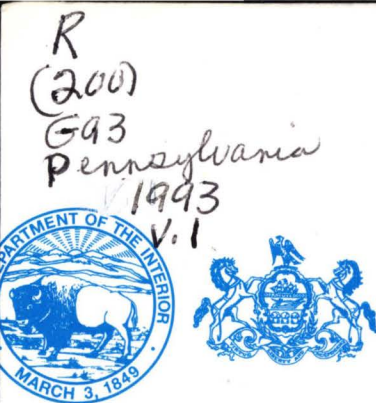
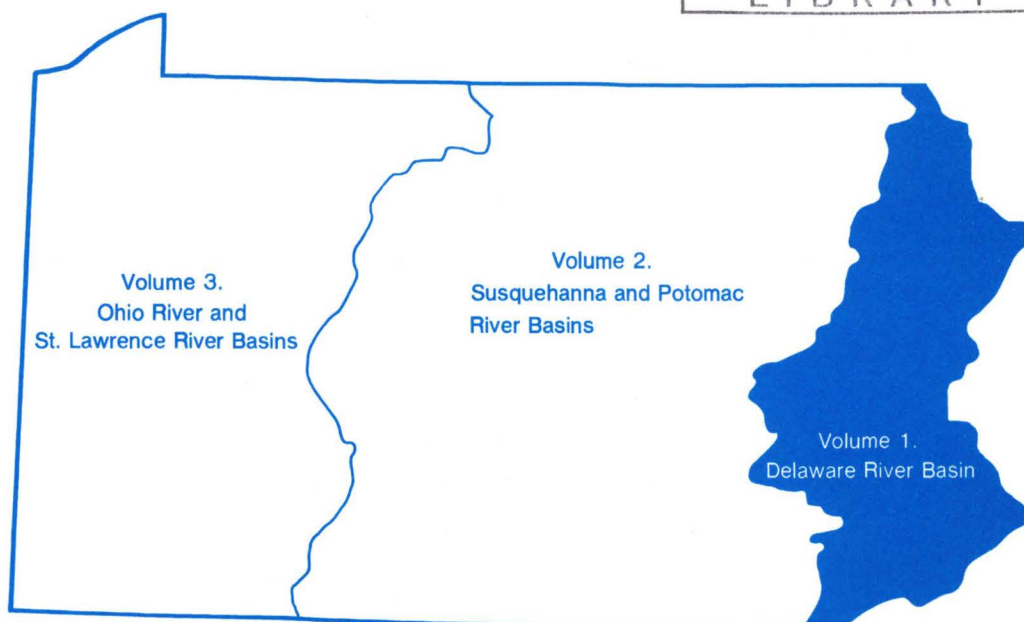
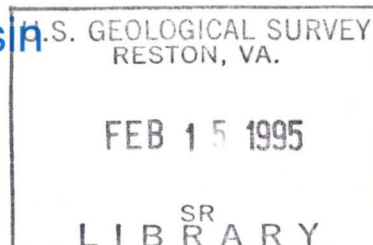




Water Resources Data Pennsylvania Water Year 1993

Volume 1. Delaware River Basin



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT PA-93-1
Prepared in cooperation with the Pennsylvania Department
of Environmental Resources, the Philadelphia Water Department
and with other State, municipal, and Federal agencies

CALENDAR FOR WATER YEAR 1993

1992

OCTOBER							NOVEMBER							DECEMBER						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
				1	2	3	1	2	3	4	5	6	7			1	2	3	4	5
4	5	6	7	8	9	10	8	9	10	11	12	13	14	6	7	8	9	10	11	12
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18	19	20	21	22	23	24	22	23	24	25	26	27	28	20	21	22	23	24	25	26
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1993

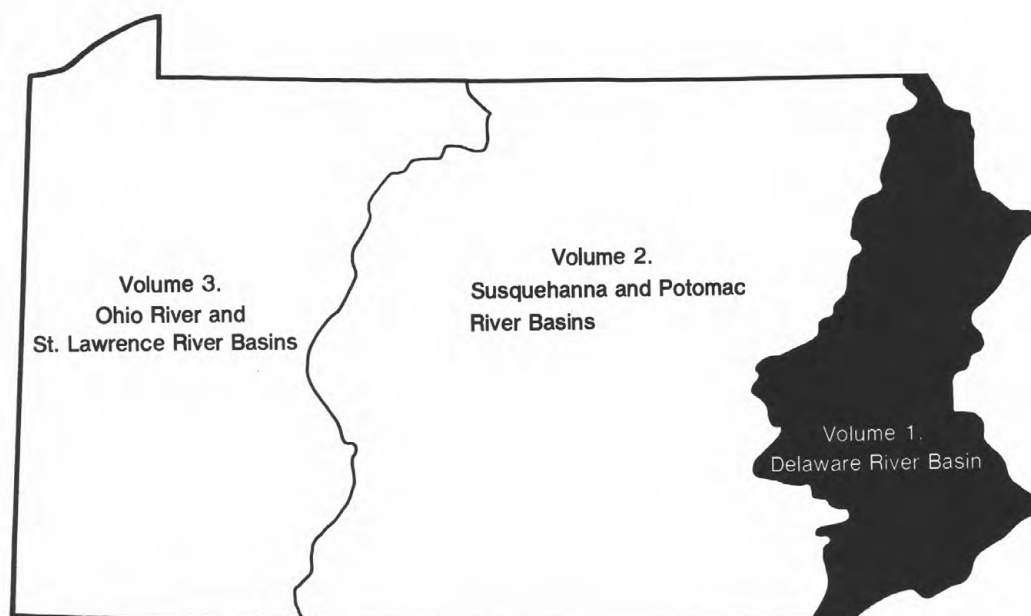
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3	4	5	6	7	8	9	7	8	9	10	11	12	13	7	8	9	10	11	12	13
10	11	12	13	14	15	16	14	15	16	17	18	19	20	14	15	16	17	18	19	20
17	18	19	20	21	22	23	21	22	23	24	25	26	27	21	22	23	24	25	26	27
24	25	26	27	28	29	30	28							28	29	30	31			
31																				
APRIL							MAY							JUNE						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
				1	2	3							1			1	2	3	4	5
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18	19	20	21	22	23	24	16	17	18	19	20	21	22	20	21	22	23	24	25	26
25	26	27	28	29	30		23	24	25	26	27	28	29	27	28	29	30			
							30	31												
JULY							AUGUST							SEPTEMBER						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
				1	2	3	1	2	3	4	5	6	7				1	2	3	4
4	5	6	7	8	9	10	8	9	10	11	12	13	14	5	6	7	8	9	10	11
11	12	13	14	15	16	17	15	16	17	18	19	20	21	12	13	14	15	16	17	18
18	19	20	21	22	23	24	22	23	24	25	26	27	28	19	20	21	22	23	24	25
25	26	27	28	29	30	31	29	30	31					26	27	28	29	30		



Water Resources Data Pennsylvania Water Year 1993

Volume 1. Delaware River Basin

by R. Campbell, R.L. Druther, and P. Moleski



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT PA-93-1
Prepared in cooperation with the Pennsylvania Department
of Environmental Resources, the Philadelphia Water Department
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

For additional information write to:
District Chief, Water Resources Division
U.S. Geological Survey
840 Market Street
Lemoyne, Pennsylvania 17043-1586

1994

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 and St. Lawrence River Basins

Volume 1 was prepared in cooperation with the Commonwealth of Pennsylvania and other agencies under the general supervision of David E. Click, District Chief, Pennsylvania District; Charles R. Wood, Subdistrict Chief, Malvern Subdistrict. 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:

M. J. Collins	A. G. Reif
C. R. Lesitsky	C. L. Schreffler
W. C. Loper	

(See ANSI-Z39.18)

See Instructions on Reverse

OPTIONAL FORM 272 (4-77)
(Formerly NTIS-35)
Department of Commerce

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SURFACE-WATER STATIONS, IN DOWNSTREAM ORDER, FOR WHICH RECORDS ARE PUBLISHED IN THIS VOLUME

[Letters after station name designates 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.]

NORTH ATLANTIC SLOPE BASINS

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SURFACE-WATER STATIONS, IN DOWNSTREAM ORDER, FOR WHICH RECORDS ARE PUBLISHED IN THIS VOLUME

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

(Letter after local well number designates type of data: (1) water level)

Page

GROUND WATER RECORDSBERKS COUNTY

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WATER RESOURCES DATA - PENNSYLVANIA, 1993

DISCONTINUED 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			
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 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
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
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 Creen 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

WATER RESOURCES DATA -- PENNSYLVANIA, 1993
DISCONTINUED SURFACE-WATER DISCHARGE STATIONS--Continued

Station name	Station number	Drainage area (mi ²)	Period of record (water years)
DELAWARE RIVER BASIN--Continued			
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
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 at Norristown	01473500*	1760	1928-32
Schuylkill River at Pottsville	01467500*	53.4	1944-69
Shohola Creek near Shohola	01432500	83.6	1920-28
South Branch Saucon Creek at Friedensville	01454000	10.3	1948-53
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
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, 1993
DISCONTINUED 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 three years of record, or stations with data collection less than daily, have not been included. 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 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 Bay at Ship John Shoal Light, N.J.	01412350	---	SC, Temp	1968-86
Delaware River at Torresdale Intake, Philadelphia	01467030	7,781	Temp DO SC pH	1956-57 1960-81 1961-81 1963-81 1968-81

WATER RESOURCES DATA - PENNSYLVANIA, 1993
DISCONTINUED 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 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	Bio1	1972-82
Frankford Creek at Torresdale Avenue, Philadelphia	01467088	33.8	Sed	1966-70
French Creek at Trythall	01472126	5.06	Bio1	1971-83
French Creek near Knauertown	01472129	11.7	Bio1	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 Dreherstown	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	Bio1	1970-83
Pigeon Creek near Bucktown	01472054	4.20	Bio1	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
Schuylkill River at Berne	01470500	355	Temp SC, pH Sed	1948-53 1957-81 1963-81 1947-81
Schuylkill River at Black Rock Dam at Mont Clare	01472119	--	SC, DO	1986-90

WATER RESOURCES DATA - PENNSYLVANIA, 1993
 DISCONTINUED 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 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 Sed, pH SC	1944-51 1956 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

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 and St. Lawrence River Basins.

This report, Volume 1, specifically contains (1) discharge records for 94 continuous-record streamflow-gaging stations, 15 partial-record stations, and 10 special study and miscellaneous streamflow sites; (2) elevation and contents records for 12 lakes and reservoirs; and elevations for 1 tidal station; (3) water-quality records for 33 gaging stations, and 38 ungaged streamsites; and (4) water-level records for 17 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-93-1." 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 U.S. Geological Survey, Books and Open-File Reports, Federal Center, Bldg. 41, Box 25425, Denver, Colorado 80225.

Information for ordering specific reports may be obtained from the District Chief at the address given on the back of title page or by contacting the District Hydrologic Information Section, 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 Resources, Arthur A. Davis, Secretary through the following:

Office of Water Management, Caren E. Glotfelty, Deputy Secretary;
Bureau of Water Supply and Community Health, Glenn E. Maurer, Director;
Bureau of Topographic and Geologic Survey, Donald M. Hoskins, 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, D. C. Yaeck, 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 Commissioner;
Hazelton City Authority, Water Department, R. L. Zientek, Manager;
Joint Planning Commission, Lehigh-Northampton Counties, M. N. Kaiser, Senior Planner;
Borough of Media, Water Department, S. C. Scarfone, Manager;
North Penn Water Authority, D. J. Milan, Executive Manager;
North Wales Water Authority, P. S. Lukens, Executive Director;
Tinicum Township Supervisors, Charles Yax, Chairman;

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 25 streamflow-gaging stations, 1 tidal station, 5 reservoir stations, and 10 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, 1993

SUMMARY OF HYDROLOGIC CONDITIONS

Surface Water

The Delaware River Basin extends from the river's east and west branch headwaters in the Catskill Mountains of New York, southward about 400 miles to the Atlantic Ocean. In addition to Pennsylvania, the Delaware River drains parts of New York, New Jersey, Delaware, and Maryland. Of the nearly 13,000 mi² (square mile) drainage basin, about 6,480 mi² are within Pennsylvania.

Precipitation and streamflow

Basinwide annual precipitation for the Delaware River basin in eastern Pennsylvania was about 107 percent of normal. All of the basin received above normal precipitation for four months of the year: November, March, April, and September. The greatest surplus, with an average of 3.62 inches above normal, was in April. The entire basin received below normal precipitation for four months of the year: October, January, May, and July. May had the greatest deficiency, with an average 2.99 inches below normal.

Figure 1 compares the 1993 monthly precipitation with the 1961-90 mean monthly precipitation recorded at Allentown, Pa. The precipitation data of Figure 1 are from NOAA (U.S. Department of Commerce, 1992-93) and National Weather Service records.

Streamflow for the Delaware River Basin was generally above normal during the 1993 water year. Two U.S. Geological Survey (USGS) streamflow gaging stations within the basin were selected as indicators of streamflow conditions basinwide. Figure 2 compares the 1993 monthly and yearly mean discharges with the median discharges for 1961-90 at the selected sites. The yearly mean discharge was 129 percent of the median at the Schuylkill River at Pottstown, and 112 percent of the median at Bush Kill at Shoemakers.

Monthly mean streamflows at Bush Kill at Shoemakers and Schuylkill River at Pottstown were above normal for the entire water year except for March. March monthly mean streamflow was 97 percent of normal at Bush Kill at Shoemakers and 90 percent of normal at the Schuylkill River at Pottstown.

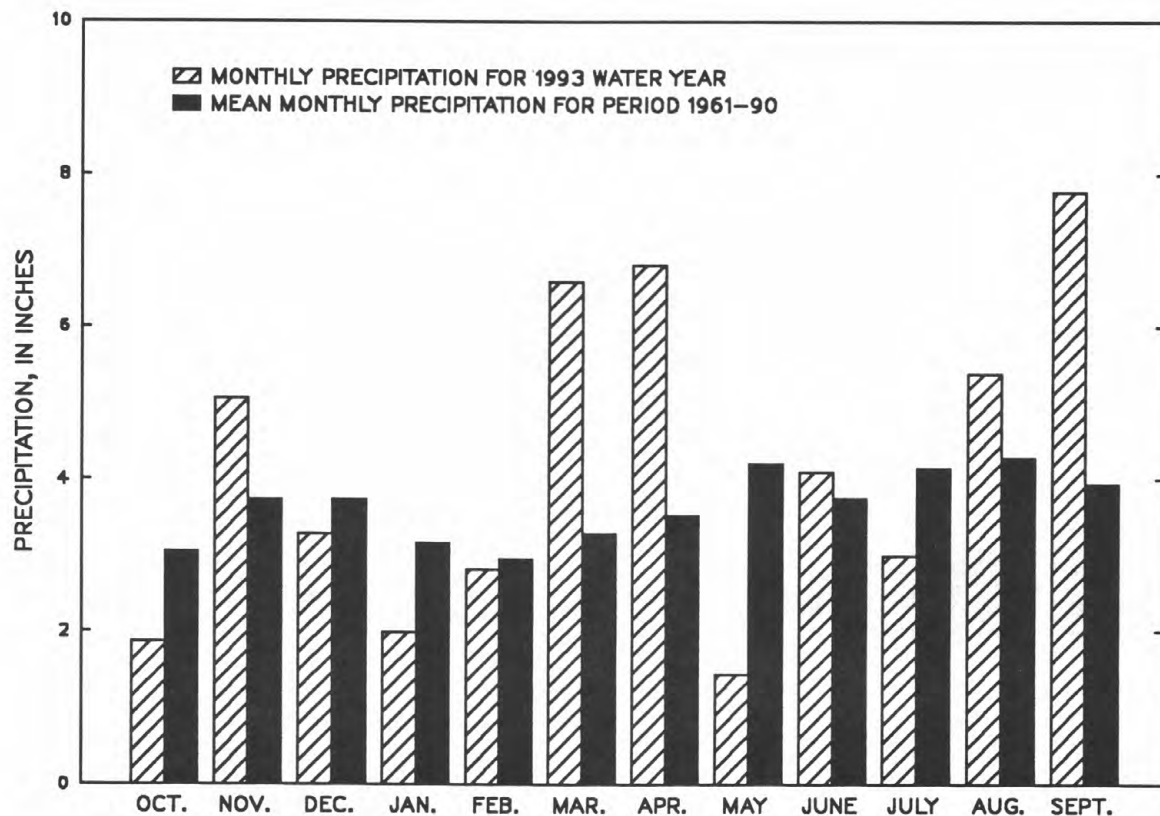


Figure 1.-Comparison of precipitation in the Delaware River Basin above Allentown, Pa. during the 1993 water year with mean precipitation for 1961-90.

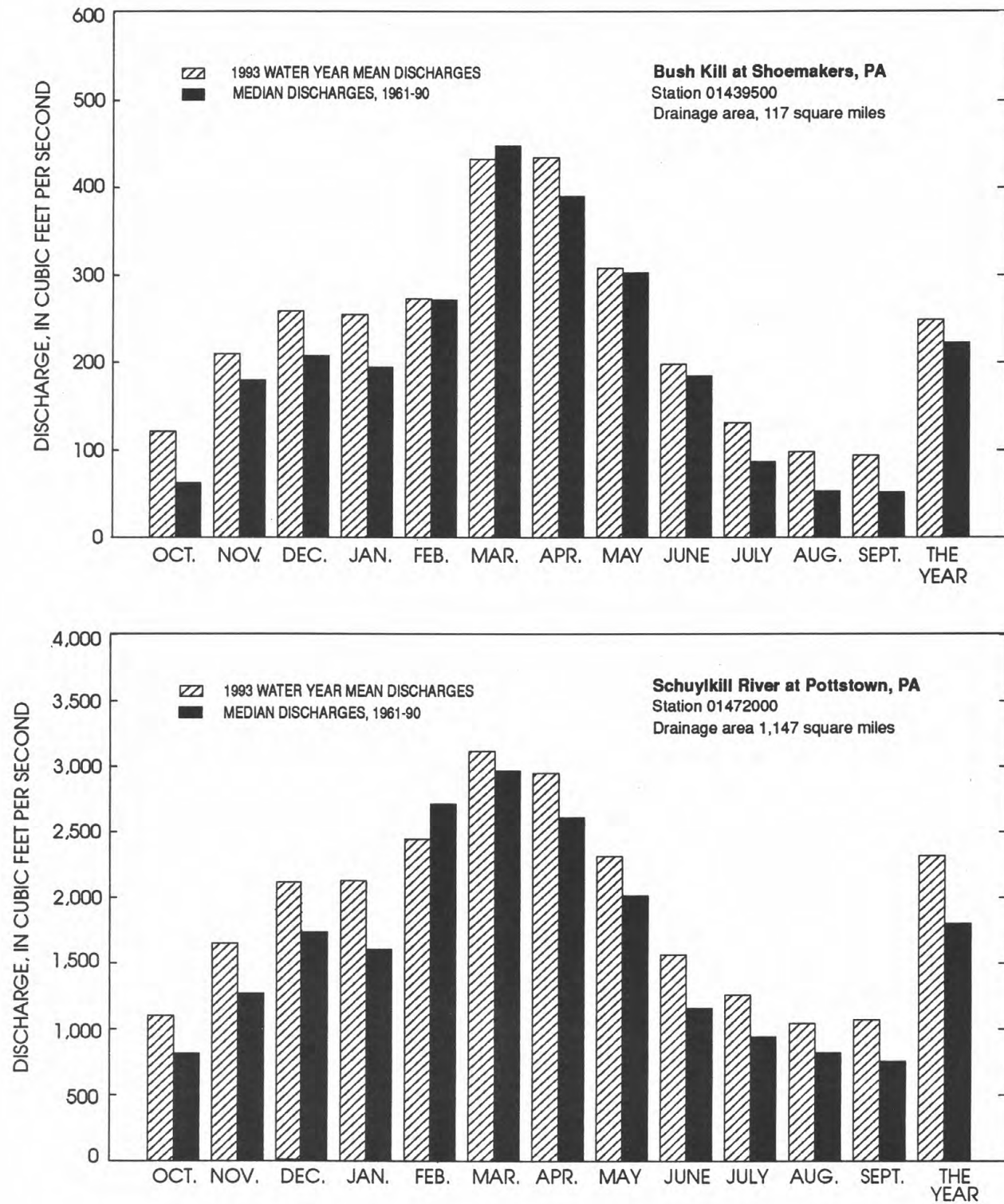


Figure 2.--Comparison of discharge at two long-term gaging stations during the 1993 water year with median discharge for the period 1961-90.

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Ground Water

Ground-water levels, which were generally below normal throughout much of the Delaware River Basin during the 1992 water year, showed a general trend of recovery throughout the 1993 water year. Figure 3 shows the relation between the 1993 water year seasonal mean ground-water levels and long-term seasonal mean ground-water levels at 16 observation wells within the basin. Ground-water levels during the water year reflect the seasonal precipitation variations. Ground-water levels during the fall and winter reflect a gradual recovery of levels to near normal conditions. This condition occurred in 13 of 16 observation wells within the basin in which levels were normal or above normal by the end of the winter. During the spring there is a general trend of above normal ground-water levels basinwide, as indicated by 10 of 16 observation wells. During summer there is a general downward trend of water levels basinwide. Water levels in eight of the sixteen observation wells were at normal levels during summer and 5 were below or much below normal levels. New historical minimum water levels were recorded at the Pike (PI-200) and the Schuylkill (SC-296) county wells. New historical maximum water levels were recorded at the Bucks (BK-1020), Chester (CH-10), and Philadelphia (PH-12) county wells.

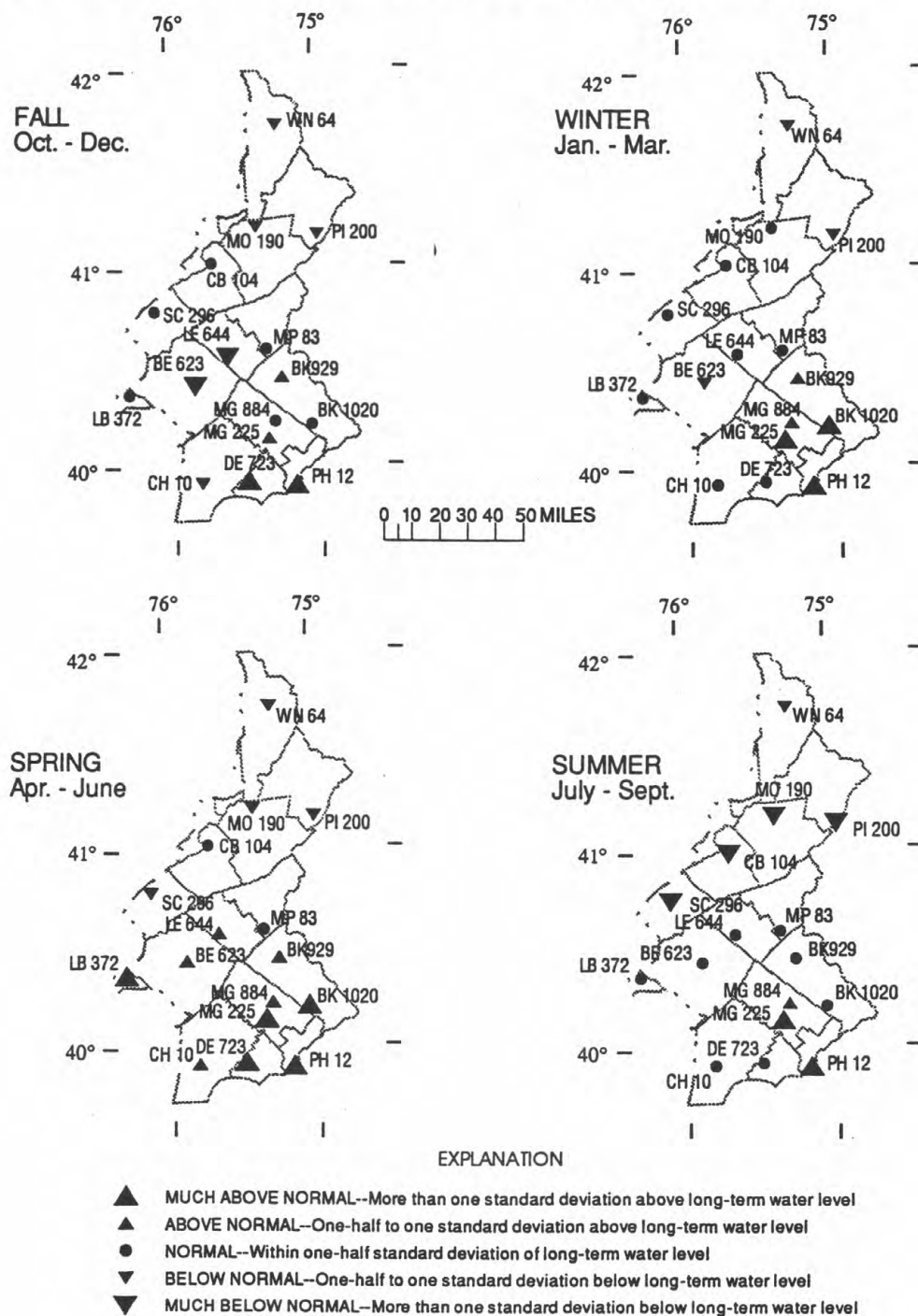


Figure 3.--Relation between mean 1993 seasonal water levels and long-term water levels.

During 1993 a program of monitoring the water quality of the Brandywine Creek Basin was continued. Figure 4 shows the diurnal fluctuations of dissolved oxygen concentration as they relate to water temperature at Brandywine Creek at Chadds Ford for July 25 to August 2, 1993.

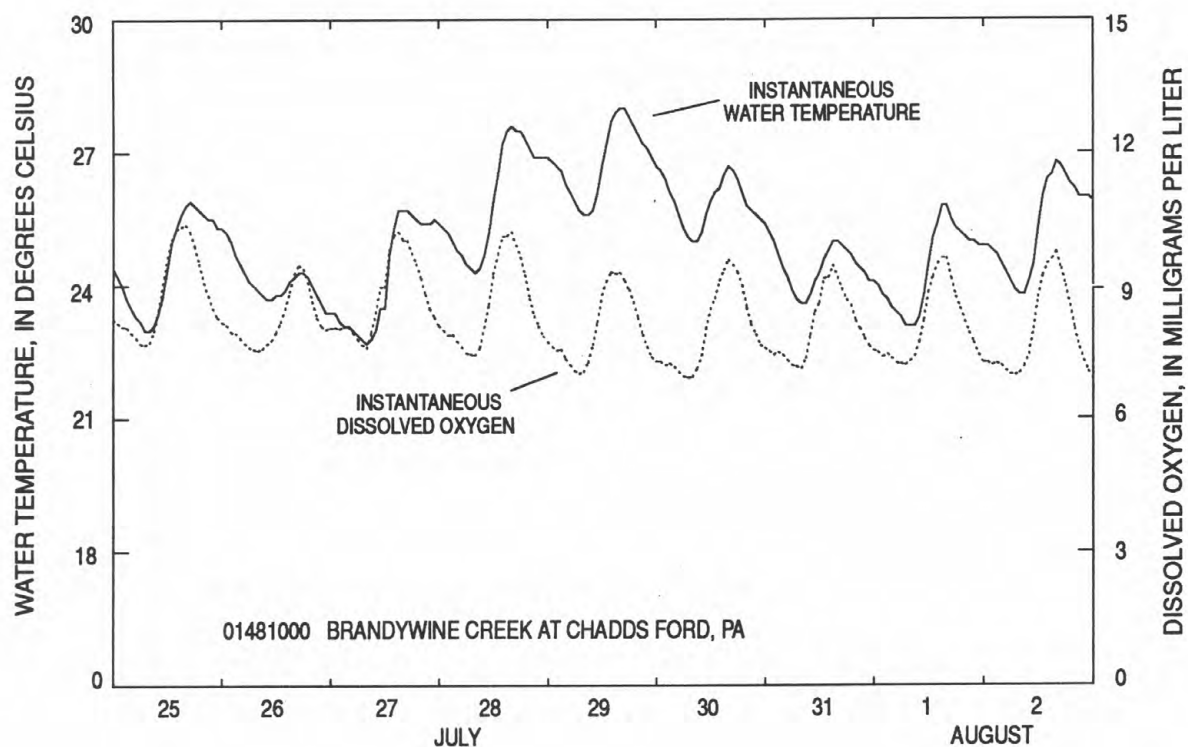


Figure 4.--Diurnal fluctuation of dissolved oxygen concentration and water temperature for Brandywine Creek at Chadds Ford.

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SPECIAL NETWORKS AND PROGRAMS

Hydrologic Bench-Mark Network is a network of 57 sites in small drainage basins throughout the country that provides consistent data on hydrology, including 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.

National Stream-Quality Accounting Network (NASQAN) is a data-collection network designed by the U.S. Geological Survey to meet many of the information demands of agencies or groups involved in national or regional water-quality planning and management. Most of the 500 or so sites in NASQAN are located at the downstream ends of hydrologic accounting units designed by the U.S. Geological Survey Office of Water Data Coordination in consultation with the Federal 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. Stations operated as part of this program in the Delaware River Basin and published in this report are; Delaware River at Trenton, N.J. (01463500), and Schuylkill River at Philadelphia (01474500).

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). There are no stations in the Delaware River Basin in Pennsylvania participating in this program.

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.

Assessment activities have begun in more than one-third of the study units and ultimately will be conducted in 60 study units (major watersheds and aquifer systems) that represent a wide range of environmental settings nationwide and that account for a large percentage of the Nation's water use. A wide array of chemical constituents will be measured in ground water, surface water, streambed sediments, and fish tissues. The coordinated application of comparative hydrologic studies at a wide range of spatial and temporal scales will provide information for decision making by water-resources managers and a foundation for aggregation and comparison of findings to address water-quality issues of regional and national interest. There are no stations in the Delaware River Basin in Pennsylvania participating in this program.

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. The station operated as part of this program in the Delaware River Basin and published in this report is the Delaware River at Trenton, N.J. (01545600).

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. There are no stations in the Delaware River Basin in Pennsylvania participating in this program.

EXPLANATION OF THE RECORDS

The surface-water and ground-water records in this report are for the 1993 water year that began October 1, 1992, and ended September 30, 1993. 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.

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 stations and other stations; therefore, the station number for a partial-record station indicates downstream-order position in a list made up of both types of stations. Gaps are left in the series of numbers to allow for new stations that may be established; hence, the numbers are not consecutive. 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.

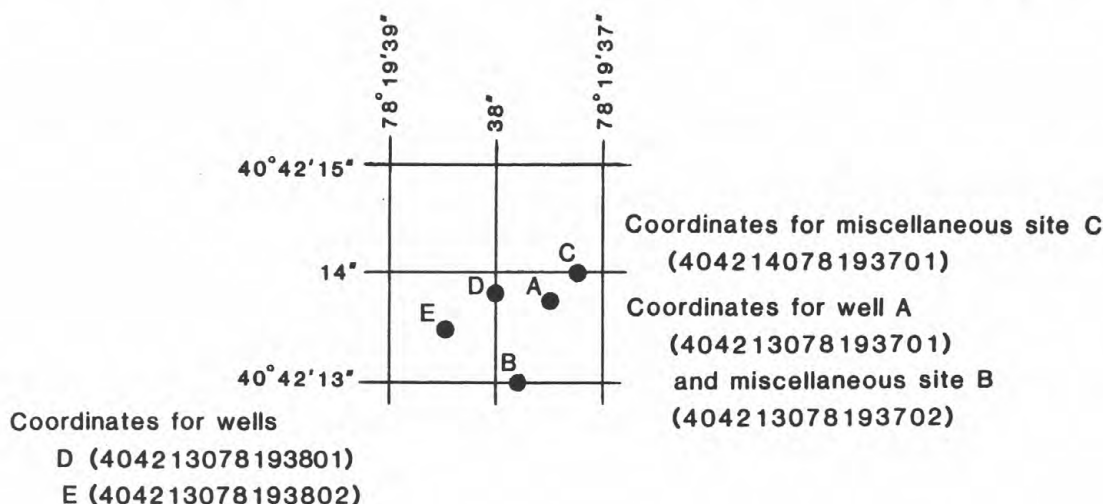


Figure 5.--System for numbering wells and miscellaneous sites (latitude and longitude).

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 relationships 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 in U.S. Geological Survey Techniques of Water-Resources Investigations, Book 3, Chapter A6.

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

Daily mean discharges are computed by applying 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

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

The records published for each continuous-record surface-water discharge station (gaging station) now 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.

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.

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 and Delaware has 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.

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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.

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. Also 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 Scientific Publications and Information Section (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 given in publications on "Techniques of Water-Resources Investigations," (TWRI's) Book 1, Chapter D2; Book 3, Chapter C2; Book 5, Chapters A1, A3, and A4 and in U.S. Geological Survey Open-File Report 90-140. All of the TWRI references are listed on a following page in this report. Also, detailed information on collecting, treating, and shipping samples may be obtained from the U.S. Geological Survey District Office.

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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 whose address is given on the back of the title page of this report.

Water Temperature

Water temperatures are measured at most of the water-quality stations. 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.

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 in analyzing sediment samples and computing sediment records are given in "Techniques of Water Resources Investigations", Book 5, Chapter C1. Methods used by the Geological Survey laboratory are given in "Techniques of Water Resources Investigations", Book 1, Chapter D2, Book 3, Chapter C2; Book 5, Chapters A1, A3, and A4. 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 parameters measured daily or continuously and those measured less often than daily. For those measured daily or continuously, periods of record are given for the parameters individually.

INSTRUMENTATION.--Information on instrumentation is given only if a water-quality monitor, temperature 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 (1sd). 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 well 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-level extremes by knowing whether they are based on weekly, monthly, 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 depending on 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 water levels of the period of published record, with respect to land-surface datum, and the dates of their occurrence.

A table of water levels follows the station description for each well. These tables are usually reported as maximum depth (in feet) above or below land-surface datum. The highest and lowest maximum depths 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 for a selected period of record 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 Statewide. 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 earlier years.

Most methods for collecting and analyzing water samples are described in the "Techniques of Water-Resources Investigations" manuals listed on a following page. 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 methods of analysis. All samples were collected by trained personnel.

A variety of sampling techniques is used for collecting ground-water samples for chemical analyses. Techniques for sampling springs are the same as those used for sampling surface water. An appropriate well-sampling technique is selected at each site so that the chemical samples are representative of the water in the aquifer. Wells are pumped, when possible, until a constant water temperature, specific conductance, and pH are obtained before collecting water samples. Pumping rate, length of pumping, and sampling depth depend on the characteristics of the well and aquifer being sampled. Samples are collected either by a submersible pump or a bailer.

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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 440,000 sites throughout the United States and its territories where the U.S. Geological Survey collects or has collected data.
- * Daily Values File - Contains over 220 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 500,000 maximum (peak) streamflow and gage-height values at surface-water sites.
- * Water Quality File - Contains approximately 2 million analyses of water samples that describe the chemical, physical, biological, and radio-chemical characteristics of both surface and ground water.
- * Ground-Water Site Inventory Data Base - Contains inventory data for over 900,000 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
National Water Data Exchange
421 USGS National Center
Reston, Virginia 22092

In addition to providing direct access to WATSTORE, data can be provided in various machine-readable formats on magnetic tape or 5-1/4 and 3-1/2 inch floppy disk; and as noted in the introduction, beginning with the 1990 water year, on Compact Disc - Read Only Memory (CD-ROM) discs. All data reports published for the current water year for the entire Nation, including Puerto Rico and the Trust Territories, will be reproduced on a single CD-ROM disc. Information about the availability of specific types of data or products, and user charges, can be obtained locally from each of the Water Resources Division's District offices. (See address on the back of the title page.) A limited number of CD-ROM discs will be available for sale by the Books and Open-File Reports Section, U.S. Geological Survey, Federal Center, Box 25425, Denver, Colorado 80225.

WATER RESOURCES DATA - PENNSYLVANIA, 1993

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 hours 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 noncontribution 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.

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

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

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

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

Hydrologic Bench-Mark Network is a network of 55 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.

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

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

The National 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.

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

Organism is any living entity.

Organism count/area refers to the number of organisms collected and enumerated in a sample and adjusted to the number per unit area habitat, usually square meters (m^2), 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).

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

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

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) $\times$ discharge (ft^3/s) $\times$ 0.0027.

Suspended-sediment load is 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.

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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 emersed or submersed solid surface, such as a rock or tree, upon which an organism lives.

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

Surficial bed material is 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
SpeciesHexagenia 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 any other medium.

Time-weighted average is computed by multiplying the number of days in the sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the total number of days. A time-weighted average represents the composition of water that would be contained in a vessel or reservoir that had received equal quantities of water from the stream each day for the year.

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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.

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, 1980, is called the "1980 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, Books and Open-File Reports Section, Federal Center, Box 25425, Denver, Colorado 80225 (authorized agent of the Superintendent of Documents, Government Printing Office). Prepayment is required. Remittance should be sent by check or money order payable to the U.S. Geological Survey. Prices are not included because they are subject to change. 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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- 3-A1. *General field and office procedures for indirect discharge measurements*, by M. A. Benson and Tate Dalrymple: USGS—TWRI Book 3, Chapter A1. 1967. 30 pages.
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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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WATER RESOURCES DATA - PENNSYLVANIA, 1993

DELAWARE RIVER BASIN

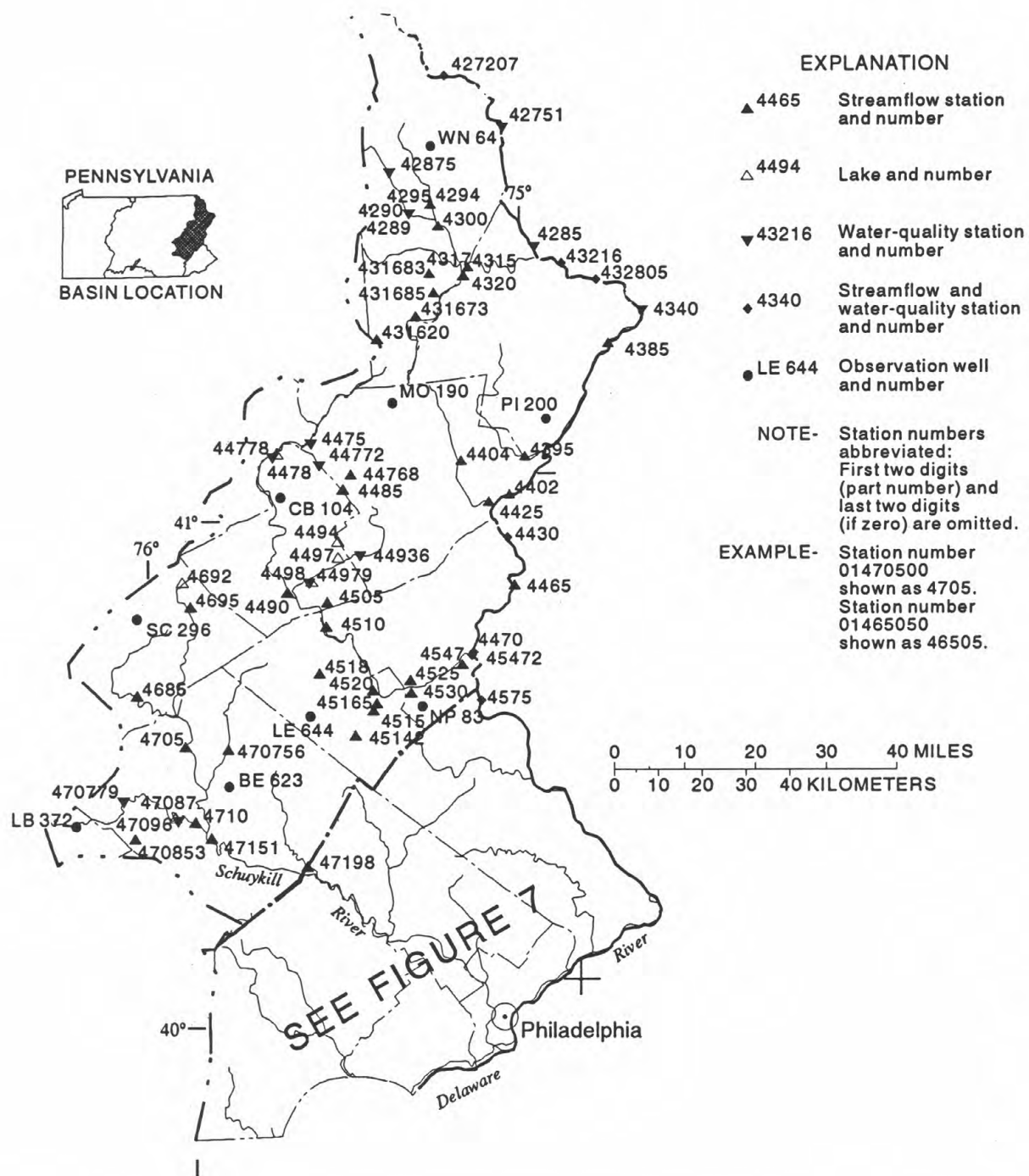
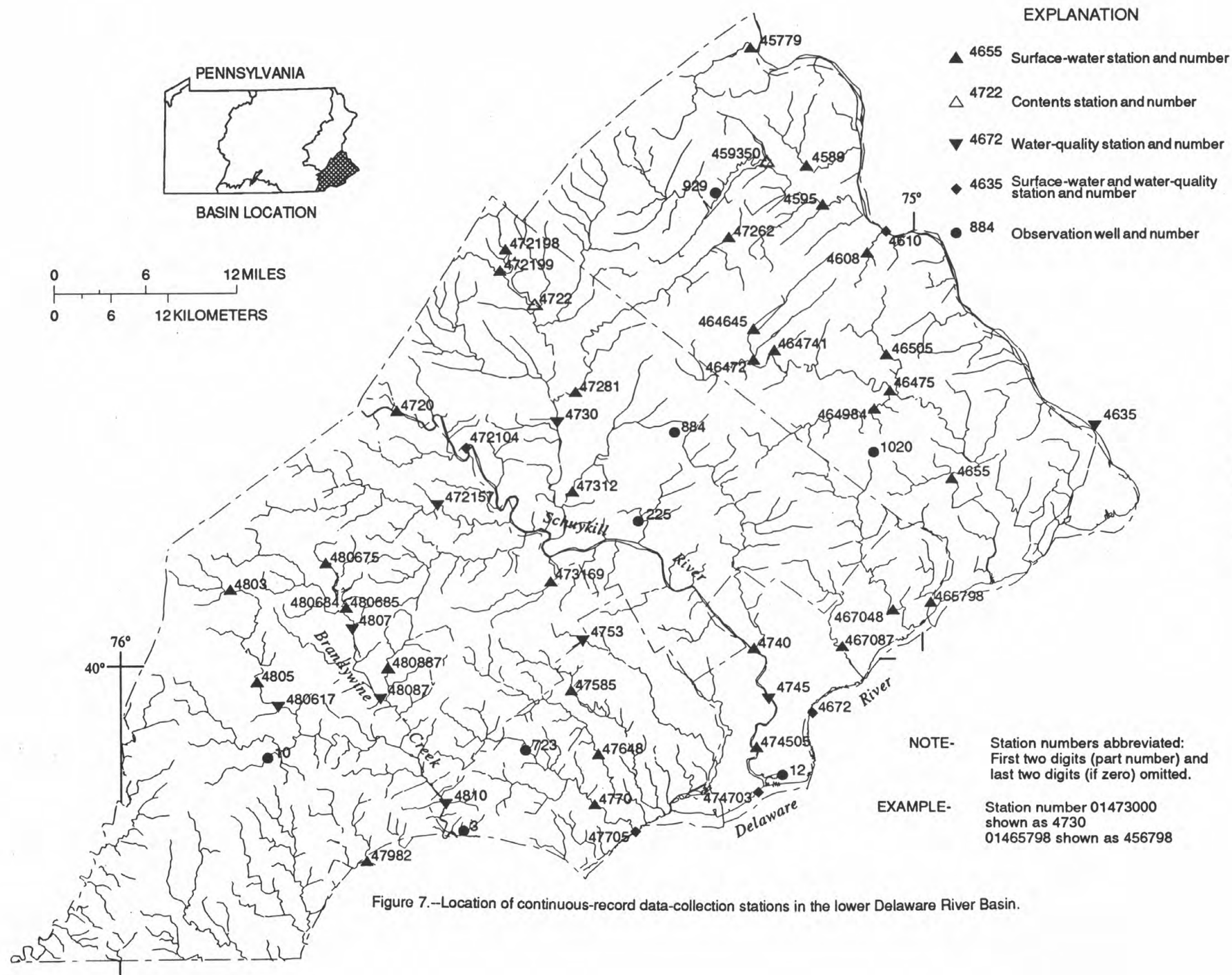


Figure 6.—Location of continuous-record data-collection stations in the upper Delaware River Basin.



WATER RESOURCES DATA - PENNSYLVANIA, 1993
DELAWARE RIVER BASIN

27

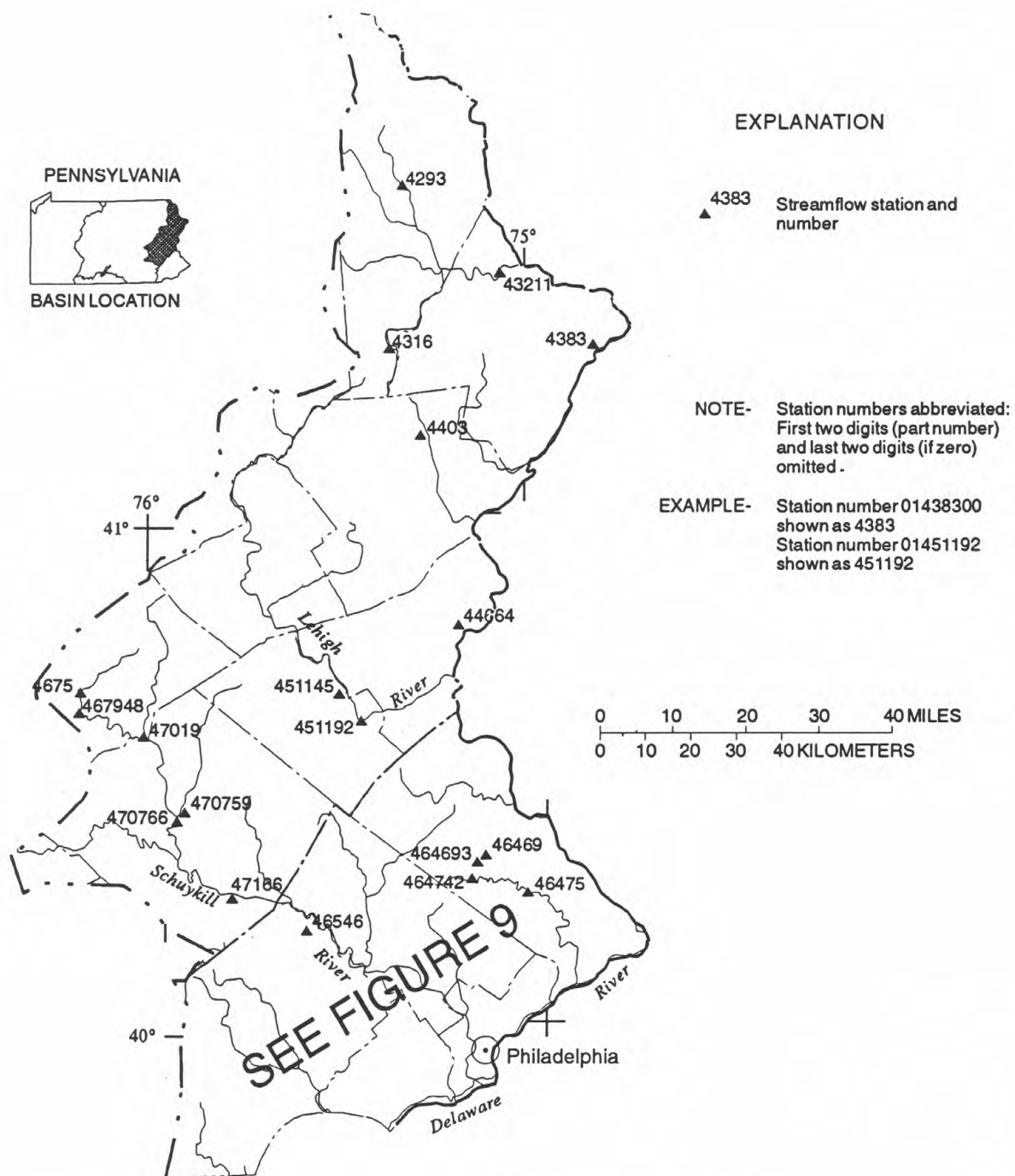


Figure 8.—Location of partial-record data-collection stations in the upper Delaware River Basin.

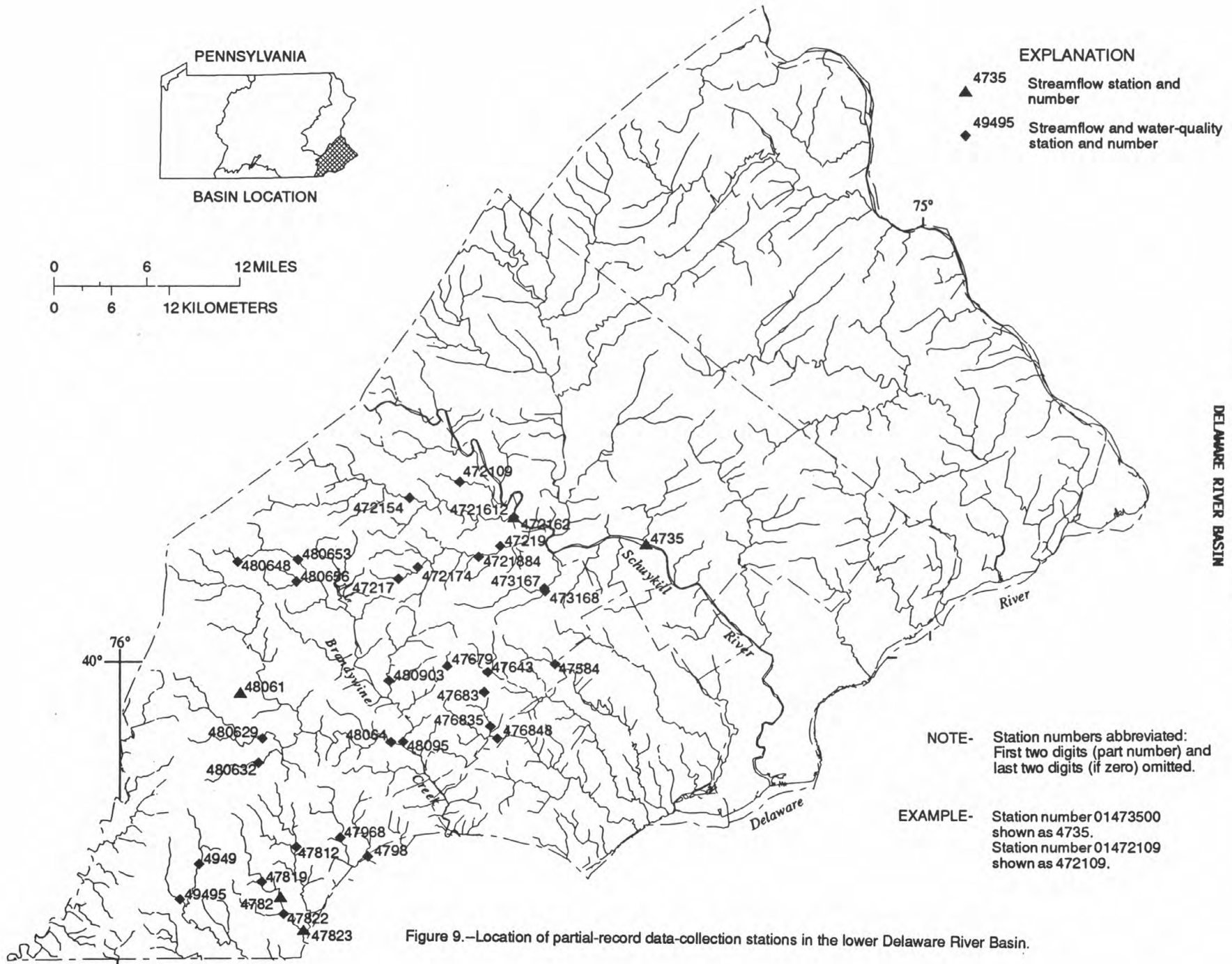


Figure 9.—Location of partial-record data-collection stations in the lower Delaware River Basin.

WATER RESOURCES DATA - PENNSYLVANIA, 1993

SPECIAL NOTES, REMARK CODES, AND SELECTED CONSTITUENT DEFINITIONS

NOTES--Historical and current dissolved trace-element concentrations are reported herein for water that was collected, processed, and analyzed by using either ultraclean or other than ultraclean techniques. If ultraclean techniques were used, then those concentrations are reported in nanograms per liter. If other than ultraclean techniques were used, then those concentrations are reported in micrograms per liter and could reflect contamination introduced during some phase of the procedure.

--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:

$$MBASCOR = M - 0.0088N - 0.00019C$$

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:

PRINTED OUTPUTREMARK

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.

WATER RESOURCES DATA - PENNSYLVANIA, 1993

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

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

COL. PER 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/SQ M	Grams per square meter.
IT	Incremental titration.
μ G/L	Micrograms per liter.
μ S/CM	Microsiemens per centimeter.
MG/L	Milligrams per liter.
MG/M2	Milligrams per square meter.
PCI/L	Picocuries per liter.
REC	Recoverable.
TOT	Total
WH IT	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.
0.7 μ GF	Water filtered through a glass-fiber membrane filter with openings that are 0.7 microns in size.

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-Equipunk 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 current year.

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

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum (water years 1968-70, 1973, 1975-86, 1989, 1991-93) 30.5°C, June 16, 1976, July 10, 1981; minimum (water years 1968-71, 1974, 1977-78, 1980-93), 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 25.5°C, July 9; minimum, 0.0°C on many days during winter period.

WATER TEMPERATURE, (DEG. C), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	10.5	8.5	9.5	7.0	6.0	6.5	4.5	3.5	4.0	2.5	1.0	2.0
2	11.5	9.0	10.0	6.5	4.5	5.5	4.0	3.5	4.0	1.0	0.0	0.0
3	13.5	11.0	12.0	7.5	4.5	6.0	4.0	3.0	3.5	0.0	0.0	0.0
4	13.5	11.5	12.5	8.0	7.5	8.0	3.0	2.0	2.5	2.5	0.0	1.0
5	11.5	9.5	10.5	8.0	7.0	8.0	2.0	0.5	2.0	---	---	---
6	10.5	8.5	9.5	7.0	6.0	6.5	0.5	0.0	0.0	---	---	---
7	11.0	8.5	10.0	6.0	4.5	5.0	0.5	0.0	0.0	---	---	---
8	11.0	9.0	10.0	4.5	3.0	3.5	0.5	0.0	0.0	---	---	---
9	12.0	11.0	11.0	3.0	1.5	2.5	0.0	0.0	0.0	---	---	---
10	13.0	11.5	12.5	4.5	3.0	3.5	0.0	0.0	0.0	---	---	---
11	12.5	11.5	12.0	5.5	4.5	5.0	0.0	0.0	0.0	---	---	---
12	12.0	11.0	11.5	8.0	5.5	6.5	0.0	0.0	---	---	---	---
13	11.5	10.5	11.0	8.5	7.0	8.0	0.5	0.0	---	---	---	---
14	10.5	9.0	9.5	7.0	4.5	5.5	0.5	0.0	0.0	---	---	---
15	11.5	9.0	10.0	4.5	3.5	4.0	0.0	0.0	0.0	---	---	---
16	13.0	11.5	12.5	3.5	2.5	3.0	0.5	0.0	0.5	---	---	---
17	13.0	9.5	11.0	3.0	2.5	2.5	1.5	0.5	1.0	---	---	---
18	9.5	8.0	8.5	3.5	2.5	3.0	2.5	1.5	2.0	---	---	---
19	8.5	6.5	7.5	3.5	2.5	3.0	1.5	1.0	1.0	---	---	---
20	7.0	5.5	6.5	3.0	2.0	2.5	2.5	1.5	2.0	---	---	---
21	6.5	6.0	6.5	4.0	3.0	3.5	1.5	0.0	0.5	---	---	---
22	8.5	6.5	7.5	6.5	4.0	5.5	1.0	0.0	0.5	---	---	---
23	9.0	7.0	8.0	8.5	6.5	7.5	1.0	0.0	0.5	---	---	---
24	8.5	7.5	8.0	8.0	7.0	7.5	1.0	0.0	0.0	---	---	---
25	7.5	6.5	7.0	7.0	6.5	6.5	0.0	0.0	0.0	---	---	---
26	6.5	5.0	6.0	7.5	7.0	7.5	0.0	0.0	0.0	---	---	---
27	8.0	6.0	7.0	7.5	6.5	7.0	0.0	0.0	0.0	---	---	---
28	7.5	6.0	6.5	6.5	5.0	5.5	0.0	0.0	0.0	---	---	---
29	7.0	6.0	6.5	5.0	4.5	4.5	0.0	0.0	0.0	---	---	---
30	7.5	7.0	7.0	4.5	4.0	4.5	0.0	0.0	0.0	---	---	---
31	7.0	6.5	6.5	---	---	---	2.0	0.0	0.5	---	---	---
MONTH	13.5	5.0	9.0	8.5	1.5	5.5	4.5	0.0	---	---	---	---

DELAWARE RIVER BASIN

01427207 DELAWARE RIVER AT LORDVILLE, N.Y.--Continued

WATER TEMPERATURE, (DEG. C), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	---	---	---	---	---	---	---	---	---	12.5	9.0	10.5
2	---	---	---	---	---	---	---	---	---	12.5	10.0	11.5
3	---	---	---	---	---	---	---	---	---	14.5	11.5	13.0
4	---	---	---	---	---	---	---	---	---	14.0	12.0	13.0
5	---	---	---	---	---	---	5.0	---	---	13.5	12.5	13.0
6	---	---	---	---	---	---	---	---	---	14.5	12.5	13.5
7	---	---	---	---	---	---	6.0	3.0	4.5	16.0	12.5	14.5
8	---	---	---	---	---	---	6.0	3.0	4.5	16.5	12.5	15.0
9	---	---	---	---	---	---	6.0	4.0	5.0	18.0	14.5	16.0
10	---	---	---	---	---	---	6.0	5.0	5.5	19.0	15.0	17.0
11	---	---	---	---	---	---	5.5	4.5	4.5	20.5	17.0	18.5
12	---	---	---	---	---	---	4.5	3.5	4.0	20.0	17.0	18.5
13	---	---	---	---	---	---	4.0	3.0	3.5	19.0	16.5	18.0
14	---	---	---	---	---	---	6.0	3.5	4.5	18.0	14.0	16.0
15	---	---	---	---	---	---	6.5	5.0	5.5	19.0	15.5	17.0
16	---	---	---	---	---	---	7.5	6.0	7.0	18.5	16.5	17.5
17	---	---	---	---	---	---	7.0	5.5	6.5	18.5	14.5	16.5
18	---	---	---	---	---	---	6.0	4.5	5.0	17.5	15.0	16.0
19	---	---	---	---	---	---	7.0	4.0	5.5	15.0	13.5	14.0
20	---	---	---	---	---	---	8.0	5.5	7.0	13.5	12.5	13.0
21	---	---	---	---	---	---	8.0	7.0	7.0	14.5	11.5	13.0
22	---	---	---	---	---	---	7.0	5.0	5.5	16.5	12.5	14.5
23	---	---	---	---	---	---	5.5	4.0	4.5	17.5	13.0	15.5
24	---	---	---	---	---	---	7.0	4.5	5.5	17.0	16.0	16.5
25	---	---	---	---	---	---	9.0	6.0	7.5	20.5	16.0	18.0
26	---	---	---	---	---	---	9.0	6.5	7.5	19.5	17.0	18.0
27	---	---	---	---	---	---	8.0	5.5	6.5	19.0	15.5	17.5
28	---	---	---	---	---	---	9.0	6.0	7.5	17.5	15.0	16.0
29	---	---	---	---	---	---	10.0	7.0	8.5	16.5	14.0	15.0
30	---	---	---	---	---	---	10.5	8.0	9.0	16.0	12.5	14.5
31	---	---	---	---	---	---	---	---	---	15.0	12.0	13.0
MONTH	---	---	---	---	---	---	---	---	---	20.5	9.0	15.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	16.0	12.0	13.5	21.5	18.5	20.0	16.0	13.5	14.5	19.5	17.5	18.5
2	17.0	13.5	15.0	20.0	16.0	18.5	16.0	14.5	15.5	17.5	15.5	16.0
3	19.0	15.0	17.0	16.0	14.0	14.5	16.5	14.0	15.0	17.5	15.5	16.0
4	20.0	16.0	18.0	20.0	13.5	16.5	16.5	15.0	15.5	19.5	17.0	18.0
5	18.0	13.0	15.0	20.5	16.0	18.5	15.5	13.5	14.5	20.5	18.0	19.0
6	14.5	12.5	13.5	23.5	20.5	22.0	14.5	11.5	12.5	21.5	18.5	20.0
7	16.0	12.5	14.0	24.5	22.0	23.0	11.5	10.5	11.0	21.0	16.5	18.5
8	19.5	15.0	17.0	24.5	22.0	23.0	14.0	11.0	12.5	16.5	14.0	15.0
9	22.0	18.5	20.0	25.5	22.5	24.0	14.5	12.5	13.5	16.0	13.5	15.0
10	22.0	19.5	20.5	25.0	22.0	23.5	14.5	12.5	14.0	17.0	16.0	16.5
11	22.0	19.5	20.5	23.5	21.5	22.5	14.5	12.5	13.5	16.0	14.0	15.0
12	23.0	18.0	20.5	22.0	20.0	21.5	14.0	12.0	13.0	16.0	13.0	14.5
13	23.0	20.0	21.5	24.5	20.0	22.0	15.5	12.5	14.0	18.0	15.0	16.5
14	25.0	20.5	22.5	24.0	21.5	22.5	15.5	13.5	14.5	19.5	16.5	18.0
15	23.0	16.5	19.5	23.0	21.0	22.0	16.5	13.0	14.5	20.5	18.0	19.0
16	19.5	15.0	17.0	21.5	16.0	19.0	16.0	12.0	13.5	19.0	16.0	17.5
17	22.0	17.5	19.5	16.5	---	---	13.5	12.0	12.5	16.0	15.0	15.0
18	22.0	19.5	20.5	18.5	14.5	16.5	15.5	12.5	14.0	15.5	14.5	15.0
19	20.0	18.0	18.5	18.0	16.5	17.5	16.5	15.0	15.5	16.0	14.0	15.0
20	18.5	17.5	18.0	20.0	15.5	17.5	16.0	14.5	15.5	14.5	12.5	13.5
21	19.5	18.0	18.5	22.0	18.5	20.0	16.0	14.0	15.0	13.0	12.0	12.5
22	21.0	18.0	19.5	20.0	17.0	18.5	15.5	13.0	14.5	14.5	12.0	13.0
23	21.0	17.5	19.5	18.0	14.5	16.0	15.5	13.5	15.0	14.0	13.5	13.5
24	22.5	17.5	20.0	15.5	12.5	14.0	16.5	14.5	15.5	16.0	13.0	14.5
25	21.5	18.5	20.0	17.0	14.0	15.5	19.0	16.0	17.0	16.5	13.5	15.0
26	19.5	16.5	17.5	16.5	14.5	15.5	20.5	18.0	19.0	15.5	14.5	15.0
27	18.5	15.5	17.0	15.5	14.0	14.5	22.0	18.0	20.0	14.5	14.0	14.5
28	19.5	17.0	18.0	17.0	14.5	15.5	21.0	19.0	19.5	14.5	13.0	13.5
29	21.0	17.0	19.0	18.0	15.5	17.0	19.0	16.5	17.5	14.0	12.5	13.0
30	22.0	19.0	20.5	17.5	14.0	16.0	18.5	17.0	17.5	13.0	10.5	12.0
31	---	---	---	15.0	13.0	14.0	18.5	16.5	17.5	---	---	---
MONTH	25.0	12.0	18.5	25.5	---	---	22.0	10.5	15.0	21.5	10.5	15.5

DELAWARE RIVER BASIN

01427510 DELAWARE RIVER AT CALLICCOON, N.Y.

LOCATION.--Lat 41°45'24", long 75°03'28", Wayne County, Pa., 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 (see Reservoirs in Delaware River Basin), and subsequent to October 1963, entire flow from 454 mi² of drainage area controlled by Cannonsville Reservoir (see Reservoirs in Delaware River Basin). 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 telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 68,000 ft³/s, Mar. 15, 1986, gage-height, 13.42 ft; maximum gage height, 14.83 ft, Jan. 9, 1979 (ice jam); minimum discharge, 307 ft³/s, Aug. 23, 1985; minimum gage height, 2.20 ft, Sept. 13, 1977, Aug. 23, 1985.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 35,000 ft³/s, Apr. 1, gage height, 9.55 ft; minimum, 508 ft³/s, June 4, gage height, 2.54 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	950	1150	2780	7740	e1000	e600	33400	7820	699	819	1400	1230
2	1050	954	2400	5530	e900	e600	29600	6660	653	798	1260	1270
3	1120	2300	2150	4400	e1100	e600	21700	5740	559	1090	1200	1520
4	1180	3040	1910	3680	e1200	e600	14800	4860	577	1150	1210	1470
5	1200	2350	1770	7030	e1100	e620	11000	4360	803	1150	1210	1130
6	1220	2420	1580	8530	e1000	e620	9840	4650	727	798	1320	865
7	1250	2230	1490	5750	e900	e660	9360	3850	766	774	1410	922
8	1350	1900	e1350	4510	e860	e700	9310	3140	601	765	1550	1110
9	1360	1670	e1100	3630	e1000	e700	9510	2660	642	775	1510	1240
10	3690	1510	e1000	2780	e1000	e680	11900	2340	1050	796	1480	1350
11	2340	1540	1460	2330	e1000	e660	25300	2080	912	791	1460	1260
12	2220	1840	1800	2260	e900	e660	20100	1900	721	818	1500	1280
13	1910	4940	1480	2300	e900	e640	15700	1520	722	715	1530	1120
14	1480	5340	1260	2290	e900	e640	12100	1340	659	632	1470	1200
15	1310	3840	1140	1940	e880	e660	9820	1190	884	613	1420	1170
16	1400	3040	1150	1690	e820	e700	9760	1080	1080	792	1410	1210
17	1420	2540	1780	1550	e780	e800	21000	999	804	1360	1460	1100
18	1210	2290	3550	e1350	e740	e900	18800	903	822	1040	1530	1000
19	1140	2010	3040	e1100	e700	e960	14200	882	1130	693	1370	1280
20	1120	1780	2750	e1000	e680	e900	11100	896	1000	677	1140	1030
21	1050	1660	2960	e1100	e680	e900	9340	904	1220	605	1190	1040
22	1030	3220	2420	1610	e700	e900	11600	879	1200	797	1330	893
23	1050	7200	2180	1780	e760	e940	13300	775	1060	936	1350	879
24	1020	7600	2000	1600	e680	e1300	12600	716	862	1370	1370	989
25	1500	6320	1330	e1900	e620	e1700	11500	689	863	1160	1410	1080
26	1440	5650	e1200	e1700	e600	e2400	10600	642	1210	1030	1400	986
27	1290	5710	e1200	e1400	e580	e3800	14800	667	1200	1070	1060	838
28	1180	4580	e1400	e1300	e580	e7000	13000	942	1100	1180	1180	1060
29	1100	3840	1770	e1250	---	18300	10800	1010	865	1120	1400	995
30	1060	3260	2660	e1150	---	29100	9170	1020	729	1190	1320	776
31	1260	---	7070	e1000	---	30700	---	1100	---	1470	1400	---
TOTAL	42900	97724	63130	87180	23560	110940	435010	68214	26120	28974	42250	33293
MEAN	1384	3257	2036	2812	841	3579	14500	2200	871	935	1363	1110
MAX	3690	7600	7070	8530	1200	30700	33400	7820	1220	1470	1550	1520
MIN	950	954	1000	1000	580	600	9170	642	559	605	1060	776

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1975 - 1993, BY WATER YEAR (WY)

	MEAN	2251	2587	2446	2200	2791	4608	5567	3462	1667	1222	1243	1494
MAX	6545	4508	6065	7594	7993	11080	14500	7866	3228	2406	2182	3716	
(WY)	1978	1987	1978	1978	1976	1977	1993	1984	1984	1976	1976	1977	
MIN	701	1130	1127	587	611	1177	1496	935	734	777	560	877	
(WY)	1992	1979	1990	1977	1980	1981	1985	1985	1985	1981	1985	1992	

SUMMARY STATISTICS

FOR 1992 CALENDAR YEAR

FOR 1993 WATER YEAR

WATER YEARS 1975 - 1993

ANNUAL TOTAL	695029	1059295	2618	1978
ANNUAL MEAN	1899	2902	3972	1985
HIGHEST ANNUAL MEAN			1434	1985
LOWEST ANNUAL MEAN			54800	Mar 15 1986
HIGHEST DAILY MEAN	e10000	33400	312	Aug 23 1985
LOWEST DAILY MEAN	e450	559	354	Aug 17 1985
ANNUAL SEVEN-DAY MINIMUM	e571	e594		
10 PERCENT EXCEEDS	3680	7660	5770	
50 PERCENT EXCEEDS	1350	1220	1390	
90 PERCENT EXCEEDS	780	700	775	

a Computed using estimated daily discharges.

e Estimated.

