78	50.44	56.21	51.93	46.35	63.00	68.07	57.95	65.60
9	64.64	47.20	45.11	55.78	51.46	56.66	52.95	49.23	67.42	67.33	58.43	65.59
10	63.32	47.14	44.36	55.74	52.29	57.18	53.14	49.69	69.80	66.29	58.99	64.70
11	62.18	47.73	41.70	55.69	53.58	57.66	51.35	48.73	70.30	66.75	59.21	63.63
12	61.32	47.73	40.48	55.58	54.94	57.78	49.76	49.63	68.52	67.31	59.47	62.90
13	60.70	46.38	43.37	55.42	55.83	57.78	50.34	50.17	62.75	67.58	59.49	62.31
14	60.24	45.44	45.43	55.39	56.58	57.66	50.44	---	67.88	66.68	59.50	62.00
15	59.98	45.00	46.14	55.66	57.23	57.40	52.00	47.61	70.61	61.88	59.71	61.91
16	---	43.72	45.63	55.83	57.92	56.66	52.16	47.53	70.79	58.92	60.09	62.11
17	---	42.38	42.42	55.93	58.31	56.00	51.54	47.79	70.46	57.11	60.77	62.45
18	57.95	40.83	43.68	56.00	58.68	55.72	51.05	47.59	67.84	55.51	61.79	62.90
19	57.64	40.74	46.10	55.95	59.15	55.80	51.05	51.01	59.35	51.02	62.17	62.91
20	57.33	41.78	47.21	53.69	59.32	55.80	47.24	55.17	57.69	47.12	62.20	62.51
21	57.11	42.69	47.08	52.45	59.35	55.32	48.88	57.87	57.95	51.04	61.99	62.86
22	53.23	43.07	46.68	50.42	58.43	54.80	51.18	---	52.51	53.73	61.78	63.44
23	47.76	42.67	48.44	49.43	56.77	54.66	52.85	---	55.04	54.66	61.67	63.83
24	45.92	41.71	50.00	48.59	55.01	54.69	52.92	61.64	57.91	55.36	61.53	64.37
25	46.12	42.00	51.30	45.96	53.55	54.35	50.28	---	59.37	55.49	61.11	64.48
26	46.18	41.71	51.64	44.72	52.61	53.63	51.18	65.25	60.37	54.43	61.69	64.58
27	44.92	40.82	51.68	44.88	52.15	52.94	51.74	66.71	61.11	54.17	62.27	64.74
28	44.44	42.43	51.21	44.72	52.47	53.37	51.00	---	62.08	54.36	62.76	64.81
29	44.10	43.03	52.24	44.94	52.85	52.59	52.26	---	62.78	54.93	63.04	64.67
30	43.94	42.62	52.45	45.53	---	53.48	52.26	---	63.08	55.01	63.87	61.99
31	44.95	---	52.37	46.35	---	55.15	---	65.58	---	55.42	65.27	---
MEAN	57.88	44.48	46.50	52.44	53.56	55.38	52.16	51.49	62.97	59.71	60.04	64.36
MAX	75.33	48.16	52.45	56.00	59.35	57.78	56.39	66.71	70.79	68.07	65.27	67.96
MIN	43.94	40.74	40.48	44.72	45.57	52.59	47.24	44.05	52.51	47.12	54.67	61.91

WTR YR 1996: HIGHEST 40.48, DECEMBER 12; LOWEST, 75.33, OCTOBER 5, 6.



SCHUYLKILL COUNTY

404708076070701. Local number, SC 296.

LOCATION.--Lat 40°47'08", long 76°07'07", Hydrologic Unit 02040203, at Locust Lake State Park.

Owner: U.S. Geological Survey.

AQUIFER.--Mauch Chunk Formation of Early Pennsylvanian age.

WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in., depth 242 ft, cased to 40 ft, open hole.

INSTRUMENTATION.--Data collection platform. Satellite telemetry at station.

DATUM.--Elevation of land-surface datum is 1,290 ft above sea level. Measuring point: Top of plywood shelf, 2.8 ft above land-surface datum. Prior to June 26, 1980, top of casing 2.3 ft above land-surface datum.

REMARKS.--In addition to the daily maximum water level table shown below, daily minimum and mean water levels, since October 1994, are also available from the District Office.

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

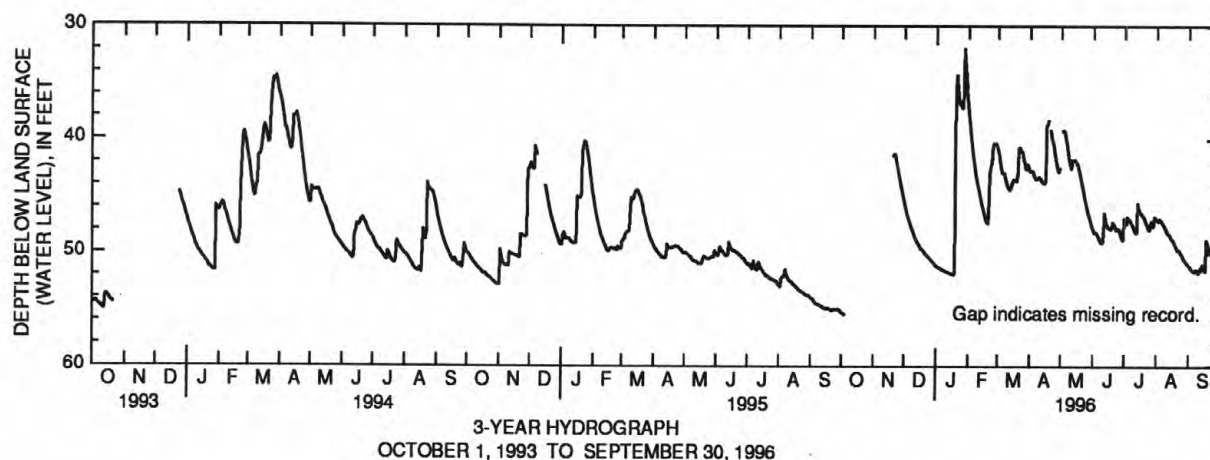
EXTREMES FOR PERIOD OF RECORD.--The extremes shown are extremes of the daily maximum depth below land surface for the period of record indicated above.

Highest water level, 26.27 ft below land-surface datum, May 18, 1989; lowest, 56.00 ft below land-surface datum, Sept. 3, 4, 1993.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	55.34	---	45.40	51.13	37.07	40.82	42.76	---	47.94	46.93	46.95	51.07
2	55.38	---	45.90	51.20	38.09	41.21	42.72	39.28	48.14	47.28	47.10	51.20
3	55.45	---	46.24	51.25	39.01	41.89	42.73	39.26	48.15	47.43	47.16	51.34
4	55.55	---	46.64	51.30	39.91	42.50	42.85	39.18	48.18	46.82	46.98	51.48
5	---	---	46.93	51.36	40.64	42.92	43.16	39.51	48.32	46.92	47.08	51.55
6	---	---	47.19	51.45	41.47	42.93	43.34	40.01	48.54	46.99	47.22	51.64
7	---	---	47.49	51.45	42.13	42.90	43.45	40.56	48.80	47.15	47.38	51.65
8	---	---	47.80	51.52	42.80	43.25	43.34	41.22	48.92	47.34	47.50	51.41
9	---	---	48.01	51.57	43.23	43.65	43.34	41.79	49.09	47.50	47.71	51.56
10	---	---	48.24	51.64	43.87	44.00	43.27	42.22	49.06	47.77	47.89	51.77
11	---	---	48.52	51.68	44.19	44.20	43.39	42.52	48.25	47.99	48.09	51.74
12	---	---	48.79	51.69	44.67	44.36	43.57	41.71	46.46	48.15	48.27	51.32
13	---	---	48.95	51.74	45.08	44.36	43.72	---	47.11	48.15	48.30	51.47
14	---	---	49.10	51.77	45.55	44.02	43.69	41.71	47.42	45.62	48.46	51.04
15	---	---	49.25	51.85	45.97	43.69	43.83	41.88	47.67	46.05	48.69	51.36
16	---	---	49.45	51.87	46.28	43.51	43.57	41.99	47.75	46.32	48.76	51.55
17	---	---	49.60	51.91	46.64	43.56	38.82	42.17	47.80	46.37	48.84	51.57
18	---	---	49.67	51.90	46.99	43.58	38.62	42.51	47.87	46.61	49.08	48.85
19	---	---	49.73	51.77	47.25	43.63	38.26	42.81	47.66	46.67	49.30	49.03
20	---	41.47	49.88	35.64	47.35	43.09	---	43.23	47.28	46.79	49.51	49.43
21	---	41.32	50.01	34.27	46.34	40.75	39.12	43.70	47.38	47.08	49.68	49.71
22	---	41.33	50.13	35.41	42.95	40.66	39.79	44.15	47.60	47.34	49.68	49.91
23	---	41.78	50.20	36.58	42.37	40.84	40.21	44.67	47.90	47.50	49.77	50.09
24	---	42.31	50.33	36.92	41.95	41.00	40.46	45.16	47.95	47.78	49.98	50.27
25	---	42.72	50.41	36.67	40.57	41.20	41.11	45.57	47.85	47.95	50.11	50.43
26	---	43.15	50.51	37.20	40.33	41.70	41.67	46.00	47.88	47.54	50.28	---
27	---	43.60	50.63	37.22	40.39	42.15	42.16	46.34	48.15	47.22	50.50	50.67
28	---	44.11	50.76	31.96	40.34	42.55	42.66	46.69	48.46	47.52	50.62	50.73
29	---	44.54	50.84	33.07	40.54	42.57	42.82	46.99	48.80	47.64	50.77	50.71
30	---	44.99	50.94	34.42	---	42.18	42.43	47.40	48.82	46.80	50.88	50.31
31	---	---	51.12	35.92	---	42.54	---	47.66	---	46.87	51.03	---
MEAN	55.43	42.85	48.99	45.33	42.90	42.65	42.10	43.03	48.04	47.16	48.82	50.86
MAX	55.55	44.99	51.12	51.91	47.35	44.36	43.83	47.66	49.09	48.15	51.03	51.77
MIN	55.34	41.32	45.40	31.96	37.07	40.66	38.26	39.18	46.46	45.62	46.95	48.85