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 punches.

REMARKS.--Interruptions of record were due to malfunction of the recording instrument.**EXTREMES FOR PERIOD OF DAILY RECORD.--**

WATER TEMPERATURES: Maximum recorded, (water years 1976-93), 30.5°C, July 12, 1987; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 30.0°C, July 9; minimum, 0.0°C on many days during winter period.

WATER TEMPERATURE, (DEG. C), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER				NOVEMBER			DECEMBER			JANUARY		
1	12.0	9.5	11.0	7.0	6.0	6.5	4.5	3.5	4.0	2.0	1.0	1.5
2	13.0	9.0	11.0	6.0	5.0	5.0	4.0	3.5	4.0	1.0	0.0	0.5
3	15.0	10.5	12.5	6.5	5.0	6.0	4.0	3.0	3.5	0.0	0.0	0.0
4	14.5	12.5	13.5	8.0	6.5	7.5	3.0	2.0	2.5	1.5	0.0	0.5
5	13.0	10.5	12.0	8.0	7.0	7.5	2.5	0.5	2.0	4.0	1.5	3.0
6	12.0	9.0	10.5	7.0	6.0	7.0	0.5	0.0	0.0	4.0	3.0	3.5
7	12.0	8.5	10.5	6.0	4.5	5.5	0.5	0.0	0.0	3.0	2.5	2.5
8	12.5	9.0	11.0	4.5	2.5	4.0	0.5	0.0	0.0	2.5	2.5	2.5
9	12.5	11.0	11.5	3.5	1.5	2.5	0.0	0.0	0.0	2.5	1.0	1.5
10	13.5	11.5	12.5	4.5	2.5	3.5	0.0	0.0	0.0	1.0	0.0	0.0
11	12.5	12.0	12.5	5.0	4.0	4.5	0.0	0.0	0.0	0.0	0.0	0.0
12	12.5	11.0	12.0	7.5	5.0	6.0	---	0.0	---	0.0	0.0	0.0
13	12.0	10.5	11.0	8.0	7.0	7.5	1.0	0.0	---	0.0	0.0	0.0
14	10.5	9.5	10.0	7.0	4.5	6.0	0.5	0.0	0.0	1.0	0.0	0.5
15	12.0	9.5	10.5	4.5	3.0	4.0	0.5	0.0	0.0	2.0	0.5	1.0
16	13.0	11.0	12.0	3.5	2.5	3.0	0.5	0.0	0.0	1.0	0.5	0.5
17	12.5	10.0	11.0	3.0	2.5	2.5	1.5	0.5	1.0	1.0	0.0	0.5
18	10.0	8.5	9.0	3.0	2.5	2.5	1.5	1.0	1.5	0.0	0.0	0.0
19	9.0	6.5	8.0	3.5	2.5	3.0	1.5	1.0	1.5	0.5	0.0	0.0
20	8.0	6.0	7.0	3.5	2.0	2.5	2.0	1.0	1.5	0.5	0.0	0.0
21	7.0	6.0	7.0	4.0	3.0	3.0	1.0	0.0	0.5	0.5	0.0	0.0
22	9.0	6.5	7.5	6.0	4.0	5.0	1.0	0.0	0.5	0.0	0.0	0.0
23	9.5	6.0	8.0	8.0	6.0	7.5	0.5	0.0	0.5	0.0	0.0	0.0
24	8.5	7.5	8.0	8.0	7.0	7.5	0.0	0.0	0.0	0.5	0.0	0.5
25	8.0	6.5	7.5	7.0	7.0	7.0	0.0	0.0	0.0	0.5	0.0	0.0
26	7.5	5.5	6.5	7.5	7.0	7.0	0.0	0.0	0.0	0.5	0.0	0.0
27	8.0	6.0	7.0	7.5	6.5	7.0	0.0	0.0	0.0	0.5	0.0	0.0
28	8.0	5.5	6.5	6.5	5.0	6.0	0.0	0.0	0.0	0.5	0.0	0.0
29	8.0	6.0	7.0	5.0	4.5	5.0	0.0	0.0	0.0	0.0	0.0	0.0
30	8.0	7.0	7.5	5.0	4.5	4.5	0.0	0.0	0.0	0.0	0.0	0.0
31	7.5	6.5	7.0	---	---	---	1.0	0.0	0.0	0.0	0.0	0.0
MONTH	15.0	5.5	9.5	8.0	1.5	5.0	---	0.0	---	4.0	0.0	0.5

DELAWARE RIVER BASIN

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

WATER TEMPERATURE, (DEG. C), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	0.0	0.0	0.0	0.0	0.0	0.0	4.0	3.0	3.0	12.5	10.0	11.0
2	0.0	0.0	0.0	0.0	0.0	0.0	3.0	2.5	3.0	13.5	11.5	12.5
3	0.0	0.0	0.0	0.0	0.0	0.0	3.0	2.5	3.0	15.0	12.0	13.5
4	0.0	0.0	0.0	0.0	0.0	0.0	3.0	2.5	2.5	14.5	13.5	14.0
5	0.0	0.0	0.0	0.0	0.0	0.0	4.5	2.0	3.5	15.0	13.5	14.0
6	0.0	0.0	0.0	0.0	0.0	0.0	5.0	4.0	4.5	15.5	13.5	14.0
7	0.0	0.0	0.0	0.0	0.0	0.0	5.5	4.0	5.0	17.0	13.5	15.0
8	0.0	0.0	0.0	0.0	0.0	0.0	6.0	4.5	5.5	18.0	14.0	15.5
9	0.0	0.0	0.0	0.0	0.0	0.0	6.5	5.5	6.0	19.5	14.5	17.0
10	0.0	0.0	0.0	0.0	0.0	0.0	6.5	6.0	6.5	21.0	15.5	18.0
11	0.0	0.0	0.0	0.0	0.0	0.0	6.0	4.5	5.5	21.5	17.0	19.0
12	0.0	0.0	0.0	0.0	0.0	0.0	4.5	4.0	4.5	22.5	18.0	20.0
13	0.0	0.0	0.0	0.0	0.0	0.0	4.5	3.5	4.0	20.0	17.0	18.5
14	0.0	0.0	0.0	0.0	0.0	0.0	6.0	4.0	5.0	20.5	15.0	17.5
15	0.0	0.0	0.0	0.0	0.0	0.0	7.0	6.0	6.5	20.5	15.5	18.0
16	0.0	0.0	0.0	0.0	0.0	0.0	8.0	7.0	7.5	20.0	17.0	18.5
17	0.0	0.0	0.0	0.0	0.0	0.0	8.0	6.5	7.5	20.5	15.0	18.0
18	0.0	0.0	0.0	0.0	0.0	0.0	6.5	5.0	6.0	18.5	15.5	16.5
19	0.0	0.0	0.0	0.0	0.0	0.0	7.0	5.5	6.0	16.0	14.5	15.0
20	0.0	0.0	0.0	0.0	0.0	0.0	8.5	7.0	7.5	14.5	13.5	14.0
21	0.0	0.0	0.0	0.0	0.0	0.0	8.5	7.5	8.5	16.5	12.0	14.5
22	0.0	0.0	0.0	0.0	0.0	0.0	7.5	5.5	6.5	17.5	13.0	15.5
23	0.0	0.0	0.0	0.0	0.0	0.0	5.5	5.0	5.0	19.5	13.0	16.5
24	0.0	0.0	0.0	0.0	0.0	0.0	7.0	5.0	6.0	18.5	16.0	17.0
25	0.0	0.0	0.0	0.0	0.0	0.0	9.0	7.0	8.0	21.0	16.5	19.0
26	0.0	0.0	0.0	0.0	0.0	0.0	9.5	7.0	8.5	20.5	16.5	18.5
27	0.0	0.0	0.0	0.0	0.0	0.0	8.0	6.5	7.0	20.0	16.5	18.5
28	0.0	0.0	0.0	0.5	0.0	0.0	8.5	7.0	8.0	20.5	16.0	18.0
29	---	---	---	1.5	0.0	1.0	10.0	8.0	9.0	19.5	16.5	18.0
30	---	---	---	2.5	1.5	2.0	10.5	9.5	10.0	19.5	14.0	17.0
31	---	---	---	4.0	2.0	3.0	---	---	---	17.5	14.0	15.0
MONTH	0.0	0.0	0.0	4.0	0.0	0.0	10.5	2.0	6.0	22.5	10.0	16.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	17.0	13.0	15.0	26.0	21.0	23.5	21.0	17.0	19.0	21.0	19.0	20.0
2	18.5	13.5	16.0	24.0	20.0	21.5	20.0	18.0	19.0	20.5	18.5	19.5
3	18.5	15.0	17.0	21.0	19.0	20.0	21.0	18.0	19.5	19.0	18.0	18.5
4	21.0	16.0	18.5	22.5	17.5	20.0	20.5	17.5	19.0	---	---	---
5	20.0	15.0	16.5	25.5	19.0	22.0	20.5	17.0	19.0	---	---	---
6	17.0	14.5	15.5	26.0	22.0	24.0	18.5	15.5	16.5	---	---	---
7	18.0	13.5	16.0	28.0	23.5	25.5	16.0	14.0	14.5	---	---	---
8	20.0	15.5	18.0	29.5	24.5	27.0	17.0	13.0	15.0	---	---	---
9	22.0	18.5	20.5	30.0	25.5	27.5	19.5	14.5	17.0	18.0	16.0	---
10	24.0	19.5	21.5	29.5	25.5	27.5	19.5	15.5	17.5	18.5	16.5	17.0
11	23.5	20.0	22.0	28.5	25.0	27.0	18.0	16.0	16.5	17.0	15.0	16.0
12	24.5	19.0	22.0	27.0	23.5	25.5	16.5	15.0	15.5	17.5	14.0	15.5
13	24.5	20.0	22.5	27.0	23.0	25.0	19.5	15.0	17.0	19.5	15.0	17.0
14	25.5	20.5	23.0	27.0	22.5	25.0	21.0	16.5	18.5	21.0	17.0	19.0
15	24.5	21.0	22.5	26.0	24.0	25.5	21.0	16.5	19.0	22.5	18.5	20.5
16	23.0	20.0	22.0	25.0	21.5	23.5	19.0	17.0	17.5	20.5	17.5	19.0
17	24.5	18.5	21.5	23.0	20.0	21.5	17.0	15.0	15.5	17.5	16.5	16.5
18	26.5	20.5	23.5	22.5	17.0	20.0	18.5	14.5	16.5	17.5	16.0	16.5
19	26.0	23.0	24.5	21.0	19.0	19.5	21.0	16.5	18.5	17.0	14.5	15.5
20	23.5	20.5	21.5	23.5	18.5	20.5	19.5	17.5	18.0	15.5	12.5	14.0
21	21.5	19.5	20.5	23.5	20.5	22.0	20.0	17.0	18.5	14.5	13.0	13.5
22	23.5	19.0	21.0	23.5	19.5	22.0	20.0	15.5	18.0	15.0	12.5	14.0
23	23.0	18.0	20.5	23.0	19.0	21.0	20.5	16.0	18.0	14.5	13.5	14.0
24	24.5	18.0	21.5	21.5	18.0	20.0	21.0	17.0	18.5	16.0	12.5	14.5
25	26.0	19.5	23.0	22.0	17.0	19.5	---	18.0	---	17.0	13.0	15.0
26	25.0	21.0	23.0	20.5	18.0	19.0	24.0	19.0	21.5	16.0	14.5	15.5
27	24.0	20.0	22.0	20.5	17.5	19.0	24.5	20.0	22.0	15.5	14.5	15.0
28	23.5	19.5	21.5	22.0	18.0	20.0	---	21.5	---	15.5	13.0	14.5
29	24.0	20.0	22.0	23.0	19.5	21.0	23.5	20.0	22.0	14.5	12.5	13.5
30	24.5	20.0	22.5	22.0	19.5	20.5	22.0	19.5	20.5	13.0	11.0	12.0
31	---	---	---	20.5	18.5	19.5	22.0	19.0	20.5	---	---	---
MONTH	26.5	13.0	20.5	30.0	17.0	22.5	---	13.0	---	---	---	---

DELAWARE RIVER BASIN

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

LOCATION.--Lat 41°30'32", long 74°59'10", Sullivan County, N.Y., 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 (see Reservoirs in Delaware River Basin). 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.

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, 41,900 ft³/s, Apr. 1, gage height, 13.37 ft; minimum daily discharge, about 700 ft³/s, Mar. 14.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	924	1460	3330	9190	e1100	e800	39500	8550	1180	945	1610	1550
2	1200	1270	2930	6540	e960	e780	36200	7150	903	1040	1420	1410
3	1350	2070	2640	e4600	e1200	e780	26700	6110	838	1150	1440	1590
4	1390	3590	2390	4300	e1400	e780	18000	5240	735	1440	1310	2050
5	1400	2910	2200	6790	e1500	770	12900	4730	950	1340	1400	1450
6	1450	2780	2040	10400	e1300	772	11200	5090	1040	1100	1430	1210
7	1480	2760	1880	6700	e1100	e900	10500	4410	1040	973	1590	1070
8	1520	2360	e1700	5250	e1000	e1000	10200	3690	892	957	1700	1260
9	1640	2090	e1300	4330	e1000	e880	10400	3200	835	957	1760	1380
10	3020	1900	e1100	3530	e1100	e860	12300	2850	1210	986	1650	1490
11	3340	1830	e1250	2990	e1150	e800	28100	2570	1310	933	1670	1590
12	2360	2110	e2300	2760	e1100	e760	23100	2410	1020	981	1740	1460
13	2440	4010	2030	2960	e1000	e740	17900	2100	894	1010	1700	1390
14	1910	6010	e1700	3080	e1100	e700	13800	1840	938	852	1680	1330
15	1630	4330	e1450	2650	e980	e740	10900	1640	828	794	1680	1420
16	1600	3540	e1500	2330	e960	e780	9610	1500	1440	800	1600	1360
17	1750	3010	1840	2120	e900	e900	23000	1380	1170	1370	1620	1380
18	1540	2740	4220	e1800	e940	e1000	21600	1270	1000	1370	1760	1210
19	1410	2470	3960	e1300	e840	e1300	16200	1220	1240	1040	1640	1400
20	1370	2200	3430	e1100	e760	e1300	12500	1250	1340	918	1450	1330
21	1320	2010	3710	e1500	e780	e1200	10300	1270	1440	766	1300	1230
22	1280	2800	3150	1770	e820	e1100	12700	1210	1640	868	1510	1200
23	1300	6590	2820	2240	e900	e1100	15000	1120	1410	975	1540	1110
24	1210	8720	e2400	e2100	e860	e1700	14000	1020	1170	1450	1570	1010
25	1540	6750	e1700	e2300	e820	e2800	12600	968	1030	1410	1630	1380
26	1800	6110	e1400	e2200	e780	e3700	11500	914	1270	1280	1600	1310
27	1580	6150	e1400	e2000	e780	e5000	16900	873	1500	1140	1450	1210
28	1470	5150	e1500	e1700	e780	11200	14900	979	1370	1330	1220	1300
29	1370	4330	e1900	e1400	---	23400	12300	1360	1220	1320	1520	1320
30	1310	3810	e2600	e1300	---	33900	10200	1230	949	1280	1570	1120
31	1420	---	e7300	e1200	---	36900	---	1410	---	1540	1540	---
TOTAL	50324	107860	75070	104430	27910	139342	495010	80554	33802	34315	48300	40520
MEAN	1623	3595	2422	3369	997	4495	16500	2599	1127	1107	1558	1351
MAX	3340	8720	7300	10400	1500	36900	39500	8550	1640	1540	1760	2050
MIN	924	1270	1100	1100	760	700	9610	873	735	766	1220	1010

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1993, BY WATER YEAR (WY)

	1964	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
MEAN	2113	2668	2973	2549	3037	5097	6398	4044	2285	1545	1353	1538																		
MAX	7404	6481	7375	8335	9389	12050	16500	8615	6701	3911	2329	4186																		
(WY)	1978	1973	1974	1978	1976	1977	1993	1984	1972	1973	1976	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																		

SUMMARY STATISTICS

FOR 1992 CALENDAR YEAR

FOR 1993 WATER YEAR

WATER YEARS 1964 - 1993

ANNUAL TOTAL	797206	1237437	
ANNUAL MEAN	2178	3390	2963
HIGHEST ANNUAL MEAN			4650
LOWEST ANNUAL MEAN			1297
HIGHEST DAILY MEAN	11600	Mar 12	39500
LOWEST DAILY MEAN	e500	Feb 10	e700
ANNUAL SEVEN-DAY MINIMUM	a663	Feb 10	a769
10 PERCENT EXCEEDS	3970		8910
50 PERCENT EXCEEDS	1550		1450
90 PERCENT EXCEEDS	933		900

a Computed using estimated daily discharges.

e Estimated.

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 digital recorder since October 1975, provides one-hour-interval punches.

Prior to October 1975, water-temperature recorder provided continuous recordings.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum (water years 1968-75, 1980-81, 1983, 1985-93), 32.5°C, July 9, 10, 1993; minimum (water years 1968, 1977-93), 0.0°C, on many days during winter periods, each year except water years 1980-82.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 32.5°C, July 9, 10; minimum, 0.0°C on many days during winter period.

WATER TEMPERATURE, (DEG. C), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER				NOVEMBER			DECEMBER			JANUARY		
1	15.0	11.0	12.5	7.5	6.5	7.0	5.0	4.5	4.5	1.0	0.5	1.0
2	15.5	10.5	12.5	6.5	5.5	6.0	4.5	4.0	4.0	1.0	0.5	1.0
3	16.5	11.5	14.0	7.0	5.5	6.5	4.0	3.5	4.0	0.5	0.5	0.5
4	16.0	13.0	14.5	7.5	6.5	7.0	3.5	2.5	3.0	1.5	0.5	1.0
5	15.0	12.0	13.5	8.0	7.5	8.0	3.0	1.5	2.5	3.0	1.0	2.5
6	14.5	11.0	12.5	8.0	7.0	7.5	1.5	1.0	1.0	3.5	3.0	3.5
7	14.0	10.5	12.0	7.0	5.5	6.5	1.0	0.5	1.0	3.5	3.0	3.0
8	14.0	10.0	12.0	5.5	3.5	5.0	1.0	0.5	0.5	3.0	2.5	2.5
9	13.0	11.5	12.5	4.5	3.0	3.5	0.5	0.5	0.5	2.5	1.5	2.5
10	14.0	12.5	13.0	4.5	3.0	4.0	0.5	0.5	0.5	1.5	0.5	1.0
11	13.0	12.5	13.0	5.0	4.0	4.5	0.5	0.5	0.5	0.5	0.5	0.5
12	13.5	12.0	12.5	7.0	5.0	5.5	0.5	0.5	0.5	0.5	0.5	0.5
13	13.0	11.0	12.0	8.0	6.5	7.5	1.0	0.5	0.5	0.5	0.5	0.5
14	11.0	10.5	11.0	7.5	6.0	6.5	1.5	0.5	1.0	0.5	0.5	0.5
15	13.0	10.5	11.5	6.0	4.0	5.0	1.0	0.5	0.5	1.5	0.5	1.0
16	14.0	11.5	12.5	4.0	3.0	3.5	1.0	0.5	0.5	1.5	1.0	1.5
17	13.0	10.5	11.5	3.0	3.0	3.0	1.0	1.0	1.0	1.0	1.0	1.0
18	11.5	9.5	10.0	3.0	3.0	3.0	1.5	1.0	1.5	1.0	0.5	0.5
19	10.0	7.5	9.0	3.5	2.5	3.0	1.5	1.0	1.5	0.5	0.5	0.5
20	9.5	7.0	8.0	3.5	2.5	3.0	2.0	1.5	1.5	1.0	0.5	0.5
21	8.0	7.0	7.5	4.0	3.0	3.5	1.5	1.0	1.0	0.5	0.5	0.5
22	10.0	7.0	8.5	5.0	4.0	4.5	1.0	1.0	1.0	0.5	0.5	0.5
23	10.5	6.5	8.5	8.0	5.0	6.5	1.0	0.5	0.5	0.5	0.5	0.5
24	8.5	7.5	8.0	8.0	7.5	8.0	0.5	0.5	0.5	1.5	0.5	1.0
25	9.5	7.5	8.0	7.5	7.0	7.5	0.5	0.5	0.5	1.0	0.5	0.5
26	8.5	6.5	7.5	7.5	7.0	7.0	0.5	0.5	0.5	1.0	0.5	0.5
27	9.0	6.5	8.0	7.5	7.0	7.5	0.5	0.5	0.5	1.0	0.5	0.5
28	9.5	6.0	7.5	7.0	6.0	6.5	0.5	0.5	0.5	0.5	0.5	0.5
29	8.0	6.5	7.5	6.0	5.0	5.5	0.5	0.5	0.5	0.5	0.0	0.5
30	8.5	7.5	8.0	5.0	4.5	5.0	0.5	0.5	0.5	0.5	0.0	0.5
31	8.0	7.5	8.0	---	---	---	0.5	0.5	0.5	0.5	0.5	0.5
MONTH	16.5	6.0	10.5	8.0	2.5	5.5	5.0	0.5	1.0	3.5	0.0	1.0

(a) 1 or 2 samples per year.

DELAWARE RIVER BASIN

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

WATER TEMPERATURE, (DEG. C), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	0.5	0.5	0.5	0.0	0.0	0.0	3.5	2.5	3.0	13.0	10.0	11.5
2	1.0	0.5	0.5	0.5	0.0	0.5	2.5	2.5	2.5	14.0	11.5	13.0
3	0.5	0.0	0.5	0.5	0.0	0.5	3.0	2.5	2.5	14.5	13.0	14.0
4	0.5	0.0	0.5	0.0	0.0	0.0	2.5	2.5	2.5	14.5	14.0	14.5
5	0.5	0.0	0.5	0.0	0.0	0.0	4.0	2.0	3.0	15.0	14.0	14.5
6	0.5	0.0	0.5	0.0	0.0	0.0	5.0	4.0	4.5	15.5	14.5	14.5
7	1.0	0.0	0.5	0.0	0.0	0.0	6.0	4.0	5.0	16.5	14.5	15.5
8	0.5	0.5	0.5	0.0	0.0	0.0	6.5	4.5	5.5	17.5	15.0	16.5
9	1.0	0.5	0.5	0.0	0.0	0.0	6.5	5.5	6.0	19.0	16.0	17.5
10	1.0	0.0	0.5	0.0	0.0	0.0	6.5	6.0	6.5	20.5	17.0	18.5
11	0.5	0.0	0.5	0.0	0.0	0.0	6.0	5.0	5.5	21.5	18.0	20.0
12	0.5	0.0	0.5	0.0	0.0	0.0	5.0	4.0	4.5	22.5	19.0	20.5
13	0.0	0.0	0.0	0.0	0.0	0.0	4.5	3.5	4.0	21.0	19.0	19.5
14	0.0	0.0	0.0	0.0	0.0	0.0	6.0	4.0	5.0	21.0	16.5	19.0
15	0.0	0.0	0.0	0.0	0.0	0.0	7.0	6.0	6.5	21.0	17.0	19.0
16	0.0	0.0	0.0	0.0	0.0	0.0	8.0	6.5	7.5	20.5	18.0	18.5
17	0.0	0.0	0.0	0.0	0.0	0.0	8.0	7.0	8.0	21.0	16.0	18.5
18	0.0	0.0	0.0	0.0	0.0	0.0	7.0	5.5	6.0	18.5	16.5	17.5
19	0.0	0.0	0.0	0.0	0.0	0.0	7.0	5.5	6.5	17.0	15.0	16.0
20	0.5	0.0	0.5	0.0	0.0	0.0	9.0	6.5	8.0	15.5	14.0	14.5
21	0.5	0.5	0.5	0.0	0.0	0.0	9.0	8.5	8.5	17.0	13.0	15.0
22	0.5	0.0	0.5	0.0	0.0	0.0	8.5	6.0	7.5	18.5	13.5	15.5
23	0.0	0.0	0.0	0.0	0.0	0.0	6.0	5.0	5.5	20.5	13.5	17.0
24	0.0	0.0	0.0	0.0	0.0	0.0	6.5	5.0	6.0	19.0	16.5	17.5
25	0.0	0.0	0.0	0.0	0.0	0.0	9.5	6.5	8.0	22.5	17.0	19.5
26	0.0	0.0	0.0	1.0	0.0	0.5	9.5	8.0	9.0	23.0	18.0	20.0
27	0.5	0.0	0.0	0.5	0.0	0.5	8.0	7.0	7.5	22.5	17.5	19.5
28	0.5	0.0	0.5	0.0	0.0	0.0	9.0	7.5	8.0	21.5	17.5	19.0
29	---	---	---	1.0	0.0	0.5	10.5	8.0	9.5	21.0	17.5	19.0
30	---	---	---	1.5	1.0	1.5	11.0	9.5	10.5	22.0	16.0	18.5
31	---	---	---	3.5	1.5	2.5	---	---	---	18.5	16.0	16.5
MONTH	1.0	0.0	0.5	3.5	0.0	0.0	11.0	2.0	6.0	23.0	10.0	17.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	19.5	15.0	17.0	27.5	23.0	25.0	25.0	21.5	23.0	25.0	22.0	23.0
2	20.0	14.5	16.5	24.5	22.0	23.0	23.5	21.0	22.5	22.5	21.0	21.5
3	21.5	16.0	18.0	23.5	21.5	22.5	25.0	21.0	23.0	23.5	21.0	22.0
4	22.0	17.5	19.5	26.5	21.5	24.0	25.0	21.0	23.0	22.0	20.5	21.0
5	19.0	16.5	17.5	27.5	22.0	24.5	24.0	20.0	22.0	24.5	20.0	22.0
6	18.5	16.0	16.5	28.5	23.5	26.0	21.0	19.0	19.5	25.0	20.5	22.5
7	20.0	15.0	17.0	30.5	25.5	28.0	19.5	18.0	18.5	23.0	21.0	22.0
8	21.5	17.0	19.0	31.5	26.5	28.5	20.5	17.0	18.5	21.0	19.5	20.0
9	23.0	19.0	21.0	32.5	27.5	29.5	21.0	17.0	19.0	20.5	18.5	19.5
10	25.0	20.5	23.0	32.5	28.0	30.0	22.5	18.5	20.0	21.0	18.0	19.0
11	25.5	21.0	23.0	32.0	27.0	29.5	20.5	19.0	19.5	18.5	16.5	17.5
12	26.0	20.5	23.0	30.5	26.5	28.5	20.0	18.0	19.0	19.0	15.0	17.0
13	26.5	21.5	24.0	30.5	25.5	28.0	21.5	18.0	19.5	21.0	16.0	18.5
14	27.0	22.0	24.5	29.5	25.0	27.0	22.5	19.0	20.5	22.5	17.5	20.0
15	25.0	22.0	23.5	29.0	25.0	27.0	24.5	20.0	22.0	23.5	19.5	21.5
16	26.0	22.0	24.0	28.0	22.5	25.5	22.5	20.5	21.0	21.5	19.5	20.5
17	27.5	21.5	24.0	26.5	22.5	24.5	20.5	18.5	19.5	19.5	18.0	18.5
18	28.0	22.5	25.0	27.0	21.5	24.0	20.0	18.0	19.0	19.0	17.0	18.0
19	28.0	24.0	26.0	24.0	21.0	22.0	22.5	18.5	20.5	19.5	16.0	17.5
20	26.5	24.0	25.0	26.5	21.0	23.5	21.5	20.5	21.0	17.5	14.0	16.0
21	25.0	22.5	23.5	26.5	21.5	24.0	23.5	19.5	21.0	15.5	14.0	14.5
22	24.5	21.5	23.0	26.5	21.0	23.5	23.0	18.5	20.5	15.5	14.0	15.0
23	24.0	20.0	22.0	25.5	21.0	23.5	23.0	19.0	21.0	15.5	14.0	15.0
24	25.5	19.0	22.5	25.5	21.0	23.5	24.0	19.5	21.5	19.0	13.5	16.0
25	26.5	21.0	23.5	26.0	21.0	23.5	24.5	21.5	23.0	18.0	14.0	15.5
26	26.0	22.5	24.5	23.5	21.0	22.0	25.5	21.5	23.5	18.0	15.0	16.5
27	27.5	23.0	25.0	24.0	20.5	22.0	26.5	22.0	24.0	16.5	15.5	16.0
28	26.5	23.0	25.0	25.5	21.0	23.5	27.0	23.5	25.0	17.5	14.5	15.5
29	26.5	23.0	24.5	26.5	22.5	24.0	27.0	23.0	25.0	15.0	13.5	14.5
30	27.5	22.5	25.0	25.5	22.5	24.0	25.5	22.5	23.5	14.0	12.0	13.0
31	---	---	---	25.0	22.0	23.5	25.0	22.0	23.5	---	---	---
MONTH	28.0	14.5	22.0	32.5	20.5	25.0	27.0	17.0	21.5	25.0	12.0	18.5

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 good except those for estimated daily discharges, which are fair. Satellite telemetry at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	28	98	434	e41	e25	1360	101	23	11	8.0	7.7
2	20	48	85	215	e38	e24	1020	84	18	12	8.4	7.6
3	21	445	76	152	e34	e24	567	69	16	15	9.3	30
4	33	166	66	149	e35	e24	346	60	16	14	8.0	50
5	21	121	64	538	e35	e25	301	111	19	16	7.8	21
6	17	136	63	264	e34	e26	334	175	26	12	7.6	14
7	17	96	52	176	e32	e26	352	100	19	13	8.0	11
8	18	76	47	141	e31	e27	365	78	17	23	7.9	12
9	181	65	50	107	e30	e27	372	66	59	14	7.3	16
10	330	61	60	e88	e28	e27	830	57	48	12	7.1	22
11	167	70	83	e80	e28	e27	840	49	26	11	12	22
12	134	104	90	e73	e29	e28	395	47	20	12	17	16
13	82	506	57	e89	e29	e28	256	49	18	12	10	16
14	66	174	52	e79	e30	e28	196	39	17	11	8.8	12
15	59	128	56	e69	e29	e29	163	35	23	9.7	8.1	15
16	65	103	43	e62	e28	e29	534	38	29	7.8	9.5	15
17	47	89	148	e57	e29	e30	557	33	20	8.9	16	25
18	37	82	186	e46	e30	e30	327	30	17	8.9	15	19
19	39	71	119	e36	e28	e30	217	34	16	12	11	16
20	48	62	171	e34	e28	e31	165	33	15	13	9.7	17
21	46	79	140	e33	e28	e32	194	30	18	9.6	10	22
22	49	284	106	e43	e27	e36	707	27	19	8.7	8.9	29
23	40	415	85	e53	e27	e37	429	25	15	8.0	8.5	24
24	38	230	68	e60	e28	e48	300	26	13	8.3	8.0	21
25	42	283	e52	e88	e27	e76	226	23	9.4	7.7	10	16
26	40	276	e49	e78	e26	e110	347	20	8.9	7.7	8.9	59
27	36	269	e42	e68	e26	e160	371	18	9.7	9.0	7.8	64
28	36	174	e39	e59	e25	e280	218	18	12	8.7	8.9	63
29	34	137	e38	e54	---	e630	161	17	14	8.1	9.5	35
30	37	117	231	e47	---	1370	126	17	13	8.1	8.1	31
31	34	---	851	e43	---	1020	---	19	---	8.6	7.2	---
TOTAL	1858	4895	3367	3515	840	4344	12576	1528	594.0	340.8	292.3	728.3
MEAN	59.9	163	109	113	30.0	140	419	49.3	19.8	11.0	9.43	24.3
MAX	330	506	851	538	41	1370	1360	175	59	23	17	64
MIN	17	28	38	33	25	24	126	17	8.9	7.7	7.1	7.6
CFSM	1.48	4.02	2.68	2.79	.74	3.45	10.3	1.21	.49	.27	.23	.60
IN.	1.70	4.49	3.09	3.22	.77	3.98	11.52	1.40	.54	.31	.27	.67

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 1993, BY WATER YEAR (WY)

	MEAN	55.0	110	91.8	72.5	82.2	124	162	108	57.9	26.4	22.6	39.3
MAX	116	199	228	122	192	173	419	258	200	63.0	54.6	156	
(WY)	1991	1987	1991	1990	1990	1987	1993	1989	1989	1989	1990	1987	
MIN	6.46	29.9	21.2	21.9	30.0	87.0	58.7	39.5	14.3	8.86	9.43	7.41	
(WY)	1992	1992	1989	1989	1993	1989	1988	1987	1991	1991	1993	1991	

SUMMARY STATISTICS

FOR 1992 CALENDAR YEAR

FOR 1993 WATER YEAR

WATER YEARS 1987 - 1993

ANNUAL TOTAL	30769		34878.4									
ANNUAL MEAN	84.1		95.6							79.1		
HIGHEST ANNUAL MEAN										95.6		1993
LOWEST ANNUAL MEAN										53.4		1988
HIGHEST DAILY MEAN	851	Dec 31	1370	Mar 30						1460	Dec 4	1990
LOWEST DAILY MEAN	11	Jul 2,3	7.1	Aug 10						4.2	Sep 17	1991
ANNUAL SEVEN-DAY MINIMUM	12	Jul 1	7.7	Aug 4						4.6	Sep 12	1991
INSTANTANEOUS PEAK FLOW			1850	Apr 1						2690	May 6	1989 ^a
INSTANTANEOUS PEAK STAGE			5.80	Apr 1						6.77	May 6	1989 ^a
ANNUAL RUNOFF (CFSM)	2.07		2.35							1.95		
ANNUAL RUNOFF (INCHES)	28.19		31.96							26.47		
10 PERCENT EXCEEDS	175		259							174		
50 PERCENT EXCEEDS	49		34							41		
90 PERCENT EXCEEDS	14		9.4							11		

^a Maximum recorded, March 15, 1986, gage height 7.40 ft, 3,440 ft³/s.

^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 recording instrument.

EXTREMES FOR PERIOD OF DAILY RECORD.--

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

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum, 27.0°C, July 10; minimum, 0.0°C, many days during winter period.

WATER TEMPERATURE, (DEG. C), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	10.5	7.5	9.0	6.0	4.5	5.5	4.5	3.0	3.5	2.0	.0	1.0
2	12.0	7.0	10.0	4.5	4.0	4.0	3.5	2.5	3.5	.5	.0	.0
3	15.0	10.0	12.0	7.0	4.5	6.0	3.5	2.0	3.0	1.0	.0	.0
4	13.5	9.5	12.0	8.0	7.0	7.5	2.0	1.0	1.5	3.5	1.0	2.0
5	11.0	8.0	9.5	8.0	5.5	7.0	2.0	.0	1.5	4.0	2.0	3.0
6	11.0	6.5	8.5	6.0	4.5	5.5	.5	.0	.0	2.5	1.5	2.0
7	11.5	6.5	9.0	4.5	3.0	4.0	1.5	.5	.5	2.5	1.0	2.0
8	12.0	7.0	9.5	3.0	1.5	2.5	1.0	.0	.5	2.5	1.0	2.0
9	13.0	9.5	11.0	2.5	.5	2.0	.0	.0	.0	1.0	.0	.5
10	13.0	11.0	12.0	4.5	2.5	3.5	.0	.0	.0	.0	.0	.0
11	11.5	10.5	11.0	6.0	4.5	5.5	.0	.0	.0	.0	.0	.0
12	11.5	10.0	11.0	9.0	6.0	6.5	---	---	---	.0	.0	.0
13	11.0	8.0	10.0	9.0	5.0	7.0	.5	.0	.5	.5	.0	.5
14	9.0	7.0	8.0	5.0	3.0	4.0	.5	.0	.0	1.0	.5	.5
15	12.0	8.5	10.5	3.5	2.0	3.0	.0	.0	.0	1.5	.0	.5
16	13.0	11.0	12.0	3.0	1.5	2.5	1.0	.0	.5	.5	.0	.0
17	---	---	---	3.0	2.0	2.5	1.0	.5	1.0	1.0	.0	.5
18	---	---	---	3.5	2.0	3.0	1.5	.0	1.0	.0	.0	.0
19	---	---	---	2.5	1.0	2.0	1.5	.0	1.0	.0	.0	.0
20	7.0	5.0	6.0	2.5	1.0	2.0	2.5	.0	1.5	.0	.0	.0
21	6.5	5.5	6.0	5.5	2.5	3.5	.5	.0	.0	.0	.0	.0
22	8.5	5.5	7.0	7.5	5.5	6.5	1.5	.0	.5	.0	.0	.0
23	8.0	4.5	6.5	9.0	7.0	8.0	1.5	.0	1.0	.0	.0	.0
24	8.5	6.5	7.5	7.0	6.5	6.5	.5	.0	.0	.5	.0	.5
25	7.5	5.0	7.0	6.5	6.0	6.5	.0	.0	.0	.5	.0	.0
26	6.5	4.0	5.5	7.5	6.5	7.0	.0	.0	.0	.0	.0	.0
27	8.0	5.0	6.5	7.0	5.5	6.0	.0	.0	.0	.0	.0	.0
28	7.0	4.0	5.5	5.5	3.5	5.0	.0	.0	.0	.0	.0	.0
29	7.5	4.5	6.5	4.5	3.5	4.0	.0	.0	.0	.0	.0	.0
30	7.5	6.5	7.0	4.0	3.5	4.0	.0	.0	.0	.0	.0	.0
31	6.5	5.5	6.0	---	---	---	2.0	.0	1.0	.0	.0	.0
MONTH	15.0	4.0	8.5	9.0	.5	5.0	4.5	.0	.5	4.0	.0	.5

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 Creek².

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 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	44	141	564	67	39	1790	186	31	17	8.9	12
2	30	43	122	354	57	39	1600	153	30	17	8.9	12
3	29	177	110	245	54	38	1050	129	29	17	8.9	13
4	29	236	98	206	56	37	644	111	28	17	8.9	18
5	29	179	93	349	56	37	454	109	27	17	8.9	21
6	29	162	84	385	55	37	419	165	27	17	8.9	21
7	28	141	78	281	50	37	417	163	27	16	8.9	21
8	27	116	73	220	49	37	411	137	27	16	8.9	21
9	27	97	63	181	47	38	410	116	28	18	8.4	20
10	126	87	56	145	44	39	540	100	31	18	7.9	20
11	151	84	62	123	44	39	1160	88	33	17	8.3	20
12	158	89	72	115	45	39	702	81	33	17	12	20
13	123	266	74	122	45	39	434	81	32	16	12	20
14	94	255	71	128	46	41	316	72	31	15	12	20
15	78	186	66	118	45	41	253	63	30	14	11	19
16	71	146	67	104	45	41	307	58	30	14	11	18
17	69	122	85	96	46	41	738	55	30	13	11	18
18	62	107	178	87	47	43	521	52	28	12	14	19
19	58	95	179	73	44	44	362	51	28	12	15	19
20	56	85	176	68	43	45	270	50	26	12	15	19
21	54	78	201	66	43	48	233	49	26	12	14	19
22	53	139	173	71	43	52	551	45	26	12	14	21
23	52	277	148	84	43	54	618	42	25	11	14	22
24	50	288	128	87	43	76	458	40	23	10	13	22
25	49	269	101	123	42	126	348	39	21	10	13	23
26	49	260	96	116	42	164	313	38	19	9.5	13	25
27	48	287	85	100	41	246	491	36	18	9.5	13	30
28	47	238	78	89	40	445	363	35	18	9.5	12	35
29	45	192	79	82	---	948	275	34	17	9.2	12	37
30	45	163	103	71	---	1590	223	32	17	8.9	12	38
31	45	---	489	69	---	1530	---	31	---	8.9	12	---
TOTAL	1841	4908	3629	4922	1322	6070	16671	2441	796	422.5	350.8	643
MEAN	59.4	164	117	159	47.2	196	556	78.7	26.5	13.6	11.3	21.4
MAX	158	288	489	564	67	1590	1790	186	33	18	15	38
MIN	27	43	56	66	40	37	223	31	17	8.9	7.9	12
MEAN [‡]	62.3	168	128	145	43.8	225	534	69.9	23.1	11.3	11.5	29.3
CFSM [‡]	1.04	2.81	2.14	2.43	.73	3.77	8.94	1.17	.39	.19	.19	.49
IN. [‡]	1.20	3.14	2.47	2.80	.76	4.35	9.97	1.35	.44	.22	.22	.56

[‡] Adjusted for change in contents in Prompton Reservoir.

LACKAWAXEN RIVER BASIN

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

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1961 - 1993, BY WATER YEAR (WY) (SINCE REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	60.9	95.4	114	94.7	123	213	232	133	73.7	40.1	29.4	42.5
MAX	307	362	272	312	369	620	556	329	260	133	71.5	221
(WY)	1978	1973	1972	1979	1981	1977	1993	1989	1973	1984	1986	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 1992 CALENDAR YEAR FOR 1993 WATER YEAR WATER YEARS 1961 - 1993

ANNUAL TOTAL	35301		44016.3									
ANNUAL MEAN	96.5	\$97.7	121	\$121					104	\$108		
HIGHEST ANNUAL MEAN									176			1977
LOWEST ANNUAL MEAN									49.7			1965
HIGHEST DAILY MEAN	861	Jun 1				1790	Apr 1		2340	Jun 30		1973
LOWEST DAILY MEAN	18	Sep 21,22				7.9	Aug 10		1.8	Oct 22		1966
ANNUAL SEVEN-DAY MINIMUM	19	Sep 17				8.6	Aug 5		2.0	Oct 22		1966
INSTANTANEOUS PEAK FLOW						1990	Apr 1		3610	Mar 14		1977
INSTANTANEOUS PEAK STAGE						5.10	Apr 1		7.00	Mar 14		1977
INSTANTANEOUS LOW FLOW									1.8	Oct 22		1966
ANNUAL RUNOFF (CFSM)	1.62	\$1.64				2.02	\$2.03		1.75	\$1.81		
ANNUAL RUNOFF (INCHES)	22.00	\$22.23				27.43	\$27.48		23.71	\$24.57		
10 PERCENT EXCEEDS	196					283			240			
50 PERCENT EXCEEDS	69					46			55			
90 PERCENT EXCEEDS	23					12			14			

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											

‡ Adjusted for change in contents in Prompton Reservoir.

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

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, 26.5°C, Sept. 10, 1989; minimum, 0.5°C, Mar. 29, 30, 31, 1993.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum, 25.0°C, July 17; minimum, 0.5°C, Mar. 29, 30, 31, Apr. 1, 1993.

WATER TEMPERATURE, (DEG. C), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	14.5	14.0	14.5	8.0	8.0	8.0	5.5	5.5	5.5	1.5	1.0	1.0
2	14.5	14.0	14.0	8.0	7.5	7.5	5.5	5.5	5.5	1.5	1.5	1.5
3	14.5	13.5	14.0	7.5	7.5	7.5	5.5	4.5	5.0	1.5	1.5	1.5
4	15.0	13.5	14.0	7.5	7.0	7.0	4.5	4.5	4.5	1.5	1.5	1.5
5	14.5	14.0	14.0	7.0	7.0	7.0	4.5	3.5	4.0	---	---	---
6	14.0	13.5	14.0	7.0	6.5	7.0	3.5	3.0	3.0	2.0	1.5	2.0
7	14.0	13.0	13.5	6.5	6.0	6.5	3.0	2.5	2.5	2.0	2.0	2.0
8	13.5	12.5	13.0	6.0	5.5	6.0	2.5	1.5	2.0	2.0	2.0	2.0
9	13.0	12.0	12.5	6.0	5.5	5.5	2.0	1.5	2.0	2.5	2.0	2.5
10	14.5	12.5	13.5	5.5	5.5	5.5	2.0	2.0	2.0	2.5	2.5	2.5
11	13.5	13.5	13.5	5.5	5.5	5.5	2.0	2.0	2.0	2.5	2.5	2.5
12	13.5	13.0	13.5	6.0	5.5	5.5	2.0	2.0	2.0	2.5	2.5	2.5
13	13.5	13.0	13.0	6.0	5.5	6.0	2.5	2.0	2.0	2.5	2.0	2.0
14	13.0	12.0	12.5	5.5	5.5	5.5	2.5	2.0	2.5	2.0	1.5	2.0
15	13.0	12.0	12.5	5.5	5.0	5.5	2.5	2.5	2.5	2.0	1.5	1.5
16	12.5	11.5	12.0	5.0	5.0	5.0	2.5	2.5	2.5	2.0	1.5	2.0
17	12.0	11.5	11.5	5.0	5.0	5.0	2.5	2.0	2.5	2.0	1.5	2.0
18	11.5	11.0	11.5	5.0	5.0	5.0	2.0	2.0	2.0	2.0	1.5	2.0
19	11.0	10.0	11.0	5.0	4.5	5.0	2.0	2.0	2.0	2.0	2.0	2.0
20	10.5	10.0	10.0	4.5	4.5	4.5	2.0	2.0	2.0	2.5	2.0	2.0
21	10.0	10.0	10.0	4.5	4.5	4.5	2.0	2.0	2.0	2.5	2.0	2.0
22	10.0	9.5	10.0	4.5	4.5	4.5	2.0	2.0	2.0	2.0	2.0	2.0
23	10.0	9.5	10.0	5.0	4.5	4.5	2.0	2.0	2.0	2.0	2.0	2.0
24	9.5	9.5	9.5	5.0	5.0	5.0	2.0	2.0	2.0	2.0	1.5	2.0
25	9.5	8.5	9.0	5.0	5.0	5.0	2.0	2.0	2.0	2.0	1.5	2.0
26	9.0	8.5	8.5	6.0	5.0	5.5	2.0	2.0	2.0	2.0	2.0	2.0
27	9.0	8.5	8.5	6.0	6.0	6.0	2.5	2.0	2.0	2.0	2.0	2.0
28	8.5	8.5	8.5	6.0	6.0	6.0	2.5	2.5	2.5	2.0	2.0	2.0
29	8.5	8.0	8.5	6.0	5.5	5.5	2.5	2.0	2.0	2.5	2.0	2.5
30	8.5	8.5	8.5	5.5	5.5	5.5	2.0	2.0	2.0	2.5	2.5	2.5
31	8.5	8.0	8.0	---	---	---	2.0	1.0	1.5	2.5	2.5	2.5
MONTH	15.0	8.0	11.5	8.0	4.5	5.5	5.5	1.0	2.5	2.5	1.0	2.0

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 fair. 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 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	20	107	469	60	e32	1610	178	38	14	6.6	5.1
2	16	22	95	212	47	e31	1620	150	31	14	7.3	5.3
3	16	256	87	157	e44	e32	1480	131	27	17	8.1	9.5
4	15	148	78	159	e43	35	1130	118	24	16	6.9	81
5	14	93	77	612	e44	35	447	148	26	15	6.2	32
6	14	101	70	404	e43	35	423	239	42	14	5.8	27
7	11	79	66	231	e40	35	412	167	36	13	6.1	22
8	8.8	64	62	186	e41	37	389	133	28	24	8.6	17
9	10	55	47	154	e41	43	358	116	47	17	6.5	16
10	85	50	47	124	e40	42	530	102	76	14	5.7	13
11	60	52	65	114	e40	39	1040	91	43	12	6.2	14
12	57	72	77	116	e40	37	591	82	32	11	14	11
13	48	224	72	146	e39	24	327	91	27	11	11	9.7
14	34	149	66	143	e38	33	252	73	24	10	9.3	9.0
15	29	100	61	120	e37	62	211	65	22	9.5	7.7	8.0
16	28	81	59	105	e36	e51	327	66	35	8.7	8.1	7.1
17	27	72	146	98	e37	e41	955	60	26	7.8	12	10
18	23	69	244	80	e38	e52	511	55	22	7.2	21	12
19	22	65	152	65	e35	e45	295	60	21	8.5	14	11
20	22	59	152	e63	e37	e47	229	60	22	13	12	10
21	22	60	153	e60	e37	e50	229	56	29	11	9.7	11
22	23	153	120	e70	e36	e53	716	50	37	8.4	8.6	16
23	23	303	104	e92	e36	e56	632	45	25	7.2	7.2	16
24	22	200	86	104	e37	142	365	41	20	6.6	6.3	14
25	24	216	73	177	e38	259	266	39	18	6.2	6.1	13
26	24	203	e65	108	e36	276	315	35	18	5.9	7.5	58
27	23	242	59	99	e36	449	699	32	17	6.3	6.8	66
28	22	168	e59	84	e34	807	355	32	17	6.4	6.3	76
29	22	141	e54	75	---	1240	250	39	16	5.8	6.0	44
30	23	124	e100	70	---	1500	208	32	16	5.6	6.4	38
31	22	---	611	72	---	1550	---	30	---	6.3	5.7	---
TOTAL	804.8	3641	3314	4769	1110	7170	17172	2616	862	332.4	259.7	681.7
MEAN	26.0	121	107	154	39.6	231	572	84.4	28.7	10.7	8.38	22.7
MAX	85	303	611	612	60	1550	1620	239	76	24	21	81
MIN	8.8	20	47	60	34	24	208	30	16	5.6	5.7	5.1
MEAN‡	26.0	121	107	154	39.6	231	572	84.4	28.7	10.7	8.38	22.7
CFSM‡	.40	1.88	1.65	2.38	.61	3.58	8.86	1.31	.44	.17	.13	.35
IN.‡	.46	2.10	1.91	2.75	.64	4.13	9.89	1.51	.50	.19	.15	.39

‡ Adjusted for change in contents at General Edgar Jadwin Reservoir.

• Estimated.

LACKAWAXEN RIVER BASIN

01429500 DYBERRY CREEK NEAR HOMESDALE, PA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1960 - 1993, BY WATER YEAR (WY) (SINCE REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	58.9	108	120	104	143	233	243	141	76.6	42.7	29.2	42.8
MAX	292	413	326	362	466	552	572	397	291	170	114	281
(WY)	1977	1973	1974	1979	1981	1977	1993	1989	1972	1973	1976	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 1992 CALENDAR YEAR

FOR 1993 WATER YEAR

WATER YEARS 1960 - 1993

ANNUAL TOTAL	33261.8		42732.6									
ANNUAL MEAN	90.9	§90.9	117	§117						112	§112	
HIGHEST ANNUAL MEAN										186		1973
LOWEST ANNUAL MEAN										51.4		1965
HIGHEST DAILY MEAN	956	Jun 1	1620	Apr 2					2190		Mar 16	1986
LOWEST DAILY MEAN	8.8	Oct 8	5.1	Sep 1					1.2		Jul 29	1970
ANNUAL SEVEN-DAY MINIMUM	13	Oct 3	5.9	Aug 27					1.8		Oct 5	1980
INSTANTANEOUS PEAK FLOW			1640	Apr 2					2200		Sep 27	1985
INSTANTANEOUS PEAK STAGE			6.51	Apr 2					6.89		Sep 27	1985
INSTANTANEOUS LOW FLOW			5.1	Aug 10, 11, Sep 1-3					a.00		Oct 2, 3	1968
ANNUAL RUNOFF (CFSM)	1.41	§1.41	1.81	§1.81					1.73		§1.73	
ANNUAL RUNOFF (INCHES)	19.15	§19.15	24.61	§24.61					23.47		§23.54	
10 PERCENT EXCEEDS	185		257						248			
50 PERCENT EXCEEDS	64		41						54			
90 PERCENT EXCEEDS	17		8.3						10			

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											

§ Adjusted for change in contents at General Edgar Jadwin Reservoir.

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

01430000 LACKAWAXEN RIVER NEAR HOMESDALE, PA

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

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.

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 fair. 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	52	75	309	e1460	e160	e88	4570	473	92	41	e23	e19
2	51	82	272	e785	e145	e86	4260	393	86	42	e24	19
3	49	504	242	e532	e140	83	3200	334	80	48	e25	54
4	41	522	212	e478	144	85	2190	291	76	44	e23	139
5	41	355	205	1290	e145	88	1180	332	78	40	e22	80
6	41	335	e193	1130	e135	85	1080	519	97	38	e21	67
7	39	282	172	715	e128	87	1050	424	90	36	e20	61
8	38	229	161	554	e120	89	1010	339	81	49	e23	55
9	47	190	153	454	e112	98	961	287	102	47	e22	53
10	218	168	e150	362	104	97	1290	249	141	41	e21	50
11	241	167	e183	319	106	97	2780	221	103	37	21	49
12	250	196	e185	306	e110	e96	1680	204	87	35	33	45
13	200	544	e177	373	e108	e96	996	234	79	34	30	41
14	152	495	e164	378	e105	e98	736	194	73	33	25	38
15	126	350	e160	327	e98	e100	599	168	73	30	22	36
16	115	278	e148	288	e94	e105	770	158	84	27	24	34
17	108	238	271	265	e92	e110	2160	146	74	24	33	43
18	96	217	569	234	e96	e115	1340	135	68	22	45	44
19	90	196	456	219	e100	e120	859	142	64	28	40	42
20	87	179	449	e230	e98	e125	649	143	63	34	34	39
21	85	168	486	e214	e96	126	602	135	74	e31	30	47
22	86	331	387	215	e94	132	1680	125	87	e28	27	52
23	85	676	324	259	e92	145	1670	116	68	e27	24	54
24	81	606	291	267	e90	295	1100	109	58	e26	21	52
25	82	602	e250	427	e94	497	813	106	52	e25	24	51
26	84	568	e218	318	e90	601	861	100	48	e26	22	120
27	83	647	e200	266	e88	927	1600	93	48	e27	20	137
28	82	508	e190	223	e88	1760	976	89	47	e25	19	163
29	80	413	178	204	---	3190	699	94	44	e24	19	120
30	81	356	290	e190	---	4350	565	87	43	e23	e20	109
31	78	---	1460	179	---	4090	---	85	---	e24	e19	---
TOTAL	2989	10477	9105	13461	3072	18061	43926	6525	2260	1016	776	1913
MEAN	96.4	349	294	434	110	583	1464	210	75.3	32.8	25.0	63.8
MAX	250	676	1460	1460	160	4350	4570	519	141	49	45	163
MIN	38	75	148	179	88	83	565	85	43	22	19	19
MEAN [‡]	99.3	354	305	420	107	613	1442	201	71.9	30.5	25.2	71.7
CFSM [‡]	.60	2.16	1.86	2.56	.65	3.74	8.79	1.23	.44	.19	.15	.44
IN. [‡]	.69	2.41	2.14	2.95	.68	4.31	9.81	1.42	.49	.22	.17	.49

[‡] Adjusted for change in contents at General Edgar Jadwin Reservoir and Prompton Reservoir.

e Estimated.

LACKAWAXEN RIVER BASIN

01430000 LACKAWAXEN RIVER NEAR HOMESDALE, PA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1960 - 1969, 1986-1993, BY WATER YEAR (WY) (SINCE REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	135	279	262	232	269	561	557	341	185	85.1	75.7	115
MAX	344	650	679	434	716	1133	1464	985	544	220	240	656
(WY)	1990	1987	1991	1993	1990	1986	1993	1989	1989	1989	1990	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 1992 CALENDAR YEAR

FOR 1993 WATER YEAR

WATER YEARS 1960 - 1969
1986 - 1993

ANNUAL TOTAL	87140		113581									
ANNUAL MEAN	238	\$239	311	\$311						258	\$275	
HIGHEST ANNUAL MEAN										400		1960
LOWEST ANNUAL MEAN										130		1963
HIGHEST DAILY MEAN	2340		4570	Apr 1						6280	Mar 15	1986
LOWEST DAILY MEAN	28	Sep 21	19	Aug 28 ^a						8.8	Sep 25	1964
ANNUAL SEVEN-DAY MINIMUM	32	Sep 16	19	Aug 27						9.7	Sep 21	1964
INSTANTANEOUS PEAK FLOW			4980	Apr 1						6750	Mar 15	1986
INSTANTANEOUS PEAK STAGE			6.85	Apr 1						8.13	Mar 15	1986
INSTANTANEOUS LOW FLOW										6.2	Sep 25	1964
ANNUAL RUNOFF (CFSM)	1.45	\$1.46	1.90	\$1.90						1.57	\$1.68	
ANNUAL RUNOFF (INCHES)	19.77	\$19.79	25.76	\$25.78						21.35	\$22.77	
10 PERCENT EXCEEDS	505		705							569		
50 PERCENT EXCEEDS	168		109							140		
90 PERCENT EXCEEDS	49		27							29		

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	c18600				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											

‡ Adjusted for change in contents at General Edgar Jadwin Reservoir and Prompton Reservoir.

^a Also Aug. 29, 31, Sept. 1, 2. Daily mean discharges for Aug. 31 and Sept. 1 are estimated values.^b Computed using estimated daily discharges.^c From rating curve extended above 11,000 ft³/s.

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.

GAUGE.--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 fair. 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	75	110	395	2570	e250	e142	7410	877	149	62	40	36
2	73	115	354	1360	234	e140	6930	729	141	61	39	36
3	67	561	321	920	e220	e140	4990	623	131	75	41	56
4	63	731	293	816	e220	e142	3440	544	124	75	40	315
5	61	482	278	1820	e225	e142	2110	562	119	72	38	216
6	61	445	258	1880	e220	e144	1830	815	141	68	36	122
7	59	392	242	1180	e210	e146	1700	682	138	63	37	94
8	58	326	228	924	e195	e148	1590	544	125	68	42	80
9	67	275	206	767	e180	e153	1500	464	138	70	39	80
10	219	243	e202	622	e165	e156	1770	407	222	63	36	80
11	277	235	e230	549	e170	e156	3860	367	172	58	36	73
12	270	263	e260	518	e175	e156	2620	335	140	58	44	68
13	234	577	e225	618	e170	e158	1630	419	132	54	50	62
14	187	612	e215	673	e160	e160	1250	353	121	52	45	59
15	160	440	e215	568	e155	e164	1050	303	115	54	41	57
16	147	358	e190	494	e145	e170	1120	273	142	49	40	56
17	145	311	339	449	e155	e175	3100	250	125	47	60	64
18	129	289	848	394	e160	e185	2140	229	112	45	63	71
19	122	271	708	357	e165	e188	1440	235	106	49	61	72
20	120	250	665	e300	e160	e195	1130	242	105	58	54	67
21	117	231	831	e290	e158	e200	1010	232	116	56	50	74
22	117	335	675	e320	e155	e205	2610	212	148	50	46	95
23	116	719	558	415	e145	e220	2910	197	124	47	43	93
24	113	723	506	420	e150	e500	1920	179	92	44	41	94
25	114	710	e420	716	e150	828	1440	170	76	43	47	90
26	118	702	e400	547	e148	976	1430	159	71	43	43	158
27	119	771	379	442	e145	1490	2970	148	72	45	43	228
28	115	623	364	377	e143	2620	1830	139	72	42	41	284
29	112	509	350	347	---	e4600	1300	144	69	40	39	218
30	115	446	441	304	---	e6000	1060	138	66	39	40	183
31	114	---	2220	e280	---	e5800	---	134	---	41	38	---
TOTAL	3864	13055	13816	22237	4928	26599	71090	11105	3604	1691	1353	3281
MEAN	125	435	446	717	176	858	2370	358	120	54.5	43.6	109
MAX	277	771	2220	2570	250	6000	7410	877	222	75	63	315
MIN	58	110	190	280	143	140	1010	134	66	39	36	36
MEAN $\frac{1}{2}$	128	440	457	703	173	888	2348	349	117	52.2	43.8	117
CFSM $\frac{1}{2}$	.44	1.52	1.58	2.42	.60	3.06	8.09	1.20	.40	.18	.15	.40
IN. $\frac{1}{2}$	.51	1.70	1.82	2.79	.62	3.53	9.03	1.38	.45	.21	.17	.45

$\frac{1}{2}$ Adjusted for change in contents at Prompton Reservoir and General Edgar Jadwin Reservoir.

e Estimated.

LACKAWAXEN RIVER BASIN

01431500 LACKAWAXEN RIVER AT HAWLEY, PA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1960 - 1993, BY WATER YEAR (WY) (SINCE REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	243	428	525	458	573	999	1015	615	356	180	129	194
MAX	1056	1643	1487	1410	1434	2651	2370	1826	1475	680	347	1368
(WY)	1977	1973	1974	1979	1976	1977	1993	1989	1972	1984	1990	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 1992 CALENDAR YEAR

FOR 1993 WATER YEAR

WATER YEARS 1960 - 1993

ANNUAL TOTAL	136460		176623									
ANNUAL MEAN	373	‡374	484	‡484					475	‡476		
HIGHEST ANNUAL MEAN									761			1973
LOWEST ANNUAL MEAN									204			1965
HIGHEST DAILY MEAN	3620	Jun 1	7410	Apr 1					11600	Mar 15		1986
LOWEST DAILY MEAN	56	Sep 18, 21	36	Aug 6 ^a					16	Sep 26		1964
ANNUAL SEVEN-DAY MINIMUM	58	Sep 16	38	Aug 5					17	Sep 21		1964
INSTANTANEOUS PEAK FLOW			8080	Apr 1					16400	Jun 29		1973
INSTANTANEOUS PEAK STAGE			9.10	Apr 1					13.00	Jun 29		1973
ANNUAL RUNOFF (CFSM)	1.29	‡1.29	1.67	‡1.67					1.64	‡1.64		
ANNUAL RUNOFF (INCHES)	17.50	‡17.58	22.66	‡22.66					22.27	‡22.29		
10 PERCENT EXCEEDS	770		1150						1110			
50 PERCENT EXCEEDS	247		170						241			
90 PERCENT EXCEEDS	81		47						56			

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				1952							
LOWEST ANNUAL MEAN	316				1917							
HIGHEST DAILY MEAN	28100			May 23	1942							
LOWEST DAILY MEAN	8.0			Sep 8	1909							
ANNUAL SEVEN DAY MINIMUM	12			Sep 4	1909							
INSTANTANEOUS PEAK FLOW	b51900			Aug 19	1955							
INSTANTANEOUS PEAK STAGE	c24.80			Aug 19	1955							
ANNUAL RUNOFF (CFSM)	1.68											
ANNUAL RUNOFF (INCHES)	22.83											
10 PERCENT EXCEEDS	1110											
50 PERCENT EXCEEDS	242											
90 PERCENT EXCEEDS	49											

‡ Adjusted for change in contents at Prompton Reservoir and General Edgar Jadwin Reservoir.