WTR YR 1996: HIGHEST 31.96, JANUARY 28; LOWEST RECORDED 55.55, OCTOBER 4.



WAYNE COUNTY

414333075153201. Local number, WN 64.

LOCATION.--Lat 41°43'33", long 75°15'32", Hydrologic Unit 02040103, at State Game Land Number 159.

Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Glacial Outwash of Quaternary age.

WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in., depth 52 ft, cased to 52 ft, open hole.

INSTRUMENTATION.--Data collection platform. Satellite telemetry at station.

DATUM.--Elevation of land-surface datum is 1,350 ft above sea level. Measuring point: Top of plywood shelf, 3.9 ft above land-surface datum. Prior to May 7, 1987, top of plywood cover, measuring point above land-surface datum varied.

REMARKS.--In addition to the daily maximum water level table shown below, daily minimum and mean water levels, since October 1994, are also available from the District Office.

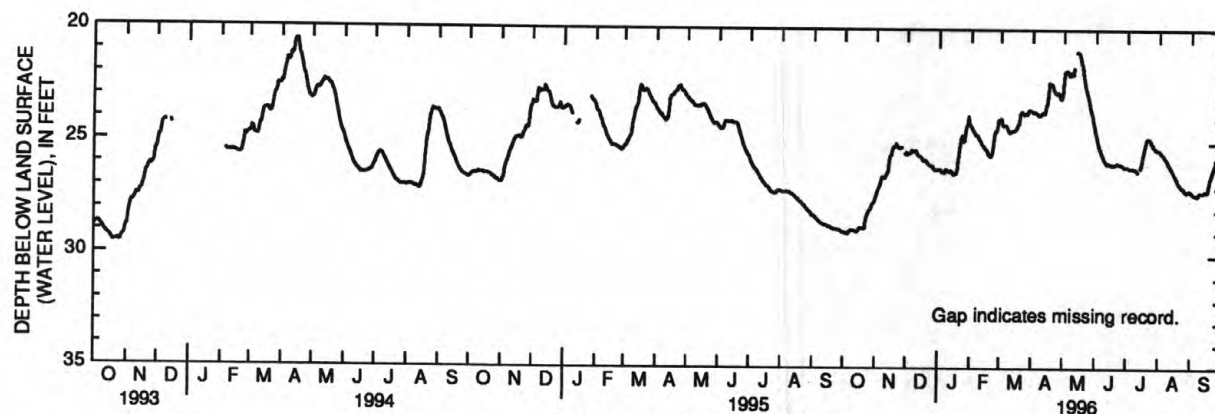
PERIOD OF RECORD.--October 1967 to current year.