^a Also Aug. 10, 11, Sept. 1, 2.^b From rating curve extended above 12,000 ft³/s on basis of slope-area measurement at gage height 20.1 ft.^c From floodmark.

LOCATION.--Lat 41°20'16", long 75°25'54", Wayne County, Hydrologic Unit 02040103, on left bank 100 ft upstream from Stevens Pond, and 2.0 mi east of Sterling.

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

GAGE.--Water-stage recorder. Elevation of gage is 1,530 ft above sea level, from topographic map.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Satellite telemetry at station. Water-quality samples collected monthly and during storm events will be published in the 1994 report.

[illegible]

LACKAWAXEN RIVER BASIN

01431620 STEVENS CREEK NEAR STERLING, PA--Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.32	.28	.71	3.1	e.76	.44	13	4.2	.67	.37	.21	.16
2	.30	.32	.76	2.8	e.94	.44	11	3.7	.61	.39	.21	.15
3	.27	.61	.70	e2.4	e.86	.45	7.1	3.3	.58	.40	.19	.22
4	.25	.38	.71	e2.1	e.80	.46	5.6	3.1	.55	.37	.19	.39
5	.25	.36	.78	6.8	e.76	.47	5.3	3.3	.54	.37	.19	.18
6	.26	.39	.71	e5.2	e.72	.44	5.1	2.9	.51	.34	.18	.16
7	.26	.36	.71	e4.0	e.70	.44	5.0	2.5	.49	.34	.20	.14
8	.39	.35	.70	e3.5	e.66	.45	5.0	2.2	.48	.34	.20	.16
9	.42	.35	.65	e3.0	e.64	.46	5.1	2.0	.55	.31	.18	.19
10	.48	.35	.65	e2.6	e.70	.44	9.0	1.8	.49	.33	.18	.24
11	.36	.35	.84	e2.3	.75	.44	10	1.6	.45	.32	.20	.16
12	.34	.41	.75	e2.2	.73	.44	7.5	1.6	.44	.32	.21	.15
13	.32	.67	.69	e2.7	.76	1.6	6.3	1.5	.44	.29	.19	.14
14	.34	.45	.65	e2.4	.68	1.3	5.4	1.4	.43	.28	.18	.14
15	.34	.45	.65	2.0	.66	.42	4.9	1.3	.42	.28	.16	.17
16	.32	e.35	.65	1.8	.65	.42	5.7	1.2	.40	.27	.19	.17
17	.32	e.32	1.3	1.7	.69	.80	5.3	1.2	.40	.30	.25	.19
18	.30	e.30	1.1	1.5	.62	.62	4.6	1.1	.40	.26	.19	.16
19	.30	e.28	.96	1.4	.61	.50	4.2	1.1	.40	.28	.18	.14
20	.30	e.26	1.2	e1.3	.57	.46	3.9	1.1	.41	.27	.18	.14
21	.27	e.40	1.2	e1.2	.56	.45	3.7	1.0	.47	.23	.16	.20
22	.28	e.60	1.1	e1.1	.56	.46	6.4	.96	.41	.26	.16	.16
23	.30	e.88	e.96	e1.0	.55	.48	e5.6	.90	.37	.25	.16	.14
24	.34	.66	e.90	e1.3	.51	.77	e4.9	.86	.37	.24	.15	.15
25	.40	.81	e.80	1.4	.48	.69	e4.3	.80	.37	.50	.17	.14
26	.26	.75	e.74	1.2	.47	.85	e6.0	.75	.40	.71	.16	.21
27	.28	.75	e.70	1.2	.44	1.2	e8.2	.72	.40	.70	.14	.23
28	.28	.72	e.66	1.1	.44	2.0	e6.2	.71	.36	.22	.20	.20
29	.28	.71	e.84	e1.0	---	4.8	5.1	.71	.36	.22	.16	.16
30	.28	.71	e1.6	e.90	---	6.2	4.7	.64	.37	.20	.14	.19
31	.28	---	3.9	e.82	---	7.2	---	.65	---	.22	.14	---
TOTAL	9.69	14.58	29.27	67.02	18.27	36.59	184.1	50.80	13.54	10.18	5.60	5.33
MEAN	.31	.49	.94	2.16	.65	1.18	6.14	1.64	.45	.33	.18	.18
MAX	.48	.88	3.9	6.8	.94	7.2	13	4.2	.67	.71	.25	.39
MIN	.25	.26	.65	.82	.44	.42	3.7	.64	.36	.20	.14	.14
CFSM	.46	.71	1.39	3.18	.96	1.74	9.02	2.41	.66	.48	.27	.26
IN.	.53	.80	1.60	3.67	1.00	2.00	10.07	2.78	.74	.56	.31	.29

STATISTICS OF MONTHLY MEAN DATA FOR PERIOD OF DAILY RECORD, BY WATER YEAR (WY)

	MEAN	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	.31	.49	.94	2.16	.65	1.18	6.14	1.64	.45	.33	.29	.25
MAX	.31	.49	.94	2.16	.65	1.18	6.14	1.64	.45	.33	.40	.33
(WY)	1993	1993	1993	1993	1993	1993	1993	1993	1993	1993	1992	1992
MIN	.31	.49	.94	2.16	.65	1.18	6.14	1.64	.45	.33	.18	.18
(WY)	1993	1993	1993	1993	1993	1993	1993	1993	1993	1993	1993	1993

SUMMARY STATISTICS

FOR 1993 WATER YEAR

FOR PERIOD OF DAILY RECORD

ANNUAL TOTAL	444.97	
ANNUAL MEAN	1.22	1.22
HIGHEST ANNUAL MEAN		1.22 1993
LOWEST ANNUAL MEAN		1.22 1993
HIGHEST DAILY MEAN	13	Apr 1 1993
LOWEST DAILY MEAN	.14	Aug 27 1993 ^a
ANNUAL SEVEN-DAY MINIMUM	.15	Sep 19 1993
INSTANTANEOUS PEAK FLOW	17	Apr 2 1993
INSTANTANEOUS PEAK STAGE	1.60	Apr 2 1993
INSTANTANEOUS LOW FLOW	.12	Sep 15 1993
ANNUAL RUNOFF (CFSM)	1.79	
ANNUAL RUNOFF (INCHES)	24.34	24.36
10 PERCENT EXCEEDS	3.9	3.2
50 PERCENT EXCEEDS	.49	.44
90 PERCENT EXCEEDS	.18	.19

^a Also several days in August and September.

e Estimated.

LACKAWAXEN RIVER BASIN

01431673 ARIEL CREEK NEAR LEDGEDALE, PA

LOCATION.--Lat 41°22'26", long 75°19'15", Wayne County, Hydrologic Unit 02040103, on left bank, 300 ft downstream from steel bridge on SR 3006, and 0.8 mi northeast of Ledgedale.

DRAINAGE AREA.--15.6 mi².

PERIOD OF RECORD.--October 1991 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 1,200 ft above sea level, from topographic map.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.9	4.1	14	123	e14	e7.4	324	42	4.8	1.2	1.2	.30
2	1.9	5.1	12	79	e17	e6.4	316	34	4.4	1.0	1.2	.25
3	1.7	37	12	55	e24	e5.0	193	30	3.7	2.2	1.2	.87
4	1.5	51	12	49	e10	e6.0	128	26	3.6	2.2	.78	5.0
5	1.5	48	11	94	e9.0	e9.0	96	28	3.6	2.0	.70	2.0
6	1.7	47	11	78	e8.4	e8.4	83	32	3.6	1.9	.74	1.8
7	1.4	39	9.8	61	e8.0	e7.2	75	28	3.5	1.7	.91	1.4
8	1.2	33	9.7	50	e7.6	e6.4	68	23	3.2	1.3	1.2	1.5
9	2.2	29	20	41	e7.2	e8.0	63	20	3.0	1.1	.90	1.5
10	11	26	18	35	e7.0	e7.6	87	18	3.7	1.7	1.2	2.7
11	7.4	24	41	33	e6.6	e7.0	146	15	3.4	1.7	1.1	1.3
12	7.1	25	e31	31	e6.8	e6.4	96	13	3.3	2.0	1.4	.78
13	6.2	38	e23	39	e10	e35	69	11	2.5	2.1	1.1	.71
14	5.8	32	15	42	e9.0	193	53	9.7	2.2	1.6	1.2	.87
15	5.9	28	16	36	e8.2	112	39	8.2	2.3	1.7	1.0	1.0
16	5.2	25	12	e31	e7.0	50	57	7.4	2.8	1.7	1.2	1.5
17	5.1	22	23	e27	e8.4	16	112	6.8	2.1	1.3	1.8	1.4
18	4.0	21	38	e24	e7.8	e11	66	6.0	1.7	1.5	1.7	1.4
19	4.3	20	34	e20	e7.2	e9.2	44	6.7	1.8	1.9	1.3	1.2
20	4.7	19	41	e18	e9.6	e8.2	33	6.8	2.5	2.5	.92	1.0
21	4.5	18	42	e16	e13	e8.0	29	6.5	3.2	1.5	1.0	1.7
22	4.3	20	34	e13	e14	e8.0	114	5.8	3.9	.91	.78	1.5
23	3.9	25	e28	e18	e8.0	e10	92	5.5	2.9	.78	.53	1.4
24	3.4	22	e23	e25	e8.8	e16	65	5.5	2.1	.76	.54	1.4
25	4.7	27	e20	39	e13	e25	50	5.3	1.7	.63	.89	1.1
26	5.1	24	e17	30	e6.2	e40	108	5.2	1.6	1.1	.69	3.5
27	4.4	22	e14	25	e6.4	e80	160	5.2	2.3	1.7	.48	3.1
28	4.0	19	e12	e21	e8.6	152	96	4.3	1.9	.89	.33	3.3
29	3.7	17	e14	e17	---	241	67	4.5	1.9	.67	.39	2.1
30	3.5	15	e23	e15	---	297	51	4.5	1.7	.60	.28	2.2
31	3.8	---	e150	e13	---	255	---	4.2	---	.99	.37	---
TOTAL	127.0	782.2	780.5	1198	270.8	1651.2	2980	428.1	84.9	44.83	29.03	49.78
MEAN	4.10	26.1	25.2	38.6	9.67	53.3	99.3	13.8	2.83	1.45	.94	1.66
MAX	11	51	150	123	24	297	324	42	4.8	2.5	1.8	5.0
MIN	1.2	4.1	9.7	13	6.2	5.0	29	4.2	1.6	.60	.28	.25
CFSM	.26	1.67	1.61	2.48	.62	3.41	6.37	.89	1.18	.09	.06	.11
IN.	.30	1.87	1.86	2.86	.65	3.94	7.11	1.02	.20	.11	.07	.12

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 1993, BY WATER YEAR (WY)

	1992	1993	1992	1993	1992	1993	1992	1993	1992	1993	1992	1993
MEAN	4.10	24.7	26.9	31.3	11.6	44.2	64.0	15.9	12.5	4.83	2.95	2.03
MAX	4.10	26.1	28.6	38.6	13.4	53.3	99.3	18.0	22.2	8.22	4.95	2.41
(WY)	1993	1993	1992	1993	1992	1993	1993	1992	1992	1992	1992	1992
MIN	4.10	23.4	25.2	23.9	9.67	35.2	28.7	13.8	2.83	1.45	.94	1.66
(WY)	1993	1992	1993	1992	1993	1992	1992	1993	1993	1993	1993	1993

SUMMARY STATISTICS

FOR 1992 CALENDAR YEAR

FOR 1993 WATER YEAR

WATER YEARS 1992 - 1993

ANNUAL TOTAL	6475.9	8426.34	
ANNUAL MEAN	17.7	23.1	
HIGHEST ANNUAL MEAN			23.1
LOWEST ANNUAL MEAN			23.1
HIGHEST DAILY MEAN	e150	Dec 31	324
LOWEST DAILY MEAN	1.1	Sep 18, 19, 21	.25
ANNUAL SEVEN-DAY MINIMUM	1.2	Sep 15	.34
INSTANTANEOUS PEAK FLOW			406
INSTANTANEOUS PEAK STAGE			3.32
INSTANTANEOUS LOW FLOW			.19
ANNUAL RUNOFF (CFSM)	1.13		1.48
ANNUAL RUNOFF (INCHES)	15.44		20.09
10 PERCENT EXCEEDS	36		45
50 PERCENT EXCEEDS	14		11
90 PERCENT EXCEEDS	2.8		1.5

e Estimated.

LOCATION.--Lat 41°27'58", long 75°16'43", Wayne County, Hydrologic Unit 02040103, on right bank 200 ft upstream from pond, and 2.0 mi. north of Lakeville.

DRAINAGE AREA. --0.34 mi².

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

GAGE.--Water-stage recorder. Elevation of gage is 1,320 ft above sea level, from topographic map.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Satellite telemetry at station. Water-quality samples collected monthly and during storm events will be published in the 1994 report.

[illegible]

LACKAWAXEN RIVER BASIN

01431683 UNNAMED TRIBUTARY TO PURDY CREEK NEAR LAKEVILLE, PA--Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.33	4.5	e.20	e.12	12	1.6	.05	.00	.00	.00
2	.00	.02	.31	2.9	e.27	e.12	10	1.3	.04	.00	.00	.00
3	.00	.60	.35	2.9	e.25	e.12	5.4	1.2	.03	.00	.00	.00
4	.00	.39	.32	2.1	e.24	e.12	3.5	1.1	.02	.00	.00	.10
5	.00	.22	.31	3.7	e.23	e.13	2.7	1.2	.01	.00	.00	.00
6	.00	.23	.28	2.4	e.22	e.12	2.7	1.2	.03	.00	.00	.00
7	.00	.16	.24	1.8	e.21	e.13	2.4	1.0	.01	.00	.00	.00
8	.00	.11	.21	1.6	e.19	e.13	2.2	.85	.00	.00	.00	.00
9	.03	.07	.21	1.4	e.18	e.13	1.9	.75	.13	.00	.00	.00
10	.23	.05	.21	1.3	e.19	e.13	2.5	.67	.12	.00	.00	.00
11	.12	.05	.20	e1.2	e.21	e.13	4.2	.60	.03	.00	.00	.00
12	.08	.08	.24	e1.1	e.20	e.13	2.6	.58	.00	.00	.00	.00
13	.03	.38	.21	e1.0	e.19	e.41	2.1	.79	.00	.00	.00	.00
14	.01	.27	.21	e1.2	e.19	e.35	1.8	.63	.00	.00	.00	.00
15	.00	.18	.21	e1.0	e.18	e.13	1.5	.52	.02	.00	.00	.00
16	.00	.14	.20	e.90	e.17	e.13	2.2	.45	.10	.00	.00	.00
17	.00	.12	.60	e.76	e.18	e.22	3.0	.40	.02	.00	.00	.00
18	.00	.12	.83	e.66	e.17	e.20	2.0	.32	.00	.00	.00	.00
19	.00	.11	.74	e.56	e.17	e.16	1.6	.34	.00	.00	.00	.00
20	.00	.10	.90	e.50	e.16	e.15	1.5	.40	.00	.00	.00	.00
21	.00	.10	1.1	e.42	e.15	e.13	1.5	.42	.03	.00	.00	.00
22	.00	.11	1.0	e.35	e.15	e.12	4.0	.36	.04	.00	.00	.00
23	.00	.51	e.88	e.31	e.14	e.13	2.8	.29	.00	.00	.00	.00
24	.00	.43	e.80	e.36	e.13	e.21	2.2	.24	.00	.00	.00	.00
25	.00	.55	e.72	e.40	e.13	e.19	1.8	.21	.00	.00	.00	.00
26	.00	.51	e.66	e.35	e.12	e.60	3.3	.13	.00	.00	.00	.00
27	.00	.46	e.58	e.32	e.12	1.6	4.6	.08	.00	.00	.00	.02
28	.00	.41	e.52	e.30	e.12	3.6	2.8	.07	.00	.00	.00	.01
29	.00	.38	e.60	e.27	---	10	2.3	.07	.00	.00	.00	.00
30	.00	.35	e.80	e.25	---	12	1.9	.05	.00	.00	.00	.00
31	.00	---	4.2	e.23	---	9.9	---	.05	---	.00	.00	---
TOTAL	0.50	7.21	18.97	37.04	5.06	41.74	95.0	17.87	0.68	0.00	0.00	0.13
MEAN	.016	.24	.61	1.19	.18	1.35	3.17	.58	.023	.000	.000	.004
MAX	.23	.60	4.2	4.5	.27	.12	12	1.6	.13	.00	.00	.10
MIN	.00	.00	.20	.23	.12	.12	1.5	.05	.00	.00	.00	.00
CFSM	.05	.71	1.80	3.51	.53	3.96	9.31	1.70	.07	.00	.00	.01
IN.	.05	.79	2.08	4.05	.55	4.57	10.39	1.96	.07	.00	.00	.01

STATISTICS OF MONTHLY MEAN DATA FOR PERIOD OF DAILY RECORD, BY WATER YEAR (WY)

	MEAN	.016	.24	.61	1.19	.18	1.35	3.17	.58	.023	.000	.029	.002
MAX	.016	.24	.61	1.19	.18	1.35	3.17	.58	.023	.000	.058	.004	.004
(WY)	1993	1993	1993	1993	1993	1993	1993	1993	1993	1993	1993	1992	1993
MIN	.016	.24	.61	1.19	.18	1.35	3.17	.58	.023	.000	.000	.000	.000
(WY)	1993	1993	1993	1993	1993	1993	1993	1993	1993	1993	1993	1993	1992

SUMMARY STATISTICS

FOR 1993 WATER YEAR

FOR PERIOD OF DAILY RECORD

ANNUAL TOTAL	224.20	
ANNUAL MEAN	.61	
HIGHEST ANNUAL MEAN	.61	1993
LOWEST ANNUAL MEAN	.61	1993
HIGHEST DAILY MEAN	12	Mar 30
LOWEST DAILY MEAN	.00	many days
ANNUAL SEVEN-DAY MINIMUM	.00	Oct 1
INSTANTANEOUS PEAK FLOW	15	Mar 30
INSTANTANEOUS PEAK STAGE	4.78	Mar 30
INSTANTANEOUS LOW FLOW	.00	many days
ANNUAL RUNOFF (CFSM)	1.81	
ANNUAL RUNOFF (INCHES)	24.53	
10 PERCENT EXCEEDS	1.8	1.5
50 PERCENT EXCEEDS	.13	.09
90 PERCENT EXCEEDS	.00	.00

e Estimated.

LACKAWAXEN RIVER BASIN

01431685 PURDY CREEK AT LAKEVILLE, PA

LOCATION.--Lat 41°25'41", long 75°16'08", Wayne County, Hydrologic Unit 02040103, on right bank, 75 ft upstream from SR 3015 bridge, 300 ft upstream from mouth, and 0.8 mi southeast of Lakeville.

DRAINAGE AREA.--8.18 mi².

PERIOD OF RECORD.--December 1991 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,200 ft above sea level, from topographic map.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.34	.47	4.6	53	e5.6	e2.9	163	24	2.0	.46	.24	.24
2	.23	1.4	4.2	36	e5.0	e2.5	204	20	1.5	.48	.22	.26
3	.25	13	4.3	27	e4.5	e2.1	105	17	1.3	1.4	.21	.76
4	.19	6.6	3.6	25	e4.3	e3.0	60	15	1.3	1.1	.19	1.2
5	.18	4.7	4.6	48	e4.0	e5.2	46	17	1.3	.74	.18	.65
6	.17	5.2	3.6	38	e3.8	5.2	42	19	1.8	.63	.19	.46
7	.19	3.5	2.8	32	e3.7	4.5	38	16	1.4	.43	.23	.39
8	.15	2.9	e2.1	25	e3.5	e3.9	35	13	1.4	.33	.21	.45
9	1.0	4.0	e1.7	19	e3.4	e4.5	32	11	2.8	.31	.18	.51
10	4.2	2.6	e5.0	16	e3.3	e5.2	41	8.3	2.9	.28	.16	1.6
11	1.8	2.3	e21	15	e3.5	5.5	66	7.8	2.1	.25	.21	.69
12	1.8	2.7	e15	15	e3.9	4.7	44	7.1	1.5	.25	.25	.39
13	1.3	e9.0	e11	20	e5.0	58	36	7.6	1.4	.23	.22	.34
14	1.2	e6.6	e7.8	19	e4.5	40	28	6.2	1.2	.22	.21	.33
15	1.2	e4.5	e8.4	16	e4.1	10	25	5.1	1.2	.21	.18	.43
16	.90	e3.4	e6.2	e13	e4.8	7.2	33	4.7	2.5	.20	.25	.51
17	1.5	e2.7	13	e11	e5.4	e6.0	53	3.9	1.9	.17	.33	.61
18	.52	e2.3	18	e9.8	e4.8	e5.2	39	3.8	1.6	.14	.26	.57
19	1.0	e2.0	13	e8.0	e6.0	e4.5	29	5.1	1.4	.23	.31	.48
20	.53	e1.8	18	e7.0	e9.0	e4.0	25	6.1	1.3	.23	.23	.38
21	.47	e1.6	18	e6.0	e14	e4.3	22	e5.5	2.1	.21	.22	.83
22	.58	e3.2	14	e7.0	e5.0	e4.7	55	e4.5	2.4	.18	.21	.74
23	.49	e5.8	e11	e7.8	e3.9	e8.0	48	e3.5	1.5	.17	.19	.63
24	.62	e5.2	e9.4	e9.0	e4.0	e20	34	e3.2	1.0	.12	.19	.68
25	1.2	e14	e8.2	e15	e8.4	21	28	e2.7	.79	.09	.23	.48
26	.53	9.9	e7.0	12	e6.2	24	53	e2.6	.78	.13	.20	2.3
27	.61	8.1	e6.2	10	e4.5	36	75	2.4	1.4	.18	.21	2.6
28	.47	6.3	e5.6	e8.4	e3.5	67	45	2.0	1.1	.16	.29	3.2
29	.69	5.6	e6.4	e7.0	---	117	33	2.0	.84	.15	.26	1.8
30	.75	5.3	e11	e6.4	---	146	27	1.5	.60	.22	.24	1.6
31	.55	---	e60	e6.0	---	125	---	1.5	---	.31	.23	---
TOTAL	25.61	146.67	324.7	547.4	141.6	757.1	1564	249.1	46.31	10.21	6.93	26.11
MEAN	.83	4.89	10.5	17.7	5.06	24.4	52.1	8.04	1.54	.33	.22	.87
MAX	4.2	14	60	53	14	146	204	24	2.9	1.4	.33	3.2
MIN	.15	.47	1.7	6.0	3.3	2.1	22	1.5	.60	.09	.16	.24
CFSM	.10	.60	1.28	2.16	.62	2.99	6.37	.98	.19	.04	.03	.11
IN.	.12	.67	1.48	2.49	.64	3.44	7.11	1.13	.21	.05	.03	.12

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 1993, BY WATER YEAR (WY)

	1992	1993	1992	1993	1992	1993	1992	1993	1992	1993	1992	1993
MEAN	.83	4.89	12.5	17.0	5.90	20.2	36.4	7.54	6.71	1.72	.55	.76
MAX	.83	4.89	14.6	17.7	6.72	24.4	52.1	8.04	11.9	3.11	.87	.87
(WY)	1993	1993	1992	1993	1992	1993	1993	1993	1992	1992	1992	1993
MIN	.83	4.89	10.5	16.3	5.06	16.0	20.6	7.03	1.54	.33	.22	.65
(WY)	1993	1993	1993	1992	1993	1992	1992	1992	1993	1993	1993	1992

SUMMARY STATISTICS

FOR 1992 CALENDAR YEAR

FOR 1993 WATER YEAR

WATER YEARS 1992 - 1993

ANNUAL TOTAL	3025.57	3845.74	
ANNUAL MEAN	8.27	10.5	10.2
HIGHEST ANNUAL MEAN			10.5
LOWEST ANNUAL MEAN			9.74
HIGHEST DAILY MEAN	e60	204	204
LOWEST DAILY MEAN	.15	.09	.09
ANNUAL SEVEN-DAY MINIMUM	.18	.14	.14
INSTANTANEOUS PEAK FLOW		257	257
INSTANTANEOUS PEAK STAGE		2.71	2.71
INSTANTANEOUS LOW FLOW		.04	.04
ANNUAL RUNOFF (CFSM)	1.01	1.29	1.24
ANNUAL RUNOFF (INCHES)	13.76	17.49	16.90
10 PERCENT EXCEEDS	21	30	25
50 PERCENT EXCEEDS	5.5	3.5	4.7
90 PERCENT EXCEEDS	.47	.22	.26

a Also Sept. 5 and Oct. 8.

e Estimated.

LACKAWAXEN RIVER BASIN

01432000 WALLENSPAUPACK CREEK AT WILSONVILLE, PA

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.

DRAINAGE AREA.--228 mi².

PERIOD OF RECORD.--October 1909 to current year. Monthly discharge only for some periods, published in WSP 1302.

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.

GAGE.--Daily discharge determined from flow through turbines, computed from records of generator output and flow over roller gates on basis of head on gates. Prior to Nov. 3, 1925, nonrecording gage at site 1,000 ft downstream from dam at datum 1,146.78 ft above sea level.

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.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	855	291	.00	.00	359	226	97	255
2	.00	466	130	.00	1060	353	.00	.00	442	224	.00	.00
3	.00	712	352	.00	1220	357	866	597	224	.00	.00	140
4	.00	464	769	765	886	451	1390	824	222	.00	.00	.00
5	.00	507	.00	738	881	428	1450	778	.00	50	.00	.00
6	.00	706	.00	749	771	.00	1460	814	.00	476	.00	.00
7	.00	.00	827	866	287	.00	1450	798	.00	518	.00	33
8	.00	.00	775	937	893	346	1350	.00	224	440	.00	.00
9	.00	209	790	.00	854	355	1450	.00	222	570	2.0	.00
10	.00	.00	766	.00	883	797	1450	821	227	231	.00	.00
11	.00	.00	768	880	881	903	1630	383	223	225	167	.00
12	.00	.00	.00	866	866	352	1790	6.0	.00	472	.00	.00
13	.00	.00	.00	868	763	442	1800	5.0	.00	531	.00	.00
14	.00	.00	764	864	288	1030	1800	.00	216	448	.00	.00
15	.00	.00	771	871	884	1210	1810	.00	224	212	.00	.00
16	.00	208	775	569	891	525	1800	.00	234	460	.00	.00
17	.00	12	774	.00	902	836	1780	241	226	.00	.00	9.0
18	.00	.00	764	867	931	998	1790	229	230	.00	.00	.00
19	228	173	.00	859	948	387	1800	227	.00	645	.00	.00
20	.00	.00	.00	889	884	.00	1800	231	.00	462	147	185
21	.00	.00	598	876	354	.00	1800	227	224	227	.00	204
22	.00	.00	100	871	876	.00	1780	.00	222	455	.00	208
23	32	.00	.00	631	890	.00	1770	.00	227	464	.00	265
24	.00	.00	.00	346	884	.00	.00	.00	230	.00	.00	227
25	.00	.00	.00	867	957	.00	.00	.00	228	229	.00	.00
26	474	.00	.00	871	871	.00	1710	.00	.00	275	.00	.00
27	469	.00	67	873	767	.00	1220	.00	.00	351	327	339
28	470	.00	346	879	286	.00	1800	.00	230	372	.00	221
29	458	.00	336	741	---	.00	1800	.00	221	231	.00	238
30	466	.00	.00	756	---	.00	1600	.00	224	214	117	219
31	.00	---	.00	358	---	.00	---	.00	---	.00	.00	---
TOTAL	2597.00	3457.00	10472.00	19657.00	22713	10061.00	42146.00	6181.00	5079.00	9008.00	857.00	2544.00
MEAN	83.8	115	338	634	811	325	1405	199	169	291	27.6	84.8
MAX	474	712	827	937	1220	1210	1810	824	442	645	327	339
MIN	.00	.00	.00	.00	286	.00	.00	.00	.00	.00	.00	.00

LACKAWAXEN RIVER BASIN

01432000 WALLENPAUPACK CREEK AT WILSONVILLE, PA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1926 - 1993, BY WATER YEAR (WY) (SINCE REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	286	257	335	433	435	387	451	337	376	339	318	332
MAX	750	1012	1036	1070	1112	1029	1500	1231	1573	965	995	1018
(WY)	1956	1956	1984	1978	1978	1986	1958	1989	1972	1928	1969	1987
MIN	3.10	1.50	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
(WY)	1984	1966	1926	1926	1926	1926	1926	1926	1958	1956	1956	1956

SUMMARY STATISTICS

FOR 1992 CALENDAR YEAR

FOR 1993 WATER YEAR

WATER YEARS 1926 - 1993

ANNUAL TOTAL	103626.00			134772.00								
ANNUAL MEAN	283			369								
HIGHEST ANNUAL MEAN							357			1928		
LOWEST ANNUAL MEAN							607					
HIGHEST DAILY MEAN	1500			Jun 4			1810			Apr 15		
LOWEST DAILY MEAN	.00			many days			.00			many days		
ANNUAL SEVEN-DAY MINIMUM	.00			Oct 1			.00			Oct 1		
10 PERCENT EXCEEDS	789						897			902		
50 PERCENT EXCEEDS	212						221			239		
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 Auker Creek. DRAINAGE AREA, 59.6 mi². PERIOD OF RECORD, December 1960 to current year. GAGE, data collection platform. Datum of gage is sea level (levels by U.S. Army Corps of Engineers).
REMARKS.--Reservoir formed by an earth and rockfill dam with ungated bedrock spillway at elevation of 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.
COOPERATION.--Records provided by U.S. Army Corps of Engineers
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, 5,660 acre-ft, Apr. 1, elevation, 1,131.82 ft; minimum contents, 2,920 acre-ft, Aug. 10, elevation, 1,122.95 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. Datum of gage is sea level (levels by U.S. Army Corps of Engineers).
REMARKS.--Reservoir formed by an earth and rockfill dam with ungated concrete spillway at elevation 1,053.00 ft. Storage began in 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.
COOPERATION.--Records provided by U.S. Army Corps of Engineers.
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, 50.8 acre-ft, Mar. 31, elevation, 980.04 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, 81,790 acre-ft, May 27-Jun. 1, elevation, 1,185.3 ft; minimum contents, 15,540 acre-ft, Mar. 19, elevation 1,173.0 ft.

LACKAWAXEN RIVER BASIN

LAKES AND RESERVOIRS IN LACKAWAXEN RIVER BASIN--Continued

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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)
01428900 Prompton Reservoir				01429400 General Edgar Jadwin Reservoir		
Sept. 30	1,124.12	3,250	--	965.51	0	--
Oct. 31	1,124.77	3,430	+ 2.9	965.54	0	0
Nov. 30	1,125.73	3,700	+ 4.5	967.00	0	0
Dec. 31	1,128.17	4,390	+11.2	972.83	0	0
CAL YR 1992	--	--	+ 1.2	--	--	0
Jan. 31	1,125.12	3,530	-14.0	966.34	0	0
Feb. 28	1,124.43	3,340	- 3.4	965.92	0	0
Mar. 31	1,130.57	5,140	+29.3	978.81	16.2	+0.3
Apr. 31	1,126.15	3,820	-22.2	968.62	0	-0.3
May 31	1,124.23	3,280	- 8.8	965.68	0	0
June 30	1,123.52	3,080	- 3.4	965.44	0	0
July 31	1,123.01	2,940	- 2.3	965.33	0	0
Aug. 31	1,123.03	2,950	+ 0.2	965.27	0	0
Sept. 30	1,124.73	3,420	+ 7.9	965.89	0	0
WTR YR 1993	--	--	+ 0.2	--	--	0
01431700 Lake Wallenpaupack						
Sept. 30	1,179.1	46,370	--			
Oct. 31	1,179.3	47,710	+ 21.8			
Nov. 30	1,181.8	61,340	+229			
Dec. 31	1,182.6	65,620	+ 69.6			
CAL YR 1992	--	--	+ 20.8			
Jan. 31	1,182.2	63,450	- 35.3			
Feb. 28	1,175.5	27,800	-642			
Mar. 31	1,179.3	47,710	+324			
Apr. 30	1,184.5	77,000	+492			
May 31	1,185.3	81,790	+ 77.9			
June 30	1,184.3	75,720	-102			
July 31	1,181.0	57,340	-299			
Aug. 31	1,180.7	55,910	- 23.3			
Sept. 30	1,180.4	54,510	- 23.5			
WTR YR 1993	--	--	+ 11.2			

DELAWARE RIVER BASIN

01432160 DELAWARE RIVER AT BARRYVILLE, N.Y.

LOCATION.--Lat 41°28'31", Long 74°54'46", Pike County, Pa., 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 March 1975, provides data at 60-minute intervals. Prior to September 1973, water-temperature recorder provided continuous recordings.

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

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum (water years 1968-73, 1976-78, 1980-82, 1986-88, 1990-93), 32.0°C, July 20, 21, 1980; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 31.5°C, July 11; minimum, 0.0°C on many days during winter period.

WATER TEMPERATURE, (DEG. C), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	14.0	10.5	12.0	8.0	7.0	7.5	4.5	4.5	4.5	1.0	0.5	1.0
2	13.5	11.0	12.0	7.5	5.5	6.5	4.5	4.0	4.0	0.5	0.0	0.5
3	14.5	12.5	13.5	8.5	6.5	7.5	4.5	4.0	4.0	0.0	0.0	0.0
4	15.0	13.5	14.5	9.0	7.5	8.0	4.5	3.0	3.5	1.5	0.0	1.0
5	14.0	12.5	13.0	8.5	8.0	8.5	4.0	1.5	3.0	3.0	1.5	2.5
6	13.0	11.5	12.5	8.5	7.5	8.0	1.5	0.5	1.0	3.0	2.0	2.5
7	12.5	11.0	12.0	8.0	5.5	7.0	2.5	0.5	1.5	2.0	2.0	2.0
8	12.5	11.0	12.0	5.5	4.0	5.0	2.5	1.0	1.5	2.0	2.0	2.0
9	13.0	12.0	12.5	5.0	3.0	3.5	2.0	0.0	0.5	2.0	1.0	1.5
10	14.0	13.0	13.5	4.5	3.5	4.0	1.5	0.0	0.5	1.0	0.0	0.5
11	13.5	12.5	13.0	5.5	4.5	5.0	2.0	0.0	1.0	0.0	0.0	0.0
12	13.0	12.0	12.5	7.0	5.5	6.0	2.0	0.0	0.5	0.5	0.0	0.0
13	12.5	11.5	12.0	8.0	7.0	7.5	1.0	0.5	0.5	1.0	0.5	0.5
14	12.0	10.5	11.0	7.5	5.5	6.5	1.5	0.0	0.5	1.0	0.5	0.5
15	12.0	10.5	11.0	5.5	4.0	5.0	1.5	0.0	1.0	1.5	0.5	1.0
16	13.5	12.0	12.5	4.0	3.0	3.5	2.0	1.0	1.5	1.0	0.5	1.0
17	13.0	10.5	11.5	3.5	3.0	3.5	2.0	1.5	2.0	1.0	0.5	0.5
18	10.5	9.0	10.0	3.0	3.0	3.0	2.0	1.5	1.5	0.5	0.0	0.0
19	10.0	8.0	9.0	3.0	2.5	3.0	1.5	1.0	1.0	0.0	0.0	0.0
20	8.5	7.5	8.0	3.0	2.5	3.0	2.0	1.5	1.5	0.0	0.0	0.0
21	8.0	7.5	8.0	4.0	3.0	3.5	1.5	0.5	1.0	0.5	0.0	0.0
22	8.5	7.0	8.0	5.5	4.0	4.5	1.0	0.5	1.0	1.0	0.5	0.5
23	8.5	7.0	8.0	7.5	5.5	6.5	1.0	0.5	0.5	1.0	0.0	0.5
24	8.5	8.0	8.5	8.0	7.5	7.5	0.5	0.0	0.0	1.5	0.0	0.5
25	8.0	7.5	8.0	7.5	7.0	7.5	0.0	0.0	0.0	1.5	0.0	0.5
26	9.0	6.5	7.5	7.5	7.0	7.5	0.0	0.0	0.0	0.5	0.0	0.0
27	9.5	7.5	8.5	7.5	7.0	7.5	0.0	0.0	0.0	0.5	0.0	0.0
28	9.0	7.0	8.0	7.0	5.5	6.5	0.0	0.0	0.0	0.5	0.0	0.0
29	9.5	7.5	8.0	5.5	5.0	5.0	0.0	0.0	0.0	0.5	0.0	0.0
30	9.5	8.5	9.0	5.0	4.5	5.0	0.0	0.0	0.0	0.0	0.0	0.0
31	9.5	8.0	8.5	---	---	---	1.0	0.0	0.5	0.0	0.0	0.0
MONTH	15.0	6.5	10.5	9.0	2.5	6.0	4.5	0.0	1.0	3.0	0.0	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.

(e) more than 20 samples per year.

DELAWARE RIVER BASIN

01432160 DELAWARE RIVER AT BARRYVILLE, N.Y.--Continued

WATER TEMPERATURE, (DEG. C), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	0.0	0.0	0.0	2.0	0.0	0.5	3.0	2.5	2.5	---	---	---
2	0.5	0.0	0.0	3.5	0.0	1.5	2.5	2.0	2.5	---	---	---
3	0.0	0.0	0.0	4.5	0.5	2.0	2.5	2.0	2.5	---	---	---
4	0.0	0.0	0.0	1.5	0.0	1.0	2.5	2.0	2.0	---	---	---
5	0.5	0.0	0.0	1.0	0.0	0.5	4.0	2.0	3.0	---	---	---
6	0.5	0.0	0.0	2.5	0.5	1.0	5.0	3.0	4.0	---	---	---
7	0.5	0.0	0.0	4.0	0.0	2.0	5.5	3.5	4.5	---	---	---
8	0.0	0.0	0.0	2.0	1.0	1.5	6.5	4.0	5.0	---	---	---
9	0.5	0.0	0.0	2.0	1.0	1.5	6.0	4.5	5.5	---	---	---
10	1.5	0.0	1.0	1.5	0.0	1.0	6.0	5.5	6.0	---	---	---
11	1.0	0.5	1.0	1.5	1.0	1.5	6.0	4.5	5.5	---	---	---
12	1.0	0.0	0.0	3.0	0.0	1.5	4.5	4.0	4.5	---	---	---
13	0.5	0.0	0.0	1.5	0.0	0.5	4.5	3.5	4.0	---	---	---
14	1.0	0.0	0.5	1.0	0.0	0.5	6.0	3.5	4.5	---	---	---
15	1.0	0.0	0.5	0.0	0.0	0.0	6.5	5.5	6.0	---	---	---
16	1.0	0.0	0.5	0.5	0.0	0.5	7.5	6.0	6.5	---	---	---
17	1.5	0.5	1.0	1.5	0.5	1.0	7.5	7.0	7.5	---	---	---
18	1.0	0.0	0.5	1.0	0.0	0.5	7.5	6.0	6.5	---	---	---
19	1.0	0.0	0.0	1.5	0.0	0.5	7.5	5.5	6.5	---	---	---
20	1.0	0.0	0.0	2.0	0.0	1.0	9.0	7.0	8.0	---	---	---
21	0.5	0.0	0.0	1.5	0.0	1.0	8.5	8.0	8.5	---	---	---
22	1.0	0.0	0.5	3.0	0.5	1.5	8.5	---	---	---	---	---
23	1.0	0.0	0.5	2.0	0.0	1.0	---	---	---	---	---	---
24	0.5	0.0	0.0	1.0	0.5	1.0	---	---	---	---	---	---
25	0.5	0.0	0.5	1.5	0.5	1.0	---	---	---	---	---	---
26	1.0	0.0	0.5	2.0	0.5	1.0	---	---	---	---	---	---
27	2.5	0.0	0.5	2.0	0.5	1.5	---	---	---	---	---	---
28	2.5	0.0	1.0	1.5	0.5	1.0	---	---	---	---	---	---
29	---	---	---	1.0	0.0	0.5	---	---	---	---	---	---
30	---	---	---	1.5	1.0	1.5	---	---	---	---	---	---
31	---	---	---	3.0	1.5	2.5	---	---	---	---	---	---
MONTH	2.5	0.0	0.5	4.5	0.0	1.0	---	---	---	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	---	---	---	28.5	21.0	25.0	24.5	22.0	23.5	24.5	22.5	23.5
2	---	---	---	24.5	21.0	22.5	24.0	22.0	23.5	23.5	21.0	22.0
3	20.5	---	---	23.0	20.0	21.5	25.0	22.0	23.5	23.0	21.0	22.0
4	22.5	15.5	18.5	25.5	22.0	24.0	25.0	22.0	23.5	22.5	21.0	21.5
5	19.0	15.5	16.5	28.0	23.0	25.5	23.0	21.0	22.0	23.0	20.5	22.0
6	17.5	15.5	16.0	29.0	24.0	26.5	21.0	19.5	20.0	---	---	---
7	18.5	14.5	16.5	30.0	22.0	26.5	20.0	18.5	19.0	---	---	---
8	22.0	16.5	19.0	30.5	22.5	26.5	20.5	18.0	19.0	---	---	---
9	24.5	18.0	21.0	31.0	23.0	27.5	20.5	18.0	19.5	---	---	---
10	23.5	19.0	22.0	30.5	23.0	27.0	22.0	19.0	20.5	---	---	---
11	24.0	21.0	22.5	31.5	25.0	28.5	21.0	19.5	20.0	---	---	---
12	25.5	19.5	22.5	30.0	25.0	27.5	20.0	18.5	19.5	---	---	---
13	27.5	20.5	24.0	29.5	22.5	26.0	21.5	19.0	20.0	---	---	---
14	28.0	22.0	25.0	29.0	21.5	25.0	22.0	19.5	21.0	---	---	---
15	26.5	20.5	23.5	27.5	22.0	25.0	23.5	20.5	22.0	---	---	---
16	25.0	21.0	23.0	27.5	20.0	24.5	23.0	21.5	22.0	---	---	---
17	26.0	21.0	23.5	25.5	20.0	23.5	21.5	19.5	20.5	---	---	---
18	27.5	21.5	24.5	26.0	22.0	24.5	20.5	18.5	19.5	---	---	---
19	27.5	22.5	25.5	24.5	19.5	22.5	22.0	19.0	20.5	---	---	---
20	26.0	24.0	25.0	26.5	19.0	22.5	21.5	20.5	21.0	---	---	---
21	25.5	23.0	24.0	25.5	20.0	23.0	22.5	20.0	21.0	---	---	---
22	24.0	21.5	22.5	25.5	19.0	23.0	22.0	19.0	20.5	---	---	---
23	23.0	20.0	21.5	24.5	19.0	22.5	22.0	20.0	21.0	---	---	---
24	24.5	19.0	22.0	24.5	19.5	22.5	23.0	20.5	22.0	---	---	---
25	26.5	20.0	23.5	25.5	22.0	24.0	24.0	22.0	23.0	---	---	---
26	26.5	21.0	24.0	25.0	21.0	22.5	24.5	22.0	23.5	---	---	---
27	26.5	23.5	25.0	23.5	20.0	22.0	26.0	22.5	24.0	---	---	---
28	27.0	24.0	26.0	25.0	21.0	23.0	26.5	23.0	24.5	---	---	---
29	26.5	23.0	24.5	26.0	22.0	24.0	25.5	23.5	24.5	---	---	---
30	27.0	22.0	24.5	25.0	22.5	24.0	24.5	23.0	24.0	---	---	---
31	---	---	---	24.5	22.0	23.5	24.0	23.0	23.5	---	---	---
MONTH	---	---	---	31.5	19.0	24.5	26.5	18.0	21.5	---	---	---

DELAWARE RIVER BASIN

01432805 DELAWARE RIVER AT POND EDDY, N.Y.

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

DRAINAGE AREA.--2,820 mi².

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1973 to current year.

INSTRUMENTATION.--Water-temperature recorder since October 1973, provides data at 60-minute intervals.

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

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum (water years 1976, 1978, 1980-81, 1983-84, 1986, 1989-90, 1992-93) 31.0°C, July 21, 1980; minimum (water years 1974, 1977-78, 1980, 1983-93), 0.0°C on many days during winter periods, except 1978, 1980, and 1985.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 30.5°C, July 11; minimum, 0.0°C on many days during winter period.

WATER TEMPERATURE, (DEG. C), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER				NOVEMBER			DECEMBER			JANUARY		
1	14.5	11.5	12.5	8.0	7.0	7.5	5.0	4.5	4.5	1.0	0.5	1.0
2	14.5	11.5	12.5	7.0	5.5	6.5	4.5	4.0	4.0	0.5	0.5	0.5
3	15.5	12.5	14.0	8.0	5.5	7.0	4.0	3.5	4.0	0.5	0.0	0.0
4	15.5	14.0	14.5	8.0	7.5	7.5	3.5	3.0	3.5	1.5	0.5	1.0
5	15.0	12.5	13.5	8.5	8.0	8.0	3.5	2.0	3.0	3.0	1.5	2.5
6	14.0	11.5	12.5	8.0	7.5	7.5	2.0	1.0	1.0	3.5	3.0	3.0
7	14.0	11.0	12.5	7.5	6.0	7.0	1.5	0.5	1.0	3.0	2.5	2.5
8	14.0	11.0	12.5	6.0	4.5	5.0	2.0	0.5	1.5	2.5	2.5	2.5
9	13.5	12.5	13.0	4.5	3.0	3.5	1.0	0.0	0.5	2.5	1.5	2.0
10	14.5	13.0	13.5	4.5	3.5	4.0	0.5	0.0	0.0	1.5	0.0	1.0
11	14.0	13.0	13.5	5.0	4.0	4.5	0.5	0.0	0.0	0.0	0.0	0.0
12	13.0	12.0	12.5	7.0	5.0	5.5	1.0	0.0	0.5	0.5	0.0	0.0
13	13.0	12.0	12.5	8.0	7.0	7.5	1.0	0.0	1.0	1.0	0.5	0.5
14	12.0	10.5	11.0	7.0	6.0	6.5	1.0	0.5	0.5	1.0	0.5	1.0
15	12.5	10.5	11.5	6.0	4.5	5.0	1.0	0.0	0.5	1.5	1.0	1.0
16	13.5	11.5	12.5	4.5	3.0	3.5	1.5	0.5	1.0	1.5	1.0	1.5
17	13.0	10.5	12.0	3.5	3.0	3.0	2.0	1.5	2.0	1.5	1.0	1.0
18	10.5	9.5	10.0	3.0	3.0	3.0	2.0	1.5	2.0	1.0	0.0	0.5
19	9.5	8.0	9.5	3.5	2.5	3.0	1.5	1.0	1.5	0.0	0.0	0.0
20	8.5	7.5	8.0	3.0	2.5	3.0	2.0	1.5	2.0	0.5	0.0	0.0
21	8.5	8.0	8.0	4.0	3.0	3.5	1.5	1.0	1.0	0.5	0.0	0.0
22	9.0	7.5	8.0	5.0	4.0	4.5	1.5	0.5	1.0	1.0	0.0	0.5
23	9.5	7.0	8.0	7.5	5.0	6.5	1.0	0.5	1.0	1.0	1.0	1.0
24	8.5	8.0	8.5	7.5	7.5	7.5	1.0	0.0	0.5	1.5	0.5	1.0
25	8.5	7.5	8.0	7.5	7.5	7.5	0.0	0.0	0.0	1.5	0.5	1.0
26	8.0	6.5	7.5	7.5	7.0	7.5	0.0	0.0	0.0	0.5	0.0	0.0
27	9.5	7.5	8.5	7.5	7.0	7.5	0.5	0.0	0.0	1.0	0.0	0.5
28	9.0	7.5	8.0	7.0	6.0	6.5	0.0	0.0	0.0	1.0	0.0	0.5
29	9.0	7.5	8.0	6.0	5.0	5.5	0.0	0.0	0.0	1.0	0.0	0.5
30	9.5	8.0	9.0	5.0	4.5	5.0	0.0	0.0	0.0	0.5	0.0	0.0
31	9.0	8.0	8.5	---	---	---	1.0	0.0	0.5	0.5	0.0	0.0
MONTH	15.5	6.5	11.0	8.5	2.5	5.5	5.0	0.0	1.0	3.5	0.0	1.0

DELAWARE RIVER BASIN

01432805 DELAWARE RIVER AT POND EDDY, N.Y.--Continued

WATER TEMPERATURE, (DEG. C), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	0.5	0.0	0.0	0.5	0.0	0.0	3.0	2.0	2.5	13.0	10.0	11.5
2	0.5	0.0	0.0	1.0	0.0	0.0	2.0	2.0	2.0	14.0	12.0	13.0
3	0.5	0.0	0.0	1.0	0.0	0.5	2.5	2.0	2.0	14.5	13.0	14.0
4	0.5	0.0	0.0	0.5	0.0	0.0	2.0	2.0	2.0	14.5	13.0	13.5
5	0.5	0.0	0.0	0.0	0.0	0.0	3.5	1.5	2.5	14.5	13.5	14.0
6	0.5	0.0	0.0	0.5	0.0	0.5	4.5	3.0	4.0	15.5	13.5	14.0
7	0.5	0.0	0.0	2.0	0.0	1.0	5.5	3.5	4.5	16.0	13.0	14.5
8	0.5	0.0	0.0	1.0	0.5	1.0	6.0	4.0	5.0	17.0	13.0	15.0
9	0.5	0.0	0.0	2.0	0.5	1.0	6.0	5.0	5.5	18.5	15.5	17.0
10	1.0	0.0	0.0	1.5	0.5	1.0	6.0	5.5	6.0	19.5	16.5	18.0
11	0.5	0.0	0.5	1.5	0.5	1.0	6.0	4.5	5.5	20.0	16.0	18.0
12	0.0	0.0	0.0	2.0	0.0	1.0	4.5	4.0	4.0	20.5	18.0	19.5
13	0.0	0.0	0.0	1.0	0.0	0.0	4.5	3.5	4.0	20.0	18.0	19.0
14	0.5	0.0	0.0	0.0	0.0	0.0	5.5	3.5	4.5	19.5	17.0	18.0
15	0.5	0.0	0.0	0.0	0.0	0.0	6.5	5.5	6.0	20.0	17.5	18.5
16	0.0	0.0	0.0	0.0	0.0	0.0	7.5	6.5	7.0	19.5	18.0	18.5
17	1.0	0.0	0.5	0.0	0.0	0.0	8.0	7.5	7.5	19.5	16.5	18.0
18	0.5	0.0	0.0	0.5	0.0	0.0	7.5	6.0	6.5	18.0	16.0	17.0
19	0.5	0.0	0.0	0.5	0.0	0.0	7.5	5.5	6.5	16.5	15.0	15.5
20	0.5	0.0	0.0	0.5	0.0	0.5	9.0	6.5	7.5	15.0	13.5	14.0
21	0.0	0.0	0.0	0.5	0.0	0.5	9.0	8.5	8.5	15.5	12.5	14.0
22	0.0	0.0	0.0	1.5	0.5	1.0	8.5	6.5	7.5	17.0	13.5	15.0
23	0.5	0.0	0.0	1.5	0.5	1.0	6.5	5.5	6.0	18.5	14.0	16.0
24	0.0	0.0	0.0	1.0	0.5	0.5	7.0	5.0	6.0	18.0	16.0	17.0
25	0.5	0.0	0.0	1.0	0.5	0.5	9.5	6.5	8.0	21.0	17.0	18.5
26	0.5	0.0	0.0	2.0	0.0	1.0	9.5	8.5	9.0	22.5	18.5	19.5
27	0.5	0.0	0.0	1.5	0.0	1.0	8.5	7.0	8.0	21.5	17.5	19.0
28	0.5	0.0	0.0	1.0	0.0	0.5	9.0	7.0	8.0	21.0	17.5	19.0
29	---	---	---	0.5	0.0	0.0	10.5	8.0	9.0	20.0	18.5	19.0
30	---	---	---	1.5	0.5	1.0	11.0	9.5	10.0	20.5	16.5	18.5
31	---	---	---	3.0	1.0	2.0	---	---	---	18.5	16.5	17.5
MONTH	1.0	0.0	0.0	3.0	0.0	0.5	11.0	1.5	6.0	22.5	10.0	16.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	19.0	15.5	16.5	27.5	23.0	25.0	25.5	23.5	24.0	25.0	23.5	24.0
2	18.0	15.5	16.5	24.5	22.0	23.0	---	23.5	---	24.0	22.0	23.0
3	17.5	15.0	16.5	22.0	21.5	22.0	---	---	---	24.5	21.5	22.5
4	20.5	16.5	18.0	26.5	21.5	23.5	---	---	---	23.0	22.0	22.5
5	---	---	---	28.5	23.5	25.5	---	---	---	24.0	21.5	22.0
6	---	---	---	27.5	25.0	26.0	---	---	---	25.0	21.5	23.0
7	19.5	---	---	28.0	26.0	26.5	---	---	---	23.0	21.5	22.5
8	20.5	17.5	18.5	28.0	26.5	27.0	---	---	---	22.0	20.0	21.0
9	22.5	19.0	20.5	29.5	26.5	28.0	---	---	---	20.5	19.5	20.0
10	23.5	20.5	22.0	28.5	27.0	27.5	---	---	---	21.5	19.5	20.5
11	24.0	21.5	22.5	30.5	27.0	28.0	---	---	---	19.5	17.5	18.5
12	25.0	21.0	23.0	29.0	27.0	28.0	---	---	---	19.0	16.0	17.5
13	25.5	21.0	23.0	28.0	25.5	26.5	---	---	---	20.5	17.0	18.5
14	27.0	22.0	24.0	27.5	24.5	26.0	---	---	---	22.5	18.5	20.0
15	25.0	23.0	23.5	27.5	23.5	25.5	---	---	---	23.5	20.0	21.5
16	24.5	22.5	23.5	28.0	23.0	25.0	---	---	---	22.0	20.0	21.0
17	25.5	23.0	24.0	25.5	23.0	24.0	---	---	---	20.0	19.0	19.0
18	27.0	23.0	24.5	27.0	23.5	25.0	21.5	---	---	19.5	18.5	19.0
19	27.5	24.0	25.5	24.0	22.5	23.0	22.5	20.0	21.0	19.5	17.0	18.0
20	26.0	24.5	25.0	24.5	22.0	23.0	22.0	21.0	21.5	17.5	15.5	16.5
21	25.5	23.5	24.5	26.5	23.0	24.0	24.0	20.5	22.0	16.0	15.0	15.5
22	24.5	22.5	23.5	26.0	23.0	24.0	23.5	20.0	21.5	15.5	14.5	15.0
23	23.5	21.0	22.0	24.5	23.0	23.5	24.0	20.5	22.0	16.0	15.0	15.5
24	25.0	20.5	22.0	24.0	23.0	23.5	25.0	21.5	22.5	18.0	14.5	16.0
25	26.0	22.0	23.5	26.5	23.0	24.5	26.0	22.5	24.0	17.5	15.0	16.0
26	26.5	22.5	24.5	24.0	22.5	23.0	26.5	23.0	24.5	17.5	15.5	16.5
27	26.5	23.5	25.0	24.0	22.5	23.0	26.5	23.0	24.5	17.0	16.5	17.0
28	28.0	24.5	26.0	25.5	22.5	24.0	26.5	24.5	25.5	16.5	15.5	16.0
29	26.0	24.5	25.0	26.0	23.5	24.5	27.5	23.5	25.0	15.5	14.5	15.0
30	27.0	23.5	25.0	25.5	23.5	24.0	26.0	24.0	25.0	14.5	13.5	14.0
31	---	---	---	25.0	23.5	24.0	26.0	23.5	24.5	---	---	---
MONTH	---	---	---	30.5	21.5	25.0	---	---	---	25.0	13.5	19.0

DELAWARE RIVER BASIN

01434000 DELAWARE RIVER AT PORT JERVIS, N.Y.

LOCATION.--Lat⁴¹ 22'14", long 74°41'52", Pike County, Pa., Hydrologic Unit 02040104, on right bank 250 ft downstream from bridge (on U.S. Highways 6 and 209) between Port Jervis, N.Y. and Matamoras, Pa., 1.2 mi upstream from Neversink River, and 6.5 mi downstream from Mongaup River. Water-quality sampling site at discharge station.

DRAINAGE AREA.--3,070 mi².

WATER-DISCHARGE RECORDS

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. Flow regulated by Lake Wallenpaupack and by Toronto, Cliff Lake, and Swinging Bridge Reservoirs (see Reservoirs in Delaware River Basin) 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 (see Reservoirs in Delaware River Basin). 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 gage-height telemeter and satellite gage-height telemeter at station. Information on the above reservoirs can be found in the annual Water Data Report NJ-93-1.

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, 61,800 ft³/s, Apr. 1, gage height, 12.42 ft; minimum, 921 ft³/s, July 17, gage height, 1.79 ft; minimum daily, 1,180 ft³/s, June 14.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1400	1720	4700	15100	3300	1820	55700	12400	1960	1520	1810	1800
2	1310	1820	4390	11500	3240	1530	53300	10200	1770	1560	1940	1770
3	1510	2890	4000	7880	3660	1570	39700	8980	1840	1440	1770	1760
4	1500	6080	4070	7500	3020	1580	27900	8160	1470	1520	1730	2410
5	1540	4670	3450	10700	3180	2120	20300	7590	1290	1490	1630	2100
6	1560	4610	3060	16200	3050	1490	17600	8020	1340	1740	1590	1640
7	1590	4100	3150	12100	2680	1200	16500	7250	1460	1870	1720	1280
8	1600	3150	3500	9730	2610	1810	15800	5760	1490	1890	1790	1360
9	1790	3230	3000	7680	2940	1750	15700	4620	1640	1670	1890	1500
10	2650	2770	2680	6120	2690	1740	17300	4550	1820	1860	1800	1650
11	4560	2360	2930	5680	2730	2470	35300	4600	1990	1450	1790	1740
12	2880	2590	4020	5460	2730	2270	32500	3570	1640	1460	2010	1660
13	3180	4140	3640	5750	2480	1760	25000	3170	1200	1830	1900	1600
14	2550	7800	3480	6100	2230	2240	19700	2710	1180	1730	1920	1440
15	2160	5740	3120	5600	2090	4060	16200	2400	1310	1620	1850	1640
16	2050	5010	3170	5040	2570	2550	14600	2180	1620	1200	1870	1500
17	2040	4320	3240	3890	2560	2120	29600	2260	1980	1530	1870	1600
18	1980	3790	6690	3900	2450	3000	30300	2240	1750	1640	1900	1470
19	1900	3520	6910	3900	e2300	3210	23000	2230	1740	1610	1860	1360
20	1700	3360	5630	3510	2400	2020	18200	2300	1610	1810	1690	1570
21	1610	2790	6360	3340	2150	1960	15400	2300	1820	1570	1610	1580
22	1540	2870	5680	3650	2400	2010	17700	1880	2460	1220	1540	1660
23	1520	7310	4830	4390	2340	1830	22100	1740	2020	1610	1690	1490
24	1560	11700	e4400	3860	2600	2940	18700	1780	1700	1780	1700	1520
25	1560	9440	e3900	5210	2890	4900	16100	1750	1480	1630	1750	1640
26	2320	8930	e2500	5290	2580	6260	16000	1640	1480	1880	1960	1610
27	2610	8610	3010	4700	2240	8730	23500	1290	1740	1840	1930	1840
28	2500	7730	3080	4240	2030	15500	22000	1400	1860	1980	1960	2070
29	2270	6140	2980	4060	---	30800	18300	1520	1970	2060	1610	2060
30	2250	5280	3360	3580	---	44600	15600	1560	1750	1790	1690	1940
31	1910	---	9580	3210	---	49600	---	1580	---	1740	1880	---
TOTAL	63100	148470	128510	198870	74140	211440	709600	123630	50380	51540	55650	50260
MEAN	2035	4949	4145	6415	2648	6821	23650	3988	1679	1663	1795	1675
MAX	4560	11700	9580	16200	3660	49600	55700	12400	2460	2060	2010	2410
MIN	1310	1720	2500	3210	2030	1200	14600	1290	1180	1200	1540	1280

• Estimated

DELAWARE RIVER BASIN

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

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1993, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	3068	3987	4954	4508	5203	7927	9384	6151	3902	2611	2203	2465
MAX	10440	10310	12320	12750	13730	17520	23650	12670	12650	6680	4513	7928
(WY)	1978	1973	1974	1978	1976	1977	1993	1984	1972	1973	1969	1987
MIN	1001	884	1866	1216	1601	2583	2954	1946	993	699	963	1144
(WY)	1965	1965	1965	1981	1980	1981	1985	1965	1965	1965	1965	1965

SUMMARY STATISTICS

FOR 1992 CALENDAR YEAR

FOR 1993 WATER YEAR

WATER YEARS 1964 - 1993

ANNUAL TOTAL	1345730		1865590									
ANNUAL MEAN	3677		5111							4691		
HIGHEST ANNUAL MEAN										7216		1973
LOWEST ANNUAL MEAN										2028		1965
HIGHEST DAILY MEAN	17600		Jun 1		55700		Apr 1		78300		Jun 30	1973
LOWEST DAILY MEAN	1040		Sep 2		1180		Jun 14		385		Jul 6	1965
ANNUAL SEVEN-DAY MINIMUM	1490		Oct 1		1490		Oct 1		432		Jul 1	1965
10 PERCENT EXCEEDS	6650				13300				10000			
50 PERCENT EXCEEDS	2970				2300				2800			
90 PERCENT EXCEEDS	1650				1520				1480			

DELAWARE RIVER BASIN

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

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1957-60, 1964 to current year.**CHEMICAL DATA:** 1958-59 (e), 1964-65 (c), 1966 (a), 1967-68 (c), 1969-76 (d), 1987 (b), 1988-89 (c), 1990-91 (b), 1992 (a).**MINOR ELEMENTS DATA:** 1970 (a), 1972-73 (a), 1974-76 (c), 1987 (b), 1988-89 (c), 1990-91 (b), 1992 (a).**PESTICIDE DATA:** 1974 (a), 1987 (b), 1988-89 (c), 1990 (b).**ORGANIC DATA:** OC--1974 (b), 1975 (d).**NUTRIENT DATA:** 1968 (a), 1969-76 (d), 1987 (b), 1988-89 (c), 1990 (b).**BIOLOGICAL DATA:**

Bacteria--1973-76 (d).

Phytoplankton--1974 (b), 1975-76 (c).

Periphyton--1976 (a).

SEDIMENT DATA: 1959 (c), 1976 (c), 1988 (b), 1989 (c), 1990-91 (b), 1992 (a).**PERIOD OF DAILY RECORD.**--**SPECIFIC CONDUCTANCE:** January 1973 to September 1973.**WATER TEMPERATURES:** February 1957 to September 1960, January 1973 to September 1973, June 1974 to current year.**SUSPENDED-SEDIMENT DISCHARGE:** February 1957 to September 1960, March 1970 to June 1976.**INSTRUMENTATION.**--Water-temperature recorder since January 1973, provides data at 60-minute intervals.**REMARKS.**--Water-quality samples were collected by personnel of the New York State Department of Environmental Conservation, and were analyzed by USGS laboratories. Interruptions of temperature record were due to malfunctions of recording instrument.**EXTREMES FOR PERIOD OF DAILY RECORD.**--**WATER TEMPERATURES:** Maximum (water years 1957-59, 1973-81, 1983-84, 1988-93), 30.0°C, July 13, 1981; minimum (water years 1958-60, 1973, 1975-93), 0.0°C, on many days during winter periods, except 1984.**SUSPENDED-SEDIMENT CONCENTRATION** (water years 1957-60, 1970-76): Maximum daily mean, 760 mg/L, June 29, 1973; minimum daily mean, less than 1 mg/L on many days.**SUSPENDED-SEDIMENT DISCHARGE** (water years 1957-60, 1970-76): Maximum daily, 187,000 tons, June 29, 1973; minimum daily, 1 ton, Aug. 29, 1957.**EXTREMES FOR CURRENT YEAR.**--**WATER TEMPERATURES:** Maximum, 29.5°C, July 8, 9, 10; minimum, 0.0°C on many days during winter period.