EXTREMES FOR PERIOD OF RECORD.--The extremes shown are extremes of the daily maximum depth below land surface for the period of record indicated above. Highest water level, 7.88 ft below land-surface datum, Nov. 17, 1972; lowest, 32.98 ft below land-surface datum, Nov. 9, 10, 11, 1991.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28.97	27.38	25.42	26.20	24.23	24.05	23.60	22.18	24.54	26.06	25.31	27.12
2	28.99	27.22	25.52	26.20	24.29	23.92	23.65	21.83	24.69	26.06	25.33	27.18
3	29.01	27.08	25.49	26.18	24.39	24.22	23.63	21.85	24.92	26.08	25.41	27.22
4	29.01	26.98	25.46	26.26	24.49	24.24	23.64	21.81	25.08	26.10	25.47	27.26
5	29.02	26.88	25.46	26.30	24.53	24.22	23.68	21.86	25.25	26.10	25.51	27.28
6	28.94	26.68	25.34	26.30	24.65	24.22	23.70	22.00	25.33	26.10	25.57	27.30
7	28.88	26.52	25.34	26.30	24.66	24.24	23.75	22.00	25.47	26.12	25.65	27.30
8	28.86	26.54	25.40	26.18	24.66	24.36	23.77	21.87	25.59	26.12	25.70	27.24
9	28.88	26.57	25.36	26.18	24.82	24.47	23.75	21.95	25.71	26.14	25.79	27.18
10	28.88	26.54	25.34	26.26	24.86	24.53	23.68	21.97	25.78	26.16	25.89	27.16
11	28.90	26.44	25.46	26.28	24.94	24.51	23.66	21.64	25.87	26.22	25.97	27.16
12	28.91	26.36	25.56	26.26	25.08	24.47	23.67	---	25.91	26.26	26.05	27.16
13	28.93	26.26	25.60	26.24	25.11	24.45	23.67	20.96	25.89	---	26.13	27.16
14	28.93	25.84	25.60	26.26	25.15	24.45	23.37	20.98	25.91	26.11	26.21	27.12
15	28.85	25.57	25.64	26.38	25.27	24.43	23.26	20.98	25.91	25.98	26.31	27.12
16	28.78	25.57	25.70	26.38	25.29	24.38	22.85	21.04	25.95	25.74	26.40	27.12
17	28.76	25.34	25.78	26.34	25.31	24.32	22.33	21.22	25.95	25.45	26.47	27.12
18	28.79	25.24	25.78	26.34	25.47	24.16	22.37	21.49	25.95	25.30	26.57	26.87
19	28.78	25.18	25.78	26.21	25.56	24.13	22.38	21.56	25.95	25.03	26.67	26.61
20	28.78	25.18	25.80	25.78	25.60	23.72	22.40	21.93	25.93	24.86	26.75	26.48
21	28.78	25.06	25.88	25.41	25.57	23.63	22.62	22.25	25.90	24.81	26.81	26.34
22	28.40	25.18	25.94	25.06	25.42	23.62	22.69	22.50	25.89	24.80	26.89	26.20
23	28.26	25.21	25.98	24.79	25.19	23.71	22.75	22.68	25.90	24.83	26.95	26.06
24	28.12	25.24	26.00	24.67	24.69	23.73	22.81	22.84	25.90	24.89	26.96	25.95
25	28.02	25.24	26.00	24.95	24.51	23.69	22.79	23.04	25.92	25.01	27.01	25.75
26	27.96	25.22	26.04	24.92	24.47	23.70	22.76	23.22	25.96	25.05	27.07	25.72
27	27.90	25.23	26.14	24.50	24.33	23.72	22.88	23.47	25.98	25.17	27.13	25.63
28	27.72	---	26.18	24.28	23.97	23.59	23.02	23.65	26.02	25.19	27.15	25.49
29	27.70	25.50	26.20	24.24	24.09	23.53	23.02	23.75	26.06	25.27	27.10	25.36
30	27.62	25.48	26.20	23.84	---	23.55	22.78	24.09	26.06	25.29	27.08	25.26
31	27.52	---	26.18	24.14	---	23.56	---	24.24	---	25.31	27.10	---
MEAN	28.58	25.96	25.73	25.67	24.85	24.05	23.16	22.23	25.71	25.59	26.34	26.66
MAX	29.02	27.38	26.20	26.38	25.60	24.53	23.77	24.24	26.06	26.26	27.15	27.30
MIN	27.52	25.06	25.34	23.84	23.97	23.53	22.33	20.96	24.54	24.80	25.31	25.26

WTR YR 1996: HIGHEST 20.96, MAY 13; LOWEST 29.02, OCTOBER 5.

3-YEAR HYDROGRAPH
OCTOBER 1, 1993 TO SEPTEMBER 30, 1996

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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 [cfs] (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.

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