WATER TEMPERATURE, (DEG. C), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	13.5	12.0	12.5	9.0	7.5	8.0	5.0	4.5	4.5	0.5	0.5	0.5
2	13.5	11.5	13.0	7.5	6.0	6.5	4.5	4.5	4.5	0.5	0.5	0.5
3	15.0	13.0	14.0	8.0	6.0	7.0	4.5	4.0	4.0	0.5	0.0	0.0
4	15.5	14.0	15.0	8.0	7.5	8.0	4.0	3.5	3.5	1.5	0.0	1.0
5	14.5	13.0	14.0	8.5	8.0	8.0	3.5	2.5	3.5	3.0	1.5	2.5
6	13.5	12.0	13.0	8.0	7.5	8.0	2.5	1.5	1.5	3.0	2.5	3.0
7	13.0	11.5	12.5	7.5	6.0	7.0	1.5	1.5	1.5	3.0	2.5	2.5
8	13.5	11.5	12.5	6.0	4.5	5.5	2.0	1.0	1.5	2.5	2.5	2.5
9	13.5	13.0	13.0	4.5	3.5	4.0	1.0	0.0	0.5	2.5	1.5	2.0
10	14.5	13.5	14.0	5.0	3.5	4.5	0.0	0.0	0.0	1.5	0.5	1.0
11	14.0	13.0	13.5	5.0	5.0	5.0	0.5	0.0	0.5	0.5	0.0	0.0
12	13.5	12.5	13.0	7.0	5.0	5.5	1.0	0.5	1.0	0.0	0.0	0.0
13	13.0	12.0	12.5	7.5	7.0	7.5	1.5	1.0	1.5	0.5	0.0	0.5
14	12.0	11.0	11.5	7.0	6.0	6.5	1.5	1.0	1.5	0.5	0.5	0.5
15	12.5	11.0	11.5	6.0	4.5	5.5	1.0	0.5	1.0	1.0	0.5	1.0
16	13.5	12.0	12.5	4.5	3.5	4.0	1.5	0.5	1.0	1.0	1.0	1.0
17	13.5	11.5	12.5	3.5	3.5	3.5	2.0	1.5	2.0	1.0	1.0	1.0
18	11.5	9.5	10.5	3.5	3.5	3.5	2.0	1.5	2.0	1.0	0.0	0.5
19	10.5	8.5	9.5	3.5	3.0	3.5	1.5	1.5	1.5	0.0	0.0	0.0
20	8.5	7.5	8.0	3.5	2.5	3.0	2.0	1.5	2.0	0.0	0.0	0.0
21	8.5	8.0	8.5	4.0	3.5	3.5	2.0	1.0	1.0	0.0	0.0	0.0
22	9.0	8.0	8.5	5.0	4.0	4.5	1.0	1.0	1.0	1.0	0.0	0.5
23	9.0	7.5	8.5	7.0	5.0	6.5	1.0	1.0	1.0	1.0	0.5	1.0
24	9.0	8.0	8.5	7.5	7.0	7.5	1.0	0.0	0.5	1.5	0.5	1.0
25	8.5	8.0	8.0	7.5	7.5	7.5	0.0	0.0	0.0	1.5	0.0	1.0
26	8.0	7.0	7.5	7.5	7.5	7.5	0.0	0.0	0.0	0.0	0.0	0.0
27	9.0	7.5	8.5	7.5	7.0	7.5	0.0	0.0	0.0	0.5	0.0	0.0
28	9.5	7.5	8.5	7.0	6.0	6.5	0.0	0.0	0.0	0.5	0.0	0.0
29	9.5	7.5	8.0	6.0	5.5	6.0	0.0	0.0	0.0	0.5	0.0	0.5
30	9.5	8.5	9.0	5.5	5.0	5.0	0.5	0.0	0.5	0.0	0.0	0.0
31	9.5	8.5	8.5	---	---	---	0.5	0.0	0.5	0.0	0.0	0.0
MONTH	15.5	7.0	11.0	9.0	2.5	6.0	5.0	0.0	1.5	3.0	0.0	1.0

(a) 1-2 samples per year.

(b) 3-5 samples per year.

(c) 6-9 samples per year.

(d) 10-20 samples per year.

(e) more than 20 samples per year.

DELAWARE RIVER BASIN

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

WATER TEMPERATURE, (DEG. C), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	0.0	0.0	0.0	0.0	0.0	0.0	3.0	2.5	3.0	13.0	11.0	12.0
2	0.0	0.0	0.0	1.0	0.0	0.5	2.5	2.5	2.5	14.0	12.0	13.0
3	0.0	0.0	0.0	1.5	0.0	1.0	2.5	2.5	2.5	15.0	13.5	14.0
4	0.0	0.0	0.0	1.5	0.0	0.5	2.5	2.5	2.5	14.5	13.5	14.0
5	0.0	0.0	0.0	0.0	0.0	0.0	3.5	2.0	3.0	14.5	13.5	14.0
6	0.0	0.0	0.0	1.0	0.0	0.5	4.5	3.5	4.0	15.5	13.5	14.5
7	0.0	0.0	0.0	3.0	0.5	1.5	5.5	4.0	5.0	16.0	14.0	15.0
8	0.0	0.0	0.0	2.5	1.5	2.5	6.0	4.5	5.5	17.0	14.0	15.5
9	0.0	0.0	0.0	2.5	1.0	2.0	6.5	5.5	6.0	18.5	16.0	17.0
10	0.5	0.0	0.0	2.0	1.0	1.5	6.5	6.0	6.5	19.0	17.0	18.0
11	0.0	0.0	0.0	2.0	0.0	1.0	6.5	5.0	6.0	18.5	17.0	18.0
12	0.0	0.0	0.0	2.0	0.0	1.0	5.0	4.5	4.5	21.0	18.5	19.5
13	0.0	0.0	0.0	2.0	0.0	0.5	5.0	4.0	4.5	19.5	18.0	19.0
14	0.5	0.0	0.0	0.0	0.0	0.0	6.0	4.0	5.0	20.0	16.5	18.5
15	0.0	0.0	0.0	0.0	0.0	0.0	7.0	6.0	6.5	20.0	17.0	18.5
16	0.0	0.0	0.0	0.5	0.0	0.0	8.0	7.0	7.5	19.5	18.0	19.0
17	0.5	0.0	0.5	0.5	0.0	0.5	8.5	8.0	8.0	19.5	17.0	18.5
18	0.5	0.0	0.0	0.5	0.0	0.0	8.0	6.5	7.0	18.0	16.0	17.0
19	0.0	0.0	0.0	1.0	0.0	0.5	7.5	6.0	7.0	16.0	14.5	15.0
20	0.0	0.0	0.0	1.5	0.0	1.0	9.5	7.0	8.0	14.5	13.5	14.0
21	0.0	0.0	0.0	1.5	0.5	1.0	9.5	9.0	9.0	15.5	13.0	14.5
22	0.0	0.0	0.0	3.5	1.0	2.0	9.0	7.0	8.0	16.5	13.5	15.0
23	0.0	0.0	0.0	2.5	1.5	2.0	7.0	6.0	6.5	17.5	14.0	16.0
24	0.0	0.0	0.0	2.0	1.0	1.5	7.5	6.0	6.5	17.0	16.0	16.5
25	0.0	0.0	0.0	2.0	1.0	1.5	10.0	7.0	8.5	20.0	15.5	18.0
26	0.0	0.0	0.0	2.5	0.5	1.5	10.0	9.0	9.5	20.5	16.5	18.5
27	0.0	0.0	0.0	2.5	0.5	1.5	9.0	8.0	8.5	19.5	16.0	18.0
28	0.5	0.0	0.0	2.0	1.0	1.0	9.5	7.5	8.5	19.5	17.5	18.5
29	---	---	---	1.0	0.0	0.5	11.0	8.5	9.5	19.5	17.5	18.5
30	---	---	---	1.5	1.0	1.5	11.5	10.0	10.5	19.5	16.5	18.5
31	---	---	---	3.0	1.5	2.5	---	---	---	19.0	16.5	17.0
MONTH	0.5	0.0	0.0	3.5	0.0	1.0	11.5	2.0	6.5	21.0	11.0	16.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	17.5	16.0	16.5	25.5	20.5	23.5	25.5	23.0	24.5	24.5	23.0	24.0
2	18.0	15.0	16.5	23.0	20.0	21.5	25.5	23.5	24.5	24.5	22.5	23.0
3	18.0	15.5	17.0	22.0	20.0	21.0	26.0	23.0	24.0	24.0	22.0	23.0
4	19.5	16.0	17.5	24.5	21.0	23.0	25.0	22.5	23.5	23.0	22.0	22.5
5	17.5	16.0	16.5	26.0	23.0	24.5	24.0	21.5	22.5	23.0	21.0	22.0
6	17.5	16.0	16.5	25.5	23.5	25.0	22.0	20.0	21.0	23.5	21.0	22.5
7	18.0	15.5	16.5	28.5	22.0	25.5	21.0	19.5	20.0	23.0	21.5	22.5
8	19.5	16.0	18.0	29.5	23.5	26.5	22.5	19.0	20.5	21.5	20.0	20.5
9	21.5	18.0	19.5	29.5	23.5	27.0	23.0	20.5	21.5	20.5	19.5	20.0
10	23.5	18.5	21.0	29.5	26.0	28.0	22.5	20.5	21.5	20.5	19.5	20.5
11	24.0	20.0	22.0	29.0	23.5	26.5	21.5	20.5	21.0	19.5	17.5	18.5
12	24.0	21.0	22.5	28.5	26.5	27.0	21.5	20.0	21.0	18.0	16.0	17.5
13	24.0	21.5	23.0	28.0	24.5	26.5	22.5	20.5	21.5	19.0	17.0	18.0
14	25.0	22.0	23.5	27.5	22.0	25.0	23.0	20.5	22.0	21.0	18.5	20.0
15	24.5	22.5	23.5	26.0	23.5	25.0	24.0	21.0	23.0	23.0	20.5	21.5
16	24.0	22.0	23.0	25.0	21.5	23.5	24.0	22.0	23.0	22.5	19.5	20.5
17	25.0	21.5	23.0	25.0	22.5	24.0	22.0	21.0	21.5	19.5	18.5	19.0
18	25.5	20.0	23.0	25.5	22.0	24.0	22.0	20.5	21.0	19.0	18.0	18.5
19	26.5	22.0	24.0	25.0	21.0	23.0	22.5	20.0	21.5	18.5	17.0	18.0
20	25.0	22.0	23.5	24.5	21.0	23.0	22.0	21.0	21.5	17.0	15.0	16.0
21	25.0	22.0	24.0	24.5	21.5	23.0	23.0	20.5	22.0	16.0	15.0	15.0
22	25.0	21.0	23.0	24.0	21.0	23.0	22.5	20.0	21.5	15.5	14.5	15.0
23	22.5	20.0	21.5	23.5	21.0	22.5	23.0	20.5	22.0	15.5	15.0	15.0
24	23.5	19.5	21.5	24.5	20.5	22.5	23.5	21.5	22.5	16.5	14.5	15.5
25	24.0	21.0	22.5	25.0	22.0	23.5	25.0	23.0	24.0	17.0	15.0	16.0
26	25.0	22.0	24.0	25.0	21.5	23.5	26.0	23.5	24.5	17.0	16.0	16.5
27	26.0	23.0	24.5	23.5	21.0	22.0	25.5	22.5	24.0	16.5	16.5	16.5
28	26.0	23.5	24.5	25.0	21.0	23.0	26.0	23.5	25.0	16.5	15.5	16.0
29	26.0	22.5	24.0	26.0	22.5	24.5	25.5	23.0	24.5	16.0	14.5	15.0
30	25.0	21.5	23.5	25.0	23.0	24.0	25.0	23.5	24.5	14.5	13.5	14.0
31	---	---	---	25.0	22.0	24.0	25.0	23.5	24.5	---	---	---
MONTH	26.5	15.0	21.5	29.5	20.0	24.0	26.0	19.0	22.5	24.5	13.5	19.0

DELAWARE RIVER BASIN

01438500 DELAWARE RIVER AT MONTAGUE, N.J.

LOCATION.--Lat 41°18'33", long 74°47'44", Pike County, Pa, Hydrologic Unit 02040104, on right bank 1,500 ft upstream from toll bridge (on U.S. Route 206) between Montague, N.J. and Milford, Pa, 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, Oct. 1-27, June 2-11, and June 21 to Sept. 30, 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 (see Delaware River basin, reservoirs in) and smaller reservoirs. Diversion from Pepacton, Cannonsville, and Neversink Reservoirs (see Delaware River basin, diversions). 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-93-1.

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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1710	1930	5490	16700	3660	e2100	59800	13500	2280	1670	1750	2010
2	1350	1860	5180	13100	3740	e1800	59200	11200	2140	1720	1880	1970
3	1580	3090	4790	9420	e4200	e1800	44700	9980	2050	1610	1670	1840
4	1600	6570	4660	8740	e3500	1870	32000	9270	1700	1600	1700	2640
5	1620	5330	4310	12000	e3600	2170	23400	8630	1510	1700	1590	2530
6	1630	5090	3710	18100	e3500	2090	20100	9100	1470	1780	1550	1860
7	1650	4880	3600	13500	e3400	1500	18700	8350	1540	2100	1620	1430
8	1670	3690	4090	11000	e2800	1940	17800	6890	1670	2090	1710	1440
9	1860	3580	3550	9120	e3400	2130	17700	5540	1800	1880	1810	1610
10	2590	3280	3190	7300	e3100	2130	19300	5240	1970	1950	1760	1790
11	4970	2890	3520	6580	e3000	2790	37700	5460	2350	1690	1720	1850
12	3240	2970	4690	6440	e3200	2690	37600	4330	1950	1530	1970	1810
13	3410	4410	4430	6670	e3000	2150	28400	3850	1430	1900	1890	1730
14	2780	8380	4070	7100	2980	e2300	22200	3380	1340	1900	1950	1560
15	2450	6540	3870	6570	2250	e4300	18000	2980	1560	1750	1860	1650
16	2200	5520	3770	5940	3000	e3100	16100	2710	1740	1390	1770	1770
17	2190	5050	3870	4920	3090	e2500	34400	2570	2160	1500	2170	1800
18	2150	4400	7510	4520	2980	e3400	35500	2720	2020	1700	2040	1720
19	1900	4090	8210	4520	e2700	e3800	26800	2670	1900	1620	2050	1500
20	1940	3920	6740	4280	e2900	2740	21000	2750	1930	1990	1880	1730
21	1700	3390	7310	3940	e2700	2490	17300	2830	1980	1680	1810	1760
22	1620	3410	6920	4420	2350	2470	19500	2530	2740	1300	1620	1850
23	1590	7880	5810	5230	e2900	2360	24600	2160	2430	1640	1790	1710
24	1640	12200	5260	4920	e2800	3700	20800	2080	1960	1800	1810	1680
25	1590	10300	4590	5900	e3200	6020	17700	2140	1690	1740	1880	1700
26	2210	9920	e3400	6220	e2900	7570	17400	2000	1600	1880	2030	1850
27	2870	9450	e3600	5600	e2700	10200	27100	1700	1920	1970	2140	2180
28	2790	8730	e3700	5040	e2400	16700	25200	1650	2020	2040	2220	2550
29	2540	7190	e3550	4880	---	32900	20600	1760	2210	2150	1790	2450
30	2530	6210	e4000	4270	---	47400	17300	1840	1970	1840	1820	2270
31	2280	---	e10200	4030	---	53100	---	1860	---	1760	1940	---
TOTAL	67850	166150	151590	230970	85950	234210	797900	143670	57030	54870	57190	56240
MEAN	2189	5538	4890	7451	3070	7555	26600	4635	1901	1770	1845	1875
MAX	4970	12200	10200	18100	4200	53100	59800	13500	2740	2150	2220	2640
MIN	1350	1860	3190	3940	2250	1500	16100	1650	1340	1300	1550	1430

• Estimated.

DELAWARE RIVER BASIN

01438500 DELAWARE RIVER AT MONTAGUE, N.J.--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1993, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	3349	5068	6078	5681	5996	9991	12000	7458	4429	3013	2583	2664
MAX	15690	11760	14050	15050	15120	24480	31560	16090	15200	11220	14230	9167
(WY)	1956	1952	1974	1949	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

SUMMARY STATISTICS

FOR 1992 CALENDAR YEAR

FOR 1993 WATER YEAR

WATER YEARS 1940 - 1993

ANNUAL TOTAL	1518650	2103620		
ANNUAL MEAN	4149	5763	5686	Unadjusted
HIGHEST ANNUAL MEAN			8621	1952
LOWEST ANNUAL MEAN			2309	1965
HIGHEST DAILY MEAN	17100	Jun 1	59800	Apr 1
LOWEST DAILY MEAN	1080	Sep 2	1300	Jul 22
ANNUAL SEVEN-DAY MINIMUM	1590	Oct 2	1590	Oct 2
INSTANTANEOUS PEAK FLOW			67600	Apr 1
INSTANTANEOUS PEAK STAGE			18.21	Apr 1
INSTANTANEOUS LOW FLOW			995	Jul 17
10 PERCENT EXCEEDS	7900	14500	12000	
50 PERCENT EXCEEDS	3340	2700	3400	
90 PERCENT EXCEEDS	1730	1650	1570	

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

DELAWARE RIVER BASIN

01438500 DELAWARE RIVER AT MONTAGUE, N.J.--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1956-73, 1976-78, July 1991.

COOPERATION.--Field data and samples for laboratory analyses provided by New Jersey Department of Environmental Protection and Energy. Analyses of fecal coliform by the MPN method, enterococcus bacteria by the membrane filtration method, water-phase nutrients, and BOD performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (µS/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)
OCT 1992 19...	1100	1840	82	7.8	9.5	760	10.7	94	E1.2	<20
JAN 1993 19...	1115	4290	84	8.1	-0.5	765	14.2	95	<1.1	<20
MAR 22...	1200	2310	114	8.5	2.0	--	15.0	--	<1.0	<20
JUN 01...	1100	2130	92	7.7	16.0	750	8.7	90	<1.0	70
AUG 02...	1030	1940	82	7.8	24.0	750	7.3	88	<1.0	40

DATE	ENTERO-COCCI ME, MF WATER TOTAL (COL / 100 ML)	HARD-NESS TOTAL (MG/L AS CaCO3)	CALCIUM DIS-SOLVED (MG/L AS Ca)	MAGNE-SIUM, DIS-SOLVED (MG/L AS Mg)	SODIUM, DIS-SOLVED (MG/L AS Na)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CaCO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS Cl)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT 1992 19...	10	31	10	1.5	4.6	1.3	16	8.6	7.7	<0.1
JAN 1993 19...	<10	21	6.4	1.2	5.4	0.70	12	9.7	9.9	<0.1
MAR 22...	<10	27	8.2	1.7	9.4	0.80	15	8.8	18	<0.1
JUN 01...	40	27	8.1	1.7	6.3	1.0	19	4.3	10	<0.1
AUG 02...	<10	22	6.5	1.5	5.0	0.90	15	8.0	4.0	0.1

DATE	SILICA, DIS-SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)
OCT 1992 19...	1.6	45	46	E0.005	E0.005	0.19	0.18	<0.03	<0.03	0.22
JAN 1993 19...	2.6	36	44	0.006	0.005	0.29	0.27	<0.03	<0.03	0.23
MAR 22...	3.1	58	61	0.006	0.005	0.44	0.45	<0.03	<0.03	0.27
JUN 01...	1.3	52	45	0.003	0.003	0.18	0.17	<0.03	<0.03	0.42
AUG 02...	1.3	50	38	0.008	0.008	0.24	0.28	<0.03	0.12	0.42

DATE	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, DIS-SOLVED (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
OCT 1992 19...	0.24	0.41	0.42	0.05	0.04	2.6	0.2	<1	--
JAN 1993 19...	0.19	0.52	0.46	0.06	0.02	2.6	0.5	1	12
MAR 22...	0.29	0.71	0.74	<0.02	<0.02	2.2	0.2	1	6.2
JUN 01...	0.43	0.60	0.60	0.03	0.06	2.2	0.3	1	5.8
AUG 02...	0.50	0.66	0.78	0.04	0.02	2.3	0.3	1	5.2

DELAWARE RIVER BASIN

01438500 DELAWARE RIVER AT MONTAGUE, N.J.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L)	ARSENIC TOTAL (μ G/L AS AS)	BERYL- LIUM, TOTAL RECOV- ERABLE (μ G/L AS BE)	BORON, TOTAL RECOV- ERABLE (μ G/L AS B)	CADMIUM TOTAL RECOV- ERABLE (μ G/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (μ G/L AS CR)	COPPER, TOTAL RECOV- ERABLE (μ G/L AS CU)
OCT 1992 19...	1100	<10	<1	<10	10	<1	<1	1
JUN 1993 01...	1100	14	<1	<10	10	<1	<1	1

DATE	IRON, TOTAL RECOV- ERABLE (μ G/L AS FE)	LEAD, TOTAL RECOV- ERABLE (μ G/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (μ G/L AS MN)	MERCURY TOTAL RECOV- ERABLE (μ G/L AS HG)	NICKEL, TOTAL RECOV- ERABLE (μ G/L AS NI)	SELE- NIUM, TOTAL RECOV- ERABLE (μ G/L AS SE)	ZINC, TOTAL RECOV- ERABLE (μ G/L AS ZN)
OCT 1992 19...	90	2	20	<0.10	1	<1	--
JUN 1993 01...	70	<1	<10	<0.10	<1	<1	<10

BUSH KILL BASIN

01439500 HUSH 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 fair. Several measurements of water temperature were made during the year. Satellite telemetry at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	64	64	349	735	e190	e125	2780	559	97	60	e10	e8.4
2	59	66	313	631	e180	e120	2660	491	86	51	11	e9.4
3	55	331	287	543	e170	e115	1950	432	76	62	e10	10
4	51	324	257	492	e160	e110	1450	383	71	64	e9.4	14
5	47	248	245	878	e155	e140	1120	386	69	51	e9.0	16
6	43	242	218	890	e150	126	928	434	73	42	e10	15
7	40	218	199	725	e175	119	793	368	68	41	11	12
8	40	190	185	619	232	e105	693	317	62	36	e13	12
9	57	168	172	524	e180	e100	616	290	62	31	12	12
10	190	156	210	430	e160	e94	786	255	68	27	e10	47
11	159	147	225	386	e135	e92	1230	231	59	27	12	33
12	136	150	245	358	e125	e88	1020	208	53	25	e15	20
13	118	444	226	432	e180	e84	845	188	48	23	e14	14
14	103	429	217	466	157	e92	723	175	45	20	e12	12
15	98	354	196	386	144	e105	627	162	40	30	e11	13
16	94	303	184	335	e130	e130	726	152	40	23	e16	24
17	95	267	276	297	e125	e150	1400	152	40	17	e28	60
18	91	246	456	263	e120	e180	1100	136	36	15	38	50
19	87	225	390	230	e115	e170	904	139	33	16	26	34
20	80	203	359	e210	e110	e150	758	144	37	19	18	23
21	79	194	357	e180	e105	e130	652	150	68	19	14	20
22	79	331	313	e170	e100	e120	759	135	77	16	13	22
23	75	1120	284	e220	e100	e130	703	122	62	14	12	21
24	73	910	255	e270	e98	e350	598	110	45	13	11	20
25	78	788	e230	e350	e120	468	528	104	36	12	e12	18
26	72	704	e200	311	e180	559	580	94	31	e11	11	73
27	69	640	e180	292	e150	812	954	89	150	e13	e9.8	104
28	66	536	e170	e250	e140	1340	818	83	133	e13	11	125
29	64	456	e160	e230	---	1990	717	80	84	12	10	90
30	64	397	e150	e220	---	2010	632	74	71	e11	e9.8	70
31	65	---	e400	e200	---	1960	---	73	---	e11	e9.0	---
TOTAL	2491	10851	7908	12523	4066	12264	30050	6716	1920	825	418.0	1001.8
MEAN	80.4	362	255	404	145	396	1002	217	64.0	26.6	13.5	33.4
MAX	190	1120	456	890	232	2010	2780	559	150	64	38	125
MIN	40	64	150	170	98	84	528	73	31	11	9.0	8.4
CFSM	.69	3.09	2.18	3.45	1.24	3.38	8.56	1.85	.55	.23	.12	.29
IN.	.79	3.45	2.51	3.98	1.29	3.90	9.55	2.14	.61	.26	.13	.29

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1909 - 1993, BY WATER YEAR (WY)

MEAN	122	210	259	255	273	433	435	308	198	132	98.5	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

SUMMARY STATISTICS

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR			FOR 1993 WATER YEAR			WATER YEARS 1909 - 1993	
ANNUAL TOTAL	75381			91033.8				
ANNUAL MEAN	206			249			234	
HIGHEST ANNUAL MEAN							419	
LOWEST ANNUAL MEAN							95.4	
HIGHEST DAILY MEAN	1500	Jun	1	2780	Apr	1	11800	Aug 19 1955
LOWEST DAILY MEAN	38	Sep	2	8.4	Sep	1	2.6	Sep 25 1964
ANNUAL SEVEN-DAY MINIMUM	44	Sep	1	9.6	Aug	27	2.7	Sep 21 1964
INSTANTANEOUS PEAK FLOW				3210	Apr	1	523400	Aug 19 1955
INSTANTANEOUS PEAK STAGE				5.50	Apr	1	13.95	Aug 19 1955
INSTANTANEOUS LOW FLOW							2.6	Sep 25 1964
ANNUAL RUNOFF (CFSM)	1.76			2.13			2.00	
ANNUAL RUNOFF (INCHES)	23.97			28.94			27.22	
10 PERCENT EXCEEDS	390			668			522	
50 PERCENT EXCEEDS	156			125			160	
90 PERCENT EXCEEDS	59			13			27	

a Computed using estimated daily discharges.

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

c From floodmark.

- Estimated.

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, N.J., 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 (see Delaware River basin, reservoirs in) and smaller reservoirs. Diversion from Pepacton, Cannonsville, and Neversink Reservoirs (see Delaware River basin, diversions). 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-93-1.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2030	2030	6660	19300	4190	2670	74700	17900	2640	1970	1770	1960
2	1510	2000	6190	17000	4210	2690	80700	14200	3150	1780	1860	1860
3	1600	3100	5680	11900	4260	2290	64500	12300	2690	1840	1900	1720
4	1810	6100	5470	9950	5030	2370	46900	11400	2210	1670	1790	2110
5	1750	6890	5470	11900	4480	2470	32600	10700	1650	1840	1730	2700
6	1760	5930	4340	21200	4510	2870	25500	10700	1500	1730	1690	2060
7	1770	5940	4050	17300	4070	2070	23100	10600	1540	2080	1630	1630
8	1800	4540	4590	13300	3360	2030	21600	9200	1700	2220	1800	1370
9	1930	3920	4350	11300	4040	2780	20900	7380	1750	2140	1840	1450
10	2520	4020	3730	8880	3980	2720	21800	6680	1920	1960	1900	1750
11	4740	3520	3910	7600	3780	2970	39100	7090	2230	1990	1780	1800
12	4470	3200	4970	7590	3870	3500	52700	5960	2000	1580	1920	1840
13	3640	4630	5460	7430	3950	2890	38200	5140	1540	1710	2000	1730
14	3550	8530	4770	8250	4060	2710	28700	4760	1310	2070	2030	1630
15	2970	8330	4850	7840	3200	4000	22700	4140	1360	1870	1980	1510
16	2570	6670	4190	7100	3380	5160	19500	3770	1430	1690	1860	1840
17	2540	6140	4590	6220	3990	3670	36400	3520	1940	1380	2080	1780
18	2490	5340	7040	5080	4150	4440	49300	3650	1940	1690	1950	1880
19	2330	4810	10100	5370	3630	5020	36400	3570	1730	1670	2030	1670
20	2310	4630	8220	5130	3570	4140	27400	3610	1830	1980	1890	1600
21	2010	4110	8050	5130	3320	3390	22000	3760	1780	1770	1820	1780
22	1950	4000	8450	4990	e3400	3220	21100	3670	2330	1570	1560	1770
23	1880	7860	7150	5880	e3850	3400	29700	2990	2610	1390	1600	1860
24	1880	14100	6430	6210	e3700	4250	26600	2840	1980	1660	1720	1640
25	1840	12800	5470	5950	e3500	7170	21700	2870	1660	1810	1750	1660
26	2020	12000	4980	7440	3950	9090	20100	2750	1470	1690	1820	2040
27	3020	10900	4190	6740	3510	12000	30300	2580	1720	1940	2060	2210
28	2970	10600	4000	6110	3180	19500	33200	2110	2060	1970	2130	2880
29	2780	8990	4240	5670	---	40000	26500	2250	2380	2110	1750	2690
30	2610	7480	4640	5020	---	61100	21900	2450	2280	1980	1650	2460
31	2520	---	8660	4670	---	69400	---	2380	---	1850	1710	---
TOTAL	75570	193110	174890	273450	108120	295980	1015800	186920	58330	56600	57000	56880
MEAN	2438	6437	5642	8821	3861	9548	33860	6030	1944	1826	1839	1896
MAX	4740	14100	10100	21200	5030	69400	80700	17900	3150	2220	2130	2880
MIN	1510	2000	3730	4670	3180	2030	19500	2110	1310	1380	1560	1370

• Estimated.

DELAWARE RIVER BASIN

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

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1993, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	3973	5260	6634	6080	7182	10260	12450	8374	5324	3414	2765	3038
MAX	13030	12870	16730	17960	17320	21490	33860	17970	18150	9455	6242	10310
(WY)	1978	1973	1974	1979	1976	1977	1993	1989	1972	1973	1969	1987
MIN	1193	992	1914	1437	1936	3873	3796	2746	1397	950	1101	1283
(WY)	1965	1965	1965	1981	1980	1981	1985	1965	1965	1965	1965	1965

SUMMARY STATISTICS

FOR 1992 CALENDAR YEAR**FOR 1993 WATER YEAR****WATER YEARS 1964 - 1993**

ANNUAL TOTAL	1814240			2552650					
ANNUAL MEAN	4957			6994				6241	
HIGHEST ANNUAL MEAN								9418	1973
LOWEST ANNUAL MEAN								2572	1965
HIGHEST DAILY MEAN	23400	Jun	2	80700	Apr	2	96000	Mar	16 1986
LOWEST DAILY MEAN	1510	Oct	2	1310	Jun	14	580	Jul	7 1965
ANNUAL SEVEN-DAY MINIMUM	1710	Oct	2	1610	Jun	13	620	Jul	2 1965
INSTANTANEOUS PEAK FLOW				86300	Apr	2	110000	Mar	16 1986
INSTANTANEOUS PEAK STAGE				18.89	Apr	2	24.00	Mar	16 1986
INSTANTANEOUS LOW FLOW				1220	Apr	17	---		
10 PERCENT EXCEEDS	8820			18500			13000		
50 PERCENT EXCEEDS	4000			3400			3760		
90 PERCENT EXCEEDS	2110			1710			1840		

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 fair. Several measurements of water temperature were made during the year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	48	38	184	355	e110	75	1800	250	56	24	9.5	7.0
2	45	41	168	267	e100	64	1360	217	45	24	9.0	6.9
3	42	312	157	223	e96	56	936	192	41	40	8.3	8.7
4	40	223	142	204	e88	60	717	176	39	31	7.8	15
5	37	168	135	398	e84	66	533	197	39	26	7.2	14
6	34	160	122	340	e80	62	431	203	43	24	7.5	10
7	34	134	115	277	e76	59	357	171	38	22	11	8.9
8	32	117	107	240	e74	e56	329	150	35	21	12	10
9	67	108	98	208	e86	e52	305	137	38	19	10	12
10	176	101	92	181	73	e50	679	124	39	18	9.2	22
11	117	95	125	167	73	e49	1140	114	34	18	9.3	16
12	98	99	141	165	72	e47	666	105	32	17	12	12
13	86	533	122	226	84	e46	508	97	30	16	11	10
14	75	350	114	220	76	e50	371	94	28	16	9.5	9.7
15	72	263	103	182	70	e60	317	86	26	17	8.3	9.7
16	66	216	98	164	e66	e76	400	80	27	15	8.8	19
17	66	183	167	152	e62	e90	695	78	25	13	29	20
18	61	165	234	137	e58	e110	469	71	24	13	19	19
19	58	147	187	123	e56	e96	369	80	24	15	14	15
20	55	132	190	117	e54	e88	314	83	26	17	12	12
21	52	130	189	110	e52	e78	271	80	39	14	12	13
22	57	220	168	e100	e52	e70	410	70	38	13	10	14
23	70	630	156	e98	e50	e74	356	64	31	12	9.8	13
24	68	426	146	e150	e70	e220	293	61	26	11	9.5	12
25	56	384	e125	e200	e90	244	254	58	23	11	11	11
26	47	346	e115	180	86	275	339	53	25	11	9.5	43
27	45	310	e105	167	80	407	568	49	83	12	8.4	43
28	42	261	e96	156	81	695	409	46	40	11	7.8	53
29	41	225	e90	147	---	1010	337	45	31	11	8.2	31
30	41	203	e120	133	---	1150	291	43	28	9.8	7.3	25
31	39	---	e320	128	---	1070	---	41	---	9.5	7.2	---
TOTAL	1867	6720	4431	5915	2099	6605	16224	3315	1053	531.3	325.1	514.9
MEAN	60.2	224	143	191	75.0	213	541	107	35.1	17.1	10.5	17.2
MAX	176	630	320	398	110	1150	1800	250	83	40	29	53
MIN	32	38	90	98	50	46	254	41	23	9.5	7.2	6.9
CFSM	.91	3.40	2.17	2.90	1.14	3.23	8.21	1.62	.53	.26	.16	.26
IN.	1.05	3.79	2.50	3.34	1.18	3.73	9.16	1.87	.59	.30	.18	.29

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1958 - 1993, BY WATER YEAR (WY)

	MEAN	71.1	123	167	144	160	246	258	187	110	61.2	41.3	53.2
MAX	237	336	489	459	371	537	596	440	474	380	159	464	464
(WY)	1977	1973	1974	1978	1981	1977	1983	1989	1972	1969	1973	1987	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	7.56
(WY)	1964	1965	1981	1981	1980	1989	1985	1962	1962	1965	1964	1964	1964

SUMMARY STATISTICS

FOR 1992 CALENDAR YEAR

FOR 1993 WATER YEAR

WATER YEARS 1958 - 1993

ANNUAL TOTAL	46098	49600.3	
ANNUAL MEAN	126	136	135
HIGHEST ANNUAL MEAN			213
LOWEST ANNUAL MEAN			59.6
HIGHEST DAILY MEAN	1020	May 31	6070
LOWEST DAILY MEAN	22	Sep 2	5.4
ANNUAL SEVEN-DAY MINIMUM	25	Aug 31	5.9
INSTANTANEOUS PEAK FLOW		2670	Apr 1
INSTANTANEOUS PEAK STAGE		6.31	Apr 1
INSTANTANEOUS LOW FLOW		6.4	Aug 6, Sep 2
ANNUAL RUNOFF (CFSM)	1.91	2.06	2.05
ANNUAL RUNOFF (INCHES)	26.02	28.00	27.84
10 PERCENT EXCEEDS	238	332	292
50 PERCENT EXCEEDS	98	70	84
90 PERCENT EXCEEDS	36	11	16

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.

BRODHEAD CREEK BASIN

01442500 BRODHEAD CREEK AT MINISINK HILLS, PA

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.

DRAINAGE AREA.--259 mi².

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

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

GAGE.--Water-stage recorder. 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 good except those for estimated daily discharges, which are fair. Several measurements of water temperature were made during the year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	172	156	e760	996	e450	264	7170	957	257	134	82	66
2	164	161	e700	783	e400	257	7030	856	205	131	78	65
3	158	e1250	656	681	e480	274	3530	783	188	177	e74	71
4	152	e900	588	655	439	314	2430	734	180	153	e70	117
5	145	e700	565	1650	e390	391	1890	793	180	e140	e66	102
6	139	e600	500	1380	e350	346	1590	905	196	e125	e68	82
7	138	506	468	1120	e330	336	1350	727	174	e120	e80	75
8	137	437	440	986	e300	395	1200	645	164	e110	e100	84
9	259	393	398	859	e290	475	1090	594	186	117	e88	92
10	685	368	372	743	e280	461	2740	549	221	120	e80	190
11	400	347	606	682	e270	420	4720	506	168	111	80	126
12	342	370	761	667	e270	386	2740	469	151	107	94	98
13	287	2020	629	947	e380	374	2010	438	142	103	89	89
14	254	1180	581	990	354	e340	1580	413	137	105	84	84
15	254	915	509	790	316	e380	1340	381	131	163	80	87
16	237	766	479	716	e290	e310	1590	358	133	115	93	125
17	233	678	852	662	e270	e450	2520	346	125	104	237	166
18	214	605	1160	603	e260	e800	1690	325	122	99	137	132
19	208	544	925	531	e250	684	1380	354	120	105	107	114
20	198	488	922	491	e240	604	1190	362	142	121	95	99
21	191	474	873	467	e230	586	1060	347	265	106	90	101
22	187	1180	763	e430	e350	607	1690	306	203	97	82	101
23	194	3330	711	e400	344	666	1370	280	153	92	79	96
24	206	2160	658	e540	311	1550	1130	267	130	90	77	93
25	212	1830	564	e860	273	1530	1010	257	122	88	76	86
26	188	1550	e480	752	282	1750	1290	237	118	90	75	280
27	169	1350	e450	e680	267	2300	2010	223	465	92	72	323
28	163	e1100	e430	e600	259	3430	1430	212	231	89	70	465
29	159	e960	e410	e560	---	4090	1240	208	168	92	68	223
30	161	e860	e560	e520	---	4270	1080	198	149	89	67	180
31	158	---	1010	e480	---	4190	---	197	---	84	66	---
TOTAL	6764	28178	19780	23221	8925	33230	64090	14227	5326	3469	2704	4012
MEAN	218	939	638	749	319	1072	2136	459	178	112	87.2	134
MAX	685	3330	1160	1650	480	4270	7170	957	465	177	237	465
MIN	137	156	372	400	230	257	1010	197	118	84	66	65
CFSM	.84	3.63	2.46	2.89	1.23	4.14	8.25	1.77	.69	.43	.34	.52
IN.	.97	4.05	2.84	3.34	1.28	4.77	9.21	2.04	.76	.50	.39	.58

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 1993, BY WATER YEAR (WY)

	305	547	720	600	671	983	1018	723	428	257	249	234
MEAN	305	547	720	600	671	983	1018	723	428	257	249	234
MAX	1560	1634	1913	1811	1498	2108	2293	1619	1876	923	2505	1649
(WY)	1956	1973	1974	1979	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

SUMMARY STATISTICS

FOR 1992 CALENDAR YEAR

FOR 1993 WATER YEAR

WATER YEARS 1951 - 1993

ANNUAL TOTAL	182096	213926	
ANNUAL MEAN	498	586	
HIGHEST ANNUAL MEAN			560
LOWEST ANNUAL MEAN			957
HIGHEST DAILY MEAN	3980	Jun 6	7170
LOWEST DAILY MEAN	118	Sep 2	65
ANNUAL SEVEN-DAY MINIMUM	134	Aug 27	68
INSTANTANEOUS PEAK FLOW			9030
INSTANTANEOUS PEAK STAGE			8.16
INSTANTANEOUS LOW FLOW			63
ANNUAL RUNOFF (CFSM)	1.92		2.26
ANNUAL RUNOFF (INCHES)	26.15		30.73
10 PERCENT EXCEEDS	917		1340
50 PERCENT EXCEEDS	366		325
90 PERCENT EXCEEDS	157		89

- a 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.
b From floodmark.
c 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 walkbridge connecting Portland, Pa. and Columbia, N.J., and 0.5 mi upstream of Paulins Kill.

DRAINAGE AREA.--4,165 mi².

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

COOPERATION.--Field data and samples for laboratory analyses provided by New Jersey Department of Environmental Protection and Energy. Analyses of fecal coliform by the MPN method, enterococcus bacteria by the membrane filtration method, water-phase nutrients, and BOD were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (μS/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)
OCT 1992										
20...	1100	2400	82	8.0	8.5	775	11.0	92	E 1.5	<20
JAN 1993										
19...	1200	6600	93	--	0.5	760	15.9	111	<1.0	20
MAR										
23...	1130	5300	125	7.8	2.5	765	13.9	101	<1.0	<20
JUN										
02...	1100	3200	112	8.2	16.5	755	9.4	97	E 1.2	<20
AUG										
03...	1130	1300	100	8.3	26.0	760	8.3	103	<1.0	<20
DATE	ENTERO-COCCI ME, MF WATER TOTAL (COL / 100 ML)	HARD-NESS TOTAL (MG/L AS CaCO3)	CALCIUM DIS-SOLVED (MG/L AS Ca)	MAGNE-SIUM, DIS-SOLVED (MG/L AS Mg)	SODIUM, DIS-SOLVED (MG/L AS Na)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CaCO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS Cl)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT 1992										
20...	<10	27	8.0	1.6	4.6	0.9	19	9.5	7.4	<0.1
JAN 1993										
19...	<10	25	7.5	1.5	5.9	0.7	15	10	10	<0.1
MAR										
23...	<10	36	11	2.0	8.8	0.7	21	11	17	<0.1
JUN										
02...	90	32	10	1.8	6.3	0.9	25	11	10	<0.1
AUG										
03...	10	28	8.3	1.7	5.7	0.9	18	9.3	8.5	<0.1
DATE	SILICA, DIS-SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)
OCT 1992										
20...	1.9	46	46	0.006	0.005	0.12	0.10	<0.03	<0.03	0.20
JAN 1993										
19...	3.6	10	50	0.005	0.005	0.37	0.38	<0.03	<0.03	0.18
MAR										
23...	3.2	70	68	0.006	0.006	0.37	0.37	<0.03	<0.03	0.19
JUN										
02...	1.5	63	57	0.004	0.004	0.16	0.19	<0.03	<0.03	E0.40
AUG										
03...	1.4	48	47	0.008	0.008	0.17	0.18	0.03	<0.03	0.47
DATE	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, DIS-SOLVED (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	
OCT 1992										
20...	0.15	0.32	0.25	0.06	0.08	2.9	0.2	<1	--	
JAN 1993										
19...	0.20	0.55	0.58	0.04	0.04	2.1	0.3	1	18	
MAR										
23...	0.11	0.56	0.48	0.03	0.03	2.0	0.4	3	43	
JUN										
02...	0.43	--	0.62	<0.02	<0.02	2.1	0.3	3	26	
AUG										
03...	0.33	0.64	0.51	0.09	<0.02	2.3	0.2	1	3.5	

DELAWARE RIVER BASIN

01443000 DELAWARE RIVER AT PORTLAND, PA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L)	ARSENIC TOTAL (μ G/L AS AS)	BERYL- LIUM, TOTAL RECOV- ERABLE (μ G/L AS BE)	BORON, TOTAL RECOV- ERABLE (μ G/L AS B)	CADMIUM TOTAL RECOV- ERABLE (μ G/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (μ G/L AS CR)	COPPER, TOTAL RECOV- ERABLE (μ G/L AS CU)
OCT 1992 20...	1100	<10	<1	<10	10	<1	<1	<1
JUN 1993 02...	1100	12	<1	<10	<10	<1	<1	2

DATE	IRON, TOTAL RECOV- ERABLE (μ G/L AS FE)	LEAD, TOTAL RECOV- ERABLE (μ G/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (μ G/L AS MN)	MERCURY TOTAL RECOV- ERABLE (μ G/L AS HG)	NICKEL, TOTAL RECOV- ERABLE (μ G/L AS NI)	SELE- NIUM, TOTAL RECOV- ERABLE (μ G/L AS SE)	ZINC, TOTAL RECOV- ERABLE (μ G/L AS ZN)
OCT 1992 20...	70	10	10	<0.10	10	<1	<10
JUN 1993 02...	80	<1	10	<0.10	<1	<1	<10

DELAWARE RIVER BASIN

01446500 DELAWARE RIVER AT BELVIDERE, N.J.

LOCATION.--Lat 40°49'36", long 75°05'02", Warren County, N.J., 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 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 except August 5 to September 3, which are fair. 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 (see Delaware River basin, reservoirs in) and smaller reservoirs. Diversions from Pepacton, Cannonsville, and Neversink Reservoirs (see Delaware River basin, diversions). 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-93-1.

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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2460	2620	8710	20600	5760	3280	76400	20100	2970	2490	2020	2110
2	2180	2470	8010	19900	4640	3150	86600	16300	3340	2180	2010	2110
3	1880	4970	7390	14800	4540	3100	68700	14300	2950	2330	2150	2110
4	2110	7290	6960	12100	5870	3330	49800	13200	2860	2200	1930	2270
5	2100	8750	6940	14500	5000	3650	36100	12200	2510	2140	1920	3010
6	2080	7460	5810	22600	5220	4100	28400	12400	2380	2130	1830	2690
7	2080	7210	5410	20700	4100	3420	25400	12300	2320	2320	1850	2070
8	2110	5930	5680	16300	4040	3390	23700	10700	2370	2560	1980	1620
9	2320	5070	5540	14200	4200	4340	22600	8660	2480	2530	2040	1650
10	3400	5040	4830	11400	4600	4410	24300	7790	2740	2270	2100	2130
11	4760	4490	5430	9790	4630	4230	39300	7900	2860	2350	2030	2220
12	5700	4050	7350	9690	4440	4840	52500	6990	2840	1980	2060	2110
13	4250	7020	7840	9640	4720	4460	39500	6020	2460	1830	2350	2040
14	4350	9920	7040	10900	4820	3020	30600	5530	1940	2280	2270	1950
15	3690	10800	6880	10300	3970	3770	24700	4890	1790	2370	2260	1770
16	3230	8550	6050	9500	4240	5700	21900	4460	2010	2080	2180	2090
17	3070	7810	6820	8530	5730	5730	35700	4150	2260	1620	2690	2310
18	3010	6880	9760	7100	5410	6750	49400	4150	2620	1750	2510	2400
19	2900	6230	13100	7140	4470	7020	37900	4160	2420	1960	2420	2140
20	2760	5870	11400	6210	4030	6680	29300	4190	2450	2000	2360	1840
21	2580	5390	10800	6110	3820	5460	24100	4280	2800	2250	2310	2080
22	2450	5890	11200	6960	3670	5290	23300	4160	3050	1920	2230	2110
23	2350	12000	9570	8150	4260	5640	30700	3530	3480	1480	2100	2190
24	2340	17800	8650	8500	3990	8120	28400	3280	2830	1810	2190	2030
25	2440	17000	7190	8140	3660	11500	23500	3220	2410	2010	2210	1970
26	2390	15300	6150	9590	4130	13900	21700	3100	2120	1900	2280	2580
27	3280	14100	4920	8890	3770	16800	30900	2890	2490	2130	2450	3150
28	3410	13200	5070	8110	3450	24100	34600	2510	2860	2210	2460	4290
29	3250	11500	5900	7460	---	41200	28400	2510	2830	2320	2270	3650
30	3040	9630	6240	6810	---	61000	23900	2590	2810	2350	1930	3250
31	2990	---	9520	6280	---	70400	---	2620	---	2070	1960	---
TOTAL	90960	250240	232160	340900	125180	351780	1072300	215080	78250	65820	67350	69940
MEAN	2934	8341	7489	11000	4471	11350	35740	6938	2608	2123	2173	2331
MAX	5700	17800	13100	22600	5870	70400	86600	20100	3480	2560	2690	4290
MIN	1880	2470	4830	6110	3450	3020	21700	2510	1790	1480	1830	1620

DELAWARE RIVER BASIN

01446500 DELAWARE RIVER AT BELVIDERE, N.J.--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1923 - 1993, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	4621	7145	8284	7863	8344	13940	15890	9921	5968	4297	3646	3791
MAX	19570	21140	20590	20890	19930	42520	40720	21470	22280	16840	19260	13940
(WY)	1956	1928	1974	1949	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

SUMMARY STATISTICS

FOR 1992 CALENDAR YEAR

FOR 1993 WATER YEAR

WATER YEARS 1923 - 1993

ANNUAL TOTAL	2210410	2959960	7801	
ANNUAL MEAN	6039	8109	14130	1928
HIGHEST ANNUAL MEAN			2990	1965
LOWEST ANNUAL MEAN			184000	Aug 19 1955
HIGHEST DAILY MEAN	27000	Jun 2	86600	Apr 2
LOWEST DAILY MEAN	1730	Sep 3	1480	Jul 23
ANNUAL SEVEN-DAY MINIMUM	2080	Oct 2	1850	Jul 17
INSTANTANEOUS PEAK FLOW			91800	Apr 2
INSTANTANEOUS PEAK STAGE			17.18	Apr 2
INSTANTANEOUS LOW FLOW			1140	Jul 23
10 PERCENT EXCEEDS	11300	20600	16500	
50 PERCENT EXCEEDS	4840	4150	4980	
90 PERCENT EXCEEDS	2590	2070	1910	

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.

COOPERATION.--Field data and samples for laboratory analyses provided by New Jersey Department of Environmental Protection and Energy. Analyses of fecal coliform by the MPN method, enterococcus bacteria by the membrane filtration method, water-phase nutrients, and BOD were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (μS/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	BAROMETRIC PRESSURE (MM HG)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATURATION)	OXYGEN DEMAND, BIO-CHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)
OCT 1992 21...	1145	2600	137	8.4	10.0	775	--	--	<1.0	20
JAN 1993 20...	1130	7400	144	8.5	1.5	770	14.6	103	<1.0	<20
MAR 23...	1100	6100	190	8.4	2.0	765	14.5	104	<1.0	220
JUN 02...	1230	3200	174	8.1	16.5	755	8.9	92	E1.1	50
AUG 04...	1230	2000	139	8.2	26.5	760	8.1	101	<1.0	20

DATE	ENTEROCOCCI ME, MF WATER TOTAL (COL / 100 ML)	HARDNESS TOTAL (MG/L AS CaCO3)	CALCIUM DIS-SOLVED (MG/L AS Ca)	MAGNESIUM, DIS-SOLVED (MG/L AS Mg)	SODIUM, DIS-SOLVED (MG/L AS Na)	POTASSIUM, DIS-SOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CaCO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLORIDE, DIS-SOLVED (MG/L AS Cl)	FLUORIDE, DIS-SOLVED (MG/L AS F)
OCT 1992 21...	40	51	14	4.0	7.5	1.1	37	17	9.6	<0.1
JAN 1993 20...	10	47	13	3.6	7.6	0.9	32	16	12	<0.1
MAR 23...	40	66	18	5.2	12	1.0	44	16	20	<0.1
JUN 02...	90	59	16	4.6	8.1	1.0	45	14	13	<0.1
AUG 04...	250	44	12	3.5	7.2	1.1	31	13	9.8	<0.1

DATE	SILICA, DIS-SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NITRATE DIS-SOLVED (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)
OCT 1992 21...	2.2	88	80	0.007	0.007	0.49	0.48	<0.03	<0.03	0.23
JAN 1993 20...	4.0	60	80	0.008	0.008	0.72	0.73	<0.03	<0.03	0.26
MAR 23...	3.5	116	105	0.008	0.007	0.73	0.71	<0.03	<0.03	0.31
JUN 02...	1.9	97	88	0.009	0.007	0.49	0.46	<0.03	<0.03	0.34
AUG 04...	1.8	77	69	0.011	0.011	0.39	0.41	<0.03	<0.03	0.41

DATE	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN, DIS-SOLVED (MG/L AS N)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DIS-CHARGE, SUSPENDED (T/DAY)
OCT 1992 21...	0.20	0.72	0.68	0.03	0.04	2.9	0.2	--	--
JAN 1993 20...	0.25	0.98	0.98	<0.02	0.04	2.2	0.3	5	100
MAR 23...	0.31	1.0	1.0	<0.02	<0.02	2.6	0.3	2	33
JUN 02...	0.41	0.83	0.87	0.16	<0.02	2.4	0.3	3	26
AUG 04...	0.42	0.80	0.83	0.05	0.02	2.2	0.4	3	16

DELAWARE RIVER BASIN

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L)	ARSENIC TOTAL (μ G/L AS AS)	BERYL- LIUM, TOTAL RECOV- ERABLE (μ G/L AS BE)	BORON, TOTAL RECOV- ERABLE (μ G/L AS B)	CADMIUM TOTAL RECOV- ERABLE (μ G/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (μ G/L AS CR)	COPPER, TOTAL RECOV- ERABLE (μ G/L AS CU)
OCT 1992 21...	1145	<10	<1	<10	20	<1	<1	1
JUN 1993 02...	1230	11	<1	<10	10	<1	<1	1

DATE	IRON, TOTAL RECOV- ERABLE (μ G/L AS FE)	LEAD, TOTAL RECOV- ERABLE (μ G/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (μ G/L AS MN)	MERCURY TOTAL RECOV- ERABLE (μ G/L AS HG)	NICKEL, TOTAL RECOV- ERABLE (μ G/L AS NI)	SELE- NIUM, TOTAL RECOV- ERABLE (μ G/L AS SE)	ZINC, TOTAL RECOV- ERABLE (μ G/L AS ZN)
OCT 1992 21...	70	3	10	<0.10	14	<1	20
JUN 1993 02...	70	<1	<10	<0.10	<1	<1	<10

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.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum, 26.5°C, several days in July and August 1993; minimum, 0.0°C, many days during winter periods.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum, 26.5°C, several days in July and August; minimum recorded, 2.0°C, December 5.

WATER TEMPERATURE, (DEG. C), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	10.0	7.5	8.5	7.0	5.0	6.0	5.0	4.5	5.0			
2	12.0	7.0	9.0	5.5	4.5	5.0	5.0	4.5	4.5			
3	14.0	9.0	11.0	7.5	5.0	6.5	4.5	4.0	4.5			
4	13.0	10.5	12.0	7.5	7.0	7.5	4.0	3.5	4.0			
5	12.0	8.5	10.0	8.0	7.0	7.5	4.0	2.0	3.5			
6	11.5	6.5	8.5	7.0	6.0	6.5	4.0	3.0	3.5			
7	11.5	6.0	8.5	6.0	4.5	5.5	3.5	2.5	3.0			
8	11.5	6.0	9.0	4.5	4.0	4.5	3.5	3.0	3.0			
9	12.5	10.0	11.5	4.0	3.0	3.5	---	---	---			
10	12.0	10.5	11.0	4.5	3.0	3.5	---	---	---			
11	11.0	10.5	10.5	5.5	4.0	5.0	---	---	---			
12	11.0	10.5	10.5	8.5	5.5	7.0	---	---	---			
13	10.5	9.5	10.0	9.0	6.0	7.5	---	---	---			
14	9.5	7.5	8.5	6.0	4.0	4.5	---	---	---			
15	10.5	8.5	9.5	5.0	4.0	4.5	---	---	---			
16	12.5	10.0	11.0	4.5	4.0	4.0	---	---	---			
17	12.0	8.5	10.5	4.5	4.0	4.0	---	---	---			
18	8.5	6.5	7.5	4.5	4.5	4.5	---	---	---			
19	7.0	4.5	6.5	4.5	4.0	4.5	---	---	---			
20	6.5	4.0	5.5	4.0	3.5	4.0	---	---	---			
21	6.5	5.5	6.0	5.5	4.0	4.5	---	---	---			
22	8.5	5.5	6.5	7.5	5.5	6.5	---	---	---			
23	8.0	4.5	6.5	9.0	7.0	8.0	---	---	---			
24	7.5	6.0	6.5	7.5	7.0	7.0	---	---	---			
25	7.5	5.5	6.5	7.5	7.0	7.5	---	---	---			
26	7.0	4.5	6.0	8.0	7.5	7.5	---	---	---			
27	8.0	5.5	6.5	7.5	6.5	7.0	---	---	---			
28	7.5	4.5	5.5	6.5	4.5	5.5	---	---	---			
29	7.5	4.5	6.0	4.5	4.0	4.5	---	---	---			
30	8.0	6.5	7.0	5.0	4.0	4.5	---	---	---			
31	7.0	6.0	6.5	---	---	---	---	---	---			
MONTH	14.0	4.0	8.5	9.0	3.0	5.5	5.0	2.0	4.0			

LEHIGH RIVER BASIN

01447500 LEHIGH RIVER AT STODDARTSVILLE, PA--Continued

WATER TEMPERATURE, (DEG. C), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1							---	---	---	12.0	9.5	10.5
2							---	---	---	12.0	10.0	11.0
3							---	---	---	12.0	10.5	11.5
4							---	---	---	12.0	11.0	11.5
5							---	---	---	11.5	10.5	11.0
6							---	---	---	12.0	10.0	11.0
7							---	---	---	13.0	11.0	12.0
8							---	---	---	13.0	11.5	12.0
9							6.0	5.0	5.5	13.0	11.5	12.5
10							6.5	5.5	6.0	13.5	12.0	13.0
11							6.0	4.0	5.0	14.0	12.5	13.5
12							4.0	3.5	4.0	14.5	13.0	13.5
13							5.5	3.0	4.0	13.5	12.5	13.0
14							6.0	4.0	5.0	13.5	11.0	12.5
15							7.0	5.5	6.0	14.0	11.5	12.5
16							9.0	7.0	7.5	13.0	12.5	13.0
17							9.0	7.5	8.5	16.5	11.5	13.5
18							8.0	6.5	7.5	13.5	12.0	12.5
19							8.5	6.0	7.5	12.0	11.0	11.5
20							10.0	8.0	9.0	11.5	10.0	11.0
21							9.5	8.0	9.5	13.0	9.0	11.0
22							8.0	5.5	7.0	14.5	10.5	12.0
23							6.0	4.5	5.5	16.5	10.0	13.0
24							7.5	5.0	6.0	16.0	13.0	14.0
25							9.5	6.5	8.0	20.0	14.0	16.5
26							9.0	7.5	8.5	20.0	14.5	16.5
27							10.0	6.0	8.0	19.0	13.0	15.5
28							10.5	7.0	8.5	18.0	13.5	15.0
29							10.0	7.5	8.5	19.5	14.0	16.0
30							11.0	9.0	10.0	19.0	12.0	15.0
31							---	---	---	14.0	12.0	12.5
MONTH							11.0	3.0	7.0	20.0	9.0	13.0
	JUNE			JULY			AUGUST			SEPTEMBER		
1	16.5	11.5	13.5	25.0	18.0	21.0	25.5	19.0	22.0	22.0	19.5	21.0
2	16.5	10.5	13.0	21.0	17.5	19.0	24.5	18.5	22.0	20.5	19.0	20.0
3	17.0	12.0	14.0	21.5	17.0	19.0	26.5	19.5	22.5	25.0	20.0	22.0
4	19.0	13.0	15.5	26.0	17.5	21.5	24.5	19.0	22.0	22.0	18.0	20.0
5	15.0	12.5	13.5	26.0	19.5	22.5	21.5	16.5	19.5	21.5	17.0	19.0
6	16.0	11.5	13.0	24.0	20.5	22.5	17.5	15.0	16.0	22.0	16.5	19.0
7	18.0	11.0	14.5	---	---	---	20.5	15.5	17.5	20.5	17.0	18.5
8	19.0	13.5	16.0	---	---	---	24.5	16.0	19.5	17.0	16.5	17.0
9	20.5	16.0	18.0	---	---	---	23.0	16.5	19.5	18.5	16.5	17.5
10	21.0	16.5	18.5	---	---	---	23.5	16.5	20.0	19.0	15.0	17.5
11	22.5	17.0	19.5	---	---	---	20.5	18.0	19.0	17.5	12.5	15.5
12	23.5	16.0	19.0	---	---	---	21.0	17.5	19.0	17.5	11.5	14.5
13	22.5	15.5	19.0	---	---	---	24.0	18.0	20.5	20.5	14.5	17.0
14	24.0	15.5	19.5	26.5	20.0	23.0	26.0	18.5	22.0	22.0	15.0	18.5
15	20.5	16.5	18.5	26.5	21.0	23.5	26.0	18.0	22.0	23.0	18.0	20.0
16	23.5	15.5	19.0	26.0	17.5	21.5	21.5	18.5	20.5	18.0	15.5	17.0
17	24.5	15.5	19.5	26.0	17.0	21.5	19.0	16.5	17.5	16.5	15.0	16.0
18	25.0	17.0	21.0	26.5	16.0	21.5	22.0	17.5	19.0	17.0	14.0	15.5
19	25.0	19.5	22.0	21.5	18.5	19.5	22.0	19.0	20.0	17.0	10.5	14.5
20	24.0	20.0	21.5	25.5	18.0	21.5	21.0	19.0	20.0	14.5	9.5	12.0
21	22.5	18.0	20.5	24.5	18.0	21.0	23.5	18.0	20.0	13.0	12.0	12.5
22	24.0	18.5	20.5	24.0	16.0	20.0	22.5	14.5	18.5	14.5	12.0	13.0
23	22.5	16.5	19.0	24.5	16.0	20.0	23.5	15.5	19.0	13.5	11.5	12.5
24	23.5	14.5	19.0	25.0	16.0	21.0	25.0	18.5	21.5	16.5	10.5	13.5
25	24.5	15.5	19.5	25.0	17.0	21.0	26.5	20.5	23.5	15.0	9.5	12.5
26	24.0	17.5	20.5	21.5	19.0	20.0	26.5	19.0	23.0	14.5	12.5	13.5
27	23.5	18.5	21.0	23.5	18.5	21.0	26.5	19.0	23.0	14.0	12.0	13.5
28	24.5	18.5	21.5	25.5	18.5	22.5	26.5	20.5	23.5	13.0	11.5	12.5
29	23.0	19.5	21.5	26.5	21.0	23.5	25.0	19.0	22.0	12.0	10.0	11.5
30	23.5	19.0	21.0	23.5	19.5	21.5	24.0	19.5	21.5	10.0	8.0	9.5
31	---	---	---	25.5	19.5	22.0	25.0	19.5	22.5	---	---	---
MONTH	25.0	10.5	18.5	26.5	16.0	21.5	26.5	14.5	20.5	25.0	8.0	16.0

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 45040, 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 good except those for estimated daily discharges, which are fair. Diversion upstream from station to Wild Creek Basin since October 1969. Several measurements of water temperature were made during the year.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	19	49	98	e30	e20	358	76	30	24	9.0	5.6
2	26	20	46	74	e28	e19	418	72	33	20	8.7	5.4
3	23	49	43	66	e27	e19	343	67	28	19	8.3	5.8
4	19	74	42	54	e26	e34	250	66	25	20	7.7	7.4
5	18	77	38	87	e25	119	186	67	25	19	7.2	e11
6	16	64	34	106	e24	56	159	82	23	17	6.9	e8.2
7	16	48	38	81	e23	24	151	76	26	15	6.9	e7.2
8	15	37	38	58	e23	23	148	64	24	14	7.0	e6.8
9	24	31	37	57	e22	25	149	58	24	13	7.0	e8.4
10	53	28	33	54	e21	24	294	55	28	13	7.0	12
11	71	27	29	55	e21	22	629	48	27	12	7.3	e10
12	76	30	28	56	e21	27	505	46	23	12	7.7	e9.0
13	69	86	32	66	e20	21	313	43	20	11	7.7	e8.2
14	57	99	37	75	e20	43	214	42	19	11	7.8	e7.8
15	45	89	42	71	e20	e33	165	41	17	12	7.6	e7.4
16	38	66	37	62	e21	e29	152	38	15	14	8.0	14
17	33	51	45	55	e25	e25	189	38	15	14	11	15
18	31	42	60	e49	e35	e35	184	37	14	13	11	17
19	28	38	61	e44	e31	e30	152	38	14	14	13	18
20	27	35	56	e40	e29	e26	120	42	17	15	13	16
21	27	35	51	e36	e28	e24	99	42	32	16	12	15
22	25	53	46	e50	e25	e23	125	38	42	16	11	13
23	25	136	40	e80	e24	e21	144	35	35	14	9.6	11
24	25	161	e36	81	e23	e26	139	33	27	13	8.7	10
25	24	150	e33	76	e22	e35	107	30	20	12	8.0	9.7
26	25	110	e29	102	e21	e45	98	29	17	11	7.2	15
27	25	80	e28	58	e21	e60	147	27	37	10	6.6	24
28	24	67	e26	e45	e20	105	141	27	60	9.5	6.3	38
29	22	58	e30	e40	---	175	111	24	51	9.6	6.2	38
30	20	52	e45	e36	---	218	88	26	34	9.2	6.0	32
31	20	---	82	e35	---	242	---	27	---	9.2	5.8	---
TOTAL	977	1912	1271	1947	676	1628	6278	1434	802	431.5	257.2	405.9
MEAN	31.5	63.7	41.0	62.8	24.1	52.5	209	46.3	26.7	13.9	8.30	13.5
MAX	76	161	82	106	35	242	629	82	60	24	13	38
MIN	15	19	26	35	20	19	88	24	14	9.2	5.8	5.4
(†)	5.5	15.0	8.3	7.5	3.3	0.8	6.0	2.7	1.7	1.0	1.1	1.1
MEAN‡	37.0	78.7	49.3	70.3	27.4	53.3	215	49.0	28.4	14.9	9.40	14.6
CFSM‡	2.06	4.37	2.74	3.91	1.52	2.96	11.9	2.72	1.58	.83	.52	.81
IN.‡	2.37	4.88	3.16	4.51	1.58	3.41	13.3	3.14	1.76	.96	.60	.90

† Diversion to Wild Creek Basin, equivalent in cubic feet per second.
‡ Adjusted for diversion.
e Estimated.

LEHIGH RIVER BASIN

01447680 TUNKHANNOCK CREEK NEAR LONG POND, PA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 1993, BY WATER YEAR (WY) (SINCE REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	35.1	46.6	53.0	44.5	45.7	66.9	84.6	62.8	46.8	30.7	21.5	28.3
MAX	93.2	90.1	114	108	83.6	148	209	115	116	89.5	63.6	142
(WY)	1978	1971	1974	1979	1970	1977	1993	1990	1972	1984	1990	1987
MIN	7.35	9.39	7.07	3.85	13.2	21.1	20.5	29.6	15.9	8.68	8.30	5.63
(WY)	1981	1981	1981	1981	1980	1989	1985	1985	1987	1991	1993	1980

SUMMARY STATISTICS

FOR 1982 CALENDAR YEAR

FOR 1993 WATER YEAR

WATER YEARS 1970 - 1993

ANNUAL TOTAL	14966		18019.6									
ANNUAL MEAN	40.9	\$41.2	49.4	\$53.9					47.2	\$46.8		
HIGHEST ANNUAL MEAN									65.9			1978
LOWEST ANNUAL MEAN									23.7			1985
HIGHEST DAILY MEAN	284	Jun 1	629	Apr 11					643	Apr 6		1984
LOWEST DAILY MEAN	e12	Feb 13, 15	5.4	Sep 2					3.3	Jan 1		1981
ANNUAL SEVEN-DAY MINIMUM	a14	Feb 8	5.9	Aug 28					3.4	Dec 30		1980
INSTANTANEOUS PEAK FLOW			654	Apr 11					679	Apr 6		1984
INSTANTANEOUS PEAK STAGE			4.46	Apr 11					4.76	Apr 6		1984
INSTANTANEOUS LOW FLOW			5.2	Sep 2					3.3	Jan 1		1981
ANNUAL RUNOFF (CFSM)	2.27	\$2.29	2.74	\$2.99					2.62	\$2.60		
ANNUAL RUNOFF (INCHES)	30.93	\$31.07	37.24	\$40.58					35.60	\$35.30		
10 PERCENT EXCEEDS	76		105						96			
50 PERCENT EXCEEDS	32		28						34			
90 PERCENT EXCEEDS	18		9.1						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												
ANNUAL MEAN	33.8											
HIGHEST ANNUAL MEAN	47.0					1969						
LOWEST ANNUAL MEAN	24.7					1966						
HIGHEST DAILY MEAN	448				Jul 30	1969						
LOWEST DAILY MEAN	4.0				Sep 13	1966						
ANNUAL SEVEN DAY MINIMUM	4.7				Sep 8	1966						
INSTANTANEOUS PEAK FLOW	480				Jul 30	1969						
INSTANTANEOUS PEAK STAGE	4.34				Jul 30	1969						
INSTANTANEOUS LOW FLOW	3.0				Mar 11	1969						
ANNUAL RUNOFF (CFSM)	1.88											
ANNUAL RUNOFF (INCHES)	25.53											
10 PERCENT EXCEEDS	60											
50 PERCENT EXCEEDS	24											
90 PERCENT EXCEEDS	8.6											

‡ Adjusted for diversion.

a Computed using estimated daily discharges.

e Estimated.

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 fair. Power generation at Pocono Lake about 5.0 mi upstream since 1985 and minor diversion from Tunkhannock Creek Basin into Wild Creek Basin. Satellite 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.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	125	104	319	767	e175	e110	2800	492	146	e80	e38	e30
2	115	120	296	562	e170	e105	2990	443	122	66	e38	e29
3	105	415	273	443	e160	e105	1890	402	118	84	e37	e30
4	93	446	250	377	e150	e150	1200	371	107	87	e35	47
5	87	376	255	618	e160	150	856	396	97	83	e33	e62
6	78	336	217	665	171	148	756	448	128	73	e34	e52
7	78	264	219	533	152	143	746	420	108	70	e34	e45
8	75	211	216	433	154	141	745	369	97	64	e34	e40
9	197	178	200	380	146	146	758	322	107	69	e34	e50
10	470	163	214	338	134	145	2500	290	175	72	e35	e78
11	438	156	262	317	146	140	5290	250	108	62	e37	e60
12	410	198	246	311	145	117	2330	241	91	55	e40	e50
13	319	861	231	379	e140	121	1260	216	e78	50	e41	e39
14	244	704	220	435	e130	192	890	211	e72	51	e41	e34
15	207	511	206	392	e130	265	783	186	e68	77	e41	e31
16	196	391	203	346	e130	169	795	199	e64	58	e41	e52
17	189	322	313	313	e165	e150	1080	187	e60	50	e50	92
18	154	287	453	268	160	e140	961	170	e56	47	e50	e98
19	134	253	417	241	153	e135	759	173	e52	e60	e72	e105
20	132	232	384	228	156	e130	599	202	82	e70	e72	80
21	136	240	365	218	168	e125	532	238	151	e90	61	55
22	125	465	321	300	146	e120	814	173	155	e82	57	46
23	122	1340	273	347	e140	e115	885	170	129	e72	e50	e40
24	128	953	242	350	e130	e170	754	152	114	e66	e46	e37
25	134	736	217	370	e125	e250	620	145	85	e60	e42	e35
26	124	601	197	339	e120	341	652	130	83	e54	e38	e70
27	125	508	191	298	e115	438	1070	124	e140	e50	e34	e120
28	110	432	194	255	e110	669	874	112	e220	e45	e34	252
29	110	380	231	e220	---	1090	670	122	e160	e41	e33	166
30	110	343	331	e200	---	1310	564	107	e110	e38	e32	112
31	107	---	639	e190	---	1400	---	117	---	e38	e31	---
TOTAL	5177	12526	8595	11433	4081	8930	37423	7578	3283	1964	1305	2037
MEAN	167	418	277	369	146	288	1247	244	109	63.4	42.1	67.9
MAX	470	1340	639	767	175	1400	5290	492	220	90	72	252
MIN	75	104	191	190	110	105	532	107	52	38	31	29
CFSM	1.42	3.54	2.35	3.13	1.24	2.44	10.6	2.07	.93	.54	.36	.58
IN.	1.63	3.95	2.71	3.60	1.29	2.82	11.80	2.39	1.03	.62	.41	.64

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1962 - 1993, BY WATER YEAR (WY)

	1962	1963	1964	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
MEAN	187	263	291	252	276	415	477	338	230	152	116	161																				
MAX	598	644	821	764	768	948	1247	784	777	481	372	785																				
(WY)	1977	1973	1974	1979	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																				

SUMMARY STATISTICS

FOR 1992 CALENDAR YEAR

FOR 1993 WATER YEAR

WATER YEARS 1962 - 1993

ANNUAL TOTAL	91942	104332	263
ANNUAL MEAN	251	286	399
HIGHEST ANNUAL MEAN			1973
LOWEST ANNUAL MEAN			129
HIGHEST DAILY MEAN	1550	Jun 6	5540
LOWEST DAILY MEAN	64	Aug 26	22
ANNUAL SEVEN-DAY MINIMUM	72	Aug 26	23
INSTANTANEOUS PEAK FLOW			9190
INSTANTANEOUS PEAK STAGE			12.33
INSTANTANEOUS LOW FLOW			16
ANNUAL RUNOFF (CFSM)	2.13	2.42	2.23
ANNUAL RUNOFF (INCHES)	28.99	32.89	30.27
10 PERCENT EXCEEDS	451	657	529
50 PERCENT EXCEEDS	196	152	179
90 PERCENT EXCEEDS	97	44	58

a Also Aug. 8, 1991.

b Computed using estimated daily discharges.

c Estimated.

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.

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, 27.5°C, July 10; minimum, 0.0°C, many days during winter period.

WATER TEMPERATURE, (DEG. C), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	11.5	9.0	10.0	7.5	5.5	6.5	5.0	4.5	4.5	2.5	1.0	2.0
2	12.5	9.0	10.5	6.0	5.5	5.5	4.5	4.0	4.5	1.5	1.0	1.5
3	14.5	10.5	12.5	7.5	6.0	7.0	4.0	3.0	4.0	2.0	1.0	1.5
4	13.5	11.0	12.5	7.5	6.5	7.0	3.5	2.5	3.0	3.5	2.0	2.5
5	12.0	9.5	10.5	7.5	6.5	7.0	3.0	1.5	2.5	4.0	2.5	3.5
6	11.5	7.5	9.5	6.5	5.5	6.0	2.0	1.0	1.5	2.5	2.0	2.5
7	12.0	7.5	10.0	5.5	4.5	5.0	2.0	1.0	1.5	2.5	2.0	2.5
8	12.0	8.0	10.0	4.5	3.5	4.0	1.5	.0	1.0	3.0	2.5	2.5
9	13.0	11.0	12.0	4.5	2.5	3.5	.5	.0	.0	2.5	1.5	2.0
10	13.5	12.0	12.5	5.5	4.0	4.5	.5	.0	.0	2.0	1.5	1.5
11	12.5	11.5	12.0	6.0	4.5	5.5	.5	.0	.5	2.0	1.5	2.0
12	12.0	11.0	11.5	8.5	5.5	6.5	1.5	.5	1.0	3.0	2.0	2.5
13	11.5	10.0	11.0	8.5	5.5	6.5	2.5	1.0	2.0	2.5	2.0	2.5
14	10.5	9.0	9.5	5.5	4.5	5.0	1.5	.5	1.0	2.5	2.0	2.0
15	12.5	10.0	11.5	4.5	3.5	4.0	1.5	.5	1.0	2.5	2.0	2.0
16	14.0	10.5	12.0	4.0	3.0	3.5	2.5	1.5	2.0	2.5	1.5	2.0
17	12.0	9.0	10.5	4.0	3.5	3.5	2.5	2.0	2.0	2.0	1.5	2.0
18	10.0	8.0	8.5	4.0	3.5	4.0	2.0	1.0	1.5	1.5	1.0	1.0
19	8.5	6.0	7.5	4.0	2.5	3.5	2.0	1.0	2.0	1.5	.5	1.0
20	8.0	6.0	6.5	3.5	2.0	3.0	2.5	1.0	2.0	1.5	.5	1.0
21	8.0	6.5	7.0	5.0	3.5	4.0	1.5	1.0	1.0	2.0	.5	1.5
22	8.5	6.5	7.5	7.0	5.0	6.0	2.0	1.0	1.5	3.0	2.0	2.5
23	8.5	5.5	7.0	8.0	6.5	7.0	2.5	1.5	2.0	2.5	1.5	2.0
24	8.5	7.0	7.5	7.0	6.5	7.0	1.5	.0	1.0	3.5	1.5	2.5
25	7.5	6.0	7.0	7.0	6.5	7.0	1.0	.0	.5	2.5	1.0	1.5
26	7.5	5.0	6.5	7.5	7.0	7.5	1.0	.0	.5	2.0	1.0	1.5
27	7.5	5.5	6.5	7.0	6.0	6.5	.5	.0	.5	2.5	1.5	2.0
28	7.5	4.5	6.0	6.5	5.5	6.0	2.0	.5	1.5	2.0	1.0	1.5
29	8.0	5.5	7.0	6.0	5.0	5.5	3.0	2.0	2.5	2.5	.5	2.0
30	8.0	7.0	7.5	5.0	4.5	5.0	2.5	2.5	2.5	1.5	.5	1.0
31	7.5	6.5	7.0	---	---	---	3.5	2.5	3.0	2.5	1.5	2.0
MONTH	14.5	4.5	9.5	8.5	2.0	5.5	5.0	.0	1.5	4.0	.5	2.0

LEHIGH RIVER BASIN

01447720 TOBYHANNA CREEK NEAR BLAKESLEE, PA--Continued

WATER TEMPERATURE, (DEG. C), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

	FEBRUARY			MARCH			APRIL			MAY		
1	2.5	.0	1.0	1.5	.0	.5	1.5	1.5	1.5	14.5	10.0	12.0
2	.5	.0	.0	3.0	.5	1.5	1.5	1.0	1.0	16.0	11.5	13.5
3	2.0	.5	1.5	3.5	1.0	2.0	1.5	1.0	1.0	16.5	13.0	14.5
4	2.0	1.0	1.5	1.5	.0	1.0	1.5	1.0	1.5	15.0	13.5	14.0
5	3.0	1.0	2.0	1.5	.0	1.0	3.5	1.0	2.0	14.0	13.5	13.5
6	2.5	.0	1.5	2.0	1.0	1.5	4.0	2.0	3.0	15.0	13.0	13.5
7	1.5	.0	.5	4.0	.5	2.0	4.5	2.0	3.5	16.0	12.5	14.0
8	2.0	1.0	1.5	3.5	1.5	2.5	5.5	3.0	4.0	17.0	12.0	14.5
9	2.0	.5	1.5	3.0	1.5	2.0	5.5	4.0	4.5	18.0	13.0	15.5
10	3.5	1.5	2.5	2.0	1.0	1.5	4.5	3.5	4.5	19.5	14.5	17.0
11	3.5	2.0	2.5	3.0	.5	1.5	4.0	3.5	4.0	19.5	15.5	17.0
12	2.0	1.0	1.5	3.0	.0	1.5	4.0	3.5	4.0	19.5	15.0	17.0
13	2.0	1.0	1.5	1.5	.0	.5	5.0	3.5	4.0	16.5	13.5	15.0
14	2.5	1.0	1.5	.0	.0	.0	6.5	4.0	5.0	18.0	12.0	14.5
15	3.0	.5	1.5	.0	.0	.0	7.0	5.5	6.5	19.0	13.5	16.0
16	2.0	.5	1.5	1.0	.0	.5	7.5	7.0	7.5	16.5	14.0	15.5
17	2.5	1.0	1.5	1.5	.5	1.0	7.5	6.5	7.0	17.5	13.0	15.0
18	1.5	.0	1.0	1.5	.0	.5	8.5	6.5	7.5	15.0	12.5	14.0
19	.5	.0	.0	2.5	.0	1.0	10.0	7.0	8.5	14.0	13.0	13.5
20	.5	.0	.0	2.5	.0	1.0	11.5	9.0	10.0	13.5	11.5	13.0
21	.5	.0	.0	2.5	.5	1.5	11.0	8.5	10.5	14.5	11.0	13.0
22	2.5	.5	1.5	4.0	1.0	2.0	8.5	7.0	7.5	15.0	11.5	13.0
23	1.5	.0	1.0	2.0	.5	1.0	7.5	6.5	7.0	17.0	11.5	13.5
24	.5	.0	.0	2.5	1.5	2.0	8.5	6.0	7.5	16.5	13.5	14.5
25	.5	.0	.0	3.0	1.5	2.0	11.0	7.5	9.0	19.0	14.5	16.5
26	1.5	.0	.5	4.5	1.5	2.5	9.5	7.5	9.0	19.0	14.0	16.0
27	1.5	.0	.5	3.5	1.0	2.0	10.0	7.0	8.0	18.0	12.5	15.0
28	.5	.0	.5	2.0	1.5	2.0	11.0	8.0	9.5	17.5	13.5	15.0
29	---	---	---	2.0	1.0	1.5	12.5	8.5	10.5	19.0	14.0	16.5
30	---	---	---	2.0	1.0	1.5	13.0	9.5	11.0	18.0	11.5	15.0
31	---	---	---	3.0	1.0	2.0	---	---	---	14.5	12.5	13.5
MONTH	3.5	.0	1.0	4.5	.0	1.5	13.0	1.0	6.0	19.5	10.0	14.5
	JUNE			JULY			AUGUST			SEPTEMBER		
1	17.0	13.5	15.0	23.0	17.5	20.0	21.0	17.5	19.5	20.5	18.5	19.5
2	17.0	11.0	13.5	19.5	17.0	18.0	22.0	17.5	20.0	19.0	18.0	18.5
3	18.0	12.5	15.0	21.5	17.0	19.0	23.0	18.5	20.5	22.5	19.0	20.5
4	18.5	13.5	16.0	25.5	19.0	22.0	23.0	18.0	20.0	21.0	18.0	19.5
5	15.5	13.0	14.0	25.5	20.0	22.5	19.5	16.5	18.0	22.0	17.5	19.5
6	17.0	12.5	14.5	24.0	21.0	22.5	16.5	15.0	15.5	21.0	16.5	19.0
7	17.5	11.5	15.0	26.0	21.5	23.5	17.5	15.0	16.0	20.0	17.5	18.5
8	18.5	14.0	16.0	26.5	22.0	24.5	20.0	15.5	17.5	18.0	17.0	17.0
9	20.0	16.5	18.0	27.0	22.0	24.5	19.5	16.0	18.0	18.5	17.0	18.0
10	20.0	16.5	18.0	27.5	22.0	24.5	20.0	16.5	18.0	21.0	15.5	18.5
11	21.5	16.5	18.5	26.5	21.5	24.0	18.5	17.0	18.0	17.0	13.5	15.5
12	21.5	16.0	18.5	25.5	21.5	23.0	20.0	17.0	18.5	17.0	12.5	15.5
13	21.5	16.0	18.5	26.0	21.0	23.0	22.5	18.0	20.0	19.5	15.5	17.5
14	22.5	16.5	19.5	24.0	20.0	22.0	23.0	18.5	21.0	20.0	16.0	18.0
15	20.5	17.0	19.0	24.5	20.5	22.5	23.0	18.0	20.5	22.0	17.5	19.5
16	22.5	16.5	19.0	23.0	17.5	20.5	20.5	18.0	19.0	18.0	13.0	17.0
17	22.0	15.5	18.5	22.5	17.5	20.0	21.0	18.0	20.0	17.0	15.0	16.0
18	23.5	17.0	20.0	23.0	16.5	19.5	21.5	19.5	20.5	17.5	14.5	16.5
19	23.0	19.5	21.5	19.5	18.0	18.5	21.5	19.0	20.0	16.5	11.5	14.5
20	23.0	19.5	21.0	23.5	18.0	20.5	20.5	19.0	20.0	14.0	12.0	13.0
21	22.5	19.5	20.5	21.5	18.0	20.0	21.5	18.0	19.5	13.0	12.0	12.5
22	23.5	18.0	20.5	20.0	16.5	18.0	20.0	15.0	17.5	14.0	12.0	13.0
23	21.5	16.5	18.5	20.5	15.5	18.0	21.0	16.0	18.5	15.0	12.0	13.5
24	23.0	15.5	19.0	21.5	16.0	19.0	23.0	18.5	20.5	15.5	11.0	13.5
25	23.0	16.0	19.5	21.5	16.5	19.5	24.0	20.0	22.0	13.5	10.0	12.5
26	23.0	18.5	20.5	19.5	18.0	18.5	24.0	19.0	21.5	15.0	12.5	14.0
27	23.5	18.0	21.0	21.5	17.5	19.5	24.0	19.0	21.5	14.5	12.5	14.0
28	23.5	19.5	21.5	23.0	18.0	21.0	24.0	20.5	22.5	14.5	12.5	13.5
29	22.5	20.0	21.0	25.0	19.5	22.0	23.5	19.0	21.0	13.0	9.5	12.0
30	22.0	19.0	20.5	22.0	19.0	20.0	22.5	18.5	20.0	11.5	8.0	10.0
31	---	---	---	21.0	18.0	19.5	23.0	19.0	21.0	---	---	---
MONTH	23.5	11.0	18.5	27.5	15.5	21.0	24.0	15.0	19.5	22.5	8.0	16.0
YEAR	27.5	.0	10.0									

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 fair. Flow regulated since February 1961 by Francis E. Walter Reservoir (station 01447780) 0.7 mi upstream. Satellite 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	202	242	747	2190	461	219	1730	962	227	123	86	76
2	407	242	641	2160	344	224	5110	973	246	99	82	60
3	534	525	591	1980	320	257	6790	973	185	94	73	56
4	171	820	548	1120	456	266	8400	1060	150	94	61	56
5	163	940	474	1450	400	370	6330	774	150	94	59	56
6	156	835	479	2070	301	279	3390	1070	150	121	78	61
7	156	722	583	1780	301	279	2600	1040	175	136	103	134
8	156	497	728	1210	301	279	1980	814	187	136	105	136
9	149	364	483	983	338	290	1770	814	192	137	82	140
10	235	369	371	980	356	304	1720	770	246	139	67	142
11	1120	369	416	779	301	283	1770	668	344	139	67	142
12	1100	495	412	742	301	230	4600	493	548	139	67	142
13	921	1100	418	868	254	202	8360	486	362	139	81	142
14	612	1090	714	1110	254	202	6440	485	145	141	100	142
15	502	1100	667	984	256	201	3440	421	145	145	100	142
16	622	1460	426	684	550	558	2060	421	145	135	81	143
17	769	1230	530	694	490	498	2210	421	145	116	110	456
18	570	819	872	692	269	426	2340	421	145	115	148	200
19	316	613	789	616	222	481	2620	405	145	99	150	153
20	171	533	802	515	227	444	2090	374	147	82	150	148
21	208	479	1270	607	223	440	1300	353	148	86	150	147
22	319	499	1150	574	393	371	1960	315	146	86	150	147
23	294	2280	742	517	351	339	2230	315	145	86	150	147
24	254	3230	575	538	232	483	1920	315	147	86	150	147
25	254	2390	503	1060	248	724	1910	315	185	86	129	147
26	391	1820	503	896	260	830	1740	315	448	86	116	147
27	320	1270	500	629	272	830	2930	315	114	86	87	170
28	264	1120	497	544	290	924	2970	268	216	86	76	554
29	252	1040	e600	490	---	1340	1960	191	235	86	67	473
30	228	792	e920	461	---	2740	1270	191	165	86	70	240
31	242	---	1670	461	---	4200	---	192	---	86	73	---
TOTAL	12058	29285	20621	30384	8971	19513	95940	16930	6128	3369	3068	5046
MEAN	389	976	665	980	320	629	3198	546	204	109	99.0	168
MAX	1120	3230	1670	2190	550	4200	8400	1070	548	145	150	554
MIN	149	242	371	461	222	201	1270	191	114	82	59	56
MEAN‡	377	975	689	959	318	825	2997	548	197	111	99.2	184
CFSM‡	1.30	3.36	2.38	3.31	1.10	2.84	10.33	1.89	.68	.38	.34	.63
IN.‡	1.50	3.75	2.74	3.82	1.14	3.27	11.52	2.18	.76	.44	.39	.70

‡ Adjusted for change in contents in Francis E. Walter Reservoir.

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 - 1993, BY WATER YEAR (WY) (SINCE REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	425	629	682	580	655	1019	1130	791	536	357	268	337
MAX	1435	1488	1748	1858	1542	2018	3198	1968	1359	1165	1153	1784
(WY)	1978	1986	1974	1979	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 1992 CALENDAR YEAR FOR 1993 WATER YEAR WATER YEARS 1961 - 1993

ANNUAL TOTAL	221035	251313	
ANNUAL MEAN	604	689	617
HIGHEST ANNUAL MEAN			895
LOWEST ANNUAL MEAN			289
HIGHEST DAILY MEAN	3450	Jun 2	8400
LOWEST DAILY MEAN	137	Sep 20, 21	56
ANNUAL SEVEN-DAY MINIMUM	151	Sep 3	63
INSTANTANEOUS PEAK FLOW			11700
INSTANTANEOUS PEAK STAGE			8.86
INSTANTANEOUS LOW FLOW			15
ANNUAL RUNOFF (CFSM)	2.08	\$2.09	2.37
ANNUAL RUNOFF (INCHES)	28.35	\$28.41	32.24
10 PERCENT EXCEEDS	1120		1750
50 PERCENT EXCEEDS	481		344
90 PERCENT EXCEEDS	207		94

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

‡ Adjusted for change in contents in Francis E. Walter Reservoir.

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

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, 26.0°C, July 14; minimum, 0.0°C, on several days during winter period.

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	12.5	10.5	11.5	7.5	6.5	7.0	4.5	4.5	4.5	---	---	---
2	12.5	10.5	11.5	6.5	6.5	6.5	4.5	4.0	4.5	---	---	---
3	12.5	11.5	12.0	7.5	6.0	6.5	4.0	4.0	4.0	---	---	---
4	12.5	11.5	12.0	7.5	6.5	7.0	4.0	3.0	3.5	---	---	---
5	13.5	11.5	12.0	7.5	7.0	7.0	3.0	2.0	2.5	4.0	3.0	3.5
6	12.5	10.5	11.5	7.0	6.5	7.0	2.0	1.5	2.0	4.0	3.0	3.5
7	12.0	10.0	11.0	6.5	5.5	6.5	1.5	1.0	1.5	3.0	2.5	2.5
8	11.5	10.0	10.5	6.0	5.0	5.5	1.0	1.0	1.0	2.5	2.5	2.5
9	11.5	10.5	11.0	5.0	4.0	4.5	1.5	.5	1.0	2.5	2.0	2.5
10	12.5	11.0	12.0	4.0	3.5	3.5	.5	.5	.5	2.0	1.5	1.5
11	13.0	12.5	12.5	4.0	4.0	4.0	.5	.0	.5	1.5	1.0	1.0
12	12.5	12.0	12.5	5.0	4.0	4.5	.5	.5	.5	1.5	1.0	1.5
13	12.0	11.5	12.0	7.0	5.0	6.5	.5	.5	.5	2.5	1.5	2.0
14	11.5	10.5	11.0	7.0	5.5	6.0	.5	.5	.5	2.5	2.0	2.0
15	10.5	10.0	10.5	6.0	5.0	5.0	1.0	.5	.5	2.0	2.0	2.0
16	11.5	10.5	11.0	5.0	4.0	4.5	.5	.5	.5	2.0	1.5	2.0
17	12.0	11.0	11.5	4.0	3.0	3.5	1.5	.5	1.0	2.0	1.5	2.0
18	11.0	9.5	10.5	3.5	3.0	3.5	2.0	1.5	1.5	2.0	1.0	1.5
19	9.5	8.0	9.0	3.5	3.5	3.5	2.0	1.5	1.5	1.0	1.0	1.0
20	9.0	6.5	7.5	3.5	3.0	3.5	2.0	1.5	1.5	1.0	.5	1.0
21	7.0	6.5	7.0	3.5	3.0	3.0	2.0	1.5	1.5	.5	.5	.5
22	8.0	7.0	7.5	5.0	3.0	4.0	1.5	1.0	1.0	1.5	.5	1.0
23	7.5	6.5	7.0	7.5	5.0	6.5	1.5	1.0	1.5	1.5	1.5	1.5
24	7.5	7.0	7.0	7.5	7.5	7.5	1.5	1.0	1.5	2.0	1.5	2.0
25	7.5	7.0	7.0	7.5	7.5	7.5	1.0	.5	1.0	2.5	1.5	2.0
26	7.5	6.5	7.0	8.0	7.5	7.5	.5	.5	.5	2.0	1.0	1.5
27	7.5	6.5	7.0	8.0	7.0	7.5	.5	.5	.5	1.0	1.0	1.0
28	7.0	6.5	6.5	7.0	6.0	6.5	.5	.5	.5	1.0	1.0	1.0
29	7.0	6.0	6.5	6.0	5.0	5.5	.5	.5	.5	1.0	1.0	1.0
30	7.0	6.5	7.0	5.5	4.5	5.0	---	---	---	1.0	1.0	1.0
31	7.0	7.0	7.0	---	---	---	---	---	---	1.0	.5	.5
MONTH	13.5	6.0	9.5	8.0	3.0	5.5	4.5	.0	1.5	4.0	.5	1.5

WATER TEMPERATURE. DEGREES CELSIUS. WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY				MARCH			APRIL			MAY		
1	1.0	.5	.5	.5	.0	.0	3.0	2.0	2.5	13.0	12.0	12.5
2	1.0	.5	.5	1.0	.0	.5	2.5	2.0	2.5	13.5	12.5	13.0
3	1.0	.5	.5	1.0	.0	.5	2.0	2.0	2.0	14.5	13.5	14.0
4	1.0	.5	.5	.5	.0	.0	2.0	2.0	2.0	15.0	14.5	14.5
5	1.0	.5	.5	.5	.0	.0	2.0	2.0	2.0	14.5	14.5	14.5
6	.5	.0	.5	.5	.0	.0	3.0	2.0	3.0	14.5	14.0	14.5
7	1.0	.0	.5	1.0	.0	.5	4.5	3.0	3.5	14.5	14.5	14.5
8	.5	.5	.5	.5	.0	.5	5.5	4.0	4.5	14.5	14.0	14.0
9	1.0	.0	.5	1.0	.5	.5	6.5	5.5	5.5	15.0	14.5	14.5
10	1.0	.5	.5	1.5	.5	1.0	6.5	6.0	6.0	16.5	15.0	16.0
11	.5	.5	.5	1.5	.5	1.0	6.0	5.0	5.5	17.0	16.0	16.5
12	.5	.5	.5	2.0	.5	1.0	5.0	4.5	5.0	17.5	17.0	17.5
13	1.0	.5	.5	1.0	.0	.5	4.5	4.5	4.5	17.5	16.5	17.0
14	1.0	.5	.5	1.0	.5	1.0	5.0	4.5	4.5	17.0	15.0	16.0
15	1.0	.5	.5	1.5	.5	1.0	6.5	5.0	6.0	16.0	15.5	15.5
16	.5	.5	.5	.5	.5	.5	8.5	6.5	7.5	16.5	15.5	16.0
17	.5	.5	.5	.5	.0	.0	8.5	8.0	8.5	16.5	15.5	16.0
18	1.0	.0	.5	.5	.0	.0	8.0	7.5	7.5	16.0	15.0	15.5
19	1.0	.0	.5	.5	.0	.0	9.0	7.5	8.0	15.0	14.0	14.5
20	.5	.0	.0	.5	.0	.0	11.0	9.0	9.5	14.0	13.5	13.5
21	.5	.0	.0	.5	.0	.0	11.5	11.0	11.0	13.5	12.5	13.0
22	.5	.0	.5	1.0	.0	.5	11.0	7.5	9.5	13.5	12.5	13.0
23	.5	.0	.0	.5	.0	.5	7.5	5.5	6.5	13.5	13.0	13.0
24	.5	.0	.0	1.0	.5	1.0	7.0	5.5	6.0	14.0	13.0	13.5
25	.5	.0	.0	1.5	1.0	1.0	10.0	7.0	8.0	15.0	13.5	14.5
26	.5	.0	.0	2.5	1.0	1.5	10.0	9.5	10.0	15.5	14.5	15.0
27	.5	.0	.0	2.5	1.5	2.0	9.5	8.0	8.5	16.5	15.0	16.0
28	.5	.0	.0	3.0	2.0	2.5	10.0	8.0	8.5	17.0	16.0	16.0
29	---	---	---	2.5	2.0	2.0	11.5	9.5	10.0	17.5	16.0	16.5
30	---	---	---	2.0	2.0	2.0	12.5	11.0	11.5	17.5	15.5	16.5
31	---	---	---	2.0	2.0	2.0	---	---	---	16.0	15.5	15.5
MONTH	1.0	.0	.5	3.0	.0	1.0	12.5	2.0	6.5	17.5	12.0	15.0
JUNE				JULY			AUGUST			SEPTEMBER		
1	16.0	15.0	15.5	23.5	21.5	22.0	24.0	21.5	22.5	22.5	21.5	22.0
2	16.0	14.5	15.0	22.0	21.0	21.5	23.5	21.5	22.5	22.5	21.5	22.0
3	16.0	14.5	15.0	21.0	20.0	21.0	24.5	21.5	22.5	24.5	21.5	22.5
4	16.5	14.5	15.0	22.5	20.0	21.0	25.5	21.0	22.5	23.5	21.0	22.0
5	15.5	15.0	15.0	23.0	20.5	21.5	23.0	20.5	21.5	24.0	20.0	21.5
6	15.5	14.0	15.0	22.0	21.0	21.5	21.0	20.0	20.5	23.5	20.0	21.0
7	16.0	14.5	15.0	23.0	21.5	22.0	21.0	20.0	20.5	21.5	20.0	21.0
8	16.0	14.5	15.5	24.0	22.0	22.5	21.5	20.0	20.5	21.0	20.5	21.0
9	16.5	15.0	15.5	24.0	22.0	23.0	21.5	20.0	20.5	21.0	20.0	20.5
10	17.0	15.5	16.0	24.5	22.5	23.5	22.0	19.5	20.5	21.0	19.5	20.0
11	17.5	16.0	17.0	24.5	23.0	23.5	21.0	20.0	20.5	20.5	18.0	19.0
12	18.5	17.5	18.5	25.0	23.5	24.0	22.0	20.0	20.5	19.5	17.5	18.0
13	20.0	18.0	19.0	25.5	24.0	24.5	22.0	20.0	20.5	19.0	17.5	18.0
14	20.5	18.0	19.0	26.0	24.0	24.5	22.5	20.0	21.0	19.5	18.0	18.5
15	20.5	18.5	19.5	25.5	24.0	24.5	22.5	20.5	21.0	20.0	18.5	19.0
16	21.0	19.0	19.5	25.5	23.0	24.0	21.5	20.5	21.0	20.0	18.5	19.0
17	21.0	19.0	20.0	25.0	22.5	23.5	21.0	20.5	20.5	19.0	18.0	18.5
18	21.5	19.5	20.0	25.0	22.5	24.0	21.5	20.5	20.5	19.0	17.5	18.5
19	21.0	20.0	20.5	---	---	---	21.5	20.5	20.5	18.0	16.5	17.0
20	22.0	20.5	21.0	---	---	---	21.0	20.5	21.0	18.0	15.0	16.0
21	22.0	20.5	21.0	---	---	---	22.0	20.5	21.0	15.5	15.0	15.5
22	22.5	21.0	21.5	23.5	21.0	22.0	22.0	19.5	20.5	16.0	15.0	15.5
23	22.0	20.0	21.0	23.5	21.0	22.0	22.5	19.5	20.5	15.5	15.0	15.5
24	21.5	19.5	20.5	24.0	20.5	21.5	22.5	20.0	21.0	16.5	14.5	15.0
25	21.5	19.5	20.5	23.5	20.5	22.0	22.5	20.5	21.5	16.0	14.5	15.0
26	22.0	20.5	21.5	22.0	21.0	21.5	---	---	---	15.5	14.5	15.0
27	22.5	20.5	21.0	23.5	21.5	22.0	---	---	---	15.5	14.5	15.0
28	22.5	20.5	21.5	23.5	21.0	22.0	---	---	---	15.0	14.5	14.5
29	22.5	21.5	22.0	23.0	21.5	22.5	23.5	21.0	21.5	15.0	13.5	14.0
30	23.0	21.5	22.0	23.0	21.5	22.5	23.5	21.0	21.5	13.5	11.5	12.5
31	---	---	---	23.5	21.5	22.5	24.0	21.5	22.0	---	---	---
MONTH	23.0	14.0	18.5	26.0	20.0	22.5	25.5	19.5	21.0	24.5	11.5	18.0
YEAR	26.0	.0	10.0									

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 Shucks 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 current year.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.6	2.1	7.0	12	e3.7	e2.0	92	e8.8	3.3	1.4	.90	e.66
2	1.6	2.5	6.6	8.0	e3.5	e1.9	60	e8.0	2.4	1.6	.87	e.72
3	1.6	19	6.1	6.9	e3.3	e2.2	31	e7.0	2.3	1.9	.73	e.80
4	1.4	5.4	5.6	6.9	e3.2	e2.4	21	e6.6	2.2	1.5	.81	e.90
5	1.4	4.4	5.8	23	e3.1	2.4	19	9.2	2.4	1.3	.83	e1.6
6	1.4	5.0	5.0	12	e3.5	2.2	18	9.2	2.3	1.4	.90	e.96
7	1.4	3.8	4.9	9.1	3.2	2.2	17	6.7	2.2	1.4	.99	e.82
8	1.4	3.5	4.5	8.3	3.2	2.3	15	6.0	2.4	1.2	1.1	e.76
9	9.7	3.4	4.2	7.2	2.9	2.4	14	5.5	3.3	1.2	e1.0	e1.0
10	11	3.3	4.2	6.5	2.9	2.2	95	5.2	2.5	1.2	e.94	e2.5
11	4.0	3.3	4.6	6.3	e2.8	2.2	84	5.1	1.9	1.1	e1.1	e2.0
12	3.9	5.1	4.2	6.5	e2.8	2.1	30	5.0	1.7	1.1	e1.7	e1.3
13	3.2	32	4.1	11	e2.7	2.1	21	5.0	1.6	1.1	e1.4	e.86
14	3.1	8.0	4.0	8.8	e2.7	e2.0	17	4.1	1.5	3.2	e1.1	e.86
15	3.1	6.4	3.9	6.5	e2.6	e1.9	14	3.9	1.4	2.1	e1.0	e.86
16	2.9	5.7	3.8	e5.6	e2.6	e1.8	19	3.8	1.4	1.2	e1.5	e1.1
17	2.8	5.6	12	e4.7	e3.5	e1.8	23	3.7	1.6	1.1	2.5	e1.6
18	2.6	5.2	9.6	e4.3	3.0	e1.7	14	3.6	1.5	1.1	.97	e1.4
19	2.7	4.8	5.5	e4.1	2.7	e1.7	12	3.9	1.6	2.0	.85	e1.1
20	2.6	4.5	6.8	e4.0	e2.6	e1.7	11	4.0	3.8	1.3	.85	e.94
21	2.5	5.2	5.7	e3.7	e2.5	e1.7	10	3.6	4.3	1.0	.80	e.96
22	2.4	14	4.8	e11	e2.4	e1.7	23	3.3	2.5	1.0	.75	e1.0
23	2.4	43	e4.3	8.0	e2.4	e1.8	16	3.0	1.7	.97	.74	e.98
24	2.7	15	e4.0	7.0	e2.3	e2.0	13	3.0	1.6	.94	.75	e.94
25	2.8	15	e3.7	8.1	e2.2	e3.0	11	2.8	1.5	.93	.73	e.90
26	2.5	13	e3.5	5.5	e2.1	e4.5	18	2.7	3.1	.99	.69	e.94
27	2.3	12	e3.4	e5.2	e2.1	8.7	21	2.6	9.2	1.0	.67	e1.0
28	2.3	9.9	e3.3	e4.7	e2.0	19	13	2.5	2.0	.91	.91	e5.0
29	2.2	9.0	e4.5	e4.4	---	38	11	2.6	1.7	1.0	e.74	e4.0
30	2.2	8.1	e10	e4.2	---	36	e10	2.3	1.5	.93	e.72	e2.7
31	2.1	---	18	e3.9	---	36	---	2.8	---	.92	e.70	---
TOTAL	89.8	277.2	177.6	227.4	78.5	193.6	773	145.5	72.4	39.99	30.24	41.16
MEAN	2.90	9.24	5.73	7.34	2.80	6.25	25.8	4.69	2.41	1.29	.98	1.37
MAX	11	43	18	23	3.7	38	95	9.2	9.2	3.2	2.5	5.0
MIN	1.4	2.1	3.3	3.7	2.0	1.7	10	2.3	1.4	.91	.67	.66
CFSM	1.21	3.87	2.40	3.07	1.17	2.61	10.8	1.96	1.01	.54	.41	.57
IN.	1.40	4.31	2.76	3.54	1.22	3.01	12.03	2.26	1.13	.62	.47	.64

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1949 - 1993, BY WATER YEAR (WY)

	MEAN	2.93	4.55	5.92	4.98	4.94	7.53	9.09	6.56	4.35	2.81	2.31	2.22
MAX	16.6	11.5	15.1	14.3	11.5	13.8	25.8	17.1	14.6	13.0	15.5	12.9	
(WY)	1956	1971	1974	1978	1951	1977	1993	1989	1969	1969	1955	1987	
MIN	.35	.51	.64	.42	1.41	2.12	2.75	2.69	1.43	.69	.52	.38	
(WY)	1965	1965	1981	1981	1989	1989	1985	1965	1965	1965	1964	1964	

SUMMARY STATISTICS

FOR 1992 CALENDAR YEAR

FOR 1993 WATER YEAR

WATER YEARS 1949 - 1993

ANNUAL TOTAL	1819.7	2146.39	
ANNUAL MEAN	4.97	5.88	4.85
HIGHEST ANNUAL MEAN			8.26
LOWEST ANNUAL MEAN			1.92
HIGHEST DAILY MEAN	64	May 31	153
LOWEST DAILY MEAN	1.2	Sep 20, 21	.25
ANNUAL SEVEN-DAY MINIMUM	1.3	Sep 15	.27
INSTANTANEOUS PEAK FLOW		222	630
INSTANTANEOUS PEAK STAGE		2.99	3.99
INSTANTANEOUS LOW FLOW			.10
ANNUAL RUNOFF (CFSM)	2.08	2.46	2.03
ANNUAL RUNOFF (INCHES)	28.32	33.41	27.57
10 PERCENT EXCEEDS	8.8	13	9.5
50 PERCENT EXCEEDS	3.7	2.8	3.2
90 PERCENT EXCEEDS	1.7	.94	.88

a Computed using estimated daily discharges.

b 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 Sept. 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 good except those for estimated daily discharges, which are fair. 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	505	514	1780	3230	1020	531	7500	e2500	584	314	191	190
2	383	526	1670	3040	896	491	10100	e2300	581	288	189	191
3	877	1380	1470	2870	799	535	9470	e2180	557	299	183	204
4	463	1670	1400	2370	871	593	10800	e2140	456	277	172	246
5	371	1630	1260	2620	936	734	9310	2300	443	258	161	243
6	352	1680	1190	3450	768	680	5870	e2300	446	252	161	198
7	345	1370	1170	3240	680	603	4760	e2500	423	291	189	183
8	341	1250	1310	2490	737	630	3800	e2200	e445	288	269	253
9	453	907	1250	2010	695	672	3390	e2000	e500	280	224	308
10	1290	886	947	1910	764	703	6100	e1780	e470	273	194	478
11	1440	883	1120	1760	697	652	11400	1610	e500	267	270	356
12	1740	942	1290	1520	682	621	7030	1450	e600	261	491	296
13	1590	3020	1120	1910	677	571	10200	1220	e500	261	286	280
14	1170	2570	1160	2270	628	534	8940	1250	e440	303	235	270
15	1020	2330	1470	2120	602	578	5980	1110	e357	479	232	284
16	897	2400	1060	1600	695	645	4410	1060	349	325	e222	431
17	1280	2420	1300	1550	1110	1200	5650	1020	340	274	e1000	432
18	965	1840	2150	1490	717	992	4860	986	338	239	e600	684
19	899	1440	1910	1410	517	987	e4530	985	338	244	e417	367
20	552	1290	1950	1190	503	949	e4500	934	378	256	365	306
21	517	1180	2210	1200	526	926	e3250	893	393	223	342	299
22	565	1590	2370	1500	633	899	4290	812	424	210	317	299
23	665	4960	1800	1380	819	851	4820	776	369	209	302	292
24	570	5960	1530	1290	565	1300	4040	766	328	200	293	303
25	596	4710	1290	1560	462	1770	e3790	750	320	195	287	298
26	592	3940	1250	1920	494	2340	3850	715	581	195	266	480
27	745	3010	1170	1360	545	3120	5000	695	534	205	241	512
28	516	2540	1160	1230	525	4230	e5090	672	355	200	217	723
29	599	2370	1160	1150	---	6730	e4300	582	431	219	201	826
30	504	1990	1320	1050	---	6990	e3260	530	389	202	198	683
31	523	---	2380	1040	---	8400	---	524	---	194	193	---
TOTAL	23325	63198	45617	58730	19563	51457	180290	41550	13169	7981	8908	10915
MEAN	752	2107	1472	1895	699	1660	6010	1340	439	257	287	364
MAX	1740	5960	2380	3450	1110	8400	11400	2500	600	479	1000	826
MIN	341	514	947	1040	462	491	3250	524	320	194	161	183
CFSM	1.27	3.56	2.49	3.21	1.18	2.81	10.2	2.27	.74	.44	.49	.62
IN.	1.47	3.98	2.87	3.70	1.23	3.24	11.35	2.62	.83	.50	.56	.69

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 1993, BY WATER YEAR (WY)

MEAN	751	1279	1548	1027	1320	1798	2594	1992	1201	801	523	794
MAX	2017	2366	3353	1895	2470	3164	6010	4038	1965	1955	1073	3767
(WY)	1991	1986	1984	1993	1984	1986	1993	1989	1989	1984	1990	1987
MIN	238	303	515	532	566	926	899	986	431	246	271	212
(WY)	1983	1985	1990	1989	1987	1989	1985	1985	1991	1991	1991	1991

SUMMARY STATISTICS

FOR 1992 CALENDAR YEAR

FOR 1993 WATER YEAR

WATER YEARS 1983 - 1993

ANNUAL TOTAL	449799	524703	1300
ANNUAL MEAN	1229	1438	758
HIGHEST ANNUAL MEAN			1729
LOWEST ANNUAL MEAN			1984
HIGHEST DAILY MEAN	5960	Nov 24	11400
LOWEST DAILY MEAN	316	Sep 21	161
ANNUAL SEVEN-DAY MINIMUM	358	Aug 26	178
INSTANTANEOUS PEAK FLOW			17300
INSTANTANEOUS PEAK STAGE			10.48
INSTANTANEOUS LOW FLOW			149
ANNUAL RUNOFF (CFSM)	2.08	2.43	2.20
ANNUAL RUNOFF (INCHES)	28.31	33.03	29.89
10 PERCENT EXCEEDS	2390	3410	2710
50 PERCENT EXCEEDS	968	745	877
90 PERCENT EXCEEDS	446	245	290

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

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 fair. Satellite telemetry at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	43	35	144	113	104	51	841	179	68	36	24	20
2	42	36	135	103	96	52	767	165	59	36	23	20
3	40	165	127	100	101	55	552	153	56	43	22	22
4	39	115	118	99	92	65	425	146	54	37	22	33
5	38	93	115	214	87	88	348	172	55	34	21	26
6	37	94	106	205	85	77	295	202	57	31	22	23
7	37	80	101	186	78	73	256	150	51	32	24	22
8	35	74	96	174	80	89	227	138	49	31	26	25
9	59	69	90	158	75	110	207	132	55	30	23	25
10	75	66	87	143	74	107	473	126	56	31	22	61
11	53	65	135	135	72	93	794	121	46	29	32	31
12	52	74	e163	132	e70	84	522	116	44	27	43	26
13	46	210	e130	168	e73	71	388	113	42	26	31	24
14	e45	155	122	166	e75	94	316	108	40	45	29	24
15	e45	135	114	143	e72	91	272	103	40	72	25	24
16	e44	122	110	137	e68	78	274	100	40	36	24	35
17	42	113	161	132	e90	137	300	96	38	32	64	38
18	41	107	190	124	e100	186	235	92	37	30	36	31
19	41	100	174	115	e85	147	215	96	36	31	29	28
20	40	93	175	110	74	128	201	93	41	32	27	26
21	39	93	158	105	64	121	190	88	53	29	27	26
22	39	178	144	154	69	124	254	83	43	27	24	27
23	38	397	136	136	64	134	215	80	37	27	24	26
24	39	335	128	126	59	287	192	77	35	26	24	25
25	45	280	116	135	61	317	182	74	34	26	24	24
26	40	235	113	124	58	351	214	69	37	24	23	82
27	39	208	104	122	57	424	261	66	91	26	22	84
28	38	182	101	122	56	593	216	64	44	25	21	109
29	38	168	104	119	---	824	205	63	40	26	22	72
30	37	154	111	111	---	692	192	61	39	25	21	61
31	36	---	125	110	---	564	---	61	---	24	20	---
TOTAL	1322	4231	3933	4221	2139	6307	10029	3387	1417	986	821	1100
MEAN	42.6	141	127	136	76.4	203	334	109	47.2	31.8	26.5	36.7
MAX	75	397	190	214	104	824	841	202	91	72	64	109
MIN	35	35	87	99	56	51	182	61	34	24	20	20
CFSM	.85	2.83	2.54	2.73	1.53	4.08	6.70	2.19	.95	.64	.53	.73
IN.	.99	3.15	2.93	3.15	1.59	4.70	7.48	2.52	1.06	.74	.61	.82

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1967 - 1993, BY WATER YEAR (WY)

	MEAN	64.2	94.4	126	110	117	155	161	131	98.9	67.4	53.4	56.8
MAX	181	203	271	323	185	330	369	270	248	165	193	264	264
(WY)	1977	1973	1974	1979	1975	1977	1983	1989	1972	1969	1969	1987	1987
MIN	18.9	24.7	22.9	13.9	45.0	60.2	47.9	68.5	36.4	24.4	17.0	15.5	15.5
(WY)	1981	1981	1981	1981	1980	1985	1985	1987	1987	1985	1985	1980	1980

SUMMARY STATISTICS

FOR 1992 CALENDAR YEAR

FOR 1993 WATER YEAR

WATER YEARS 1967 - 1993

ANNUAL TOTAL	33273	39893	103
ANNUAL MEAN	90.9	109	149
HIGHEST ANNUAL MEAN			46.5
LOWEST ANNUAL MEAN			1985
HIGHEST DAILY MEAN	416	Jun 1	841
LOWEST DAILY MEAN	32	Sep 1,2	20
ANNUAL SEVEN-DAY MINIMUM	35	Aug 27	21
INSTANTANEOUS PEAK FLOW			994
INSTANTANEOUS PEAK STAGE			6.86
INSTANTANEOUS LOW FLOW			20
ANNUAL RUNOFF (CFSM)	1.82	2.19	2.06
ANNUAL RUNOFF (INCHES)	24.80	29.74	28.01
10 PERCENT EXCEEDS	159	212	202
50 PERCENT EXCEEDS	77	74	75
90 PERCENT EXCEEDS	39	25	28

- a From rating curve extended above 800 ft³/s.
e Estimated.

LEHIGH RIVER BASIN

01449360 FORDPOCO 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, 24.0°C, July 10; minimum, 0.0°C, many days during winter period.

WATER TEMPERATURE, (DEG. C), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	10.0	8.0	9.0	8.5	7.0	8.0	6.5	5.5	6.0	7.0	3.0	5.5
2	11.0	8.0	9.5	8.0	6.5	6.5	6.5	5.5	6.0	3.0	2.0	2.5
3	13.0	10.0	11.5	10.0	8.0	9.5	6.0	5.0	5.5	3.0	1.5	2.0
4	13.0	11.5	12.5	10.0	9.0	9.5	5.0	4.0	4.5	5.5	3.0	4.5
5	11.5	10.0	10.5	10.0	9.0	9.5	4.5	3.0	4.0	7.5	5.5	6.5
6	10.0	8.0	9.0	9.0	7.5	8.0	3.0	2.0	2.5	6.0	4.5	5.0
7	10.0	7.5	9.0	7.5	6.0	7.0	3.5	3.0	3.5	5.0	4.0	4.5
8	10.5	8.0	9.0	6.0	4.5	5.5	3.5	2.5	3.0	5.0	4.5	5.0
9	14.0	10.5	12.0	5.0	3.0	4.5	2.5	1.5	2.0	4.5	3.0	4.0
10	14.0	13.0	13.5	6.5	5.0	5.5	2.0	1.0	1.5	3.0	1.5	2.0
11	13.0	11.5	12.0	8.0	6.5	7.5	3.5	1.5	2.5	2.5	1.5	1.5
12	12.0	11.0	11.5	11.0	8.0	9.0	4.0	3.0	3.5	3.5	2.0	2.5
13	11.5	10.0	10.5	11.0	7.5	9.5	5.0	3.5	4.0	4.0	3.0	3.5
14	---	---	---	7.5	5.5	6.5	4.0	2.5	3.5	4.0	3.5	3.5
15	---	---	---	5.5	4.5	5.0	3.5	2.0	3.0	4.0	3.5	4.0
16	13.0	11.5	12.0	5.0	3.5	4.5	5.0	3.5	4.0	3.5	3.0	3.5
17	13.0	9.5	11.0	6.0	4.5	5.5	5.0	5.0	5.0	3.5	3.0	3.5
18	9.5	7.0	8.0	6.5	6.0	6.5	5.0	4.0	5.0	3.5	2.0	2.5
19	8.0	6.5	7.5	6.0	5.0	5.5	5.0	3.5	4.0	2.0	.5	1.0
20	7.0	5.0	6.0	5.5	3.5	4.5	5.5	4.5	5.0	2.0	.0	1.5
21	8.5	6.5	7.5	7.5	5.5	6.5	4.5	2.5	3.0	3.0	.5	1.5
22	8.5	6.5	7.5	10.0	7.5	8.5	4.5	2.5	3.5	4.5	3.0	4.0
23	8.5	6.0	7.5	11.0	9.5	10.5	4.5	3.0	4.0	5.0	4.0	4.5
24	10.5	7.0	8.0	9.5	8.5	9.0	4.0	.5	2.5	5.5	2.5	4.0
25	9.0	7.0	8.0	9.5	9.0	9.0	1.5	.0	.5	5.0	2.5	3.5
26	8.0	6.0	7.0	10.0	9.5	9.5	2.0	1.0	1.5	2.5	1.0	2.0
27	9.0	7.5	8.0	10.0	7.5	8.5	1.0	.0	.5	3.0	1.0	2.0
28	8.0	5.5	7.0	7.5	6.0	6.5	3.0	.5	1.5	3.0	1.5	2.5
29	8.0	6.0	7.0	7.0	6.0	6.5	4.5	3.0	4.0	3.5	1.5	3.0
30	9.5	8.0	8.5	6.5	6.0	6.0	5.5	4.5	5.0	2.0	.5	1.0
31	8.5	8.0	8.5	---	---	---	7.5	5.0	6.0	3.5	1.5	2.5
MONTH	14.0	5.0	9.5	11.0	3.0	7.5	7.5	.0	3.5	7.5	.0	3.0

LEHIGH RIVER BASIN

01449800 POHOPOCO CREEK BELOW BELTZVILLE LAKE NEAR PARRYVILLE, PA

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.

DRAINAGE AREA.--96.4 mi².

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 492.05 ft above sea level.

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 (01449790), reservoir for city of Bethlehem. Diversion upstream from Tunkhannock Creek to Wild Creek Basin since October 1969. Satellite telemetry at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	87	36	251	157	213	64	1260	282	84	69	36	40
2	85	36	183	154	131	51	1280	284	107	54	36	40
3	85	38	147	154	88	56	1390	286	107	46	36	91
4	85	38	147	122	147	231	1380	286	107	46	128	140
5	85	38	147	197	135	278	1380	293	107	46	232	138
6	112	37	147	325	105	204	1300	296	109	46	139	136
7	129	36	174	411	105	204	886	342	67	45	36	73
8	331	36	170	344	105	119	415	290	44	44	36	130
9	272	36	120	265	105	73	457	290	44	44	36	232
10	180	36	147	265	105	78	482	241	44	44	36	143
11	180	36	239	265	140	78	257	166	44	44	37	38
12	180	36	204	265	145	89	897	143	44	44	38	38
13	180	61	204	265	123	109	1380	143	44	35	40	38
14	147	93	281	368	123	110	1440	143	44	35	40	38
15	93	93	227	320	123	110	1470	143	44	40	40	38
16	84	327	166	232	97	110	1010	143	44	40	40	38
17	76	292	166	232	174	221	463	215	44	40	44	38
18	76	156	192	232	137	325	461	170	44	40	43	38
19	76	153	204	174	88	298	376	126	44	40	42	38
20	76	168	204	143	88	255	335	126	45	40	42	38
21	76	147	337	143	88	255	423	126	74	40	41	38
22	55	147	317	240	88	215	594	126	107	131	40	31
23	44	552	188	251	88	191	467	126	88	232	40	16
24	44	791	188	251	88	370	335	101	73	232	40	16
25	42	591	188	251	88	466	335	88	59	232	40	16
26	42	437	188	191	88	562	335	75	52	126	40	17
27	42	294	188	151	88	617	538	69	52	37	40	17
28	38	204	188	151	88	624	472	69	81	36	40	17
29	36	225	188	192	---	797	466	69	87	36	40	17
30	36	251	188	213	---	1200	349	69	69	36	40	16
31	36	---	171	213	---	1320	---	69	---	36	40	---
TOTAL	3110	5421	6049	7137	3181	9680	22633	5395	2003	2056	1598	1744
MEAN	100	181	195	230	114	312	754	174	66.8	66.3	51.5	58.1
MAX	331	791	337	411	213	1320	1470	342	109	232	232	232
MIN	36	36	120	122	88	51	257	69	44	35	36	16

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1967 - 1993, BY WATER YEAR (WY)

	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
MEAN	120	138	189	173	184	247	270	222	155	114	89.2	97.2															
MAX	405	302	489	527	459	576	754	538	358	321	491	529															
(WY)	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
MIN	28.9	19.2	14.4	33.3	17.0	16.2	32.5	25.2	48.2	32.4	18.0	29.2															
(WY)	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

SUMMARY STATISTICS

FOR 1992 CALENDAR YEAR

FOR 1993 WATER YEAR

WATER YEARS 1968 - 1993

ANNUAL TOTAL	49538	70007	166
ANNUAL MEAN	135	192	251
HIGHEST ANNUAL MEAN			60.2
LOWEST ANNUAL MEAN			1978
HIGHEST DAILY MEAN	878	Jun 2	1470
LOWEST DAILY MEAN	14	Jan 1-12	16
ANNUAL SEVEN-DAY MINIMUM	14	Jan 1	17
INSTANTANEOUS PEAK FLOW			1550
INSTANTANEOUS PEAK STAGE			5.57
INSTANTANEOUS LOW FLOW			2.6
10 PERCENT EXCEEDS	251	372	377
50 PERCENT EXCEEDS	103	119	105
90 PERCENT EXCEEDS	44	38	36

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. 15; minimum, 1.5°C, several days in February.

WATER TEMPERATURE, (DEG. C), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	15.5	14.5	15.0	12.0	11.5	12.0	8.0	8.0	8.0	3.5	3.5	3.5
2	15.0	14.0	15.0	11.5	11.0	11.5	8.0	8.0	8.0	3.5	3.5	3.5
3	15.5	14.5	15.0	12.0	11.5	11.5	8.0	8.0	8.0	3.5	3.5	3.5
4	15.5	15.0	15.0	11.5	11.5	11.5	8.0	7.5	7.5	3.5	3.5	3.5
5	16.0	15.0	15.5	11.5	11.0	11.0	7.5	7.5	7.5	4.0	3.5	3.5
6	15.5	15.0	15.0	11.0	10.5	11.0	7.5	7.0	7.0	3.5	3.5	3.5
7	15.0	15.0	15.0	11.0	10.5	10.5	7.0	7.0	7.0	3.5	3.5	3.5
8	15.0	14.5	15.0	10.5	10.0	10.5	7.0	6.5	7.0	3.5	3.5	3.5
9	15.5	14.5	15.0	10.5	10.0	10.0	6.5	6.5	6.5	3.5	3.5	3.5
10	15.0	15.0	15.0	10.5	10.0	10.0	6.5	6.0	6.0	3.5	3.0	3.0
11	15.0	15.0	15.0	10.0	10.0	10.0	6.0	5.5	6.0	3.0	3.0	3.0
12	15.0	14.5	14.5	10.5	10.0	10.0	5.5	5.5	5.5	3.0	3.0	3.0
13	15.0	14.5	15.0	10.5	9.0	9.5	5.5	5.5	5.5	3.0	3.0	3.0
14	15.0	14.5	15.0	10.0	9.5	9.5	5.5	5.5	5.5	3.0	3.0	3.0
15	15.0	14.5	15.0	9.5	9.5	9.5	5.5	5.5	5.5	3.0	3.0	3.0
16	15.0	14.0	14.5	9.5	9.0	9.5	5.5	5.0	5.5	3.0	3.0	3.0
17	14.5	13.5	14.0	9.5	9.0	9.0	5.5	5.0	5.0	3.0	3.0	3.0
18	14.5	14.0	14.5	9.0	8.5	9.0	5.0	5.0	5.0	3.0	3.0	3.0
19	14.0	13.5	14.0	9.0	8.5	9.0	5.0	5.0	5.0	3.0	3.0	3.0
20	14.0	13.5	13.5	9.0	8.5	8.5	5.0	5.0	5.0	3.0	3.0	3.0
21	13.5	13.5	13.5	8.5	8.5	8.5	5.0	4.5	5.0	3.0	2.5	2.5
22	14.0	13.0	13.5	8.5	8.5	8.5	5.0	4.5	5.0	3.0	2.5	2.5
23	13.5	13.0	13.0	8.5	8.0	8.0	4.5	4.5	4.5	3.0	3.0	3.0
24	13.0	12.5	13.0	8.5	8.0	8.0	4.5	4.5	4.5	3.0	2.5	3.0
25	13.0	12.5	13.0	8.5	8.5	8.5	4.5	4.0	4.5	3.0	2.5	3.0
26	13.0	12.0	12.5	8.5	8.5	8.5	4.0	4.0	4.0	3.0	2.5	2.5
27	13.0	12.0	12.5	8.5	8.5	8.5	4.0	3.5	4.0	3.0	2.5	2.5
28	12.5	12.0	12.0	8.5	8.5	8.5	4.0	3.5	3.5	3.0	2.5	2.5
29	12.5	12.0	12.0	8.5	8.0	8.5	3.5	3.5	3.5	3.0	2.5	2.5
30	12.5	12.0	12.0	8.5	8.0	8.0	3.5	3.5	3.5	2.5	2.5	2.5
31	12.0	12.0	12.0	---	---	---	4.0	3.5	3.5	2.5	2.5	2.5
MONTH	16.0	12.0	14.0	12.0	8.0	9.5	8.0	3.5	5.5	4.0	2.5	3.0

LEHIGH RIVER BASIN

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

WATER TEMPERATURE, (DEG. C), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY				MARCH			APRIL			MAY		
1	2.5	2.0	2.5	2.5	2.0	2.0	3.5	3.0	3.0	8.5	8.0	8.0
2	2.0	1.5	2.0	3.5	2.0	2.5	3.5	3.0	3.5	8.5	8.0	8.0
3	2.5	2.0	2.0	3.0	2.0	2.5	3.5	3.5	3.5	8.5	8.0	8.5
4	2.0	2.0	2.0	2.0	2.0	2.0	3.5	3.5	3.5	8.5	8.0	8.0
5	2.5	2.0	2.0	2.0	2.0	2.0	3.5	3.5	3.5	8.5	8.0	8.5
6	2.0	1.5	2.0	2.0	2.0	2.0	5.0	3.5	4.0	8.5	8.0	8.5
7	2.0	1.5	1.5	2.5	2.0	2.0	5.0	4.0	4.5	8.5	8.0	8.5
8	2.5	2.0	2.0	3.0	2.0	2.5	5.0	4.5	4.5	9.0	8.5	8.5
9	2.0	1.5	2.0	3.5	2.0	2.5	5.5	4.5	5.0	9.0	8.5	8.5
10	2.5	2.0	2.0	2.5	2.5	2.5	5.5	5.0	5.5	9.0	8.5	8.5
11	2.0	2.0	2.0	3.0	2.5	2.5	6.0	4.5	5.0	9.5	8.5	9.0
12	2.0	1.5	1.5	3.0	2.0	2.5	5.5	4.5	5.0	9.5	8.5	9.0
13	2.0	1.5	1.5	2.5	2.0	2.0	5.0	4.5	5.0	9.5	8.5	9.0
14	2.0	1.5	2.0	2.5	2.0	2.5	5.0	5.0	5.0	9.0	8.5	9.0
15	2.0	1.5	2.0	3.0	2.5	2.5	5.5	5.0	5.5	9.5	8.5	9.0
16	2.0	1.5	1.5	3.0	2.5	2.5	6.0	5.0	5.5	9.5	9.0	9.0
17	2.0	1.5	2.0	2.5	2.5	2.5	6.0	5.5	6.0	9.0	9.0	9.0
18	2.0	1.5	2.0	2.5	2.5	2.5	6.5	5.5	6.0	9.0	9.0	9.0
19	2.0	1.5	1.5	3.0	2.5	2.5	7.0	6.0	6.5	9.0	9.0	9.0
20	2.0	1.5	1.5	3.0	2.5	2.5	7.0	6.0	6.5	9.5	9.0	9.0
21	1.5	1.5	1.5	2.5	2.5	2.5	7.0	6.5	6.5	9.5	9.0	9.0
22	2.0	1.5	2.0	3.0	2.5	2.5	7.0	6.0	6.5	9.5	9.0	9.0
23	2.0	1.5	1.5	2.5	2.5	2.5	7.5	6.0	6.5	10.0	9.0	9.0
24	2.0	1.5	1.5	2.5	2.5	2.5	8.0	7.0	7.5	9.5	9.0	9.5
25	2.0	1.5	2.0	3.0	2.5	2.5	7.5	7.0	7.0	10.0	9.0	9.5
26	2.5	2.0	2.0	3.0	2.5	2.5	9.5	7.5	8.5	10.5	9.0	9.5
27	2.5	1.5	2.0	3.0	2.5	3.0	8.5	7.0	7.5	11.0	9.0	9.5
28	2.5	1.5	2.0	3.0	3.0	3.0	8.5	7.0	7.5	10.0	9.5	9.5
29	---	---	---	3.0	3.0	3.0	8.0	8.0	8.0	11.0	9.0	9.5
30	---	---	---	3.0	3.0	3.0	8.5	8.0	8.0	11.0	9.0	9.5
31	---	---	---	3.0	3.0	3.0	---	---	---	9.5	9.0	9.5
MONTH	2.5	1.5	2.0	3.5	2.0	2.5	9.5	3.0	5.5	11.0	8.0	9.0
JUNE				JULY			AUGUST			SEPTEMBER		
1	10.5	9.0	9.5	14.0	12.5	13.0	16.0	14.0	14.5	17.5	16.0	16.0
2	10.0	9.5	9.5	13.0	12.5	13.0	16.0	14.0	14.5	16.5	16.0	16.0
3	10.0	9.5	9.5	14.0	12.5	13.0	16.0	14.0	15.0	17.0	16.0	16.5
4	10.5	9.5	9.5	14.5	13.0	13.5	16.0	14.5	15.0	17.0	16.5	17.0
5	9.5	9.5	9.5	14.5	13.0	13.5	16.0	15.0	15.5	17.0	17.0	17.0
6	10.5	9.5	10.0	14.0	13.0	13.5	16.0	15.0	15.5	17.5	16.5	17.0
7	11.5	9.5	10.0	14.5	13.0	13.5	16.0	14.5	15.0	17.5	16.0	17.0
8	11.5	9.5	10.0	14.5	13.0	13.5	16.5	14.5	15.0	17.5	16.0	17.0
9	11.5	9.5	10.0	15.0	13.0	13.5	17.0	15.0	15.5	17.5	17.0	17.5
10	12.0	9.5	10.5	15.0	13.0	13.5	16.0	15.0	15.0	17.5	16.5	17.0
11	12.0	9.5	10.5	15.0	13.0	13.5	15.5	14.5	15.0	17.5	16.5	16.5
12	12.0	9.5	10.5	15.0	13.0	13.5	16.0	14.5	15.5	18.0	16.5	17.0
13	12.0	9.5	10.5	15.5	13.0	13.5	17.0	15.0	15.5	18.0	16.5	17.0
14	13.5	9.5	11.5	14.5	13.0	13.5	17.0	15.0	15.5	18.0	16.5	17.0
15	13.0	12.0	12.5	15.0	13.0	13.5	16.5	15.0	15.5	18.5	16.5	17.5
16	14.0	12.0	12.5	15.5	13.0	14.0	16.0	15.0	15.5	17.5	16.5	17.0
17	14.0	11.5	12.5	15.0	13.0	13.5	16.0	15.5	15.5	18.0	17.0	17.0
18	13.5	12.0	12.5	15.5	13.0	14.0	16.5	15.0	15.5	17.5	16.5	17.0
19	13.5	12.0	12.5	13.5	13.0	13.5	16.5	15.0	16.0	18.0	16.5	17.0
20	13.0	12.0	12.5	15.0	13.0	14.0	16.0	15.5	15.5	17.5	16.5	17.0
21	13.0	12.0	12.5	15.0	13.0	14.0	17.0	15.0	16.0	17.0	16.5	17.0
22	13.0	12.0	12.5	14.5	13.0	13.5	17.0	15.0	16.0	17.5	14.5	16.0
23	13.5	12.0	12.5	14.5	13.5	14.0	17.0	15.5	16.0	15.5	14.5	15.0
24	13.5	12.0	13.0	14.5	14.0	14.0	16.5	15.5	16.0	17.0	14.0	15.0
25	13.5	12.5	13.0	14.5	14.0	14.5	17.0	15.5	16.0	17.0	14.0	15.0
26	13.5	12.5	13.0	14.5	14.0	14.5	17.5	15.5	16.0	16.0	15.0	15.5
27	14.0	12.5	13.0	15.0	14.0	14.5	17.0	15.5	16.0	16.0	13.5	15.0
28	13.0	12.5	13.0	16.0	14.0	14.5	17.0	15.5	16.0	16.0	14.0	15.0
29	13.0	12.5	13.0	15.5	14.0	14.5	17.0	15.5	16.0	16.0	14.0	14.5
30	13.5	12.5	13.0	15.0	14.0	14.5	17.0	15.5	16.0	16.0	14.0	14.5
31	---	---	---	15.5	14.0	14.5	17.0	16.0	16.5	---	---	---
MONTH	14.0	9.0	11.5	16.0	12.5	14.0	17.5	14.0	15.5	18.5	13.5	16.5
YEAR	18.5	1.5	9.0									

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. WSP 2102: 1867 (monthly net diversion).

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	50	48	187	127	123	71	1480	270	81	42	27	25
2	49	48	173	113	106	74	1480	241	65	43	26	25
3	48	222	160	109	112	79	1030	223	61	56	25	28
4	47	202	146	111	107	101	736	208	61	46	24	50
5	45	160	141	240	102	182	566	220	59	40	24	36
6	44	150	127	282	97	159	458	249	61	40	25	30
7	44	127	121	253	86	147	383	218	55	40	29	28
8	43	116	114	228	92	179	330	199	52	37	31	34
9	72	109	104	198	84	229	293	185	60	35	28	35
10	98	103	100	173	84	215	674	172	62	34	26	41
11	75	99	185	161	83	183	1610	162	50	33	30	36
12	73	105	236	158	81	157	885	154	47	33	51	32
13	68	273	216	187	96	149	601	146	44	32	30	31
14	66	257	200	194	86	150	468	137	44	33	30	29
15	66	208	189	179	78	135	389	128	42	40	27	29
16	64	174	179	174	92	123	389	120	41	33	27	37
17	62	157	223	170	137	274	416	114	39	31	93	44
18	60	144	293	156	110	442	359	108	39	29	52	40
19	59	130	289	142	96	296	327	113	41	31	40	35
20	57	119	268	135	93	241	299	112	68	34	36	32
21	56	115	223	133	94	220	277	105	118	31	35	37
22	54	198	202	179	96	213	371	95	71	30	31	36
23	53	664	186	168	90	237	347	90	56	29	31	33
24	55	557	168	159	82	608	313	87	49	28	30	33
25	63	399	150	166	76	649	286	82	46	27	29	32
26	56	320	144	154	76	685	344	77	45	27	28	81
27	53	276	130	154	74	767	453	73	65	30	27	107
28	51	243	128	149	73	954	403	71	50	29	27	158
29	50	221	130	145	---	1420	345	69	45	32	26	113
30	49	201	133	132	---	1170	304	65	46	29	26	92
31	49	---	141	132	---	896	---	67	---	27	26	---
TOTAL	1779	6145	5386	5161	2606	11405	16616	4360	1663	1061	997	1399
MEAN	57.4	205	174	166	93.1	368	554	141	55.4	34.2	32.2	46.6
MAX	98	664	293	282	137	1420	1610	270	118	56	93	158
MIN	43	48	100	109	73	71	277	65	39	27	24	25
(†)	-3.9	-4.2	-3.8	-3.5	-4.1	-3.4	-3.7	-4.4	-3.7	-4.1	-4.0	-4.0
MEAN‡	53.5	201	170	162	89.0	365	550	137	51.7	30.1	28.2	42.6
CFSM‡	.70	2.62	2.21	2.11	1.16	4.76	7.17	1.79	.67	.39	.37	.56
IN.‡	.81	2.92	2.55	2.43	1.21	5.49	8.00	2.06	.75	.45	.43	.62

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1993, BY WATER YEAR (WY)

	MEAN	94.9	146	181	162	174	243	238	184	117	103	87.3	90.6
	MAX	331	379	467	541	325	534	625	480	412	638	468	417
	(WY)	1956	1973	1984	1979	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

SUMMARY STATISTICS

FOR 1992 CALENDAR YEAR

FOR 1993 WATER YEAR

WATER YEARS 1940 - 1993

ANNUAL TOTAL	47068	58578	
ANNUAL MEAN	129	160	\$156
HIGHEST ANNUAL MEAN			152 \$151
LOWEST ANNUAL MEAN			242
HIGHEST DAILY MEAN	784	Jun 1	1610
LOWEST DAILY MEAN	41	Sep 1, 2	24
ANNUAL SEVEN-DAY MINIMUM	43	Aug 27	25
INSTANTANEOUS PEAK FLOW			1910
INSTANTANEOUS PEAK STAGE			6.98
INSTANTANEOUS LOW FLOW			24
ANNUAL RUNOFF (CFSM)	1.68		2.09
ANNUAL RUNOFF (INCHES)	22.83		28.41
10 PERCENT EXCEEDS	222		323
50 PERCENT EXCEEDS	100		96
90 PERCENT EXCEEDS	49		30

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

‡ Adjusted for diversion.

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. --No estimated daily discharges. Records good. 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	768	648	2510	3580	1590	1060	12400	3510	849	480	290	272
2	635	659	2320	3400	1470	756	15600	3300	841	443	283	270
3	1030	2360	2000	3200	1260	817	13800	3110	821	486	279	319
4	774	2370	1880	2780	1280	1050	14700	2960	722	429	282	548
5	594	2120	1740	3260	1370	1720	12700	3270	685	388	440	496
6	588	2130	1630	4320	1170	1470	8530	3690	702	374	406	397
7	608	1760	1580	4180	1080	1250	6830	3640	634	439	254	344
8	739	1620	1710	3430	1230	1310	5050	2890	584	410	420	376
9	1020	1260	1640	2820	1060	1460	4570	2720	681	385	335	615
10	1920	1210	1310	2640	1090	1430	8380	2530	724	370	291	834
11	1890	1190	1890	2490	1070	1270	17800	2220	669	359	313	561
12	2230	1220	2190	2200	1060	1160	10200	2020	805	348	774	427
13	2030	3950	1910	2700	1080	1100	13700	1720	909	344	436	392
14	1620	3480	1880	3210	1000	1130	12200	1730	636	354	349	373
15	1410	3010	2210	3040	950	1380	8750	1580	483	684	339	365
16	1210	3040	1690	2440	1000	1290	6590	1500	472	451	332	575
17	1450	3160	2050	2310	1620	2180	7560	1490	453	376	1460	599
18	1240	2380	3110	2200	1190	2640	6490	1450	448	332	942	814
19	1170	1930	2950	2010	956	2100	5990	1380	455	331	682	648
20	837	1760	2840	1730	1030	1810	5620	1330	580	358	564	454
21	760	1610	3010	1690	1100	1740	4310	1270	761	324	521	459
22	775	2320	3210	2270	982	1690	6020	1180	690	344	474	448
23	857	6620	2490	2160	1380	1700	6540	1130	603	502	450	403
24	780	8220	2150	1990	1080	3590	5390	1080	511	503	435	399
25	801	6420	1830	2170	997	4190	5000	1040	484	494	418	386
26	774	5200	1780	2580	1010	4890	5170	985	646	435	405	795
27	912	4080	1730	1930	1030	5900	6790	937	857	310	359	987
28	713	3370	1680	1800	1090	7330	6800	911	563	300	347	1280
29	724	3150	1670	1730	---	10800	5670	825	619	320	288	1300
30	666	2810	1790	1630	---	11000	4490	750	571	309	283	1110
31	646	---	2750	1620	---	12200	---	739	---	291	278	---
TOTAL	32171	85057	65130	79510	32225	93413	253640	58887	19458	12273	13729	17246
MEAN	1038	2835	2101	2565	1151	3013	8455	1900	649	396	443	575
MAX	2230	8220	3210	4320	1620	12200	17800	3690	909	684	1460	1300
MIN	588	648	1310	1620	950	756	4310	739	448	291	254	270
CFSM	1.17	3.19	2.36	2.89	1.29	3.39	9.51	2.14	.73	.45	.50	.65
IN.	1.35	3.56	2.73	3.33	1.35	3.91	10.61	2.46	.81	.51	.57	.72

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1947 - 1993. BY WATER YEAR (WY)

MEAN	1141	1810	2258	1957	2123	2957	3234	2429	1519	1100	889	946
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	957	489	241	226	179
(WY)	1964	1965	1981	1981	1980	1981	1985	1955	1962	1965	1964	1964

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR	FOR 1993 WATER YEAR	WATER YEARS 1947 - 1993
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ANNUAL TOTAL	634401		762739			
ANNUAL MEAN	1733		2090		1861	
HIGHEST ANNUAL MEAN					2892	1952
LOWEST ANNUAL MEAN					859	1965
HIGHEST DAILY MEAN	8220	Nov 24	17800	Apr 11	62400	Aug 19 1955
LOWEST DAILY MEAN	452	Aug 27, Sep 6	254	Aug 7	134	Sep 18 1964
ANNUAL SEVEN-DAY MINIMUM	488	Aug 27	293	Jul 29	143	Sep 16 1964
INSTANTANEOUS PEAK FLOW			25000	Apr 11	77800	Aug 19 1955
INSTANTANEOUS PEAK STAGE			9.49	Apr 11	17.68	Aug 19 1955
INSTANTANEOUS LOW FLOW			222	Aug 11	57	Jul 27 1965
ANNUAL RUNOFF (CFSM)	1.95		2.35		2.09	
ANNUAL RUNOFF (INCHES)	26.55		31.92		28.45	
10 PERCENT EXCEEDS	3170		4930		3860	
50 PERCENT EXCEEDS	1400		1210		1300	
90 PERCENT EXCEEDS	636		372		409	

a Result of upstream shutoff.

LEHIGH RIVER BASIN

01451420 LITTLE LEHIGH CREEK NEAR EAST TEXAS, PA

LOCATION.--Lat 40°31'59", long 75°32'09", Lehigh County, Hydrologic Unit 02040106, on right bank 300 ft upstream from bridge on Mill Creek Road, on Seem Road, and 0.8 mi southeast of East Texas.

DRAINAGE AREA.--51.2 mi².

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

GAGE.--Water-stage recorder. Elevation of gage is 360 ft above sea level, from topographic map.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.0	5.0	17	26	25	21	277	121	66	33	21	18
2	7.8	5.1	17	24	23	23	280	113	53	38	20	18
3	7.5	44	16	23	23	26	187	108	51	49	20	19
4	7.1	19	15	24	23	60	150	105	50	37	19	46
5	6.8	12	16	55	23	285	130	105	50	35	19	25
6	6.8	15	15	41	23	108	118	104	49	33	20	20
7	6.6	11	15	32	21	77	108	98	47	35	22	18
8	6.4	9.8	15	31	22	87	101	94	46	32	20	24
9	10	8.9	14	30	21	84	96	92	49	30	19	26
10	20	8.5	15	27	22	81	157	90	46	29	18	21
11	10	8.4	87	27	21	67	260	88	43	28	18	18
12	9.4	8.4	76	29	21	62	140	86	42	27	22	17
13	8.0	19	42	44	29	61	118	86	41	26	19	17
14	7.3	12	32	48	24	57	105	84	40	29	18	17
15	7.6	10	29	37	22	57	99	82	40	53	17	18
16	6.9	9.4	28	33	30	57	116	80	44	31	17	33
17	6.3	8.9	48	32	58	86	212	79	40	29	188	33
18	6.3	8.4	57	31	35	138	129	68	38	27	52	25
19	6.2	7.9	34	29	27	104	118	65	38	35	29	23
20	6.0	7.6	34	29	28	85	111	65	41	34	27	19
21	5.8	7.8	33	28	25	86	108	63	57	27	27	19
22	5.5	13	30	40	27	97	222	60	65	25	24	18
23	5.5	143	29	34	26	100	154	59	42	24	23	18
24	5.9	56	27	31	24	258	125	58	40	23	22	21
25	6.9	29	25	33	22	239	117	57	38	22	25	18
26	5.7	24	26	28	22	191	142	55	37	22	22	64
27	5.5	23	24	28	23	185	265	54	39	22	21	55
28	5.4	20	25	27	21	189	150	53	37	21	20	85
29	5.3	19	26	26	---	197	135	52	36	23	24	40
30	5.2	18	28	24	---	185	127	51	35	21	19	34
31	5.1	---	28	26	---	142	---	53	---	21	18	---
TOTAL	222.8	591.1	923	977	711	3495	4557	2428	1340	921	850	827
MEAN	7.19	19.7	29.8	31.5	25.4	113	152	78.3	44.7	29.7	27.4	27.6
MAX	20	143	87	55	58	285	280	121	66	53	188	85
MIN	5.1	5.0	14	23	21	21	96	51	35	21	17	17
CFSM	.14	.38	.58	.62	.50	2.20	2.97	1.53	.87	.58	.54	.54
IN.	.16	.43	.67	.71	.52	2.54	3.31	1.76	.97	.67	.62	.60

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 1993, BY WATER YEAR (WY)

	17.4	25.4	32.8	32.7	35.5	50.4	52.3	51.6	35.7	27.3	20.7	29.8
MEAN	17.4	25.4	32.8	32.7	35.5	50.4	52.3	51.6	35.7	27.3	20.7	29.8
MAX	30.5	42.4	51.8	61.0	71.1	113	152	97.7	60.0	47.0	34.5	110
(WY)	1988	1988	1987	1991	1988	1993	1993	1989	1989	1989	1990	1987
MIN	7.19	8.01	14.8	10.3	8.72	17.2	18.2	15.3	22.2	17.5	11.7	8.82
(WY)	1993	1992	1992	1992	1992	1992	1992	1992	1991	1992	1991	1988

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR	FOR 1993 WATER YEAR	WATER YEARS 1987 - 1993
ANNUAL TOTAL	5808.9	17842.9	
ANNUAL MEAN	15.9	48.9	33.2
HIGHEST ANNUAL MEAN			48.9
LOWEST ANNUAL MEAN			13.8
HIGHEST DAILY MEAN	143	Nov 23	285
LOWEST DAILY MEAN	5.0	Nov 1	5.0
ANNUAL SEVEN-DAY MINIMUM	5.2	Oct 27	5.2
INSTANTANEOUS PEAK FLOW			446
INSTANTANEOUS PEAK STAGE			3.97
ANNUAL RUNOFF (CFSM)	.31		.95
ANNUAL RUNOFF (INCHES)	4.22		12.96
10 PERCENT EXCEEDS	28		114
50 PERCENT EXCEEDS	12		29
90 PERCENT EXCEEDS	6.9		8.7

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 and masonry control. Datum of gage is 253.41 ft above sea level.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	44	e33	68	82	77	70	605	224	159	81	68	59
2	43	e33	67	78	70	71	558	211	110	93	65	58
3	43	190	64	76	74	77	392	201	107	115	63	63
4	42	82	62	75	73	202	320	195	103	87	62	137
5	42	63	61	162	72	475	277	194	102	80	62	79
6	41	69	59	116	73	241	254	193	103	77	66	66
7	40	60	58	96	69	159	234	184	98	77	69	64
8	40	56	58	93	73	176	222	176	95	77	65	77
9	59	53	58	90	70	173	212	168	103	77	62	78
10	76	52	60	84	70	158	386	162	97	74	61	66
11	55	51	302	82	70	133	536	157	92	73	60	62
12	51	51	197	84	71	122	337	152	90	70	67	58
13	48	137	128	121	90	118	270	146	87	70	61	58
14	46	68	103	130	80	110	241	146	87	82	59	58
15	45	60	93	104	74	110	226	142	85	117	58	73
16	44	58	90	97	105	107	285	138	92	80	56	122
17	42	57	146	92	168	232	378	135	87	74	820	101
18	e41	56	149	88	108	278	249	132	84	72	207	81
19	e41	55	104	83	86	178	222	138	89	88	89	76
20	e40	54	98	81	83	155	208	137	106	87	79	68
21	e39	52	95	80	81	154	201	135	138	74	80	66
22	e38	64	89	115	81	177	435	127	135	69	72	65
23	e37	511	87	99	82	197	312	122	97	67	68	63
24	e41	174	84	91	76	491	236	118	90	67	66	69
25	e46	103	79	99	73	440	219	116	87	67	66	65
26	e41	88	79	87	74	366	343	112	86	66	67	207
27	e39	84	75	83	71	340	490	109	89	66	65	403
28	e38	76	77	81	70	343	288	107	86	66	63	256
29	e37	72	80	80	---	382	252	106	83	69	64	117
30	e36	69	84	75	---	361	236	105	82	67	62	97
31	e34	---	87	79	---	282	---	131	---	67	60	---
TOTAL	1349	2631	2941	2883	2264	6878	9424	4619	2949	2396	2932	2912
MEAN	43.5	87.7	94.9	93.0	80.9	222	314	149	98.3	77.3	94.6	97.1
MAX	76	511	302	162	168	491	605	224	159	117	820	403
MIN	34	33	58	75	69	70	201	105	82	66	56	58
CFSM	.54	1.09	1.17	1.15	1.00	2.75	3.89	1.84	1.22	.96	1.17	1.20
IN.	.62	1.21	1.35	1.33	1.04	3.17	4.34	2.13	1.36	1.10	1.35	1.34

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1946 - 1993, BY WATER YEAR (WY)

	MEAN	65.5	75.7	93.9	104	120	131	141	120	102	85.4	77.1	71.3
MAX	182	177	314	385	325	248	331	315	381	366	192	213	
(WY)	1976	1976	1984	1979	1979	1978	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	

SUMMARY STATISTICS

FOR 1992 CALENDAR YEAR

FOR 1993 WATER YEAR

WATER YEARS 1946 - 1993

ANNUAL TOTAL	22411		44178										
ANNUAL MEAN	61.2		121							98.7			
HIGHEST ANNUAL MEAN										203		1984	
LOWEST ANNUAL MEAN										33.8		1966	
HIGHEST DAILY MEAN	511	Nov 23	820	Aug 17	4050	Jul 7	1984						
LOWEST DAILY MEAN	e33	Nov 1, 2	e33	Nov 1, 2	23	Dec 20	1965						
ANNUAL SEVEN-DAY MINIMUM	a36	Oct 27	a36	Oct 27	23	Dec 18	1965						
INSTANTANEOUS PEAK FLOW			2790	Aug 17	b11800	Jun 22	1972						
INSTANTANEOUS PEAK STAGE			5.82	Aug 17	11.80	Jun 22	1972						
INSTANTANEOUS LOW FLOW					e17	Feb 4	1965						
ANNUAL RUNOFF (CFSM)	.76		1.50		1.22								
ANNUAL RUNOFF (INCHES)	10.32		20.34		16.61								
10 PERCENT EXCEEDS	83		238		170								
50 PERCENT EXCEEDS	53		83		77								
90 PERCENT EXCEEDS	43		55		39								

a Computed using estimated daily discharges.

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

c Result of upstream shutoff.

e Estimated.

LEHIGH RIVER BASIN

01451650 LITTLE LEHIGH CREEK AT TENTH STREET BRIDGE, 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 good except those for estimated daily discharges, which are fair. Diversion for municipal water supply by city of Allentown. Several measurements of water temperature were made during the year.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	42	41	82	90	98	94	684	249	199	85	71	59
2	42	46	71	99	76	89	641	238	128	116	62	60
3	43	280	78	82	85	98	434	238	122	137	60	70
4	47	88	65	97	85	233	346	221	122	107	60	168
5	34	65	77	196	96	575	304	222	133	87	60	82
6	36	72	64	132	82	270	279	217	121	84	75	68
7	36	55	64	115	91	180	268	207	113	82	76	86
8	34	51	78	101	82	210	242	208	111	80	72	91
9	68	48	61	110	79	196	232	191	130	80	63	99
10	99	47	74	90	86	189	489	189	113	77	64	73
11	61	45	364	102	92	151	608	181	106	72	65	61
12	57	51	251	95	86	146	370	e160	103	72	79	68
13	48	138	164	163	128	142	296	e135	111	73	62	61
14	47	61	119	149	96	135	268	e145	100	86	62	55
15	57	51	112	114	100	141	253	158	99	134	61	77
16	47	49	108	119	128	124	314	155	106	84	60	151
17	46	56	177	100	208	262	419	154	92	77	870	130
18	46	47	182	111	143	316	276	152	93	72	183	97
19	46	47	119	92	99	207	252	172	98	100	90	79
20	53	59	114	90	107	198	235	161	117	95	85	69
21	43	51	108	104	94	187	232	151	181	78	85	e70
22	43	85	105	135	111	209	483	145	153	74	71	e70
23	51	537	105	122	95	237	351	153	103	75	66	e70
24	47	200	99	102	98	562	279	139	96	63	69	e110
25	49	123	106	120	84	506	250	138	94	70	73	e150
26	55	103	90	98	90	399	361	129	92	70	69	269
27	43	106	96	101	97	383	547	126	99	69	62	509
28	42	82	88	104	84	371	312	124	91	64	60	273
29	49	92	104	91	---	439	279	124	89	70	66	128
30	41	74	98	94	---	401	273	131	88	69	62	105
31	50	---	110	91	---	317	---	162	---	76	55	---
TOTAL	1502	2850	3533	3409	2800	7967	10577	5275	3403	2578	3018	3458
MEAN	48.5	95.0	114	110	100	257	353	170	113	83.2	97.4	115
MAX	99	537	364	196	208	575	684	249	199	137	870	509
MIN	34	41	61	82	76	89	232	124	88	63	55	55
(†)	+15.8	+15.8	+14.3	+13.1	+13.5	+13.8	+15.2	+15.7	+17.7	+19.2	+20.5	+17.2
MEAN‡	64.3	111	128	123	114	271	368	186	131	102	118	132
CFSM‡	.66	1.13	1.30	1.25	1.16	2.76	3.75	1.89	1.33	1.04	1.20	1.34
IN.‡	.76	1.26	1.50	1.44	1.21	3.18	4.18	2.18	1.48	1.20	1.38	1.50

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 1993, BY WATER YEAR (WY)

MEAN	72.2	97.0	107	108	112	140	149	142	110	99.7	85.2	120
MAX	104	122	163	162	184	257	353	236	184	145	124	368
(WY)	1990	1987	1987	1991	1988	1993	1993	1989	1989	1989	1990	1987
MIN	48.5	67.2	63.7	53.1	48.9	71.7	64.4	66.7	78.6	83.0	57.1	50.4
(WY)	1993	1992	1992	1992	1992	1992	1992	1992	1992	1991	1991	1992

SUMMARY STATISTICS

FOR 1992 CALENDAR YEAR

FOR 1993 WATER YEAR

WATER YEARS 1987 - 1993

ANNUAL TOTAL	25952		50370									
ANNUAL MEAN	70.9	\$88.1	138	\$154						112	\$131	
HIGHEST ANNUAL MEAN										138		1993
LOWEST ANNUAL MEAN										64.6		1992
HIGHEST DAILY MEAN	537	Nov 23	870	Aug 17						5200	Sep 9	1987
LOWEST DAILY MEAN	34	Oct 5	34	Oct 5						32	Sep 18	1991
ANNUAL SEVEN-DAY MINIMUM	39	Oct 2	39	Oct 2						39	Sep 12	1991
INSTANTANEOUS PEAK FLOW			2760	Aug 17						7370	Sep 9	1987
INSTANTANEOUS PEAK STAGE			5.81	Aug 17						9.47	Sep 9	1987
ANNUAL RUNOFF (CFSM)	.72	\$90	1.41	\$1.57						1.14	\$1.33	
ANNUAL RUNOFF (INCHES)	9.83	\$12.21	19.09	\$21.27						15.48	\$18.08	
10 PERCENT EXCEEDS	106		273							177		
50 PERCENT EXCEEDS	58		98							91		
90 PERCENT EXCEEDS	44		52							53		

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

‡ Adjusted for diversion.

• 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.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31	18	115	66	e48	e35	755	140	57	17	6.9	9.0
2	29	19	101	54	e44	e40	709	116	23	26	6.4	8.8
3	27	353	89	51	e48	e58	484	98	20	51	5.9	10
4	25	231	78	55	e54	212	326	88	19	26	5.6	41
5	23	176	75	231	e45	571	242	100	20	20	5.4	22
6	21	161	65	208	e38	306	189	92	24	19	6.4	14
7	20	118	61	184	e34	238	153	71	17	60	10	12
8	20	102	55	159	e33	302	129	61	16	31	11	29
9	56	89	53	130	e32	378	113	55	33	25	7.8	34
10	70	80	56	107	e32	301	494	50	32	21	6.6	53
11	45	74	245	95	e31	205	892	46	18	19	6.4	27
12	45	75	266	93	e30	161	492	43	15	16	9.4	21
13	40	136	228	158	e60	e135	309	41	14	15	8.1	19
14	38	88	190	159	45	e120	223	39	13	16	6.4	17
15	39	82	159	150	44	e105	176	35	12	34	5.5	17
16	35	76	138	141	71	e94	224	33	12	17	5.4	54
17	32	73	212	129	134	e300	223	31	11	13	170	53
18	30	69	216	109	93	516	179	30	9.9	11	47	46
19	30	62	202	94	e80	275	159	36	11	19	30	41
20	28	57	192	88	e70	190	139	36	27	19	25	34
21	27	57	149	84	e58	173	124	32	103	13	25	33
22	25	180	127	137	e50	205	265	28	55	11	18	32
23	24	859	113	100	e45	269	209	25	38	9.1	16	30
24	25	499	97	90	e42	1070	180	24	31	8.3	15	30
25	30	340	91	96	e39	772	155	22	27	7.9	19	25
26	24	250	95	81	e37	687	258	19	25	7.8	15	115
27	22	201	80	e74	e35	641	320	18	42	11	13	192
28	21	168	89	e66	e32	658	265	17	25	9.3	12	299
29	20	149	74	e62	---	634	212	17	21	15	12	195
30	19	130	75	e57	---	481	172	15	20	11	11	138
31	19	---	78	e52	---	344	---	24	---	7.7	9.7	---
TOTAL	940	4972	3864	3360	1404	10476	8770	1482	790.9	586.1	550.9	1650.8
MEAN	30.3	166	125	108	50.1	338	292	47.8	26.4	18.9	17.8	55.0
MAX	70	859	266	231	134	1070	892	140	103	60	170	299
MIN	19	18	53	51	30	35	113	15	9.9	7.7	5.4	8.8
CFSM	.57	3.13	2.35	2.05	.95	6.38	5.52	.90	.50	.36	.34	1.04
IN.	.66	3.49	2.71	2.36	.99	7.35	6.16	1.04	.56	.41	.39	1.16

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 1993, BY WATER YEAR (WY)

	MEAN	54.9	96.0	126	114	129	151	132	103	69.8	41.3	33.4	48.5
MAX	184	270	363	404	295	338	391	353	346	126	110	343	
(WY)	1978	1971	1984	1979	1971	1993	1983	1989	1972	1984	1990	1987	
MIN	8.37	20.1	18.6	6.85	35.2	41.3	31.0	36.5	9.18	1.68	3.77	3.69	
(WY)	1973	1979	1981	1981	1980	1985	1985	1969	1966	1966	1980	1980	

SUMMARY STATISTICS

FOR 1992 CALENDAR YEAR

FOR 1993 WATER YEAR

WATER YEARS 1966 - 1993

ANNUAL TOTAL	27612	38846.7	92.2	
ANNUAL MEAN	75.4	106	148	1978
HIGHEST ANNUAL MEAN			43.9	1985
LOWEST ANNUAL MEAN			2800	Sep 9 1987
HIGHEST DAILY MEAN	936	Mar 27	5.4	Aug 5, 16
LOWEST DAILY MEAN	17	Sep 20, 21	6.3	Jul 31
ANNUAL SEVEN-DAY MINIMUM	19	Sep 16	1.0	Jul 13 1966
INSTANTANEOUS PEAK FLOW			1220	Mar 24
INSTANTANEOUS PEAK STAGE			5.90	Mar 24
INSTANTANEOUS LOW FLOW			4.9	Aug 6, 16
ANNUAL RUNOFF (CFSM)	1.42	2.01	1.74	
ANNUAL RUNOFF (INCHES)	19.38	27.27	23.63	
10 PERCENT EXCEEDS	149	247	203	
50 PERCENT EXCEEDS	49	50	48	
90 PERCENT EXCEEDS	22	12	10	

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

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 fair. 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.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34	e20	141	e78	e74	48	1200	204	75	23	12	11
2	31	e20	126	e74	e70	53	1340	168	39	29	10	11
3	28	349	113	e110	67	70	846	145	31	66	10	e30
4	26	272	97	e150	73	167	552	130	29	41	11	e78
5	23	198	93	248	58	956	390	131	29	28	10	e31
6	22	184	80	271	62	499	294	141	32	25	12	e24
7	21	140	74	242	31	313	230	111	28	64	11	e21
8	20	121	69	204	57	388	188	97	25	45	11	e30
9	32	106	56	169	43	510	164	88	e30	34	10	e47
10	102	96	e140	139	e48	478	498	80	e28	28	10	44
11	57	87	e580	121	e32	296	1740	74	e26	25	12	37
12	53	88	e310	115	e42	215	919	70	e25	21	11	23
13	47	155	e230	166	67	180	522	64	e23	21	10	19
14	43	112	e190	212	64	129	354	61	22	23	9.4	18
15	46	100	e170	187	46	163	268	58	21	34	10	22
16	42	94	e170	178	62	135	275	54	20	31	15	47
17	38	83	233	164	177	383	406	50	18	23	297	72
18	34	59	307	144	126	1020	279	46	17	19	91	60
19	32	74	265	121	79	422	240	52	17	25	48	53
20	32	66	250	106	e68	280	205	53	21	27	34	41
21	29	62	196	99	e58	236	179	51	130	24	31	37
22	28	158	161	154	e52	254	375	43	91	20	25	38
23	25	e1000	e120	134	e48	368	327	40	56	16	20	34
24	26	e800	e94	112	e45	1650	276	36	44	14	e18	34
25	31	e600	e72	121	e43	1230	231	35	37	12	e16	32
26	28	e450	e66	99	e52	968	288	31	33	11	e15	132
27	25	e330	e58	e94	50	e720	569	27	47	12	e14	203
28	23	e240	e64	e90	46	e540	413	26	37	12	e12	488
29	22	e180	e70	e84	---	905	324	27	27	12	e12	290
30	21	e180	e78	e80	---	694	254	25	25	14	e12	189
31	e20	---	e84	e82	---	463	---	28	---	14	12	---
TOTAL	1041	6424	4757	4348	1740	14733	14146	2246	1083	793	831.4	2196
MEAN	33.6	214	153	140	62.1	475	472	72.5	36.1	25.6	26.8	73.2
MAX	102	1000	580	271	177	1650	1740	204	130	66	297	488
MIN	20	20	56	74	31	48	164	25	17	11	9.4	11
CFSM	.44	2.82	2.02	1.85	.82	6.27	6.22	.96	.48	.34	.35	.97
IN.	.51	3.15	2.33	2.13	.85	7.23	6.94	1.10	.53	.39	.41	1.08

e Estimated.

LEHIGH RIVER BASIN

01452000 JORDAN CREEK AT ALLENTOWN, PA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1945 - 1993, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	60.6	109	144	141	164	201	171	123	79.3	54.3	52.8	63.9
MAX	304	321	513	522	354	475	551	438	517	255	326	449
(WY)	1956	1971	1984	1979	1951	1993	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

SUMMARY STATISTICS

FOR 1992 CALENDAR YEAR

FOR 1993 WATER YEAR

WATER YEARS 1945 - 1993

ANNUAL TOTAL	35461			54338.4			113			1984		
ANNUAL MEAN	96.9			149			203			1965		
HIGHEST ANNUAL MEAN							44.9			1987		
LOWEST ANNUAL MEAN							.00			Jul 7 1966		
HIGHEST DAILY MEAN	1430			Mar 27			6650			Sep 9 1987		
LOWEST DAILY MEAN	13			Sep 20			10			Aug 9 1966		
ANNUAL SEVEN-DAY MINIMUM	a16			Sep 16			.06			Jul 9 1966		
INSTANTANEOUS PEAK FLOW							2250			Mar 24		
INSTANTANEOUS PEAK STAGE							5.41			Mar 24		
INSTANTANEOUS LOW FLOW							8.3			Aug 14		
ANNUAL RUNOFF (CFSM)	1.28						1.96			1.50		
ANNUAL RUNOFF (INCHES)	17.40						26.67			20.32		
10 PERCENT EXCEEDS	181						360			248		
50 PERCENT EXCEEDS	56						64			61		
90 PERCENT EXCEEDS	23						18			11		

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.

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 good except those for estimated daily discharges, which are fair. 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.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	18	43	35	37	e24	400	107	70	44	31	27
2	19	19	40	33	27	e25	376	100	59	51	31	27
3	19	61	38	31	34	e30	272	95	56	56	29	28
4	18	33	35	32	35	e54	220	92	54	47	29	41
5	18	32	33	55	e30	110	186	95	54	44	29	30
6	21	35	30	50	e31	80	163	92	54	43	30	28
7	21	28	30	51	e26	74	147	87	52	55	31	31
8	18	26	29	50	e35	86	136	83	51	44	38	32
9	22	25	26	46	e31	101	129	80	66	42	30	29
10	25	24	25	44	e27	99	202	77	61	42	29	30
11	21	25	73	41	e24	78	259	76	51	40	28	27
12	20	26	63	41	34	69	218	77	51	39	28	25
13	19	47	56	52	46	63	183	78	50	38	28	25
14	18	31	51	53	39	46	162	79	49	38	28	25
15	19	30	49	48	35	48	148	77	48	38	28	26
16	18	29	46	47	47	e46	165	76	46	37	32	31
17	18	28	62	46	70	e84	189	75	45	36	87	41
18	18	27	63	44	53	e160	151	74	46	36	35	31
19	18	25	58	41	44	e130	e135	76	48	49	32	29
20	17	24	59	39	e39	e100	e125	71	56	42	32	28
21	17	23	52	39	e34	e82	e115	68	97	37	34	28
22	18	37	48	48	e32	e88	e215	65	76	36	32	27
23	18	185	46	44	e30	e100	e160	66	55	35	31	28
24	19	113	43	41	e28	265	e130	65	51	35	29	28
25	20	90	34	45	e27	262	e100	64	50	35	29	27
26	19	74	e31	40	e25	240	e120	62	49	35	27	68
27	18	63	e29	41	e25	216	e130	59	52	34	27	91
28	18	55	e27	41	e24	205	131	59	47	32	27	82
29	18	50	e30	40	---	284	124	58	46	33	27	50
30	18	45	e33	35	---	260	116	57	45	31	27	41
31	18	---	e37	38	---	203	---	61	---	32	27	---
TOTAL	588	1328	1319	1331	969	3712	5307	2351	1635	1236	982	1061
MEAN	19.0	44.3	42.5	42.9	34.6	120	177	75.8	54.5	39.9	31.7	35.4
MAX	25	185	73	55	70	284	400	107	97	56	87	91
MIN	17	18	25	31	24	24	100	57	45	31	27	25
CFSM	.43	.99	.96	.96	.78	2.69	3.98	1.70	1.22	.90	.71	.79
IN.	.49	1.11	1.10	1.11	.81	3.10	4.44	1.97	1.37	1.03	.82	.89

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1949 - 1993, BY WATER YEAR (WY)

	MEAN	38.1	45.7	53.5	57.4	64.8	71.6	72.4	57.7	50.6	43.8	40.0	39.1
MAX	93.3	110	119	201	163	151	177	129	142	141	88.2	106	
(WY)	1976	1973	1978	1979	1979	1978	1993	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	

SUMMARY STATISTICS

FOR 1992 CALENDAR YEAR

FOR 1993 WATER YEAR

WATER YEARS 1949 - 1993

ANNUAL TOTAL	10687	21819		
ANNUAL MEAN	29.2	59.8	52.8	
HIGHEST ANNUAL MEAN			89.7	1984
LOWEST ANNUAL MEAN			15.5	1966
HIGHEST DAILY MEAN	185	Nov 23	400	Apr 1
LOWEST DAILY MEAN	e17	Feb 13a	17	Oct 20, 21
ANNUAL SEVEN-DAY MINIMUM	18	Oct 16	18	Oct 16
INSTANTANEOUS PEAK FLOW			591	Apr 1
INSTANTANEOUS PEAK STAGE			4.11	Apr 1
INSTANTANEOUS LOW FLOW			12	Oct 31
ANNUAL RUNOFF (CFSM)	.66		1.34	
ANNUAL RUNOFF (INCHES)	8.93		18.24	
10 PERCENT EXCEEDS	46		124	
50 PERCENT EXCEEDS	24		41	
90 PERCENT EXCEEDS	19		24	

a Also Oct. 20, 21.

e Estimated.

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.--September 1902 to February 1905, April 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.--No estimated daily discharges. Records good. 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.--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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1150	912	3170	3970	2170	1220	17200	4400	1540	864	567	530
2	987	921	3070	3840	1700	1190	19400	3990	1310	918	541	522
3	1050	3370	2730	3640	1690	1250	17000	3760	1240	1050	529	565
4	1340	3440	2550	3470	1840	1920	16900	3560	1190	881	524	1090
5	835	2990	2430	3840	1940	4070	14900	3680	1130	774	632	892
6	795	3010	2240	4830	1760	3170	10300	4340	1150	725	762	732
7	811	2560	2130	4650	1380	2450	7970	4260	1100	907	638	779
8	829	2300	2250	4120	1590	2680	6020	3530	1010	834	750	705
9	1430	1930	2190	3530	1470	3000	5370	3270	1200	770	661	1000
10	2430	1750	1870	3240	1550	2980	8300	3110	1290	732	592	1120
11	2210	1690	3390	3160	1530	2510	24200	2850	1130	703	556	999
12	2720	1740	3700	2910	1520	2190	12300	2630	1100	687	1000	763
13	2530	3940	3150	3440	1740	2140	15500	2310	1310	681	836	685
14	2190	4190	2850	4040	1540	1710	14700	2260	1180	698	646	660
15	1900	3530	3070	3910	1410	1990	10300	2140	886	1030	594	694
16	1680	3320	2670	3400	1630	1850	7940	2020	879	886	631	1020
17	1750	3710	2930	3110	2540	3170	9180	1970	834	734	3340	1160
18	1760	3030	4080	2990	2150	4710	7550	1980	809	662	1770	1090
19	1570	2560	3950	2780	1430	3330	6810	1940	824	749	1100	1140
20	1310	2380	3750	2510	1310	2940	6480	1910	961	735	917	788
21	1070	2170	3660	2410	1350	2830	5260	1820	1760	683	859	750
22	1060	3000	4000	3050	1450	2880	6960	1710	1350	627	774	763
23	1130	6170	3370	3090	1710	3190	7740	1620	1110	738	727	726
24	1150	6810	2940	2760	1430	6690	6390	1560	943	783	712	729
25	1150	4760	2560	2850	1190	7100	5780	1510	883	770	746	694
26	1110	3370	2490	3270	1190	7220	6120	1450	840	768	702	1560
27	1180	2620	2260	2670	1210	8200	8290	1370	1370	667	652	2280
28	1130	2370	2290	2540	1200	9380	8150	1330	1010	606	604	2510
29	944	2690	2340	2380	---	13400	6850	1290	943	625	585	1960
30	979	3010	2390	2240	---	13600	5420	1180	967	615	553	1710
31	908	---	3010	2210	---	14000	---	1270	---	581	538	---
TOTAL	43088	90243	89480	100850	44620	138960	305280	76020	33249	23483	25038	30616
MEAN	1390	3008	2886	3253	1594	4483	10180	2452	1108	758	808	1021
MAX	2720	6810	4080	4830	2540	14000	24200	4400	1760	1050	3340	2510
MIN	795	912	1870	2210	1190	1190	5260	1180	809	581	524	522
CFSM	1.09	2.35	2.26	2.54	1.25	3.50	7.96	1.92	.87	.59	.63	.80
IN.	1.25	2.62	2.60	2.93	1.30	4.04	8.88	2.21	.97	.68	.73	.89

LEHIGH RIVER BASIN

01453000 LEHIGH RIVER AT BETHLEHEM, PA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1941 - 1993, BY WATER YEAR (WY) (SINCE REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	1546	2313	2832	2585	2759	3792	3918	3127	2095	1633	1340	1380
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 1992 CALENDAR YEAR					FOR 1993 WATER YEAR			WATER YEARS 1941 - 1993			
ANNUAL TOTAL	802669					1000927						
ANNUAL MEAN	2193					2742			2441			
HIGHEST ANNUAL MEAN									3973			
LOWEST ANNUAL MEAN									1165			
HIGHEST DAILY MEAN	9200					Mar 28			70400			
LOWEST DAILY MEAN	669					Sep 21			210			
ANNUAL SEVEN-DAY MINIMUM	762					Aug 28			216			
INSTANTANEOUS PEAK FLOW						30500			Apr 11			
INSTANTANEOUS PEAK STAGE						11.79			Apr 11			
INSTANTANEOUS LOW FLOW						494			Aug 5			
ANNUAL RUNOFF (CFSM)	1.71					2.14			1.91			
ANNUAL RUNOFF (INCHES)	23.35					29.11			25.93			
10 PERCENT EXCEEDS	3720					5880			4830			
50 PERCENT EXCEEDS	1910					1760			1760			
90 PERCENT EXCEEDS	953					703			678			

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											
LOWEST ANNUAL MEAN	1262											
HIGHEST DAILY MEAN	47900											
LOWEST DAILY MEAN	160											
ANNUAL SEVEN-DAY MINIMUM	260											
INSTANTANEOUS PEAK FLOW	64800											
INSTANTANEOUS PEAK STAGE	18.70											
INSTANTANEOUS LOW FLOW	160											
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

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. Several measurements of water temperature were made during the year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1140	972	3490	4230	2310	1320	18000	5250	1980	997	653	631
2	997	974	3270	4150	1830	1310	20700	4730	1480	1040	623	624
3	1000	3390	2890	3900	1790	1380	17200	4450	1400	1310	604	649
4	1360	3790	2650	3740	1930	2170	16600	4200	1350	1030	597	1350
5	885	3120	2530	4210	1990	4890	15100	4290	1300	895	657	1010
6	846	3160	2330	5650	1840	3620	11000	5010	1320	846	795	836
7	862	2690	2220	5410	1450	2690	8800	4900	1250	1010	737	870
8	869	2460	2330	4790	1650	2960	6860	4140	1150	963	825	958
9	1380	e2000	2280	4000	1540	3300	6130	3760	1430	892	748	1130
10	2370	e1940	1950	3570	1610	3330	8830	3600	1480	849	672	1190
11	2170	1730	4070	3410	1610	2740	22600	3320	1280	817	638	1140
12	2710	1740	4280	3120	1610	2370	12900	3040	1210	779	984	862
13	2480	4190	3490	3720	1870	2380	15400	2710	1450	775	1020	780
14	2170	4660	3070	4460	1640	1830	15000	2620	1340	779	722	753
15	1850	3830	3290	4250	1500	2090	11100	2500	1030	1120	678	766
16	1630	3540	2880	3680	1770	1990	8980	2320	1010	991	707	1260
17	1640	4010	3200	3310	2810	3500	10100	2250	974	815	4740	1320
18	1730	3290	4580	3160	2370	6010	8420	2280	947	765	1950	1180
19	1510	2710	4360	2920	1560	4070	7630	2230	990	883	1230	1280
20	1320	2400	4090	2580	1440	3480	7300	2180	1090	838	1040	906
21	1110	2210	3990	2440	1490	3260	6140	2050	2250	775	990	851
22	1110	2970	4360	3130	1500	3270	7880	1910	1710	717	891	859
23	1160	9720	3700	3280	1810	3580	8640	1800	1290	787	825	825
24	1180	10700	3170	2870	1560	7700	7270	1740	1080	855	780	845
25	1150	8560	2710	2990	1300	8160	6600	1690	1010	840	823	787
26	1140	6830	2620	3410	1300	8080	7000	1600	955	811	785	2010
27	1170	5790	2380	2840	1300	9000	9180	1520	1460	756	737	2840
28	1190	4670	2410	2630	1300	10000	8980	1480	1150	708	691	3170
29	987	4250	2460	2480	---	13800	7720	1450	1050	718	673	2260
30	1040	3900	2510	2350	---	14300	6340	1320	1100	698	653	1930
31	964	---	3140	2320	---	14300	---	1370	---	641	640	---
TOTAL	43120	116196	96700	109000	47680	152880	324400	87710	38516	26700	29108	35872
MEAN	1391	3873	3119	3516	1703	4932	10810	2829	1284	861	939	1196
MAX	2710	10700	4580	5650	2810	14300	22600	5250	2250	1310	4740	3170
MIN	846	972	1950	2320	1300	1310	6130	1320	947	641	597	624

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1967 - 1993, BY WATER YEAR (WY)

	1952	2712	3354	2900	3249	4176	4494	3570	2668	1903	1526	1743
MEAN	5272	5438	7790	8238	5385	8344	10810	8542	7607	4641	4179	7920
MAX	1977	1971	1984	1979	1976	1977	1993	1989	1972	1984	1969	1987
(WY)	771	835	633	405	1278	1805	1639	2001	1104	811	711	660
MIN	1981	1985	1981	1981	1980	1981	1985	1987	1987	1991	1980	1983
(WY)												

SUMMARY STATISTICS

FOR 1992 CALENDAR YEAR

FOR 1993 WATER YEAR

WATER YEARS 1967 - 1993

ANNUAL TOTAL	859625					1107882						
ANNUAL MEAN	2349					3035				2850		
HIGHEST ANNUAL MEAN										3997		1984
LOWEST ANNUAL MEAN										1594		1985
HIGHEST DAILY MEAN	10700	Nov 24				22600	Apr 11			44300	Jun 23	1972
LOWEST DAILY MEAN	762	Sep 21				597	Aug 4			330	Jan 31	1981
ANNUAL SEVEN-DAY MINIMUM	845	Aug 27				639	Jul 30			349	Jan 26	1981
INSTANTANEOUS PEAK FLOW						27200	Apr 11			b60600	Jun 23	1972
INSTANTANEOUS PEAK STAGE						17.50	Apr 11			24.86	Jun 23	1972
10 PERCENT EXCEEDS	4120					6920				5650		
50 PERCENT EXCEEDS	1950					1940				2090		
90 PERCENT EXCEEDS	1000					786				889		

a Also Feb. 1, 1991.

b From rating curve extended above 36,000 ft³/s.

c Estimated.

LEHIGH RIVER BASIN**01454720 LEHIGH RIVER AT EASTON, PA****WATER-QUALITY RECORDS**

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

DRAINAGE AREA.--1,364 mi².

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

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1963 to current year.

pH: October 1972 to September 1974, October 1975 to current year.

WATER TEMPERATURES: October 1961 to current year.

DISSOLVED OXYGEN: June 1966 to current year.

INSTRUMENTATION.--Water-quality monitor since October 1961. Probes interfaced with a data collection platform since the 1986 water 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.

EXTREMES FOR PERIOD OF DAILY RECORD.--

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.

LEHIGH RIVER BASIN

01454720 LEHIGH RIVER AT EASTON, PA--Continued

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25° CELSIUS, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	---	---	---	---	---	---	---	---	---	202	183	190
2	---	---	---	---	---	---	---	---	---	204	200	203
3	---	---	---	---	---	---	---	---	---	212	203	207
4	---	---	---	---	---	---	---	---	---	216	209	212
5	---	---	---	---	---	---	---	---	---	219	208	215
6	---	---	---	---	---	---	139	132	134	217	185	200
7	---	---	---	---	---	---	149	135	141	205	192	198
8	---	---	---	---	---	---	170	148	156	217	194	201
9	---	---	---	---	---	---	171	159	165	220	210	214
10	---	---	---	---	---	---	169	149	163	220	213	216
11	---	---	---	---	---	---	149	101	114	234	219	228
12	---	---	---	---	---	---	138	113	129	244	234	241
13	---	---	---	---	---	---	135	103	109	255	241	249
14	---	---	---	---	---	---	110	93	104	271	255	266
15	---	---	---	---	---	---	130	110	122	272	260	267
16	---	---	---	---	---	---	161	129	145	273	262	269
17	---	---	---	---	---	---	165	144	154	273	267	270
18	---	---	---	---	---	---	162	151	157	282	270	276
19	---	---	---	---	---	---	169	161	163	280	268	276
20	---	---	---	---	---	---	168	160	164	290	280	286
21	---	---	---	---	---	---	188	167	175	301	280	292
22	---	---	---	---	---	---	193	172	187	303	289	297
23	---	---	---	---	---	---	172	155	159	308	290	300
24	---	---	---	---	---	---	178	162	167	302	295	299
25	---	---	---	---	---	---	178	171	174	315	297	308
26	---	---	---	---	---	---	177	170	173	327	309	320
27	---	---	---	---	---	---	176	152	161	331	319	325
28	---	---	---	---	---	---	159	148	153	341	324	333
29	---	---	---	---	---	---	166	157	161	343	331	336
30	---	---	---	---	---	---	184	166	175	341	328	334
31	---	---	---	---	---	---	---	---	---	340	327	334
MONTH	---	---	---	---	---	---	193	93	152	343	183	263

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	341	283	308	378	362	371	465	448	453	458	441	449
2	328	291	311	383	369	377	453	444	447	475	457	464
3	337	325	330	384	350	367	446	430	434	479	461	470
4	347	332	340	364	343	350	451	433	440	474	385	434
5	353	340	347	370	363	367	466	451	458	385	353	361
6	363	352	357	380	370	377	472	455	465	365	351	360
7	358	342	347	395	378	390	455	395	432	371	355	363
8	363	348	354	399	374	386	401	383	396	383	338	365
9	373	358	364	388	380	385	401	381	390	396	358	374
10	360	338	347	399	388	394	383	376	379	396	353	366
11	359	333	345	403	394	400	428	383	408	357	315	333
12	366	357	361	407	396	403	444	420	433	331	315	320
13	370	339	360	407	397	404	435	344	396	361	331	345
14	339	308	317	427	402	418	354	333	343	386	361	373
15	333	304	313	440	419	431	395	354	379	406	386	397
16	390	333	366	424	375	397	405	391	398	418	364	387
17	401	388	394	375	362	367	401	175	269	366	345	355
18	413	401	407	393	368	386	258	227	255	350	331	341
19	421	399	414	407	388	399	312	257	284	348	314	333
20	417	373	404	412	393	402	358	312	332	322	308	313
21	397	291	346	418	395	406	390	358	377	361	322	341
22	308	288	296	432	412	427	395	385	391	379	361	375
23	354	308	333	442	424	435	393	387	390	389	377	383
24	374	352	358	458	434	445	403	388	396	404	388	398
25	394	374	382	434	390	412	420	401	412	418	394	406
26	410	394	400	393	366	384	421	411	416	396	272	338
27	411	374	402	368	364	366	429	415	426	296	217	271
28	374	314	327	392	364	379	437	429	434	265	214	242
29	363	321	339	431	391	415	443	429	438	275	265	273
30	375	363	371	444	430	437	436	428	432	282	275	279
31	---	---	---	457	444	453	441	423	431	---	---	---
MONTH	421	283	355	458	343	398	472	175	398	479	214	360

LEHIGH RIVER BASIN

01454720 LEHIGH RIVER AT EASTON, PA--Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	---	---	---	---	---	---	---	---	---	7.4	7.3	7.3
2	---	---	---	---	---	---	---	---	---	7.5	7.4	7.4
3	---	---	---	---	---	---	---	---	---	7.5	7.4	7.4
4	---	---	---	---	---	---	---	---	---	7.5	7.3	7.4
5	---	---	---	---	---	---	---	---	---	7.4	7.4	7.4
6	---	---	---	---	---	---	---	---	---	7.4	7.3	7.3
7	---	---	---	---	---	---	---	---	---	7.3	7.2	7.3
8	---	---	---	---	---	---	---	---	---	7.4	7.2	7.3
9	---	---	---	---	---	---	---	---	---	7.5	7.3	7.4
10	---	---	---	---	---	---	---	---	---	7.5	7.3	7.4
11	---	---	---	---	---	---	---	---	---	7.5	7.4	7.5
12	---	---	---	---	---	---	---	---	---	7.6	7.4	7.5
13	---	---	---	---	---	---	---	---	---	7.6	7.4	7.5
14	---	---	---	---	---	---	---	---	---	7.7	7.4	7.6
15	---	---	---	---	---	---	---	---	---	7.7	7.5	7.6
16	---	---	---	---	---	---	7.4	7.1	7.1	7.7	7.5	7.6
17	---	---	---	---	---	---	7.3	7.0	7.1	7.8	7.5	7.7
18	---	---	---	---	---	---	7.2	7.1	7.1	7.8	7.6	7.7
19	---	---	---	---	---	---	7.2	7.1	7.2	7.6	7.4	7.5
20	---	---	---	---	---	---	7.3	7.1	7.2	7.5	7.4	7.5
21	---	---	---	---	---	---	7.3	7.2	7.2	7.7	7.5	7.6
22	---	---	---	---	---	---	7.3	7.2	7.2	7.8	7.6	7.7
23	---	---	---	---	---	---	7.2	7.1	7.2	8.0	7.6	7.8
24	---	---	---	---	---	---	7.3	7.2	7.2	8.0	7.7	7.9
25	---	---	---	---	---	---	7.3	7.2	7.2	8.0	7.7	7.8
26	---	---	---	---	---	---	7.3	7.2	7.2	8.1	7.8	7.9
27	---	---	---	---	---	---	7.3	7.2	7.2	8.1	7.8	7.9
28	---	---	---	---	---	---	7.2	7.1	7.1	7.9	7.7	7.8
29	---	---	---	---	---	---	7.3	7.2	7.2	8.0	7.7	7.8
30	---	---	---	---	---	---	7.4	7.2	7.3	8.1	7.7	7.9
31	---	---	---	---	---	---	---	---	---	7.9	7.5	7.8
MONTH	---	---	---	---	---	---	7.4	7.0	7.2	8.1	7.2	7.6

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	7.5	7.4	7.4	7.8	7.4	7.5	8.4	7.6	8.0	8.4	7.8	8.1
2	7.6	7.4	7.5	7.6	7.4	7.4	8.5	7.7	8.1	8.2	7.8	7.9
3	7.7	7.5	7.6	7.5	7.4	7.4	8.6	7.8	8.2	7.9	7.6	7.8
4	7.7	7.5	7.6	7.7	7.4	7.5	8.5	7.9	8.3	7.7	7.4	7.5
5	7.6	7.4	7.5	8.0	7.4	7.7	8.5	7.9	8.2	7.7	7.3	7.5
6	7.6	7.4	7.5	8.3	7.5	7.8	8.3	7.7	8.0	7.9	7.4	7.7
7	7.7	7.5	7.6	8.3	7.7	8.0	7.9	7.6	7.7	8.0	7.5	7.7
8	7.8	7.5	7.6	8.3	7.7	8.0	8.1	7.5	7.7	7.7	7.4	7.6
9	7.7	7.4	7.6	8.4	7.6	8.0	8.2	7.5	7.8	7.4	7.3	7.4
10	7.5	7.4	7.4	8.4	7.6	8.0	8.2	7.3	7.8	7.5	7.4	7.4
11	7.7	7.4	7.5	8.3	7.6	8.0	8.2	7.6	7.8	7.5	7.4	7.5
12	7.7	7.4	7.5	8.3	7.6	7.9	8.0	7.6	7.7	7.7	7.5	7.6
13	7.7	7.4	7.5	8.4	7.6	8.0	7.7	7.5	7.6	7.9	7.5	7.7
14	7.7	7.5	7.6	8.3	7.6	7.9	7.8	7.3	7.5	7.9	7.6	7.7
15	7.8	7.4	7.6	8.1	7.7	7.9	7.9	7.4	7.6	7.9	7.6	7.7
16	7.9	7.4	7.6	8.1	7.5	7.8	7.9	7.5	7.6	7.6	7.4	7.5
17	7.9	7.5	7.7	8.4	7.5	7.9	7.8	7.2	7.3	7.4	7.2	7.4
18	8.0	7.5	7.7	8.3	7.6	7.9	7.3	7.3	7.3	7.5	7.4	7.4
19	7.9	7.5	7.6	8.3	7.6	7.7	7.4	7.3	7.3	7.6	7.4	7.5
20	7.6	7.4	7.5	7.7	7.4	7.5	7.5	7.3	7.4	7.7	7.5	7.6
21	7.4	7.2	7.3	8.0	7.4	7.7	7.6	7.4	7.5	7.7	7.5	7.6
22	7.2	7.2	7.2	8.1	7.5	7.8	7.8	7.5	7.6	7.7	7.5	7.6
23	7.4	7.2	7.3	8.2	7.6	7.9	8.0	7.5	7.7	7.7	7.5	7.6
24	7.5	7.3	7.4	8.2	7.7	8.0	8.0	7.0	7.8	7.8	7.5	7.6
25	7.6	7.3	7.4	8.3	7.7	8.0	8.1	7.6	7.8	7.9	7.6	7.7
26	7.6	7.4	7.5	8.2	7.7	7.9	8.2	7.5	7.8	7.6	7.4	7.5
27	7.6	7.4	7.5	8.1	7.6	7.8	8.2	7.4	7.8	7.4	7.3	7.4
28	7.6	7.4	7.5	8.2	7.5	7.8	8.4	7.6	8.0	7.4	7.2	7.4
29	7.7	7.4	7.5	8.3	7.6	8.0	8.4	7.7	8.1	7.5	7.4	7.5
30	7.7	7.4	7.5	8.3	7.6	7.9	8.5	7.7	8.0	7.5	7.5	7.5
31	---	---	---	8.3	7.6	8.0	8.4	7.8	8.1	---	---	---
MONTH	8.0	7.2	7.5	8.4	7.4	7.8	8.6	7.0	7.8	8.4	7.2	7.6

LEHIGH RIVER BASIN

01454720 LEHIGH RIVER AT EASTON, PA--Continued

WATER TEMPERATURE, (DEG. C), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1							---	---	---	16.0	13.5	15.0
2							---	---	---	17.0	15.5	16.0
3							---	---	---	17.0	16.0	16.5
4							---	---	---	16.5	16.0	16.5
5							---	---	---	16.0	15.5	16.0
6							7.0	6.5	6.5	16.5	15.5	16.0
7							8.5	7.0	7.5	17.0	16.0	16.5
8							9.5	8.0	8.5	17.5	16.0	17.0
9							10.5	9.0	9.5	18.5	16.5	17.5
10							10.5	10.0	10.0	19.5	17.5	18.5
11							10.5	9.0	9.5	20.0	18.5	19.5
12							9.5	9.0	9.0	20.5	19.5	20.0
13							9.0	8.0	8.5	20.5	18.0	19.0
14							8.5	8.0	8.5	18.0	17.0	17.5
15							9.0	8.5	9.0	18.5	17.0	17.5
16							11.5	9.0	10.0	19.0	18.0	18.5
17							11.5	11.0	11.0	19.0	18.0	18.5
18							11.5	10.5	11.0	18.5	17.0	17.5
19							12.0	10.5	11.5	17.0	15.0	15.5
20							13.5	12.0	12.5	15.0	14.5	14.5
21							14.0	13.0	13.5	15.5	14.5	15.0
22							13.5	10.5	12.0	16.5	15.5	16.0
23							10.5	9.0	9.0	17.0	16.0	16.5
24							10.5	9.0	10.0	18.0	17.0	17.5
25							12.5	10.0	11.5	19.5	18.0	19.0
26							13.5	12.5	13.0	20.0	19.5	20.0
27							12.5	11.0	11.5	20.0	19.5	19.5
28							12.0	11.5	12.0	19.5	19.0	19.5
29							13.5	11.5	12.5	20.5	19.0	19.5
30							14.5	13.0	13.5	20.0	19.0	19.5
31							---	---	---	19.5	17.5	18.5
MONTH							14.5	6.5	10.5	20.5	13.5	17.5
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	18.5	17.5	17.5	26.0	24.5	25.0	26.0	24.5	25.5	26.5	25.5	26.0
2	18.0	17.5	17.5	25.0	23.0	24.0	26.5	25.5	26.0	26.0	25.0	25.5
3	19.0	17.5	18.0	23.0	22.0	22.5	27.0	25.5	26.5	26.0	25.0	25.5
4	19.5	18.0	18.5	25.0	22.5	23.5	27.0	26.0	26.5	25.5	23.5	25.0
5	19.0	18.0	19.0	26.5	24.0	25.0	26.5	25.5	25.5	25.0	23.5	24.0
6	18.5	17.5	18.0	27.0	25.0	26.0	25.5	23.0	24.0	25.0	23.5	24.5
7	19.0	17.0	18.0	28.0	26.0	27.0	23.0	21.5	22.0	24.5	23.5	24.0
8	20.5	18.0	19.0	29.0	26.5	27.5	23.5	21.5	22.5	23.5	22.0	23.0
9	21.5	19.5	20.5	29.5	27.0	28.0	24.0	22.5	23.0	22.0	21.0	21.5
10	23.0	21.0	22.0	29.5	28.0	29.0	24.5	23.0	23.5	22.0	21.0	21.5
11	24.0	22.5	23.0	29.5	28.0	29.0	24.5	23.5	23.5	21.0	19.5	20.5
12	23.5	23.0	23.0	29.5	28.0	28.5	23.5	23.0	23.5	20.5	19.0	19.5
13	23.5	22.5	22.5	29.0	27.5	28.0	24.0	23.0	23.5	21.0	19.0	20.0
14	23.5	22.5	23.0	28.5	27.0	27.5	25.0	23.0	23.5	22.5	20.0	21.5
15	24.0	22.5	23.0	28.0	26.5	27.5	25.5	24.0	24.5	23.5	21.5	22.5
16	24.0	22.0	23.0	26.5	25.5	26.0	25.5	25.0	25.0	23.0	21.0	22.0
17	25.0	22.5	23.5	26.5	25.0	25.5	25.0	21.5	22.5	21.0	19.5	20.0
18	25.5	23.0	24.5	26.0	24.5	25.0	22.5	22.0	22.5	19.5	18.0	19.5
19	26.0	24.5	25.0	26.0	24.0	24.5	23.5	22.5	23.0	19.0	18.0	19.0
20	26.0	24.5	25.5	24.5	23.0	24.0	24.0	23.0	23.0	18.5	17.5	18.0
21	25.0	24.0	24.5	25.5	23.5	24.5	24.5	23.0	23.5	17.5	17.0	17.5
22	24.5	23.5	24.0	25.5	23.5	24.5	24.5	22.5	23.0	17.5	17.0	17.5
23	24.0	23.0	23.5	25.0	23.5	24.5	24.5	22.5	23.5	18.0	17.0	17.5
24	24.0	22.5	23.0	25.5	23.5	24.5	25.0	23.5	24.5	18.5	17.0	18.0
25	24.5	22.5	23.5	26.5	24.0	25.0	26.0	24.0	25.0	18.5	17.5	18.0
26	25.5	23.0	24.0	26.0	24.5	25.0	27.0	25.0	26.0	18.0	17.0	17.5
27	25.5	24.0	24.5	24.5	23.5	24.0	27.5	25.5	26.5	17.5	17.0	17.0
28	26.0	24.5	25.5	26.0	23.5	24.5	27.5	26.0	27.0	17.0	16.5	16.5
29	26.0	25.0	25.5	26.5	25.0	25.5	27.5	26.5	27.0	16.5	15.5	16.0
30	25.5	24.5	25.0	26.5	25.5	26.0	27.0	26.0	26.5	15.5	14.0	14.5
31	---	---	---	26.0	24.5	25.0	26.5	25.5	26.0	---	---	---
MONTH	26.0	17.0	22.0	29.5	22.0	25.5	27.5	21.5	24.5	26.5	14.0	20.5

LEHIGH RIVER BASIN

01454720 LEHIGH RIVER AT EASTON, PA--Continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	---	---	---	---	---	---	---	---	---	10.4	10.1	10.3
2	---	---	---	---	---	---	---	---	---	10.2	9.9	10.0
3	---	---	---	---	---	---	---	---	---	10.0	9.7	9.9
4	---	---	---	---	---	---	---	---	---	10.5	9.7	10.0
5	---	---	---	---	---	---	---	---	---	10.5	10.3	10.4
6	---	---	---	---	---	---	12.3	11.1	11.5	10.5	10.0	10.3
7	---	---	---	---	---	---	12.2	11.9	12.0	10.2	9.6	10.0
8	---	---	---	---	---	---	12.0	11.5	11.7	10.6	10.0	10.3
9	---	---	---	---	---	---	11.5	11.2	11.4	10.9	10.3	10.6
10	---	---	---	---	---	---	11.2	10.5	10.9	11.0	10.3	10.6
11	---	---	---	---	---	---	11.1	10.4	10.8	10.8	10.1	10.4
12	---	---	---	---	---	---	11.1	10.9	11.0	10.2	9.6	9.9
13	---	---	---	---	---	---	11.6	11.0	11.4	9.9	9.3	9.6
14	---	---	---	---	---	---	11.4	10.5	10.9	10.9	9.5	10.2
15	---	---	---	---	---	---	10.5	10.1	10.2	11.1	10.2	10.6
16	---	---	---	---	---	---	10.1	9.3	9.7	10.9	10.0	10.3
17	---	---	---	---	---	---	9.7	9.3	9.5	11.4	10.0	10.6
18	---	---	---	---	---	---	10.5	9.7	10.2	10.9	10.1	10.4
19	---	---	---	---	---	---	10.4	10.2	10.3	10.4	10.1	10.3
20	---	---	---	---	---	---	10.4	9.7	10.2	10.7	10.1	10.3
21	---	---	---	---	---	---	9.7	8.7	9.1	11.1	10.1	10.5
22	---	---	---	---	---	---	9.5	8.7	9.1	10.8	9.8	10.2
23	---	---	---	---	---	---	10.6	9.5	10.1	11.1	9.5	10.1
24	---	---	---	---	---	---	10.7	10.5	10.5	10.6	9.3	9.8
25	---	---	---	---	---	---	10.5	9.9	10.2	10.1	8.3	9.2
26	---	---	---	---	---	---	9.9	9.3	9.4	10.0	7.9	8.8
27	---	---	---	---	---	---	9.8	9.3	9.7	10.6	8.4	9.3
28	---	---	---	---	---	---	10.4	9.5	10.1	10.0	8.5	9.0
29	---	---	---	---	---	---	10.2	10.0	10.1	10.1	8.4	9.0
30	---	---	---	---	---	---	10.5	9.8	10.2	10.2	8.2	9.1
31	---	---	---	---	---	---	---	---	---	8.7	8.1	8.4
MONTH	---	---	---	---	---	---	12.3	8.7	10.4	11.4	7.9	9.9

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	8.4	8.0	8.2	8.3	6.5	7.3	10.3	6.8	8.2	9.6	6.8	8.0
2	9.3	8.1	8.7	7.2	6.5	6.8	10.6	6.7	8.5	7.9	6.6	7.2
3	9.2	8.4	8.7	7.8	6.8	7.3	11.1	6.6	8.7	8.7	6.8	7.6
4	9.4	8.1	8.7	8.0	6.9	7.4	10.4	6.6	8.5	7.3	6.8	7.1
5	8.7	8.3	8.5	8.2	6.5	7.3	10.2	6.6	8.1	8.4	6.9	7.6
6	9.5	8.3	8.8	10.3	6.4	8.1	9.5	6.9	7.7	8.8	7.2	7.9
7	9.8	8.8	9.3	10.2	7.2	8.7	9.2	7.5	8.1	8.9	7.2	7.9
8	9.6	8.6	9.0	10.2	7.0	8.5	9.8	7.4	8.5	7.7	7.3	7.5
9	9.3	8.0	8.5	10.4	6.7	8.4	9.8	7.4	8.3	7.8	7.3	7.5
10	8.5	7.6	8.0	10.1	6.4	8.1	9.6	7.2	8.3	8.0	7.6	7.8
11	8.5	7.3	7.7	9.7	6.1	7.8	9.5	7.0	7.9	8.5	7.6	8.2
12	8.5	7.1	7.7	9.2	5.9	7.4	8.9	7.1	8.0	9.1	8.1	8.5
13	8.6	7.3	8.0	10.1	6.0	7.7	8.6	7.5	8.0	9.4	8.1	8.7
14	8.7	7.6	8.1	9.4	6.2	7.5	8.8	7.2	7.8	9.3	7.7	8.4
15	8.7	7.4	7.9	8.8	6.1	7.4	8.7	6.9	7.7	9.1	7.3	8.0
16	9.2	7.2	8.0	9.3	6.5	7.7	8.5	6.7	7.4	7.6	7.3	7.4
17	9.2	7.1	8.0	10.0	6.6	8.1	7.9	7.0	7.5	8.2	7.4	7.8
18	9.1	7.0	7.9	9.9	6.7	8.1	8.0	7.7	7.8	8.4	7.9	8.2
19	8.3	6.5	7.2	9.1	6.5	7.0	8.1	7.7	7.9	9.0	8.2	8.7
20	7.5	6.3	6.8	8.7	6.9	7.6	7.9	7.5	7.7	9.5	8.5	8.9
21	6.8	6.3	6.5	9.0	6.9	7.9	8.2	7.4	7.7	9.0	8.5	8.7
22	6.6	6.2	6.4	9.3	6.8	8.0	8.6	7.2	7.6	9.4	8.5	8.8
23	7.3	6.3	6.8	9.6	6.9	8.2	8.7	7.1	7.8	9.1	8.4	8.7
24	7.8	6.8	7.3	9.8	7.3	8.4	9.0	7.0	7.8	9.6	8.4	8.9
25	8.0	7.0	7.4	9.8	7.1	8.3	8.8	6.7	7.7	9.6	8.3	8.8
26	8.0	6.9	7.4	9.1	6.9	7.7	8.7	6.2	7.2	8.7	8.3	8.6
27	7.6	6.7	7.2	9.5	7.2	8.2	9.8	5.8	7.6	8.6	8.3	8.5
28	8.0	6.7	7.2	9.8	7.1	8.3	9.9	6.6	8.1	8.9	8.3	8.7
29	7.9	6.6	7.1	9.9	6.8	8.3	10.3	6.6	8.2	9.2	8.9	9.1
30	8.1	6.4	7.1	9.6	6.6	8.0	9.9	6.6	7.8	9.6	9.2	9.4
31	---	---	---	9.9	6.8	8.2	9.9	6.8	8.1	---	---	---
MONTH	9.8	6.2	7.8	10.4	5.9	7.9	11.1	5.8	7.9	9.6	6.6	8.2

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. Datum of gage is sea level (levels by U.S. Army Corps of Engineers).

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. Reservoir is used for flood control and recreation. Flow regulated by three gates and low-flow by-pass system. U.S. Army Corps of Engineers satellite telemetry at station.

COOPERATION.--Records provided by the U.S. Army Corps of Engineers.

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, 27,600 acre-ft, Apr. 3, elevation, 1,379.59 ft; minimum contents, 1,380 acre-ft, Oct. 19, elevation, 1,293.54 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. Figures given herein represent total contents. Regulation by valves on pipe through dam. Figures given herein 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, 176 acre-ft, Oct. 6, 1965, elevation, 902.40 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 20,590 acre-ft, Apr. 11, elevation, 1,001.04 ft; minimum contents, 14,290 acre-ft, Nov. 2, elevation, 986.56 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 an elevation of 820.00 ft. Storage began January 27, 1941; water in 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. Figures given herein represent usable contents. Regulation by valves on pipe through dam. Since October 1969, the basin upstream has received diversion from Tunkhannock 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, 12,380 acre-ft, Apr. 11, elevation, 821.28 ft; minimum contents 11,410 acre-ft, Dec. 28, elevation 817.57 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. Datum of gage is sea level (levels by U.S. Army Corps of Engineers).

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.

COOPERATION.--Records provided by U.S. Army Corps of Engineers.

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, 45,660 acre-ft, Apr. 12, elevation, 632.41 ft; minimum contents, 37,850 acre-ft, Sept. 15, elevation, 624.29 ft.

LEHIGH RIVER BASIN

LAKES AND RESERVOIRS IN LEHIGH RIVER BASIN--Continued

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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)
01447780 Francis E. Walter Reservoir				01449400 Penn Forest Reservoir		
Sept. 30	1,307.70	2,800	--	989.63	15,490	--
Oct. 31	1,307.72	2,070	- 11.9	986.77	14,370	-18.2
Nov. 30	1,300.23	2,020	- 0.8	994.19	17,370	+50.4
Dec. 31	1,313.02	3,470	+ 23.6	1,000.30	20,150	+45.2
CAL YR 1992	--	--	+ 1.2	--	--	+13.7
Jan. 31	1,301.69	2,160	- 21.3	1,000.21	20,100	- 0.8
Feb. 28	1,300.17	2,020	- 2.5	1,000.08	20,020	- 1.4
Mar. 31	1,355.43	14,100	+196	1,000.80	20,440	+ 6.8
Apr. 31	1,301.73	2,160	-201	1,000.25	20,120	- 5.4
May 31	1,303.13	2,310	+ 2.4	1,000.10	20,040	- 1.3
June 30	1,299.21	1,910	- 6.7	998.17	19,120	-15.5
July 31	1,300.26	2,020	+ 1.8	994.21	17,380	-28.3
Aug. 31	1,300.36	2,030	+ 0.2	990.00	15,640	-28.3
Sept. 30	1,309.44	3,010	+ 16.5	986.92	14,430	-20.3
WTR YR 1993	--	--	+ 0.3	--	--	- 1.5
01449700 Wild Creek Reservoir				01449790 Beltsville Lake		
Sept. 30	818.04	11,540	--	627.45	40,780	--
Oct. 31	818.09	11,550	+ 0.2	624.94	38,400	-38.7
Nov. 30	819.26	11,850	+ 5.0	628.02	41,320	+49.1
Dec. 31	818.00	11,530	- 5.2	627.84	41,150	- 2.8
CAL YR 1992	--	--	0.0	--	--	+ 1.5
Jan. 31	820.17	12,050	+ 8.5	628.03	41,330	+ 2.9
Feb. 28	819.69	11,940	- 2.0	627.94	41,240	- 1.6
Mar. 31	821.00	12,300	+ 5.9	630.92	44,140	+47.2
Apr. 30	820.36	12,110	- 3.2	628.07	41,370	-46.6
May 31	819.46	11,890	- 3.6	628.19	41,480	+ 1.8
June 30	819.13	11,830	- 1.0	628.08	41,380	- 1.7
July 31	818.92	11,780	- 0.8	626.51	39,880	-24.4
Aug. 31	818.97	11,790	+ 0.2	625.80	39,210	-10.9
Sept. 30	818.29	11,610	- 3.0	625.92	39,320	+ 1.8
WTR YR 1993	--	--	+ 0.1	--	--	- 2.0

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. National Geodetic Vertical Datum of 1929. 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.

COOPERATION.--Field data and samples for laboratory analyses provided by New Jersey Department of Environmental Protection and Energy. Analyses of fecal coliform by the MPN method, enterococcus bacteria by the membrane filtration method, water-phase nutrients, and BOD were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (μS/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)
OCT 1992										
22...	1000	4050	173	8.4	9.5	--	10.5	--	<1.0	50
JAN 1993										
21...	1045	8910	175	7.7	1.5	770	14.0	99	E1.5	140
MAR										
24...	1200	18200	227	8.2	4.0	760	13.5	103	<1.0	490
JUN										
03...	1300	5250	225	8.5	18.0	760	10.5	111	<1.0	170
AUG										
05...	1030	3010	220	8.3	26.0	760	7.5	93	<1.0	80
DATE	ENTERO-COCCI ME, MF WATER TOTAL (COL/100 ML)	HARD-NESS TOTAL (MG/L AS CaCO3)	CALCIUM DIS-SOLVED (MG/L AS Ca)	MAGNE-SIUM, DIS-SOLVED (MG/L AS Mg)	SODIUM, DIS-SOLVED (MG/L AS Na)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CaCO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS Cl)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT 1992										
22...	10	62	16	5.4	10	1.4	43	21	13	0.1
JAN 1993										
21...	20	54	14	4.6	8.9	1.0	35	18	14	<0.1
MAR										
24...	380	71	19	5.6	13	1.6	47	21	23	<0.1
JUN										
03...	70	78	20	6.7	9.4	1.5	55	23	14	<0.1
AUG										
05...	120	76	19	6.9	12	1.6	55	25	15	0.1
DATE	SILICA, DIS-SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)
OCT 1992										
22...	3.3	107	100	0.018	0.017	0.91	0.88	<0.03	<0.03	0.35
JAN 1993										
21...	4.7	99	91	0.015	0.014	1.04	1.04	<0.03	<0.03	0.22
MAR										
24...	4.6	124	122	0.019	0.017	1.50	1.40	<0.03	<0.03	0.93
JUN										
03...	3.3	122	116	0.014	0.015	1.17	1.13	<0.03	<0.03	0.46
AUG										
05...	2.6	118	115	0.014	--	0.94	--	<0.03	--	0.42
DATE	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, DIS-SOLVED (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	
OCT 1992										
22...	0.28	1.3	1.2	0.06	--	2.8	0.2	2	22	
JAN 1993										
21...	0.16	1.3	1.2	0.06	0.07	1.9	0.3	1	24	
MAR										
24...	0.58	2.4	2.0	0.11	0.06	2.4	2.3	65	3190	
JUN										
03...	0.31	1.6	1.4	0.07	--	2.2	0.3	4	57	
AUG										
05...	--	1.4	--	0.11	--	2.2	0.5	3	24	

DELAWARE RIVER BASIN

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L)	ARSENIC TOTAL (μ G/L AS AS)	BERYL- LIUM, TOTAL RECOV- ERABLE (μ G/L AS BE)	BORON, TOTAL RECOV- ERABLE (μ G/L AS B)	CADMIUM TOTAL RECOV- ERABLE (μ G/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (μ G/L AS CR)	COPPER, TOTAL RECOV- ERABLE (μ G/L AS CU)
OCT 1992 22...	1000	<10	<1	<10	20	<1	<1	2
JUN 1993 03...	1300	19	<1	<10	20	<1	<1	1

DATE	IRON, TOTAL RECOV- ERABLE (μ G/L AS FE)	LEAD, TOTAL RECOV- ERABLE (μ G/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (μ G/L AS MN)	MERCURY TOTAL RECOV- ERABLE (μ G/L AS HG)	NICKEL, TOTAL RECOV- ERABLE (μ G/L AS NI)	SELE- NIUM, TOTAL RECOV- ERABLE (μ G/L AS SE)	ZINC, TOTAL RECOV- ERABLE (μ G/L AS ZN)
OCT 1992 22...	100	2	30	<0.10	3	<1	30
JUN 1993 03...	80	<1	30	<0.10	2	<1	20

TOHICKON CREEK BASIN

01459350 ROCKAMIRON 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, 2.9 mi upstream from Mink Run, and 1.3 mi east of Ottsville.

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 Resources).

REMARKS.--Reservoir formed by earthfill dam with concrete spillway at elevation 395.0 ft. Storage began December 1973. Total capacity 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 Resources.

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 42,340 acre-ft, Dec. 11, elevation, 396.50 ft; minimum contents, 39,560 acre-ft, Nov. 8, elevation, 394.55 ft.

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

Date	Elevation (feet)	Contents (acre- feet)	Change in contents (equivalent in ft ³ /s)
01459350 Rockamiron Reservoir			
Sept. 30	395.15	40,410	--
Oct. 31	394.90	40,060	- 5.7
Nov. 30	395.20	40,480	+ 7.1
Dec. 31	395.25	40,550	+ 1.1
CAL YR 1992	--	--	+ 0.6
Jan. 31	395.15	40,410	- 2.3
Feb. 28	395.05	40,270	- 2.5
Mar. 31	396.10	41,750	+24.1
Apr. 30	394.90	40,060	-28.4
May 31	394.90	40,060	0
June 30	395.00	40,200	+ 2.4
July 31	394.85	39,990	- 3.4
Aug. 31	394.90	40,060	+ 1.1
Sept. 30	395.20	40,480	+ 7.1
WTR YR 1993	--	--	+ 0.1

TOHICKON CREEK BASIN

01458500 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 good except those for estimated daily discharges, which are fair. 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	12	97	153	e50	e58	e1500	130	26	7.2	3.6	8.7
2	26	12	83	115	e45	e66	e1100	103	24	6.6	3.0	7.6
3	22	319	76	89	e40	e90	e800	85	22	11	2.6	6.5
4	20	403	60	81	e37	e650	e600	75	21	15	2.4	11
5	17	216	67	720	e35	1600	e430	149	20	15	2.2	14
6	15	219	57	634	e33	730	e350	54	20	13	2.3	13
7	13	410	50	316	e31	431	e200	68	20	12	3.1	12
8	11	316	45	208	e30	451	e250	62	18	11	2.8	19
9	21	23	41	161	e29	434	e210	56	18	9.5	2.9	31
10	65	16	38	126	e28	359	e500	49	20	8.1	2.7	32
11	91	14	2690	105	e27	270	e1600	43	20	7.0	2.5	31
12	126	13	2240	112	e26	202	e800	40	17	5.7	2.5	24
13	100	476	811	345	e110	e150	e350	36	15	4.8	2.8	20
14	68	405	395	468	132	e140	e160	30	13	4.0	2.6	18
15	52	211	245	299	113	e130	e300	28	11	4.5	2.3	16
16	42	125	175	197	208	e120	561	26	10	3.5	2.6	23
17	37	90	579	149	707	e500	1420	25	9.7	3.2	1950	25
18	30	71	918	118	520	1430	547	23	8.9	3.0	1200	28
19	26	60	425	93	343	1410	278	25	8.1	27	309	28
20	23	50	278	78	e250	1410	263	25	8.8	16	139	25
21	20	45	210	67	e150	908	95	26	12	17	90	23
22	18	65	159	154	e100	624	545	25	13	15	51	23
23	17	2750	130	211	e82	722	483	24	15	13	36	22
24	16	1690	119	170	e76	3190	262	23	13	11	28	22
25	18	518	86	184	e68	2050	176	21	13	9.1	24	21
26	18	348	76	137	e66	1220	337	20	13	7.8	22	147
27	15	323	62	110	e64	840	863	18	12	6.5	19	870
28	14	230	58	90	e60	685	414	15	9.9	5.7	16	975
29	13	161	69	e74	---	e580	237	13	9.2	5.5	14	369
30	13	122	100	e64	---	e500	165	12	8.5	4.8	12	173
31	13	---	149	e58	---	e450	---	11	---	4.3	9.9	---
TOTAL	1012	9713	10588	5886	3460	22400	15796	1340	449.1	286.8	3962.8	3037.8
MEAN	32.6	324	342	190	124	723	527	43.2	15.0	9.25	128	101
MAX	126	2750	2690	720	707	3190	1600	149	26	27	1950	975
MIN	11	12	38	58	26	58	95	11	8.1	3.0	2.2	6.5
MEAN [‡]	26.9	331	343	188	122	747	499	43.2	17.4	5.85	129	108
CFSM [‡]	.28	3.40	3.52	1.93	1.25	7.67	5.12	.44	.18	.06	1.32	1.11
IN. [‡]	.32	3.79	4.06	2.23	1.30	8.84	5.71	.51	.20	.07	1.52	1.24

[‡] Adjusted for change in contents in Nockamixon Reservoir.

e Estimated.

TOHICKON CREEK BASIN

01459500 TOHICKON CREEK NEAR PIPERSVILLE, PA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1974 - 1993, BY WATER YEAR (WY) (SINCE REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	69.6	180	218	242	201	284	246	201	86.2	78.1	47.9	83.9
MAX	264	553	566	916	436	723	707	579	314	602	232	430
(WY)	1980	1976	1978	1979	1984	1993	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 1992 CALENDAR YEAR

FOR 1993 WATER YEAR

WATER YEARS 1974 - 1993

ANNUAL TOTAL	44068.6			77931.5					
ANNUAL MEAN	120			214			161		
HIGHEST ANNUAL MEAN	#121			#214			#148		
LOWEST ANNUAL MEAN							300		
HIGHEST DAILY MEAN	2750			Nov 23			6750		
LOWEST DAILY MEAN	5.6			Sep 25			1.6		
ANNUAL SEVEN-DAY MINIMUM	8.0			Aug 31			1.7		
INSTANTANEOUS PEAK FLOW							5150		
INSTANTANEOUS PEAK STAGE							Aug 17		
INSTANTANEOUS LOW FLOW							6.80		
ANNUAL RUNOFF (CFSM)	1.24			#1.24			2.19		
ANNUAL RUNOFF (INCHES)	16.83			#16.91			29.76		
10 PERCENT EXCEEDS	262			579			405		
50 PERCENT EXCEEDS	50			51			45		
90 PERCENT EXCEEDS	14			8.3			6.7		

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 TOTAL									
ANNUAL MEAN	240								
HIGHEST ANNUAL MEAN	240			1973					
LOWEST ANNUAL MEAN	45.8			1965					
HIGHEST DAILY MEAN	6820			Sep 12 1960					
LOWEST DAILY MEAN	.10			Sep 24 1941					
ANNUAL SEVEN DAY MINIMUM	.47			Jul 24 1955					
INSTANTANEOUS PEAK FLOW	16000			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								

‡ Adjusted for change in contents at Nockamixon Reservoir.

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

DELAWARE RIVER BASIN

01461000 DELAWARE RIVER AT LUMBURVILLE, 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.

COOPERATION.--Field data and samples for laboratory analyses provided by New Jersey Department of Environmental Protection and Energy. Analyses of fecal coliform by the MPN method, enterococcus bacteria by the membrane filtration method, water-phase nutrients, and BOD were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (μS/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)
OCT 1992 22...	1400	3700	174	8.2	10.0	--	11.1	--	<1.0	<20
JAN 1993 21...	1330	8800	169	7.7	1.5	770	13.9	98	--	<20
MAR 24...	1045	28900	--	7.8	3.5	765	12.3	--	E 1.3	460
JUN 03...	1030	5000	245	8.1	17.5	760	8.8	92	E 1.7	140
AUG 05...	1300	3100	228	8.4	26.0	760	8.2	101	E 1.4	50
DATE	ENTERO-COCCI ME, MF WATER TOTAL (COL/100 ML)	HARD-NESS TOTAL (MG/L AS CaCO3)	CALCIUM DIS-SOLVED (MG/L AS Ca)	MAGNE-SIUM, DIS-SOLVED (MG/L AS Mg)	SODIUM, DIS-SOLVED (MG/L AS Na)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CaCO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS Cl)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT 1992 22...	<10	62	16	5.4	9.8	1.4	43	20	14	0.1
JAN 1993 21...	10	58	15	4.9	9.1	1.0	38	18	14	<0.1
MAR 24...	370	64	17	5.3	11	1.4	40	18	20	<0.1
JUN 03...	50	87	22	7.8	10	1.6	64	25	17	0.1
AUG 05...	190	80	20	7.4	12	1.6	61	25	15	<0.1
DATE	SILICA, DIS-SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)
OCT 1992 22...	3.1	119	99	0.012	0.013	0.82	0.80	<0.03	<0.03	0.32
JAN 1993 21...	4.7	99	94	0.014	0.012	1.03	1.04	<0.03	<0.03	0.28
MAR 24...	4.9	108	107	0.018	0.015	1.30	1.29	<0.03	<0.03	0.68
JUN 03...	3.3	136	130	0.021	0.021	1.28	1.20	<0.03	<0.03	0.55
AUG 05...	2.7	124	124	0.017	0.016	0.94	0.91	<0.03	0.03	0.53
DATE	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, DIS-SOLVED (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	
OCT 1992 22...	0.34	1.1	1.1	0.08	0.06	2.9	0.2	3	30	
JAN 1993 21...	0.16	1.3	1.2	0.06	0.04	1.9	0.3	2	48	
MAR 24...	0.30	2.0	1.6	0.26	0.06	2.6	2.5	67	5230	
JUN 03...	0.45	1.8	1.7	0.07	0.08	2.3	0.4	4	54	
AUG 05...	0.41	1.5	1.3	0.43	0.41	2.1	0.6	7	59	

DELAWARE RIVER BASIN

01461000 DELAWARE RIVER AT LUMBERVILLE, PA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L)	ARSENIC TOTAL (μ G/L AS AS)	BERYL- LIUM, TOTAL RECOV- ERABLE (μ G/L AS BE)	BORON, TOTAL RECOV- ERABLE (μ G/L AS B)	CADMIUM TOTAL RECOV- ERABLE (μ G/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (μ G/L AS CR)	COPPER, TOTAL RECOV- ERABLE (μ G/L AS CU)
OCT 1992 22...	1400	<10	<1	<10	20	<1	<1	2
JUN 1993 03...	1030	19	<1	<10	<10	<1	<1	2

DATE	IRON, TOTAL RECOV- ERABLE (μ G/L AS FE)	LEAD, TOTAL RECOV- ERABLE (μ G/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (μ G/L AS MN)	MERCURY TOTAL RECOV- ERABLE (μ G/L AS HG)	NICKEL, TOTAL RECOV- ERABLE (μ G/L AS NI)	SELE- NIUM, TOTAL RECOV- ERABLE (μ G/L AS SE)	ZINC, TOTAL RECOV- ERABLE (μ G/L AS ZN)
OCT 1992 22...	110	7	20	<0.10	3	<1	20
JUN 1993 03...	110	<1	40	<0.10	2	<1	20

DELAWARE RIVER BASIN

01463500 DELAWARE RIVER AT TRENTON, N.J.

(National stream quality accounting network and radiochemical program station)

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.--No estimated daily discharges. Records good. 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 (see Delaware River basin, reservoirs in) and smaller reservoirs. Diversion from Pepacton, Cannonsville, and Neversink Reservoirs. Diversion to Bradshaw and Merrill Creek Reservoirs and to Delaware and Raritan Canal (see Delaware River basin, diversions). Water diverted just above station by borough of Morrisville, PA, and city of Trenton for municipal supply (see Delaware River basin, diversions). Satellite gage height and water-quality parameter telemeter at station. Information on the above reservoirs can be found in the annual Water Data Report NJ-93-1.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 11, 1903, reached an elevation of about 28.5 ft above National Geodetic Vertical Datum of 1929, estimated discharge, 295,000 ft³/s. Maximum elevation since 1957, 30.6 ft above National Geodetic Vertical Datum of 1929, 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)
Apr. 2	1045	*109,000	*18.63	Apr. 18	1430	60,900	15.16
Apr. 12	1245	68,500	15.80				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4920	4210	14500	19300	9560	5350	90500	29500	5570	4440	3000	2680
2	4450	3860	13200	27200	8690	5200	107000	24500	5470	4070	2940	2760
3	4040	5670	12300	22400	7440	5210	95300	21300	5430	4270	2810	2880
4	3390	13000	11300	18000	7410	6700	73100	19100	4960	4250	2920	3160
5	3870	13500	10800	19800	8310	14600	58000	18100	4800	3840	2740	4030
6	3630	13400	10600	27100	7770	12000	45300	18300	4470	3560	2910	4260
7	3410	12300	9220	30800	7350	9620	38100	18400	4320	3590	3090	3810
8	3330	11400	8780	24900	6250	9120	34000	17100	4130	3840	3080	3560
9	3440	9420	9140	21000	6240	9370	31200	14900	4150	3930	3200	3150
10	4350	7870	8730	17900	6460	10200	31700	13000	4840	3800	3130	3530
11	6550	7740	21900	15400	6780	9370	53300	12000	4790	3530	3060	3660
12	9000	7000	21200	14100	6930	8580	66200	12000	4710	3500	3020	3650
13	9530	9540	17100	14900	8100	9050	58100	10600	4670	3240	3520	3210
14	8140	15700	14200	17500	8340	8200	49600	9460	4480	3100	3680	3050
15	7580	17000	12400	16900	7520	6430	40600	8950	3880	3580	3350	2910
16	6470	15000	12000	15500	6640	7470	34600	8120	3460	3830	3340	3070
17	5510	13300	12100	13900	11500	10300	44300	7540	3570	3390	2670	3770
18	5450	12600	17700	12600	11700	19300	57800	7130	3700	2880	9670	4160
19	5330	10900	19100	11100	9170	15900	51300	7300	4070	3610	5420	4020
20	4960	9780	19200	10800	7180	13600	41700	7230	4100	3710	4170	3760
21	4470	9280	17200	9710	6720	12200	34800	7210	5060	3200	3790	3240
22	4050	8800	16800	10400	6390	12100	34400	7100	6460	3400	3410	3280
23	3830	23400	16300	12700	6310	12900	38700	6750	5520	3000	3160	3330
24	3790	32600	14200	12700	7020	24700	39700	6020	5400	2720	2860	3390
25	3850	30700	12700	12800	6090	28200	34200	5710	4600	2950	2970	3240
26	3880	25700	10900	12900	5800	28400	31100	5510	4100	3150	3020	3910
27	3760	23700	9730	13600	6100	29800	38500	5270	3760	3120	2990	7420
28	4780	20600	8580	12300	5720	34600	45500	5010	4540	3150	3010	11700
29	4980	18600	8980	11400	---	52300	40600	4590	4590	3210	3080	8980
30	4610	16300	9840	10800	---	70300	34400	4460	4490	3300	3130	7060
31	4380	---	11100	9900	---	78900	---	4480	---	3290	2720	---
TOTAL	153730	422870	411800	500310	209490	579970	1473600	346640	138090	108450	110860	124630
MEAN	4959	14100	13280	16140	7482	18710	49120	11180	4603	3498	3576	4154
MAX	9530	32600	21900	30800	11700	78900	107000	29500	6460	4440	9670	11700
MIN	3330	3860	8580	9710	5720	5200	31100	4460	3460	2720	2720	2680

DELAWARE RIVER BASIN

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

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1913 - 1993, BY WATER YEAR (WY)

MEAN	6786	10440	12380	12200	12780	20570	22390	14190	9113	7046	5930	5781
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	5209	2572	1548	1808	1762
(WY)	1942	1915	1923	1981	1920	1981	1985	1965	1965	1965	1965	1932

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1913 - 1993	
ANNUAL TOTAL	3432830		4580440		11620	
ANNUAL MEAN	9379		12550		19810	
HIGHEST ANNUAL MEAN					1928	
LOWEST ANNUAL MEAN					1965	
HIGHEST DAILY MEAN	35600	Jun 6	107000	Apr 2	279000	Aug 20 1955
LOWEST DAILY MEAN	3010	Sep 4	2680	Sep 1	1240	Oct 31 1914
ANNUAL SEVEN-DAY MINIMUM	3550	Sep 1	2890	Aug 28	1310	Oct 31 1914
INSTANTANEOUS PEAK FLOW			109000	Apr 2	a329000	Aug 20 1955
INSTANTANEOUS PEAK STAGE			18.63	Apr 2	b28.60	Aug 20 1955
INSTANTANEOUS LOW FLOW			2620	Aug 5	1180	Oct 31 1963
10 PERCENT EXCEEDS	17400		30700		24500	
50 PERCENT EXCEEDS	7610		7350		7840	
90 PERCENT EXCEEDS	4060		3180		2990	

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
(National stream quality accounting network and radiochemical program station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1945 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: June 1968 to September 1978, May 1979 to current year.

pH: June 1968 to September 1978, May to September 1979, February 1980 to August 1982, April 1983 to current year.

WATER TEMPERATURE: October 1944 to September 1978, May 1979 to current year.

DISSOLVED OXYGEN: October 1962 to September 1978, May 1979 to current year.

SUSPENDED-SEDIMENT DISCHARGE: Water years 1949 to 1981.

INSTRUMENTATION.--Temperature recorder since October 1944, water-quality monitor since October 1962. Monitor probes are located within raw water intake of the Trenton Water Filtration Plant.

REMARKS.--Missing continuous water-quality records are the result of malfunctions of the instrument, or interruptions of flow through the filtration plant. Unpublished records of suspended sediment discharge for the period October 1, 1981 to March 31, 1982 are available in files of the district office.

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 winters.

DISSOLVED OXYGEN: Maximum, 20.0 mg/L, Feb. 11, 1989; minimum, 4.0 mg/L, Nov. 9, 1972.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 301 microsiemens, Feb. 13; minimum recorded, 100 microsiemens, Dec. 11, but may have been lower during instrument malfunction, Apr. 3-May 3.

pH: Maximum, 10.2, June 19; minimum, 6.9, Apr. 29.

WATER TEMPERATURE: Maximum, 33.0 °C, July 10, 13; minimum, 0.0 °C, on several days during the winter months.

DISSOLVED OXYGEN: Maximum, 19.2 mg/L, Mar. 1; minimum, 6.2 mg/L, July 11, 12, 15.

COOPERATION.--Analyses of fecal coliform by the MPN method, enterococcus bacteria by the membrane filtration method, and BOD, were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (μS/CM)	PH WATER WHOLE FIELD (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	TUR- BID- ITY (NTU)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L)	COLI- FORM, FECAL, EC BROTH (MPN)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)
OCT 1992												
22...	1200	3980	184	7.8	12.0	1.3	775	13.0	119	<1.0	2	K 7
JAN 1993												
26...	1145	12800	165	7.5	4.0	1.4	775	13.9	104	<1.0	50	K 12
MAR												
05...	1230	14900	183	7.5	3.0	27	750	12.9	97	--	--	--
24...	1015	25100	191	7.7	4.0	31	760	12.6	96	<1.0	540	--
29...	1100	52500	136	7.6	6.0	41	750	12.1	99	--	--	--
JUN												
08...	1210	4150	256	8.9	20.5	2.5	765	11.0	122	E 2.1	7	8
AUG												
05...	0930	2650	238	8.5	27.0	--	765	9.0	113	E 1.6	11	--
18...	1230	9150	249	7.6	24.0	20	760	7.4	88	--	--	>600

DATE	ENTERO- COCCI ME, MF WATER TOTAL (COL/ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	CAR- BONATE IT-FLD (MG/L AS CO3)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	ALKA- LITY, CARBON- ATE IT-FLD (MG/L - CACO3)	ALKA- LITY LAB (MG/L AS CACO3)	ALKA- LITY WAT WH TOT FET FIELD MG/L AS CACO3
OCT 1992												
22...	10	--	66	17	5.6	9.8	1.4	--	59	48	43	47
JAN 1993												
26...	<10	K 5	56	15	4.5	8.4	1.1	--	--	--	36	--
MAR												
05...	--	--	58	15	5.0	10	1.8	--	48	39	39	39
24...	780	--	59	15	5.2	11	1.5	--	50	41	39	41
29...	--	--	41	11	3.2	8.8	1.2	--	30	25	25	25
JUN												
08...	10	K 2	95	24	8.4	11	2.1	7.0	71	70	65	72
AUG												
05...	250	--	82	20	7.7	13	1.7	--	--	--	58	--
18...	--	450	85	21	7.9	13	2.3	--	66	54	56	57

DELAWARE RIVER BASIN

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 1992 22...	19	14	0.1	3.0	113	103	3.0	0.3	3	32	87
JAN 1993 26...	17	14	<0.1	4.4	96	91	--	--	3	104	94
MAR 05...	18	16	<0.1	3.6	102	99	--	--	61	2450	99
24...	18	18	<0.1	5.2	111	104	3.0	2.7	91	6170	95
29...	13	14	<0.1	4.8	87	75	--	--	221	31300	75
JUN 08...	27	17	0.1	3.2	144	141	2.4	0.7	7	78	89
AUG 05...	23	16	0.1	2.8	128	122	2.4	0.8	7	50	--
18...	26	19	0.1	3.9	132	133	--	--	54	1330	98

DATE	TIME	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L)	ALUM- INUM, DIS- SOLVED (MG/L AS AL)	ARSENIC TOTAL (MG/L AS AS)	BARIUM, DIS- SOLVED (MG/L AS BA)	BERYL- LIUM, TOTAL RECOV- ERABLE (MG/L AS BE)	BORON, TOTAL RECOV- ERABLE (MG/L AS B)	CADMIUM TOTAL RECOV- ERABLE (MG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (MG/L AS CR)	COBALT, DIS- SOLVED (MG/L AS CO)	COPPER, TOTAL RECOV- ERABLE (MG/L AS CU)	IRON, TOTAL RECOV- ERABLE (MG/L AS FE)
OCT 1992 22...	1200	<10	50	<1	22	<10	10	<1	<1	<3	4	110
JAN 1993 26...	1145	--	30	--	24	--	--	--	--	<3	--	--
JUN 08...	1210	17	<10	<1	27	<10	<10	<1	<1	<3	2	70
AUG 18...	1230	--	20	--	25	--	--	--	--	<3	--	--

DATE	IRON, DIS- SOLVED (MG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (MG/L AS PB)	LITHIUM DIS- SOLVED (MG/L AS LI)	MANGA- NESE, TOTAL RECOV- ERABLE (MG/L AS MN)	MANGA- NESE, DIS- SOLVED (MG/L AS MN)	MERCURY TOTAL RECOV- ERABLE (MG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (MG/L AS MO)	NICKEL, TOTAL RECOV- ERABLE (MG/L AS NI)	NICKEL, DIS- SOLVED (MG/L AS NI)	SELE- NIUM, TOTAL (MG/L AS SE)	SELE- NIUM, DIS- SOLVED (MG/L AS SE)	SILVER, DIS- SOLVED (MG/L AS AG)
OCT 1992 22...	33	<1	<4	20	6	<0.10	<10	2	<1	<1	<1	<1.0
JAN 1993 26...	24	--	<4	--	14	--	<10	--	1	--	<1	<1.0
JUN 08...	4	1	<4	40	2	0.20	<10	2	1	<1	<1	<1.0
AUG 18...	10	--	<4	--	3	--	10	--	<1	--	<1	<1.0

DATE	STRON- TIUM, DIS- SOLVED (MG/L AS SR)	VANA- DIUM, DIS- SOLVED (MG/L AS V)	ZINC, TOTAL RECOV- ERABLE (MG/L AS ZN)	GROSS ALPHA, DIS- SOLVED (MG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (MG/L AS U-NAT)	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DIS- SOLVED (PCI/L AS SR/ YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/ YT-90)	RADIUM 226, DIS- SOLVED, RADON METHOD (PCI/L)	URANIUM NATURAL DIS- SOLVED (MG/L AS U)
OCT 1992 22...	68	<6	10	--	--	--	--	--	--	--	--
JAN 1993 26...	61	<6	--	<0.6	<0.6	1.6	<0.6	1.4	<0.6	0.04	0.13
JUN 08...	91	<6	20	--	--	--	--	--	--	--	--
AUG 18...	80	<6	--	<0.6	1.8	2.6	1.4	2.0	1.4	0.06	0.17

DELAWARE RIVER BASIN

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

NUTRIENT ANALYSES PERFORMED BY THE U.S. GEOLOGICAL SURVEY NATIONAL WATER QUALITY LABORATORY

DATE	TIME	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)
OCT 1992								
22...	1200	<0.01	<0.01	0.80	0.79	0.03	0.02	0.3
JAN 1993								
26...	1145	--	0.03	--	0.99	--	0.02	<0.2
MAR								
05...	1230	--	0.02	--	1.20	--	0.08	0.6
24...	1015	--	0.03	--	1.30	--	0.06	1.0
29...	1100	--	0.02	--	0.91	--	0.07	1.0
JUN								
08...	1210	--	0.02	--	1.30	--	0.02	0.3
AUG								
05...	0930	0.013	0.012	0.75	0.77	0.03	<0.03	0.54
18...	1230	--	0.02	--	1.50	--	0.10	0.7

DATE	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN DIS- SOLVED (MG/L AS N)	PHOS- PHORUS TOTAL (MG/L AS P)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P)
OCT 1992							
22...	--	1.1	--	0.07	0.06	0.05	0.04
JAN 1993							
26...	--	--	--	0.03	0.01	--	0.02
MAR							
05...	--	1.8	--	0.12	0.04	--	0.05
24...	0.3	2.3	1.6	0.18	0.02	--	0.02
29...	--	1.9	--	0.26	0.029	--	0.02
JUN							
08...	0.2	1.6	1.5	0.06	0.07	--	0.04
AUG							
05...	0.25	1.3	1.0	0.09	0.06	--	--
18...	--	2.2	--	0.21	0.18	--	0.17

NUTRIENT ANALYSES PERFORMED BY THE NEW JERSEY DEPARTMENT OF HEALTH,
DIVISION OF LABORATORIES AND EPIDEMIOLOGY

DATE	TIME	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHORUS TOTAL (MG/L AS P)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)
OCT 1992											
22...	1200	0.011	0.010	0.81	0.81	<0.03	<0.03	0.28	0.37	0.09	0.12
JAN 1993											
26...	1145	0.014	0.014	0.96	0.96	0.03	0.03	0.12	0.20	0.05	0.05
MAR											
24...	1015	0.018	0.015	1.18	1.19	<0.03	<0.03	0.99	0.33	0.10	0.06
JUN											
08...	1210	0.025	0.025	1.30	1.31	<0.03	<0.03	0.44	0.19	0.09	0.04

DELAWARE RIVER BASIN

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

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	210	203	207	194	184	189	136	130	133	182	142	169
2	217	208	212	195	191	193	143	137	139	139	111	121
3	218	213	215	194	162	185	147	144	145	110	107	108
4	222	218	219	213	184	187	151	147	149	115	109	110
5	227	218	223	185	158	174	156	151	154	127	115	118
6	237	228	235	157	146	150	156	153	154	130	119	126
7	235	212	223	156	147	153	163	151	155	119	108	111
8	213	210	211	155	149	153	168	162	164	115	109	111
9	---	---	---	154	148	150	173	167	170	119	113	115
10	226	221	224	157	154	156	170	164	166	125	119	121
11	238	223	230	162	157	159	165	100	129	133	124	129
12	222	183	205	165	161	163	177	108	152	146	133	139
13	180	154	165	171	159	166	178	174	176	163	146	154
14	161	152	156	182	155	169	180	176	178	173	164	169
15	164	162	163	153	126	138	183	180	182	168	151	157
16	166	163	164	126	124	125	187	181	185	153	147	150
17	174	167	170	130	127	129	183	170	180	153	148	151
18	184	174	180	134	129	131	181	155	169	157	152	156
19	189	184	186	---	---	---	180	162	173	161	155	158
20	---	---	---	145	136	141	161	149	153	163	161	162
21	180	177	178	151	144	147	156	150	153	169	161	163
22	185	178	182	155	149	151	156	152	154	176	169	172
23	193	185	187	156	127	144	154	146	150	173	167	170
24	201	193	197	147	126	138	156	147	151	182	164	174
25	211	202	208	124	117	119	159	157	159	166	159	163
26	214	212	213	121	117	118	165	159	162	165	159	162
27	213	206	210	121	118	120	177	156	168	167	150	160
28	209	204	207	124	120	122	185	176	178	154	151	152
29	---	---	---	126	122	124	199	185	190	163	155	160
30	194	184	191	130	125	127	213	198	206	166	160	163
31	185	180	182	---	---	---	199	182	190	169	164	166
MONTH	238	152	198	213	117	149	213	100	163	182	107	146

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	173	168	170	233	220	229	128	117	120	---	---	---
2	176	168	171	233	226	229	130	125	127	---	---	---
3	182	173	175	232	226	228	---	---	---	---	---	---
4	191	181	184	271	226	237	---	---	---	143	137	139
5	194	184	190	216	171	190	---	---	---	147	142	143
6	189	179	182	242	215	231	---	---	---	152	147	149
7	190	182	185	240	230	234	---	---	---	153	145	148
8	187	180	183	232	213	222	---	---	---	149	143	146
9	194	189	192	230	218	225	---	---	---	153	147	148
10	200	194	199	---	---	---	---	---	---	161	153	158
11	201	191	196	228	224	226	---	---	---	167	162	166
12	195	189	192	231	227	228	---	---	---	173	166	170
13	301	199	241	231	224	227	---	---	---	176	165	171
14	239	220	226	233	221	225	---	---	---	184	175	180
15	243	231	238	238	224	232	---	---	---	192	183	187
16	281	224	238	254	238	243	---	---	---	197	190	194
17	280	202	224	282	241	256	---	---	---	200	196	198
18	246	213	229	242	204	226	---	---	---	203	199	200
19	---	---	---	233	213	218	---	---	---	212	200	206
20	214	210	212	220	217	218	---	---	---	212	207	210
21	223	215	218	231	219	222	---	---	---	215	209	211
22	252	225	241	228	221	224	---	---	---	215	210	213
23	256	234	244	223	216	220	---	---	---	214	209	211
24	258	237	245	223	151	179	---	---	---	213	207	210
25	260	228	244	190	179	186	---	---	---	220	213	218
26	228	222	225	181	171	176	---	---	---	225	221	223
27	232	220	225	176	167	172	---	---	---	230	226	228
28	226	217	221	171	152	163	---	---	---	235	231	234
29	---	---	---	152	126	135	---	---	---	240	235	238
30	---	---	---	126	118	122	---	---	---	250	239	244
31	---	---	---	---	---	---	---	---	---	252	231	248
MONTH	301	168	211	282	118	211	---	---	---	252	137	193

DELAWARE RIVER BASIN

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

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	238	230	234	222	217	220	230	226	228	233	225	230
2	245	231	237	224	210	219	233	226	230	236	233	235
3	244	226	232	215	209	211	236	230	233	237	235	236
4	230	227	229	231	216	220	233	229	230	237	232	235
5	237	228	233	235	225	231	229	224	228	240	232	235
6	241	235	238	225	200	213	223	212	220	272	240	261
7	246	239	242	219	200	211	232	226	228	254	212	229
8	251	245	247	---	---	---	248	232	240	212	178	198
9	251	245	249	---	---	---	253	245	251	203	185	198
10	249	245	246	---	---	---	244	234	237	234	174	204
11	253	246	251	---	---	---	235	227	231	252	234	243
12	251	240	244	---	---	---	228	219	225	258	247	253
13	240	235	238	---	---	---	222	219	220	247	234	242
14	238	231	234	---	---	---	250	222	236	235	224	229
15	243	238	241	---	---	---	258	238	252	224	219	221
16	243	239	240	---	---	---	236	204	222	222	214	218
17	243	239	241	248	237	243	206	134	177	235	222	229
18	256	242	250	253	243	250	252	187	224	254	234	248
19	263	244	255	---	---	---	208	194	199	248	237	241
20	252	237	247	---	---	---	219	204	210	237	224	229
21	244	237	240	242	235	237	220	213	216	229	213	224
22	254	243	248	244	241	243	224	218	221	232	226	229
23	245	225	233	241	230	235	235	224	229	228	226	227
24	225	221	223	244	232	239	238	235	237	234	227	231
25	223	219	222	254	243	247	242	235	238	238	231	236
26	227	217	221	269	256	264	---	---	---	231	185	215
27	238	228	232	263	245	256	249	241	244	232	181	209
28	248	239	243	245	236	240	250	248	249	227	185	204
29	261	244	255	236	226	233	248	243	246	216	200	206
30	241	217	226	226	219	222	242	230	234	218	203	211
31	---	---	---	226	220	223	231	225	228	---	---	---
MONTH	263	217	239	---	---	---	258	134	229	272	174	227

PH (STANDARD UNITS), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	9.2	7.8	8.4	9.1	7.7	8.3	7.7	7.6	7.7	8.1	7.9	8.0
2	9.2	7.8	8.5	8.5	7.8	8.1	7.7	7.6	7.6	7.9	7.6	7.7
3	9.2	7.8	8.5	8.1	7.5	7.8	7.8	7.6	7.7	7.7	7.6	7.6
4	9.0	7.7	8.4	7.7	7.6	7.6	7.9	7.7	7.8	7.8	7.7	7.7
5	9.2	7.7	8.5	7.8	7.5	7.6	7.9	7.7	7.8	7.8	7.7	7.7
6	9.3	7.9	8.6	7.6	7.5	7.6	8.0	7.8	7.9	7.8	7.7	7.8
7	9.3	7.9	8.6	7.8	7.6	7.7	8.0	7.8	7.9	7.7	7.6	7.6
8	9.3	7.9	8.6	7.9	7.7	7.8	8.0	7.8	7.9	7.6	7.5	7.6
9	---	---	---	8.1	7.7	7.8	8.0	7.9	7.9	7.7	7.6	7.7
10	9.1	7.7	8.3	8.3	7.7	7.9	7.9	7.8	7.9	7.8	7.7	7.7
11	8.4	7.7	8.0	8.1	7.7	7.8	7.8	7.2	7.5	7.8	7.8	7.8
12	8.1	7.6	7.8	8.2	7.7	7.8	7.7	7.3	7.5	7.9	7.8	7.8
13	8.2	7.6	7.8	7.9	7.5	7.7	7.7	7.7	7.7	7.9	7.8	7.9
14	8.1	7.6	7.8	7.6	7.5	7.6	7.8	7.7	7.8	7.9	7.8	7.9
15	8.5	7.6	7.9	7.6	7.5	7.6	7.9	7.8	7.8	7.9	7.8	7.9
16	8.6	7.5	7.9	7.7	7.5	7.6	7.9	7.8	7.9	7.9	7.8	7.9
17	8.9	7.6	8.1	7.8	7.6	7.7	7.8	7.7	7.8	8.0	7.8	7.9
18	8.8	7.6	8.1	7.6	7.5	7.6	7.8	7.6	7.7	8.0	7.9	8.0
19	8.5	7.7	8.0	---	---	---	7.8	7.7	7.8	8.1	8.0	8.0
20	8.9	7.8	8.2	8.0	7.6	7.8	7.7	7.7	7.7	8.1	7.9	8.0
21	9.0	7.8	8.3	8.0	7.7	7.8	7.8	7.7	7.7	8.1	7.9	8.0
22	9.1	7.8	8.4	7.9	7.7	7.8	7.8	7.7	7.8	8.1	7.9	8.0
23	9.1	7.8	8.4	7.7	7.3	7.5	7.8	7.7	7.7	8.1	8.0	8.0
24	9.0	7.9	8.3	7.6	7.4	7.5	7.8	7.7	7.8	8.1	7.9	8.0
25	9.0	7.8	8.4	7.4	7.4	7.4	7.9	7.8	7.8	8.2	7.9	8.0
26	9.1	8.0	8.5	7.4	7.4	7.4	7.9	7.8	7.9	8.3	8.0	8.1
27	9.2	8.0	8.6	7.5	7.4	7.5	8.0	7.8	7.9	8.3	8.0	8.1
28	9.0	8.1	8.4	7.6	7.5	7.5	8.0	7.9	7.9	8.2	8.0	8.1
29	---	---	---	7.6	7.5	7.6	8.0	7.9	7.9	8.3	8.0	8.1
30	8.8	7.7	8.1	7.7	7.6	7.6	8.0	7.8	7.9	8.5	8.1	8.2
31	---	---	---	---	---	---	8.1	8.0	8.0	8.5	8.1	8.3
MONTH	9.3	7.5	8.3	9.1	7.3	7.7	8.1	7.2	7.8	8.5	7.5	7.9

DELAWARE RIVER BASIN

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

PH (STANDARD UNITS), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	8.6	8.1	8.3	10.0	8.9	9.4	7.3	7.0	7.1	7.4	7.3	7.3
2	8.6	8.2	8.4	9.9	9.1	9.5	7.3	7.1	7.2	7.5	7.3	7.4
3	8.6	8.2	8.4	9.9	8.9	9.4	7.2	7.1	7.1	7.8	7.4	7.6
4	8.7	8.3	8.5	9.4	7.7	8.9	7.2	7.2	7.2	7.8	7.7	7.8
5	8.8	8.4	8.5	7.7	7.5	7.6	7.3	7.2	7.3	7.8	7.7	7.8
6	8.8	8.3	8.5	7.8	7.6	7.7	7.4	7.3	7.3	7.9	7.7	7.8
7	8.9	8.3	8.5	8.8	7.7	8.1	7.4	7.4	7.4	8.0	7.7	7.8
8	9.0	8.1	8.5	8.9	8.0	8.4	7.5	7.4	7.5	8.2	7.7	7.9
9	9.2	8.3	8.7	9.1	8.1	8.6	7.5	7.4	7.5	8.4	7.7	8.0
10	9.2	8.3	8.8	---	---	---	7.5	7.5	7.5	8.6	7.7	8.1
11	9.3	8.4	8.8	9.3	7.9	8.6	7.5	7.2	7.4	8.9	7.9	8.4
12	8.9	8.2	8.5	9.5	8.4	9.0	7.3	7.1	7.2	9.0	8.1	8.6
13	8.9	8.0	8.4	9.0	8.0	8.6	7.2	7.1	7.2	8.7	8.2	8.5
14	9.2	8.1	8.7	9.4	7.9	8.7	7.2	7.2	7.2	9.2	8.0	8.7
15	9.4	8.4	8.9	9.6	8.6	9.2	7.3	7.2	7.3	9.4	8.8	9.1
16	8.8	8.1	8.5	9.6	8.9	9.3	7.4	7.3	7.4	9.5	9.0	9.2
17	8.4	7.9	8.1	9.1	7.8	8.7	7.5	7.3	7.4	9.7	8.8	9.3
18	8.8	8.0	8.3	7.8	7.6	7.7	7.4	7.2	7.3	9.6	8.9	9.4
19	---	---	---	7.9	7.6	7.8	7.3	7.1	7.2	9.0	8.5	8.8
20	9.3	8.3	8.9	8.5	7.8	8.1	7.3	7.3	7.3	8.8	8.1	8.4
21	9.2	8.4	8.8	8.9	7.9	8.3	---	---	---	9.3	8.0	8.7
22	9.3	8.1	8.7	9.1	7.9	8.5	7.5	7.4	7.4	9.3	8.5	9.0
23	9.5	8.5	9.0	8.5	8.0	8.2	7.5	7.4	7.5	9.5	8.7	9.2
24	9.5	8.8	9.2	8.0	7.4	7.6	7.4	7.4	7.4	9.6	9.0	9.3
25	9.6	8.8	9.2	7.7	7.6	7.6	7.4	7.4	7.4	9.6	9.0	9.3
26	9.6	8.7	9.2	7.7	7.5	7.6	7.4	7.3	7.4	9.6	9.1	9.3
27	9.6	8.6	9.1	7.7	7.5	7.6	7.4	7.3	7.3	9.5	9.0	9.3
28	9.7	8.8	9.3	7.6	7.4	7.5	7.3	7.0	7.2	9.5	8.9	9.2
29	---	---	---	7.5	7.3	7.4	7.3	6.9	7.1	9.3	8.6	9.0
30	---	---	---	7.3	7.1	7.2	7.3	7.2	7.3	9.3	8.4	8.9
31	---	---	---	---	---	---	---	---	---	9.2	8.5	8.8
MONTH	9.7	7.9	8.7	10.0	7.1	8.3	7.5	6.9	7.3	9.7	7.3	8.6

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	9.1	8.1	8.6	9.6	8.6	9.2	---	---	---	9.4	8.2	8.9
2	9.1	8.3	8.7	9.3	8.6	9.0	---	---	---	9.0	8.3	8.6
3	9.2	8.2	8.7	9.3	8.2	8.8	---	---	---	9.1	7.8	8.5
4	9.2	8.2	8.7	9.4	8.2	8.8	---	---	---	9.0	7.9	8.4
5	8.6	8.2	8.4	9.5	8.3	9.0	---	---	---	9.1	7.8	8.5
6	8.9	8.0	8.5	9.7	8.5	9.2	---	---	---	9.1	7.8	8.5
7	9.2	8.1	8.7	9.8	8.9	9.4	---	---	---	8.9	7.8	8.4
8	9.3	8.2	8.8	9.7	9.1	9.5	---	---	---	8.3	7.6	7.8
9	9.4	8.3	8.9	9.7	8.8	9.4	---	---	---	8.8	7.5	8.1
10	9.4	8.2	8.9	9.7	8.8	9.3	---	---	---	8.9	7.6	8.2
11	9.5	8.5	9.0	9.8	8.9	9.4	---	---	---	9.0	7.8	8.4
12	9.5	8.6	9.1	9.8	8.9	9.4	---	---	---	9.1	7.9	8.5
13	9.5	8.6	9.1	9.8	8.9	9.4	---	---	---	9.2	7.9	8.6
14	9.6	8.7	9.2	9.6	8.5	9.2	---	---	---	9.2	7.9	8.7
15	9.7	8.9	9.3	9.8	8.0	9.0	---	---	---	9.3	8.0	8.7
16	9.7	8.7	9.3	9.7	9.1	9.4	---	---	---	8.8	7.8	8.1
17	9.9	9.0	9.5	9.7	9.0	9.4	---	---	---	8.5	7.5	7.9
18	10.1	9.3	9.7	9.7	9.0	9.4	---	---	---	8.3	7.7	8.0
19	10.2	9.4	9.8	---	---	---	---	---	---	9.0	7.7	8.4
20	10.1	9.3	9.7	---	---	---	---	---	---	9.1	7.9	8.5
21	9.7	9.0	9.3	9.2	8.0	8.7	---	---	---	8.7	7.9	8.2
22	9.1	8.3	8.8	9.3	8.2	8.8	---	---	---	8.9	7.8	8.3
23	9.1	7.9	8.6	9.4	8.3	8.9	---	---	---	9.0	7.9	8.5
24	9.4	8.2	8.9	9.4	8.3	8.9	---	---	---	9.1	7.9	8.6
25	9.7	8.6	9.2	9.4	8.4	9.0	---	---	---	9.1	8.1	8.7
26	9.8	8.9	9.4	9.4	8.9	9.1	---	---	---	8.9	7.8	8.3
27	9.8	9.0	9.4	9.3	8.3	8.9	---	---	---	8.3	7.5	7.8
28	9.7	9.0	9.4	9.3	8.3	8.9	---	---	---	7.8	7.5	7.7
29	9.4	8.8	9.2	9.3	8.3	8.9	---	---	---	8.1	7.7	7.8
30	9.5	8.5	9.1	---	---	---	---	---	---	8.3	7.7	8.0
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	10.2	7.9	9.1	9.8	8.0	9.1	---	---	---	9.4	7.5	8.3

DELAWARE RIVER BASIN

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

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	16.0	13.5	15.0	11.0	9.5	10.0	6.5	6.0	6.0	4.5	3.5	4.5
2	16.5	14.0	15.0	10.0	9.5	9.5	6.5	6.0	6.5	3.0	2.0	2.5
3	17.5	15.0	16.0	11.5	9.5	10.5	6.5	5.5	6.0	2.0	1.5	2.0
4	17.0	16.0	16.5	11.0	10.5	11.0	5.5	5.0	5.5	3.5	1.5	2.5
5	17.0	15.0	16.0	10.5	10.0	10.5	5.5	4.0	5.0	6.5	3.5	5.0
6	16.5	14.0	15.5	10.0	9.0	9.5	4.0	3.0	3.5	6.0	5.0	5.5
7	16.5	14.0	15.0	9.5	8.5	9.0	4.0	3.5	3.5	5.0	4.0	4.5
8	17.0	14.0	15.5	8.5	7.5	8.0	3.5	2.5	3.0	4.5	4.0	4.5
9	---	---	---	7.5	6.5	7.0	3.0	2.0	2.5	4.0	3.5	4.0
10	17.5	15.5	16.5	8.0	6.5	7.0	2.5	2.0	2.0	3.5	2.5	3.0
11	16.5	16.0	16.5	8.0	7.0	7.5	4.0	2.5	3.5	2.5	2.0	2.5
12	16.0	15.0	15.5	10.5	7.5	8.5	4.0	3.5	4.0	2.5	2.0	2.0
13	15.5	14.5	15.0	10.5	9.5	10.5	3.5	3.5	3.5	3.0	2.5	2.5
14	14.0	13.5	14.0	9.5	8.5	9.0	3.5	3.0	3.5	3.0	2.5	3.0
15	15.5	13.5	14.5	8.5	6.5	7.5	3.5	3.0	3.0	3.5	3.0	3.0
16	16.5	14.0	15.0	6.5	5.5	6.0	4.0	3.5	3.5	3.5	3.0	3.5
17	15.5	14.0	15.0	5.5	5.0	5.5	5.5	4.0	4.5	3.5	3.0	3.5
18	14.0	12.5	13.5	6.0	5.5	5.5	5.0	4.5	5.0	3.0	2.5	3.0
19	13.0	10.5	12.0	---	---	---	4.5	4.0	4.0	3.0	2.0	2.5
20	11.5	9.5	10.5	5.5	4.5	5.0	4.0	3.5	4.0	2.5	2.0	2.5
21	12.0	10.0	11.0	6.0	5.0	5.5	3.5	3.0	3.0	2.5	1.5	2.0
22	12.0	10.0	11.0	7.0	6.0	6.5	3.5	2.5	3.0	3.5	2.5	3.0
23	12.0	9.5	10.5	10.0	7.0	8.5	3.0	2.5	3.0	4.0	3.0	3.5
24	11.5	10.0	11.0	10.0	9.0	9.5	2.5	1.5	2.5	4.5	3.5	4.0
25	11.5	9.5	10.5	9.0	8.5	8.5	1.5	1.0	1.5	4.5	3.5	4.0
26	10.0	8.5	9.5	9.0	8.5	9.0	1.5	.5	1.0	3.5	3.0	3.5
27	11.5	9.5	10.0	9.0	8.5	9.0	.5	.0	.0	3.5	3.0	3.5
28	10.5	9.5	10.0	8.5	7.5	8.0	1.0	.0	.5	3.0	2.0	2.5
29	---	---	---	7.5	6.5	7.0	2.5	1.0	2.0	3.0	2.0	2.5
30	11.0	10.0	10.5	6.5	6.0	6.5	3.5	2.5	3.0	2.5	1.5	2.0
31	10.5	9.5	10.0	---	---	---	4.5	3.5	4.0	3.0	2.0	2.5
MONTH	17.5	8.5	13.5	11.5	4.5	8.0	6.5	.0	3.5	6.5	1.5	3.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	3.0	1.0	2.5	3.5	1.5	2.5	5.5	4.5	5.0	14.5	12.5	13.5
2	.5	.0	.5	4.5	2.0	3.0	5.5	4.5	5.0	15.5	13.5	14.5
3	1.5	.0	1.0	5.0	3.0	4.0	4.5	4.0	4.0	16.0	14.5	15.5
4	2.5	1.0	2.0	4.5	3.0	4.0	4.5	4.0	4.0	16.0	15.5	15.5
5	3.0	1.5	2.5	3.0	2.5	3.0	5.0	4.0	4.5	16.5	15.5	16.0
6	2.5	1.0	2.0	3.0	2.5	3.0	6.0	4.5	5.0	17.0	15.5	16.5
7	1.5	.0	1.0	4.5	2.5	3.5	7.0	5.5	6.5	17.5	15.5	16.5
8	3.0	1.0	2.0	5.0	4.5	5.0	8.0	6.5	7.5	18.0	16.0	17.0
9	3.0	1.0	2.0	5.5	4.5	5.0	9.0	7.5	8.0	19.0	17.0	18.0
10	3.5	1.5	2.5	---	---	---	9.0	8.5	8.5	20.0	18.0	19.0
11	4.5	3.0	3.5	5.5	4.0	4.5	9.5	8.5	9.0	21.0	19.0	20.0
12	3.5	2.0	2.5	5.5	3.5	4.5	8.5	7.5	8.0	22.0	20.0	21.0
13	2.5	1.5	2.0	4.5	1.0	3.0	7.5	7.0	7.5	21.0	19.0	20.0
14	3.0	2.0	2.5	1.5	.0	.5	8.0	7.0	7.5	20.0	18.0	19.0
15	3.0	2.0	2.5	1.0	.0	.5	8.5	7.5	8.0	20.5	18.5	19.5
16	3.0	2.0	2.5	3.5	.5	2.0	10.0	8.5	9.0	21.0	19.5	20.0
17	3.5	2.0	3.0	3.5	2.0	3.0	11.0	10.0	10.5	21.0	19.0	20.0
18	3.0	2.0	2.5	2.5	1.0	2.0	10.5	9.5	10.0	19.5	17.5	18.5
19	---	---	---	2.5	1.0	2.0	10.0	9.0	9.5	17.5	16.5	17.0
20	2.0	.5	1.5	3.5	1.5	2.5	11.0	9.5	10.5	16.5	15.5	16.0
21	1.0	.5	1.0	4.5	3.0	3.5	---	---	---	18.0	15.0	16.0
22	2.5	.5	1.5	5.0	3.5	4.5	11.5	10.5	11.5	17.5	15.5	16.5
23	3.5	2.0	2.5	4.5	4.0	4.5	10.5	9.0	9.5	19.0	15.5	17.0
24	2.5	1.0	1.5	4.5	3.0	3.5	9.0	8.0	8.5	20.0	17.5	18.5
25	2.5	.5	1.5	5.0	3.5	4.0	10.5	8.5	9.5	22.0	18.5	20.0
26	2.0	1.0	1.5	6.5	4.5	5.5	11.5	10.5	11.0	22.0	19.5	20.5
27	3.5	1.0	2.0	6.5	5.5	6.0	11.5	11.0	11.5	22.0	19.0	20.5
28	4.0	1.5	2.5	6.5	6.0	6.5	11.5	10.5	11.0	22.5	19.5	21.0
29	---	---	---	6.5	5.5	6.0	11.5	10.5	11.0	23.0	20.5	21.5
30	---	---	---	5.0	3.5	4.5	13.0	11.5	12.0	23.0	18.5	20.5
31	---	---	---	---	---	---	---	---	---	20.5	19.0	19.5
MONTH	4.5	.0	2.0	6.5	.0	3.5	13.0	4.0	8.5	23.0	12.5	18.0

DELAWARE RIVER BASIN

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

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	20.5	18.0	19.0	28.5	25.5	27.0	29.5	26.0	27.5	30.0	26.5	28.0
2	20.5	17.5	19.0	26.0	24.0	25.0	30.0	26.5	28.0	28.0	26.5	27.0
3	21.5	18.0	19.5	26.5	23.5	25.0	30.0	27.0	28.5	29.5	26.0	27.5
4	22.0	18.5	20.0	29.0	24.5	26.5	30.0	27.0	28.0	27.5	26.5	27.0
5	19.5	18.0	19.0	30.5	26.0	28.0	28.5	25.5	27.0	28.0	25.5	26.5
6	20.0	17.0	18.5	30.0	26.5	28.0	26.0	23.0	24.5	28.0	24.5	26.5
7	21.5	17.5	19.5	31.0	27.0	29.0	25.0	22.5	23.5	26.0	25.0	25.5
8	22.0	19.0	20.5	32.0	28.5	30.5	26.5	23.0	24.5	25.0	22.5	23.5
9	25.0	20.0	22.0	32.5	29.0	31.0	28.0	24.0	25.5	24.0	22.0	23.0
10	25.5	21.5	23.5	33.0	29.5	31.0	27.5	24.0	25.5	24.5	22.0	23.0
11	26.0	23.0	24.5	32.5	29.5	31.0	27.0	24.0	25.0	22.5	20.5	21.5
12	25.0	22.5	23.5	32.0	29.5	30.5	26.5	24.0	25.0	22.0	19.5	21.0
13	26.0	22.0	23.5	33.0	29.0	30.5	27.0	24.0	25.5	23.0	20.0	21.0
14	27.0	22.5	24.5	31.0	27.5	29.0	28.5	25.0	26.5	24.0	20.0	22.0
15	25.5	22.5	24.0	30.0	27.0	28.5	28.5	25.0	27.0	25.0	21.0	23.0
16	27.5	22.5	25.0	29.0	26.5	27.5	27.0	25.5	26.0	23.5	20.5	22.0
17	28.0	23.5	25.5	29.0	25.0	27.0	25.0	23.0	24.0	20.5	19.5	20.0
18	28.0	24.5	26.0	30.0	24.5	27.0	25.0	24.0	24.5	19.5	19.0	19.5
19	29.5	25.5	27.5	---	---	---	25.5	23.0	24.5	21.0	18.0	19.5
20	29.0	26.0	27.5	---	---	---	26.0	24.0	25.0	20.0	17.5	18.5
21	28.0	25.5	26.5	27.5	24.5	26.0	27.0	24.0	25.5	18.5	17.5	18.0
22	27.0	25.0	26.0	28.0	24.5	26.0	27.0	23.0	25.0	18.5	17.0	18.0
23	26.0	23.5	24.5	28.0	24.0	26.0	27.5	23.5	25.5	19.0	17.5	18.5
24	26.5	22.5	24.5	29.0	24.5	26.5	28.0	24.5	26.0	20.5	17.5	19.0
25	27.5	23.5	25.5	29.5	25.5	27.5	29.5	25.0	27.0	20.0	17.5	18.5
26	28.0	24.0	26.0	26.5	24.5	25.5	---	---	---	20.5	17.5	19.0
27	29.0	25.0	26.5	28.0	23.5	25.5	31.0	27.0	29.0	20.5	19.0	19.5
28	29.0	25.5	27.0	29.5	25.5	27.5	31.0	28.0	29.0	18.5	16.5	17.5
29	28.5	26.5	27.0	30.5	26.5	28.5	31.0	27.5	29.0	17.5	16.0	16.5
30	28.0	25.5	26.5	28.5	26.5	27.5	29.0	27.0	28.0	16.0	15.0	15.5
31	---	---	---	29.0	25.5	27.0	29.5	26.0	27.5	---	---	---
MONTH	29.5	17.0	23.5	33.0	23.5	28.0	31.0	22.5	26.0	30.0	15.0	21.5

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	12.6	9.3	10.7	12.9	10.3	11.3	---	---	---	12.5	12.2	12.3
2	12.8	9.3	10.8	11.2	10.1	10.7	---	---	---	12.9	12.5	12.7
3	12.9	9.2	10.8	11.0	9.8	10.2	---	---	---	13.2	12.9	13.1
4	11.9	8.8	10.2	10.0	9.4	9.5	---	---	---	13.3	12.9	13.1
5	12.9	8.8	10.6	9.7	9.4	9.5	---	---	---	12.9	11.8	12.3
6	13.4	9.3	11.0	10.1	9.7	10.0	---	---	---	12.1	12.0	12.0
7	13.3	9.4	11.1	10.6	10.0	10.2	---	---	---	12.3	12.0	12.2
8	13.2	9.4	11.0	11.1	10.3	10.7	---	---	---	12.3	12.2	12.2
9	---	---	---	11.6	10.7	11.1	---	---	---	12.5	12.2	12.3
10	12.2	8.6	10.1	11.9	10.9	11.3	---	---	---	12.9	12.5	12.7
11	10.2	8.9	9.4	11.6	10.9	11.2	---	---	---	13.1	12.8	13.0
12	10.0	8.7	9.3	11.8	10.4	11.0	---	---	---	13.2	13.0	13.1
13	10.4	9.0	9.5	10.8	9.7	10.3	---	---	---	13.0	12.7	12.9
14	10.6	9.5	9.9	10.3	10.0	10.2	---	---	---	12.8	12.6	12.7
15	11.2	9.4	10.1	11.1	10.3	10.7	---	---	---	12.8	12.6	12.7
16	11.2	9.3	10.1	11.7	11.1	11.4	---	---	---	12.9	12.5	12.7
17	11.6	9.2	10.1	11.9	11.5	11.7	---	---	---	12.8	12.4	12.6
18	11.7	9.5	10.3	11.7	11.6	11.7	---	---	---	13.0	12.5	12.7
19	11.3	9.5	10.3	---	---	---	---	---	---	13.4	12.8	13.0
20	12.4	10.1	11.0	12.4	11.8	12.0	---	---	---	13.6	13.0	13.2
21	12.6	10.4	11.3	12.2	11.7	11.9	---	---	---	13.7	13.1	13.4
22	13.0	10.4	11.5	12.1	11.4	11.7	---	---	---	13.2	12.8	13.0
23	13.2	10.6	11.7	11.3	10.1	10.8	---	---	---	12.9	12.6	12.7
24	12.8	10.4	11.3	10.9	10.2	10.5	---	---	---	12.9	12.4	12.6
25	12.5	10.0	11.1	11.0	10.8	10.9	---	---	---	13.0	12.2	12.6
26	13.0	10.5	11.5	10.8	10.7	10.7	---	---	---	13.3	12.6	12.9
27	13.2	10.6	11.7	10.9	10.7	10.9	---	---	---	13.4	12.6	13.0
28	12.4	10.7	11.3	11.1	10.9	11.0	---	---	---	13.4	12.8	13.1
29	---	---	---	11.4	11.1	11.2	---	---	---	13.4	12.8	13.0
30	12.2	10.1	11.0	11.7	11.3	11.4	---	---	---	13.8	12.9	13.3
31	11.2	10.3	10.7	---	---	---	12.7	12.3	12.5	13.6	12.9	13.2
MONTH	13.4	8.6	10.7	12.9	9.4	10.9	---	---	---	13.8	11.8	12.8

DELAWARE RIVER BASIN

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

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	13.6	12.6	13.1	19.2	13.9	16.3	11.8	11.4	11.6	10.3	10.0	10.2
2	14.2	13.1	13.7	18.9	13.8	15.9	11.7	11.4	11.6	10.1	9.8	9.9
3	14.3	13.6	13.9	18.8	13.4	15.7	11.9	11.7	11.8	---	---	---
4	14.2	13.3	13.7	14.2	12.1	13.2	12.1	11.9	12.0	9.5	9.2	9.3
5	14.2	13.2	13.6	12.0	11.7	11.9	12.1	12.0	12.1	9.4	9.1	9.2
6	14.0	13.0	13.4	12.3	11.6	11.9	12.0	11.8	11.9	9.5	9.0	9.3
7	14.6	13.3	13.9	14.3	11.9	12.8	11.7	11.5	11.7	9.8	9.1	9.4
8	14.9	13.4	14.1	14.0	12.1	12.9	11.5	11.3	11.4	10.0	9.1	9.5
9	15.1	13.4	14.1	14.3	11.9	13.0	11.3	11.1	11.2	10.3	9.0	9.5
10	15.1	13.3	14.1	---	---	---	11.1	10.8	10.9	10.4	8.7	9.5
11	15.0	13.0	13.9	14.9	11.5	13.1	10.9	10.7	10.8	10.8	8.7	9.7
12	13.9	12.7	13.2	16.4	12.3	14.1	11.1	10.9	11.0	11.0	8.7	9.7
13	14.3	12.6	13.3	13.3	12.0	12.5	11.4	11.1	11.3	10.0	8.4	9.2
14	14.9	12.8	13.8	15.5	11.9	13.6	11.4	11.4	11.4	12.2	8.6	10.3
15	15.5	13.1	14.2	17.0	13.5	15.2	11.4	11.1	11.3	12.8	9.2	10.9
16	14.0	12.8	13.5	17.5	13.9	15.5	11.1	10.6	11.0	12.5	9.2	10.6
17	13.8	12.6	13.0	14.7	12.7	13.7	10.6	10.4	10.4	13.9	8.5	11.1
18	14.4	12.8	13.4	12.8	12.5	12.6	10.7	10.4	10.6	11.5	9.4	10.5
19	---	---	---	13.3	12.5	12.9	10.9	10.7	10.8	10.6	8.9	9.7
20	16.0	13.6	14.7	14.2	12.9	13.4	10.9	10.6	10.8	10.6	8.7	9.6
21	15.4	13.6	14.3	14.4	12.6	13.3	---	---	---	13.2	9.1	10.9
22	16.4	13.2	14.6	14.8	12.4	13.4	10.3	10.1	10.2	12.8	9.5	11.0
23	16.9	13.3	14.9	13.4	12.3	12.8	10.8	10.3	10.5	13.3	9.6	11.4
24	16.3	13.6	14.9	12.4	12.0	12.2	11.1	10.8	11.0	12.9	9.5	11.3
25	17.3	13.7	15.4	12.0	11.8	11.9	11.1	10.8	11.0	12.3	8.9	10.6
26	17.1	13.9	15.4	12.0	11.6	11.9	10.8	10.2	10.6	11.8	8.6	10.1
27	17.8	13.8	15.6	11.8	11.5	11.7	10.5	10.2	10.4	11.0	8.7	9.9
28	18.3	13.7	15.9	11.5	11.3	11.4	10.7	10.5	10.6	10.6	8.4	9.4
29	---	---	---	11.5	11.3	11.4	10.7	10.6	10.7	10.2	7.9	9.0
30	---	---	---	11.9	11.5	11.7	10.6	10.3	10.4	10.5	7.8	9.1
31	---	---	---	---	---	---	---	---	---	10.0	7.9	8.8
MONTH	18.3	12.6	14.1	19.2	11.3	13.2	12.1	10.1	11.1	13.9	7.8	10.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	10.3	7.7	9.0	12.3	7.1	9.6	---	---	---	11.5	6.7	8.8
2	10.7	8.0	9.3	9.5	7.3	8.2	---	---	---	9.4	6.7	7.8
3	11.0	8.1	9.5	10.6	6.8	8.6	---	---	---	10.8	6.4	8.4
4	10.7	8.1	9.2	11.3	6.9	8.9	---	---	---	10.2	6.5	8.1
5	9.0	8.0	8.5	11.9	6.8	9.2	---	---	---	11.0	6.6	8.6
6	10.9	7.9	9.3	12.5	6.9	9.4	8.7	7.1	7.8	11.2	6.9	8.8
7	11.6	8.3	9.9	14.4	7.2	10.5	9.7	6.9	8.1	9.9	6.8	8.4
8	12.2	8.3	10.1	13.6	7.2	10.4	10.1	7.1	8.4	8.6	6.9	7.7
9	12.8	8.2	10.1	12.1	6.8	9.4	10.1	7.1	8.4	10.3	6.8	8.3
10	12.5	7.7	10.1	12.1	6.5	9.2	10.1	7.0	8.4	10.4	7.1	8.8
11	12.6	7.9	10.2	12.2	6.2	9.0	10.1	7.0	8.4	11.1	7.3	9.1
12	12.4	7.9	10.2	12.6	6.2	9.2	10.1	7.0	8.4	11.9	7.7	9.6
13	---	---	---	13.2	6.5	9.6	9.7	7.0	8.2	11.7	7.9	9.7
14	---	---	---	11.6	6.5	8.2	10.0	7.0	8.4	11.8	7.5	9.4
15	---	---	---	13.3	6.2	9.5	10.3	6.9	8.5	11.8	7.3	9.3
16	---	---	---	15.1	7.4	10.9	9.0	6.8	7.8	8.4	6.8	7.7
17	---	---	---	15.3	7.7	11.1	7.9	7.0	7.5	9.3	7.0	8.1
18	---	---	---	15.5	7.8	11.3	7.6	6.8	7.1	9.0	7.3	8.1
19	---	---	---	---	---	---	8.6	6.9	7.6	11.3	7.4	9.1
20	---	---	---	---	---	---	9.1	7.1	8.1	11.6	7.9	9.7
21	---	---	---	12.0	7.0	9.2	9.6	6.9	8.4	9.7	8.1	8.9
22	11.3	7.1	9.2	12.2	7.4	9.6	10.3	7.1	8.5	11.1	8.1	9.5
23	11.1	6.9	8.9	12.3	7.5	9.7	10.6	7.2	8.7	11.3	8.3	9.7
24	13.0	7.6	10.1	12.8	7.5	9.9	11.1	7.1	8.9	12.1	8.2	10.0
25	14.5	7.9	11.0	13.4	7.5	10.1	11.3	7.1	9.0	12.1	8.5	10.1
26	15.1	8.2	11.5	11.7	7.9	9.8	---	---	---	11.0	8.6	9.5
27	15.0	7.8	11.0	12.6	7.4	9.6	12.2	7.4	9.6	8.8	8.0	8.4
28	14.5	7.8	10.9	13.0	7.6	10.0	11.8	7.4	9.4	8.7	8.1	8.5
29	11.9	7.4	9.7	12.7	7.4	9.9	12.2	7.2	9.5	9.6	8.4	8.9
30	11.9	6.9	9.3	---	---	---	11.9	7.4	9.5	10.3	8.7	9.4
31	---	---	---	---	---	---	11.4	7.3	9.1	---	---	---
MONTH	---	---	---	15.5	6.2	9.6	12.2	6.8	8.5	12.1	6.4	8.9

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), and 2.0 mi north of Chalfont on Callowhill Road.

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 good. Flow regulated by Lake Galena (Peace Valley Reservoir) 0.3 mi upstream. Several measurements of water temperature were made during the year. Satellite telemetry at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.0	4.8	21	19	48	32	168	24	9.0	6.6	6.3	6.3
2	6.8	5.6	18	16	35	32	164	20	8.1	6.4	6.3	6.3
3	8.2	8.8	15	14	18	32	105	15	7.2	6.5	6.3	6.3
4	8.2	6.4	13	13	18	53	72	12	7.2	6.3	6.3	6.5
5	7.6	6.1	12	73	18	113	54	11	7.6	6.3	6.3	6.3
6	7.2	6.5	11	83	18	95	43	10	8.2	6.3	6.3	6.3
7	6.9	6.3	9.2	57	18	73	36	10	8.2	6.3	6.3	6.3
8	6.9	6.3	8.5	44	18	67	34	10	8.2	6.3	6.3	7.9
9	7.4	6.0	7.8	34	18	61	33	10	8.2	6.3	6.3	6.7
10	7.4	6.0	9.3	27	18	51	50	10	8.2	6.3	6.3	6.6
11	7.2	6.0	410	20	18	42	72	9.5	8.0	6.3	6.3	6.5
12	7.2	6.0	391	12	18	37	56	9.3	7.9	6.3	6.3	6.3
13	6.7	8.7	207	38	21	38	44	10	7.9	6.3	6.3	6.3
14	6.3	6.5	107	54	20	37	36	11	8.0	6.6	6.3	6.3
15	6.3	6.3	64	43	20	33	23	10	7.8	6.5	6.3	6.4
16	6.3	6.0	46	39	24	32	52	9.9	7.8	6.3	6.4	6.5
17	6.3	6.0	83	37	25	59	201	9.5	7.2	6.3	81	6.3
18	6.3	5.9	129	30	21	155	104	9.5	7.2	6.3	65	6.5
19	6.4	6.0	76	25	20	127	62	9.5	7.2	12	34	6.5
20	6.5	6.0	55	21	21	90	42	9.5	7.3	6.5	24	8.0
21	6.6	6.0	42	19	21	82	33	8.5	7.3	6.3	17	15
22	6.6	6.3	32	25	21	110	83	8.5	7.1	6.3	12	14
23	6.6	39	27	26	21	136	69	8.5	6.9	6.3	8.9	14
24	6.6	48	24	25	28	465	48	8.4	6.9	6.3	7.4	14
25	6.9	41	19	26	32	332	36	8.1	6.9	6.3	6.8	14
26	6.9	40	16	23	32	230	40	8.3	6.7	6.3	6.3	16
27	6.9	49	13	22	32	152	60	8.5	6.6	6.3	6.3	27
28	5.6	39	12	23	32	118	43	8.2	6.6	6.3	6.3	33
29	4.2	30	12	29	---	177	34	8.2	6.6	6.3	6.3	28
30	4.3	25	14	32	---	172	29	8.4	6.6	6.3	6.3	23
31	4.3	---	18	32	---	101	---	9.0	---	6.3	6.3	---
TOTAL	201.6	449.5	1921.8	981	654	3334	1926	322.3	224.6	202.3	394.8	329.1
MEAN	6.50	15.0	62.0	31.6	23.4	108	64.2	10.4	7.49	6.53	12.7	11.0
MAX	8.2	49	410	83	48	465	201	24	9.0	12	81	33
MIN	4.0	4.8	7.8	12	18	32	23	8.1	6.6	6.3	6.3	6.3
MEAN [‡]	3.80	31.0	62.5	28.0	20.6	118	60.7	3.40	6.49	9.13	15.1	13.6
CFSM [‡]	.23	1.91	3.86	1.73	1.27	7.28	3.75	.21	.40	.56	.93	.84
IN. [‡]	.26	2.13	4.45	1.99	1.32	8.39	4.18	.24	.45	.64	1.07	.94

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1986 - 1993, BY WATER YEAR (WY)

	MEAN	11.9	15.5	49.6	32.3	25.7	31.5	28.5	26.5	16.9	13.0	7.07	11.8
MAX	48.0	43.3	82.4	73.5	58.8	108	64.2	75.1	44.3	55.3	12.7	48.7	48.7
(WY)	1990	1989	1987	1991	1988	1993	1993	1989	1989	1988	1993	1989	1989
MIN	3.91	5.85	28.1	6.62	5.36	4.75	4.68	6.55	5.38	4.92	4.97	3.63	3.63
(WY)	1989	1992	1990	1986	1989	1988	1988	1986	1986	1990	1987	1988	1988

SUMMARY STATISTICS

FOR 1992 CALENDAR YEAR

FOR 1993 WATER YEAR

WATER YEARS 1986 - 1993

ANNUAL TOTAL	6097.9		10941.0										
ANNUAL MEAN	16.7	\$17.0	30.0	\$31.1						22.9	\$23.3		
HIGHEST ANNUAL MEAN										31.0		1989	
LOWEST ANNUAL MEAN										13.1		1992	
HIGHEST DAILY MEAN	410	Dec 11	465	Mar 24						700	Sep 20	1989	
LOWEST DAILY MEAN	3.2	Sep 29	4.0	Oct 1						3.1	Dec 22	1989	
ANNUAL SEVEN-DAY MINIMUM	4.2	Aug 18	5.1	Oct 27						3.1	Dec 22	1989	
INSTANTANEOUS PEAK FLOW			773	Dec 11						1280	Sep 20	1989	
INSTANTANEOUS PEAK STAGE			3.83	Dec 11						4.35	Sep 20	1989	
ANNUAL RUNOFF (CFSM)	1.03	\$1.05	1.85	\$1.92						1.41	\$1.44		
ANNUAL RUNOFF (INCHES)	14.00	\$14.26	25.12	\$26.06						19.21	\$19.53		
10 PERCENT EXCEEDS	44		68							60			
50 PERCENT EXCEEDS	6.7		10							6.6			
90 PERCENT EXCEEDS	5.1		6.3							4.1			

[‡] Adjusted for change in contents of Lake Galena.

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 fair. Diversion for municipal supply by Forest Park Water Company upstream of gage. Flow regulated by Lake Galena (Peace Valley Reservoir), 1.8 mi upstream. 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.7	4.4	28	30	e23	40	347	41	28	4.1	4.2	4.7
2	5.5	6.2	24	25	e22	41	266	36	11	5.6	3.6	4.8
3	7.8	81	20	23	e21	47	156	29	7.6	9.4	3.7	4.8
4	7.8	19	17	22	e21	240	111	24	7.2	6.3	4.0	13
5	7.1	12	24	147	e21	305	85	24	7.1	4.8	3.7	7.8
6	6.7	19	17	e110	e20	146	71	23	8.6	4.3	6.7	5.6
7	5.5	13	13	e78	e26	107	59	20	7.5	4.3	6.8	5.5
8	5.4	8.9	11	61	24	100	53	18	7.2	4.0	4.8	34
9	14	7.9	9.9	50	23	86	51	17	8.3	3.6	4.2	21
10	22	8.8	13	40	e22	73	154	16	12	3.5	3.7	11
11	11	7.8	1100	31	e21	63	132	15	8.5	3.5	4.1	7.2
12	9.4	8.1	e600	28	e21	54	82	15	6.9	3.5	4.0	6.2
13	8.3	53	e300	88	e25	e50	65	14	6.7	3.3	3.9	5.4
14	7.0	18	133	89	50	e44	55	13	7.4	11	3.8	5.5
15	7.2	12	84	64	38	e44	43	12	6.3	45	3.6	7.0
16	6.9	9.4	65	e52	67	e39	209	12	16	8.1	3.7	13
17	8.2	8.8	175	e45	120	e170	384	11	8.1	4.8	1370	7.9
18	6.2	8.5	193	e40	59	304	146	11	6.0	4.0	115	8.7
19	6.0	8.0	100	e35	41	184	90	13	5.7	145	45	8.2
20	6.2	7.3	80	31	37	132	66	13	5.8	35	28	7.3
21	6.3	9.0	64	29	35	149	56	12	13	10	20	21
22	6.1	11	50	54	38	214	175	10	9.2	7.0	13	18
23	6.2	175	43	46	38	233	102	9.5	6.2	5.5	9.2	16
24	6.5	80	37	39	40	1080	73	9.3	5.1	5.0	7.5	17
25	7.0	59	29	42	42	497	59	8.8	4.6	4.6	6.1	16
26	6.6	62	26	36	41	323	92	8.9	4.5	4.6	5.2	52
27	8.6	76	21	33	41	208	113	8.3	4.6	4.6	5.1	181
28	6.6	53	21	e31	40	180	69	8.0	4.7	4.3	4.8	112
29	4.3	41	24	e28	---	345	57	7.5	4.9	4.7	4.6	46
30	4.3	33	28	e26	---	254	48	7.6	4.6	4.7	4.3	32
31	4.3	---	33	e25	---	145	---	9.9	---	3.8	4.5	---
TOTAL	228.7	920.1	3382.9	1478	1017	5897	3469	476.8	243.3	371.9	1710.8	699.6
MEAN	7.38	30.7	109	47.7	36.3	190	116	15.4	8.11	12.0	55.2	23.3
MAX	22	175	1100	147	120	1080	384	41	28	145	1370	181
MIN	3.7	4.4	9.9	22	20	39	43	7.5	4.5	3.3	3.6	4.7
(†)	+1.8	+20.5	+4.8	+0.7	+1.4	+13.8	+0.8	-2.7	+3.3	+7.1	+6.8	+7.1
MEAN‡	9.18	51.2	114	48.4	37.7	204	117	12.7	11.4	19.1	62.0	30.4
CFSM‡	.29	1.62	3.62	1.54	1.20	6.48	3.71	.40	.36	.61	1.97	.96
IN.‡	.33	1.81	4.17	1.78	1.25	7.47	4.14	.46	.40	.70	2.27	1.07

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 1993, BY WATER YEAR (WY)

	1991	1992	1993	1991	1992	1993	1991	1992	1993	1991	1992	1993
MEAN	7.29	19.6	79.3	68.5	28.4	92.4	60.6	21.3	17.7	11.5	24.8	14.3
MAX	7.38	30.7	109	111	36.3	190	116	32.7	37.2	14.6	55.2	23.3
(WY)	1993	1993	1993	1991	1993	1993	1993	1991	1992	1991	1993	1993
MIN	7.20	8.50	49.5	46.8	14.2	34.3	17.9	15.4	7.80	7.89	6.50	5.86
(WY)	1992	1992	1992	1992	1992	1992	1992	1993	1991	1992	1992	1992

SUMMARY STATISTICS

FOR 1992 CALENDAR YEAR

FOR 1993 WATER YEAR

WATER YEARS 1991 - 1993

ANNUAL TOTAL	10219.8		19895.1									
ANNUAL MEAN	27.9	‡32.7	54.5	‡60.0						37.7	‡42.2	
HIGHEST ANNUAL MEAN										54.5		1993
LOWEST ANNUAL MEAN										21.0		1992
HIGHEST DAILY MEAN	1100	Dec 11	1370	Aug 17						1370	Aug 17	1993
LOWEST DAILY MEAN	3.4	Sep 30	3.3	Jul 13						2.3	Aug 18	1991
ANNUAL SEVEN-DAY MINIMUM	4.1	Sep 13	3.7	Jul 7						3.0	Aug 12	1991
INSTANTANEOUS PEAK FLOW			6490	Aug 17						6490	Aug 17	1993
INSTANTANEOUS PEAK STAGE			8.83	Aug 17						8.83	Aug 17	1993
INSTANTANEOUS LOW FLOW			3.2	Jul 13						2.1	Aug 18	1991
ANNUAL RUNOFF (CFSM)	.89	‡1.04	1.73	‡1.90						1.20	‡1.34	
ANNUAL RUNOFF (INCHES)	12.07	‡14.14	23.50	‡25.85						16.28	‡18.69	
10 PERCENT EXCEEDS	57		132							88		
50 PERCENT EXCEEDS	11		18							14		
90 PERCENT EXCEEDS	4.9		4.6							4.6		

† Diversion from North Branch Neshaminy Creek and Pine Run.

‡ Adjusted for diversion and change in contents of Lake Galena.

‡ Computed using estimated daily discharges.

• Estimated.

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 good except those for estimated daily discharges, which are fair. 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.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	53	37	132	208	e130	193	e2200	e500	293	43	37	52
2	44	e50	117	166	e125	191	e1700	e450	149	41	34	51
3	39	683	108	145	e115	230	e1100	e390	96	105	33	50
4	40	338	97	142	e105	1240	e760	e350	84	100	29	56
5	41	139	98	872	e100	2990	e600	e310	80	62	28	120
6	40	153	102	633	e96	962	e500	e280	77	49	55	65
7	35	145	89	362	e90	621	e420	255	74	42	139	50
8	34	94	81	299	e125	574	e370	228	72	39	78	198
9	46	76	78	272	113	542	e350	209	73	39	51	577
10	162	67	70	235	111	433	e1000	199	93	33	49	394
11	138	63	6250	208	108	388	e900	185	91	31	50	162
12	77	63	e3500	211	115	334	e640	171	70	29	41	87
13	64	398	e1500	516	563	e310	443	162	62	26	33	69
14	e56	250	715	615	588	e280	383	157	58	207	31	65
15	e52	123	497	364	387	e260	350	143	55	663	29	63
16	e52	94	393	297	441	e250	742	133	58	164	33	143
17	e62	82	865	271	1420	e700	3290	131	73	77	9740	144
18	e50	76	1470	243	691	2870	861	127	60	53	1400	120
19	e45	72	543	209	354	1150	600	153	52	1400	473	111
20	e44	67	451	184	278	769	498	155	51	810	221	91
21	e45	63	432	172	258	912	438	140	200	202	177	170
22	e44	67	318	410	276	1590	1390	126	136	110	135	255
23	e43	1300	283	371	340	1530	738	114	88	83	104	134
24	e44	494	259	254	278	5360	529	105	63	66	91	115
25	50	265	209	275	234	2490	448	100	54	57	83	110
26	e44	276	e170	229	227	1680	678	92	49	51	78	731
27	e64	471	e150	203	214	1160	e1300	87	46	48	69	1470
28	e50	266	e130	191	201	1040	e1000	78	44	46	64	1880
29	e31	194	e150	e170	---	2140	e760	77	44	45	60	428
30	e31	154	e180	e160	---	1650	e600	74	43	44	56	274
31	e31	---	239	e140	---	944	---	81	---	41	54	---
TOTAL	1651	6620	19676	9027	8083	35783	25588	5762	2488	4806	13555	8235
MEAN	53.3	221	635	291	289	1154	853	186	82.9	155	437	274
MAX	162	1300	6250	872	1420	5360	3290	500	293	1400	9740	1880
MIN	31	37	70	140	90	191	350	74	43	26	28	50
CFSM	.25	1.05	3.02	1.39	1.37	5.50	4.06	.89	.39	.74	2.08	1.31
IN.	.29	1.17	3.49	1.60	1.43	6.34	4.53	1.02	.44	.85	2.40	1.46

• Estimated.

MESHAMINY CREEK BASIN

01465500 MESHAMINY CREEK NEAR LANGHORNE, PA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1935 - 1993, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	114	238	355	403	467	533	440	287	200	186	166	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

SUMMARY STATISTICS

FOR 1992 CALENDAR YEAR

FOR 1993 WATER YEAR

WATER YEARS 1935 - 1993

ANNUAL TOTAL	77970	141274	
ANNUAL MEAN	213	387	294
HIGHEST ANNUAL MEAN			565
LOWEST ANNUAL MEAN			121
HIGHEST DAILY MEAN	6250	Dec 11	9740
LOWEST DAILY MEAN	e31	Oct 29-31	26
ANNUAL SEVEN-DAY MINIMUM	a36	Sep 19	34
INSTANTANEOUS PEAK FLOW			16800
INSTANTANEOUS PEAK STAGE			14.34
INSTANTANEOUS LOW FLOW			23
ANNUAL RUNOFF (CFSM)	1.01		1.84
ANNUAL RUNOFF (INCHES)	13.81		25.03
10 PERCENT EXCEEDS	354		883
50 PERCENT EXCEEDS	120		144
90 PERCENT EXCEEDS	44		44

a Computed using estimated daily discharges.

b Flow 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.

c From floodmarks.

e Estimated.

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 Delaware River Expressway, 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 good except those for estimated daily discharges, which are fair. Several measurements of water temperature were made during the year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.7	5.5	7.5	12	e9.0	12	344	18	94	5.5	6.7	3.6
2	4.3	11	7.7	11	e9.0	12	74	17	12	23	7.1	3.8
3	4.1	267	6.7	11	e8.8	13	38	16	11	46	4.3	3.7
4	4.1	13	6.3	11	e8.6	404	30	16	9.6	7.6	3.9	30
5	3.8	17	17	201	e8.6	115	30	30	9.7	5.4	3.7	5.5
6	3.2	24	7.1	22	e8.4	37	31	21	10	5.3	112	3.9
7	3.3	7.7	6.6	16	e10	23	32	16	8.4	5.2	29	18
8	3.2	6.2	6.1	17	12	27	28	16	8.5	4.9	6.8	50
9	31	5.7	6.0	19	11	23	24	15	56	4.5	5.2	17
10	9.9	5.6	19	15	10	17	62	15	40	4.0	4.3	244
11	106	5.6	1500	13	9.7	16	28	15	9.2	4.1	4.1	8.8
12	34	12	173	29	17	14	27	14	8.1	3.7	4.2	5.6
13	6.7	91	54	47	224	19	20	21	7.8	3.9	4.7	5.0
14	4.9	10	33	23	46	36	20	15	7.2	407	3.9	4.8
15	4.6	7.0	19	15	23	26	21	13	6.9	102	4.0	4.3
16	3.6	6.2	16	13	164	40	423	14	6.8	9.3	74	18
17	3.0	5.8	133	13	63	349	96	15	6.5	6.6	876	60
18	3.9	5.5	39	12	23	99	29	29	6.3	5.6	21	57
19	4.4	5.5	19	11	16	36	24	28	7.7	451	13	10
20	4.2	5.3	31	11	15	35	22	16	28	99	12	6.0
21	4.7	5.3	17	12	15	90	34	16	137	13	14	155
22	3.8	19	15	87	58	76	121	12	30	8.9	6.4	15
23	3.9	227	17	17	24	83	27	13	7.9	7.6	6.6	9.4
24	28	15	13	18	15	359	22	11	6.7	6.8	6.0	12
25	19	23	12	22	13	54	22	11	6.3	6.3	5.0	13
26	4.6	47	12	12	14	39	108	11	6.2	6.1	4.9	504
27	4.0	24	11	e11	13	32	36	9.9	5.8	6.1	4.5	367
28	3.6	11	14	e10	12	47	27	9.7	7.1	5.4	4.5	40
29	3.6	8.9	14	e9.8	---	135	23	9.6	12	9.4	4.2	14
30	3.6	7.9	22	e9.4	---	47	19	9.0	6.1	5.4	4.0	13
31	13	---	14	e9.2	---	34	---	75	---	4.6	4.1	---
TOTAL	338.7	904.7	2268.0	739.4	860.1	2349	1842	547.2	578.8	1283.2	1264.1	1701.4
MEAN	10.9	30.2	73.2	23.9	30.7	75.8	61.4	17.7	19.3	41.4	40.8	56.7
MAX	106	267	1500	201	224	404	423	75	137	451	876	504
MIN	3.0	5.3	6.0	9.2	8.4	12	19	9.0	5.8	3.7	3.7	3.6
CFSM	.51	1.41	3.42	1.11	1.44	3.54	2.87	.82	.90	1.93	1.91	2.65
IN.	.59	1.57	3.94	1.29	1.50	4.08	3.20	.95	1.01	2.23	2.20	2.96

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 1993, BY WATER YEAR (WY)

	MEAN	20.4	27.3	33.1	34.9	35.1	38.0	38.2	35.4	31.2	41.4	32.1	26.7
MAX	42.1	112	79.2	136	105	75.8	104	74.2	84.7	112	130	82.4	
(WY)	1990	1973	1978	1979	1979	1993	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	5.10	3.93	
(WY)	1966	1966	1981	1981	1980	1985	1985	1977	1966	1966	1966	1970	

SUMMARY STATISTICS

FOR 1992 CALENDAR YEAR

FOR 1993 WATER YEAR

WATER YEARS 1965 - 1993

ANNUAL TOTAL	10569.7	14676.6	
ANNUAL MEAN	28.9	40.2	33.0
HIGHEST ANNUAL MEAN			52.3
LOWEST ANNUAL MEAN			16.7
HIGHEST DAILY MEAN	1500	Dec 11	2170
LOWEST DAILY MEAN	2.5	Sep 18	1.3
ANNUAL SEVEN-DAY MINIMUM	3.4	Sep 12	1.6
INSTANTANEOUS PEAK FLOW			3260
INSTANTANEOUS PEAK STAGE			9.46
INSTANTANEOUS LOW FLOW			2.5
ANNUAL RUNOFF (CFSM)	1.35		1.88
ANNUAL RUNOFF (INCHES)	18.37		25.51
10 PERCENT EXCEEDS	42		79
50 PERCENT EXCEEDS	9.4		13
90 PERCENT EXCEEDS	4.6		4.3

a From rating curve extended above 550 ft³/s, on basis of slope-area measurement of peak flow.

b From floodmark.

c 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 poor. Several measurements of water temperature were made during the year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e29	27	31	e55	44	49	713	83	347	29	28	22
2	e24	33	30	e45	40	50	269	78	43	47	33	22
3	e25	581	28	e45	42	53	182	75	39	129	26	22
4	e23	45	28	e60	41	814	149	73	36	34	24	72
5	e22	42	45	e100	40	416	136	90	35	28	24	28
6	e21	72	30	e600	41	132	124	73	38	26	249	21
7	19	31	29	e65	47	94	112	66	33	25	93	22
8	20	26	28	e72	42	100	105	62	31	24	30	127
9	87	24	27	e78	40	93	100	61	140	26	26	75
10	53	24	49	e65	38	74	363	59	101	35	26	374
11	55	24	2450	e55	38	73	163	58	33	35	30	34
12	37	35	517	e150	53	66	107	57	28	35	30	24
13	24	271	190	e100	370	78	98	72	27	36	32	24
14	28	37	93	77	119	88	92	58	27	680	23	23
15	29	29	75	55	72	88	88	51	26	330	22	22
16	23	26	66	52	263	59	700	51	26	45	29	73
17	23	26	330	50	245	584	634	53	24	36	1810	95
18	23	25	167	48	86	307	148	74	24	32	78	95
19	24	25	74	46	70	92	124	84	24	848	46	35
20	24	25	97	45	64	78	110	58	58	314	45	25
21	24	24	71	46	59	164	123	52	265	54	48	216
22	24	36	e66	239	119	184	364	45	84	42	30	45
23	24	485	e71	63	85	178	121	43	39	36	28	29
24	57	50	e60	59	61	1020	101	42	35	33	27	31
25	65	49	e52	68	53	337	94	41	33	31	27	35
26	25	106	e50	50	54	249	360	39	32	31	25	558
27	24	119	e49	49	52	194	192	37	31	31	24	608
28	23	40	e60	48	50	227	101	36	31	30	23	152
29	24	35	e70	46	---	414	93	34	35	36	23	51
30	23	32	e95	43	---	222	88	32	32	28	22	46
31	33	---	e65	45	---	157	---	127	---	26	22	---
TOTAL	959	2404	5093	2619	2328	6734	6154	1864	1757	3172	3003	3006
MEAN	30.9	80.1	164	84.5	83.1	217	205	60.1	58.6	102	96.9	100
MAX	87	581	2450	600	370	1020	713	127	347	848	1810	608
MIN	19	24	27	43	38	49	88	32	24	24	22	21
CFSM	.62	1.61	3.30	1.70	1.67	4.36	4.12	1.21	1.18	2.05	1.95	2.01
IN.	.72	1.80	3.80	1.96	1.74	5.03	4.60	1.39	1.31	2.37	2.24	2.25

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 1993, BY WATER YEAR (WY)

	MEAN	57.1	78.4	94.4	98.4	100	117	124	106	87.0	92.5	72.5	68.9
MAX	151	300	213	334	252	217	338	194	245	257	163	176	
(WY)	1980	1973	1984	1979	1979	1993	1983	1978	1989	1975	1967	1971	
MIN	20.3	17.5	21.1	14.0	35.5	33.5	32.5	43.0	21.8	23.7	15.7	17.4	
(WY)	1966	1966	1981	1981	1969	1985	1985	1977	1965	1966	1966	1970	

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1965 - 1993	
ANNUAL TOTAL	25666		39093		91.9	
ANNUAL MEAN	70.1		107		43.2	
HIGHEST ANNUAL MEAN					165	
LOWEST ANNUAL MEAN					43.2	
HIGHEST DAILY MEAN	2450	Dec 11	2450	Dec 11	3040	Sep 27 1985
LOWEST DAILY MEAN	16	Sep 18	19	Oct 7	8.4	Sep 12 1966
ANNUAL SEVEN-DAY MINIMUM	a20	Sep 12	a22	Oct 2	9.3	Sep 7 1966
INSTANTANEOUS PEAK FLOW			5010	Aug 17	59770	Jul 28 1982
INSTANTANEOUS PEAK STAGE			9.10	Aug 17	13.15	Jul 28 1982
INSTANTANEOUS LOW FLOW			14	Aug 9	6.0	Oct 11 1966
ANNUAL RUNOFF (CFSM)	1.41		2.15		1.84	
ANNUAL RUNOFF (INCHES)	19.17		29.20		25.06	
10 PERCENT EXCEEDS	100		241		173	
50 PERCENT EXCEEDS	37		49		50	
90 PERCENT EXCEEDS	24		24		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.

c Estimated.

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 fair. Several measurements of water temperature were made during the year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e7.9	7.3	7.3	e14	9.2	16	300	28	70	11	6.7	4.6
2	8.0	9.0	7.3	e12	9.7	17	69	26	e14	50	8.1	4.6
3	8.0	161	7.4	e12	11	18	43	26	e13	34	7.0	5.4
4	7.4	8.1	7.4	17	10	475	38	26	e12	14	11	42
5	7.4	7.2	7.2	235	e9.0	67	36	42	e10	e13	5.3	3.5
6	7.9	7.6	7.1	e45	e7.8	32	34	27	e11	e12	e110	3.3
7	7.7	7.8	7.4	e17	e7.0	28	33	24	e10	e12	e50	5.3
8	7.7	7.9	7.2	e18	e8.0	41	32	23	e9.2	e11	e20	64
9	13	7.6	7.2	e20	e9.8	28	31	21	e54	e12	e10	22
10	8.0	7.7	33	e16	e11	25	272	21	39	17	e8.0	249
11	7.9	7.4	493	e13	e17	24	39	19	14	17	e13	5.0
12	7.8	23	6.8	194	e80	22	32	21	13	16	e18	4.2
13	8.0	40	7.9	101	e240	26	31	33	12	16	e20	4.2
14	7.6	7.7	8.2	45	e50	32	30	18	12	581	6.4	4.2
15	8.3	7.8	7.8	e33	e17	27	30	17	11	99	7.9	e8.0
16	8.2	7.5	13	e25	172	52	540	18	13	11	22	e17
17	7.2	8.2	50	e18	44	388	71	18	11	9.0	161	e53
18	7.8	7.5	16	e15	23	63	39	49	11	7.2	7.7	e53
19	7.1	7.3	e9.0	e13	20	34	36	27	12	368	6.1	e25
20	7.7	7.5	16	e11	18	34	34	26	66	42	26	e13
21	7.8	7.8	e14	30	19	64	69	16	156	13	14	e115
22	7.7	7.8	e12	54	69	50	116	15	24	11	5.2	e45
23	7.8	107	15	11	23	118	34	14	11	9.6	5.1	e20
24	18	7.8	e14	11	18	317	31	e13	9.9	8.5	5.2	e6.8
25	7.3	7.6	e13	10	17	65	30	e12	10	8.9	27	42
26	7.7	16	e12	e8.6	17	55	182	e11	10	8.3	4.6	533
27	7.8	7.5	e11	e10	17	49	36	e11	9.9	8.1	4.5	334
28	7.6	7.5	e15	12	16	71	30	e10	10	7.8	4.7	e20
29	7.4	7.3	e19	10	---	115	29	e9.8	15	24	5.2	e18
30	7.5	7.5	e24	11	---	50	28	e9.4	12	7.3	4.4	e16
31	7.1	---	e16	10	---	43	---	269	---	6.5	4.4	---
TOTAL	254.3	538.9	891.2	1051.6	969.5	2446	2355	900.2	685.0	1465.2	608.5	1740.1
MEAN	8.20	18.0	28.7	33.9	34.6	78.9	78.5	29.0	22.8	47.3	19.6	58.0
MAX	18	161	493	235	240	475	540	269	156	581	161	533
MIN	7.1	7.2	6.8	8.6	7.0	16	28	9.4	9.2	6.5	4.4	3.3
CFSM	.27	.59	.95	1.12	1.14	2.60	2.58	.96	.75	1.55	.65	1.91
IN.	.31	.66	1.09	1.29	1.19	2.99	2.88	1.10	.84	1.79	.74	2.13

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1982 - 1993, BY WATER YEAR (WY)

MEAN	22.9	38.9	36.4	32.5	34.9	46.7	52.7	55.2	42.0	60.1	39.3	42.7
MAX	41.4	81.7	90.9	57.3	80.4	86.8	143	98.4	111	116	61.8	85.3
(WY)	1990	1987	1984	1991	1988	1983	1983	1989	1989	1989	1990	1985
MIN	8.20	17.7	15.5	10.6	17.4	11.7	14.4	20.8	15.8	34.5	11.9	13.7
(WY)	1993	1985	1989	1985	1992	1985	1985	1986	1986	1992	1992	1992

SUMMARY STATISTICS

FOR 1992 CALENDAR YEAR

FOR 1993 WATER YEAR

WATER YEARS 1982 - 1993

ANNUAL TOTAL	8742.6	13905.5	
ANNUAL MEAN	23.9	38.1	42.1
HIGHEST ANNUAL MEAN			54.6
LOWEST ANNUAL MEAN			26.0
HIGHEST DAILY MEAN	542	Jun 5	1570
LOWEST DAILY MEAN	e4.5	Sep 18	2.6
ANNUAL SEVEN-DAY MINIMUM	a5.7	Sep 12	2.7
INSTANTANEOUS PEAK FLOW		4970	10300
INSTANTANEOUS PEAK STAGE		7.81	11.82
INSTANTANEOUS LOW FLOW		2.8	1.1
ANNUAL RUNOFF (CFSM)	.79	1.25	1.38
ANNUAL RUNOFF (INCHES)	10.70	17.02	18.82
10 PERCENT EXCEEDS	41	68	80
50 PERCENT EXCEEDS	11	14	16
90 PERCENT EXCEEDS	7.3	7.2	7.5

a Computed using estimated daily discharges.

b From rating curve extended above 8,000 ft³/s, on basis of slope-area measurements of peak flow.

c Also Sep. 5, 6, 7, 15.

e Estimated.

DELAWARE RIVER BASIN

01467200 DELAWARE RIVER AT BENJAMIN FRANKLIN BRIDGE AT PHILADELPHIA, PA

LOCATION.--Lat 39°57'11", long 75°08'05", Philadelphia County, Hydrologic Unit 02040202, at river end of pier 12, on right bank of river, 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 TEMPERATURES: November 1960 to current year.

DISSOLVED OXYGEN: November 1960 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 1992 TO SEPTEMBER 1993

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	---	---	---	276	242	259	---	---	---	---	---	---
2	---	---	---	279	242	259	---	---	---	---	---	---
3	---	---	---	276	234	257	---	---	---	---	---	---
4	---	---	---	258	232	243	---	---	---	---	---	---
5	298	269	287	247	225	234	---	---	---	---	---	---
6	295	266	280	239	229	232	---	---	---	---	---	---
7	293	266	279	237	231	234	---	---	---	---	---	---
8	291	268	279	238	230	234	---	---	---	---	---	---
9	292	268	281	238	226	231	---	---	---	---	---	---
10	293	266	280	241	222	232	---	---	---	---	---	---
11	292	265	279	238	224	233	---	---	---	---	---	---
12	288	256	270	242	221	233	---	---	---	---	---	---
13	281	251	266	242	212	230	---	---	---	---	---	---
14	278	249	262	229	197	214	---	---	---	---	---	---
15	273	250	261	217	190	202	---	---	---	---	---	---
16	273	250	261	201	186	192	---	---	---	---	---	---
17	269	252	259	198	189	193	---	---	---	---	---	---
18	276	254	264	198	191	195	---	---	---	---	---	---
19	273	261	266	201	193	198	---	---	---	---	---	---
20	281	257	267	203	193	198	---	---	---	---	---	---
21	279	261	269	202	187	197	---	---	---	---	---	---
22	277	257	268	204	187	196	---	---	---	---	---	---
23	281	260	271	202	160	183	---	---	---	---	---	---
24	283	259	271	171	153	162	---	---	---	---	---	---
25	279	249	265	172	158	166	---	---	---	---	---	---
26	283	251	266	167	157	162	---	---	---	---	---	---
27	278	247	263	158	146	153	---	---	---	---	---	---
28	284	245	265	---	---	---	---	---	---	---	---	---
29	281	245	264	---	---	---	---	---	---	---	---	---
30	276	243	261	---	---	---	---	---	---	---	---	---
31	280	244	261	---	---	---	---	---	---	---	---	---
MONTH	298	243	269	279	153	212	---	---	---	---	---	---

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 1992 TO SEPTEMBER 1993

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	---	---	---	265	247	256	131	109	121	131	125	128
2	---	---	---	265	246	255	122	107	112	132	125	128
3	---	---	---	264	245	254	119	102	109	136	128	133
4	---	---	---	263	245	255	114	105	109	145	135	139
5	---	---	---	276	246	260	118	108	113	152	138	146
6	---	---	---	269	249	259	123	111	116	153	147	149
7	---	---	---	262	241	254	128	117	122	---	---	---
8	---	---	---	258	237	249	133	122	126	---	---	---
9	---	---	---	254	237	246	141	127	132	---	---	---
10	---	---	---	250	234	239	148	137	142	176	168	171
11	---	---	---	---	---	---	148	138	142	181	170	175
12	---	---	---	258	250	256	147	134	141	186	178	180
13	---	---	---	266	250	257	135	111	119	186	177	182
14	---	---	---	270	258	264	116	106	111	187	179	184
15	---	---	---	279	261	271	116	107	113	189	179	185
16	---	---	---	293	270	282	121	110	115	192	180	185
17	---	---	---	324	290	309	159	114	121	195	184	188
18	---	---	---	316	285	300	136	120	129	197	186	192
19	---	---	---	302	281	297	143	130	137	199	192	196
20	---	---	---	---	---	---	137	121	129	202	195	199
21	---	---	---	---	---	---	134	123	127	208	201	204
22	---	---	---	---	---	---	147	129	138	211	204	208
23	---	---	---	---	---	---	142	127	135	214	207	211
24	---	---	---	---	---	---	146	131	138	216	209	213
25	---	---	---	---	---	---	149	140	143	220	212	216
26	---	---	---	232	214	227	149	135	142	229	217	224
27	---	---	---	226	202	212	143	128	133	234	225	230
28	---	---	---	211	202	206	139	130	134	237	227	232
29	---	---	---	206	195	200	142	133	136	240	231	236
30	---	---	---	196	159	178	142	126	134	245	236	240
31	---	---	---	160	128	144	---	---	---	247	236	242
MONTH	---	---	---	324	128	247	159	102	127	247	125	190

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	249	234	240	309	288	298	322	281	301	303	254	276
2	252	241	246	311	292	302	329	286	306	305	258	280
3	254	244	249	315	289	300	329	286	306	313	260	285
4	256	244	251	313	287	300	334	288	308	302	258	280
5	259	247	254	313	288	303	328	287	307	304	253	278
6	260	249	255	318	294	306	335	286	310	305	251	280
7	264	249	258	323	295	308	340	285	298	306	255	281
8	263	253	260	318	295	307	331	278	304	310	255	278
9	270	258	264	321	295	309	326	284	304	317	260	281
10	270	262	266	322	296	309	326	282	303	304	249	273
11	271	262	267	320	296	311	330	285	300	290	246	262
12	276	263	271	320	296	309	338	288	311	299	250	268
13	278	265	272	322	297	314	337	296	318	303	249	272
14	279	267	274	331	299	320	337	289	318	300	254	273
15	282	269	277	331	292	298	341	287	314	302	259	276
16	283	270	277	320	284	304	345	206	308	302	261	279
17	286	270	279	324	280	304	347	263	313	314	264	288
18	290	275	283	322	280	295	310	251	279	302	259	278
19	291	278	286	328	284	301	300	241	271	293	253	270
20	294	277	287	322	292	299	295	240	265	286	247	267
21	300	279	290	314	274	294	277	236	247	289	252	264
22	299	277	287	313	276	295	282	238	252	---	---	---
23	292	277	286	313	280	300	283	241	261	286	254	268
24	296	277	288	312	278	298	281	247	262	281	251	263
25	299	280	290	317	280	300	283	243	260	288	256	269
26	301	281	291	323	279	301	289	239	260	290	238	262
27	301	281	291	320	288	310	292	246	264	269	229	247
28	303	286	294	319	317	317	292	246	266	253	221	231
29	306	284	295	319	284	301	289	244	264	---	---	---
30	305	288	297	321	285	302	296	250	270	229	221	226
31	---	---	---	319	289	295	301	253	273	---	---	---
MONTH	306	234	274	331	274	304	347	206	288	317	221	270

DELAWARE RIVER BASIN

01467200 DELAWARE RIVER AT BENJAMIN FRANKLIN BRIDGE AT PHILADELPHIA, PA--Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	---	---	---	6.8	6.8	6.8	---	---	---	---	---	---
2	---	---	---	6.9	6.8	6.8	---	---	---	---	---	---
3	---	---	---	6.8	6.8	6.8	---	---	---	---	---	---
4	---	---	---	6.8	6.8	6.8	---	---	---	---	---	---
5	7.0	6.9	6.9	6.9	6.8	6.8	---	---	---	---	---	---
6	7.1	7.0	7.1	6.9	6.8	6.8	---	---	---	---	---	---
7	7.2	7.1	7.1	6.9	6.8	6.9	---	---	---	---	---	---
8	7.2	7.1	7.1	6.9	6.9	6.9	---	---	---	---	---	---
9	7.2	7.1	7.1	6.9	6.9	6.9	---	---	---	---	---	---
10	7.1	7.1	7.1	6.9	6.8	6.9	---	---	---	---	---	---
11	7.1	7.1	7.1	6.9	6.8	6.8	---	---	---	---	---	---
12	7.1	7.1	7.1	6.8	6.8	6.8	---	---	---	---	---	---
13	7.1	7.1	7.1	6.8	6.8	6.8	---	---	---	---	---	---
14	7.2	7.1	7.1	6.9	6.9	6.9	---	---	---	---	---	---
15	7.2	7.1	7.1	6.9	6.9	6.9	---	---	---	---	---	---
16	7.1	7.1	7.1	7.0	6.9	6.9	---	---	---	---	---	---
17	7.2	7.1	7.1	7.0	6.9	6.9	---	---	---	---	---	---
18	7.2	7.1	7.1	7.0	6.9	6.9	---	---	---	---	---	---
19	7.2	7.1	7.2	7.0	6.9	6.9	---	---	---	---	---	---
20	7.2	7.0	7.1	7.0	6.9	6.9	---	---	---	---	---	---
21	7.0	6.9	7.0	6.9	6.9	6.9	---	---	---	---	---	---
22	7.0	6.8	6.9	6.9	6.8	6.9	---	---	---	---	---	---
23	6.9	6.8	6.8	6.9	6.8	6.8	---	---	---	---	---	---
24	6.9	6.8	6.9	6.9	6.8	6.8	---	---	---	---	---	---
25	6.9	6.8	6.9	6.9	6.8	6.9	---	---	---	---	---	---
26	6.9	6.9	6.9	6.9	6.8	6.8	---	---	---	---	---	---
27	7.0	6.9	6.9	6.8	6.8	6.8	---	---	---	---	---	---
28	7.0	6.9	6.9	---	---	---	---	---	---	---	---	---
29	6.9	6.9	6.9	---	---	---	---	---	---	---	---	---
30	6.9	6.8	6.9	---	---	---	---	---	---	---	---	---
31	6.8	6.8	6.8	---	---	---	---	---	---	---	---	---
MONTH	7.2	6.8	7.0	7.0	6.8	6.9	---	---	---	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	---	---	---	7.1	7.0	7.0	6.6	6.5	6.6	6.5	6.5	6.5
2	---	---	---	7.1	7.0	7.0	6.6	6.5	6.5	6.5	6.4	6.5
3	---	---	---	7.1	7.0	7.1	6.6	6.6	6.6	6.5	6.4	6.5
4	---	---	---	7.2	7.0	7.1	6.6	6.5	6.6	6.5	6.4	6.5
5	---	---	---	7.2	6.9	7.1	6.6	6.6	6.6	6.5	6.4	6.4
6	---	---	---	7.1	7.0	7.1	6.7	6.6	6.6	6.5	6.4	6.5
7	---	---	---	7.2	7.0	7.1	6.7	6.6	6.6	---	---	---
8	---	---	---	7.2	7.1	7.1	6.7	6.6	6.6	---	---	---
9	---	---	---	7.1	7.1	7.1	6.7	6.6	6.7	---	---	---
10	---	---	---	7.1	7.1	7.1	6.7	6.6	6.7	6.9	6.7	6.8
11	---	---	---	---	---	---	6.8	6.6	6.7	7.0	6.9	6.9
12	---	---	---	7.1	7.0	7.0	6.8	6.8	6.8	7.0	6.9	7.0
13	---	---	---	7.1	7.0	7.0	6.8	6.6	6.7	7.1	7.0	7.0
14	---	---	---	7.1	7.1	7.1	6.6	6.6	6.6	7.1	7.0	7.0
15	---	---	---	7.2	7.1	7.1	6.6	6.5	6.6	7.1	7.0	7.0
16	---	---	---	7.2	7.1	7.1	6.6	6.5	6.6	7.1	7.0	7.0
17	---	---	---	7.2	7.1	7.1	6.6	6.5	6.5	7.1	7.0	7.0
18	---	---	---	7.2	7.1	7.2	6.7	6.6	6.6	7.1	7.0	7.0
19	---	---	---	7.3	7.1	7.2	6.7	6.6	6.7	7.0	6.9	7.0
20	---	---	---	---	---	---	6.7	6.6	6.6	7.0	6.9	6.9
21	---	---	---	---	---	---	6.6	6.5	6.6	7.0	6.9	6.9
22	---	---	---	---	---	---	6.6	6.5	6.5	7.0	6.9	7.0
23	---	---	---	---	---	---	6.6	6.6	6.6	7.1	6.9	7.0
24	---	---	---	---	---	---	6.7	6.6	6.6	7.1	6.9	7.0
25	---	---	---	---	---	---	6.7	6.6	6.7	7.2	7.0	7.1
26	---	---	---	7.0	6.9	7.0	6.7	6.6	6.6	7.2	7.0	7.1
27	---	---	---	6.9	6.9	6.9	6.6	6.6	6.6	7.2	7.1	7.2
28	---	---	---	6.9	6.9	6.9	6.6	6.6	6.6	7.4	7.1	7.2
29	---	---	---	6.9	6.9	6.9	6.6	6.6	6.6	7.4	7.2	7.3
30	---	---	---	6.9	6.7	6.8	6.6	6.5	6.5	7.4	7.3	7.3
31	---	---	---	6.7	6.6	6.7	---	---	---	7.4	7.2	7.3
MONTH	---	---	---	7.3	6.6	7.0	6.8	6.5	6.6	7.4	6.4	6.9

DELAWARE RIVER BASIN

01467200 DELAWARE RIVER AT BENJAMIN FRANKLIN BRIDGE AT PHILADELPHIA, PA--Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	7.3	7.2	7.2	6.9	6.8	6.8	6.9	6.8	6.8	6.6	6.6	6.6
2	7.3	7.1	7.2	6.8	6.8	6.8	6.9	6.8	6.8	6.7	6.6	6.6
3	7.3	7.1	7.2	6.8	6.7	6.8	6.8	6.8	6.8	6.7	6.6	6.6
4	7.2	6.9	7.0	6.8	6.7	6.7	6.8	6.8	6.8	6.7	6.6	6.6
5	7.0	6.9	6.9	6.8	6.7	6.8	6.8	6.8	6.8	6.7	6.6	6.6
6	7.0	6.8	6.9	---	---	---	6.8	6.8	6.8	6.7	6.6	6.6
7	7.0	6.8	6.9	6.8	6.8	6.8	6.8	6.8	6.8	6.7	6.6	6.6
8	7.0	6.8	6.9	6.8	6.7	6.8	6.8	6.7	6.8	6.6	6.6	6.6
9	6.9	6.8	6.8	6.8	6.7	6.8	6.8	6.7	6.7	6.6	6.6	6.6
10	6.9	6.8	6.8	6.8	6.7	6.8	6.8	6.7	6.8	6.6	6.5	6.6
11	6.9	6.8	6.8	6.8	6.7	6.8	6.8	6.7	6.8	6.6	6.6	6.6
12	6.9	6.8	6.8	6.8	6.8	6.8	6.8	6.7	6.7	6.7	6.6	6.6
13	6.9	6.8	6.8	6.8	6.8	6.8	---	---	---	6.7	6.6	6.7
14	6.9	6.8	6.8	6.8	6.8	6.8	---	---	---	6.7	6.6	6.7
15	6.9	6.8	6.8	---	---	---	6.8	6.7	6.7	6.7	6.7	6.7
16	6.9	6.8	6.8	6.8	6.7	6.8	---	6.7	6.7	6.7	6.6	6.7
17	7.0	6.8	6.9	6.8	6.7	6.8	6.7	6.6	6.7	6.7	6.7	6.7
18	6.9	6.8	6.9	6.9	6.8	6.8	---	---	---	6.7	6.6	6.6
19	6.9	6.8	6.9	6.9	6.8	6.8	---	---	---	6.6	6.6	6.6
20	6.9	6.8	6.8	---	---	---	6.7	6.6	6.6	6.7	6.6	6.6
21	6.9	6.8	6.8	6.8	6.7	6.7	---	---	---	6.7	6.6	6.7
22	6.8	6.8	6.8	6.8	6.7	6.8	6.7	6.5	6.6	---	---	---
23	6.8	6.8	6.8	6.8	6.7	6.8	6.7	6.5	6.6	6.7	6.6	6.6
24	6.8	6.8	6.8	6.8	6.8	6.8	6.7	6.5	6.6	6.7	6.6	6.7
25	6.9	6.8	6.8	6.9	6.8	6.8	6.6	6.6	6.6	6.7	6.7	6.7
26	6.9	6.8	6.9	6.9	6.8	6.8	6.6	6.5	6.6	6.7	6.7	6.7
27	6.9	6.8	6.9	6.9	6.8	6.8	6.6	6.5	6.6	6.7	6.6	6.7
28	6.9	6.8	6.9	---	---	---	6.6	6.5	6.6	6.7	6.6	6.7
29	6.9	6.8	6.9	6.8	6.8	6.8	6.6	6.5	6.6	6.7	6.7	6.7
30	6.9	6.8	---	6.9	6.8	6.8	6.6	6.6	6.6	6.7	6.7	6.7
31	---	---	---	---	---	---	6.7	6.6	6.6	---	---	---
MONTH	7.3	6.8	6.9	6.9	6.7	6.8	6.9	6.5	6.7	6.7	6.5	6.6

WATER TEMPERATURE, (DEG. C), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	---	---	---	14.0	13.5	14.0						
2	---	---	---	13.5	13.5	13.5						
3	---	---	---	14.0	13.5	13.5						
4	---	---	---	13.5	13.5	13.5						
5	18.5	18.5	18.5	13.5	13.0	13.5						
6	18.5	18.0	18.0	13.0	12.5	13.0						
7	18.5	18.0	18.0	13.0	12.5	12.5						
8	18.5	18.0	18.0	12.5	12.0	12.0						
9	18.5	18.0	18.0	12.0	11.5	11.5						
10	---	---	---	11.5	11.5	11.5						
11	18.5	18.0	18.5	11.5	11.5	11.5						
12	---	---	---	12.0	11.5	11.5						
13	18.0	17.5	18.0	12.0	11.5	12.0						
14	18.0	17.5	17.5	11.5	11.0	11.5						
15	18.0	17.5	18.0	11.0	10.5	11.0						
16	18.0	18.0	18.0	10.5	10.0	10.0						
17	18.0	17.0	17.5	10.0	9.5	10.0						
18	17.5	17.5	17.5	10.5	10.0	10.0						
19	17.5	16.5	17.0	10.0	9.5	10.0						
20	16.5	16.0	16.5	10.0	9.5	9.5						
21	16.5	16.0	16.0	10.0	9.5	9.5						
22	16.0	15.5	16.0	10.5	9.5	10.0						
23	16.0	15.5	16.0	10.5	10.0	10.5						
24	16.0	15.5	15.5	10.0	9.5	9.5						
25	15.5	15.0	15.5	11.0	9.5	10.0						
26	15.0	14.5	15.0	12.5	10.0	11.0						
27	15.0	14.5	14.5	12.5	11.0	11.5						
28	14.5	14.5	14.5	---	---	---						
29	14.5	14.0	14.5	---	---	---						
30	14.5	14.0	14.5	---	---	---						
31	14.5	14.0	14.0	---	---	---						
MONTH	18.5	14.0	16.5	14.0	9.5	11.5						

DELAWARE RIVER BASIN

01467200 DELAWARE RIVER AT BENJAMIN FRANKLIN BRIDGE AT PHILADELPHIA, PA--Continued

WATER TEMPERATURE, (DEG. C), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1				3.0	2.5	3.0	6.5	6.0	6.0	13.5	13.0	13.0
2				3.5	3.0	3.0	6.5	6.0	6.5	14.0	13.5	13.5
3				3.5	3.0	3.5	6.5	5.5	6.0	15.0	14.0	14.5
4				3.5	3.5	3.5	5.5	5.5	5.5	15.5	14.5	15.0
5				4.0	3.5	3.5	5.5	5.0	5.5	16.0	15.0	15.5
6				4.0	3.5	4.0	6.0	5.5	5.5	16.5	15.5	16.0
7				4.5	4.0	4.0	6.5	5.5	6.0	---	---	---
8				5.0	4.0	4.5	7.5	6.5	7.0	---	---	---
9				5.5	4.5	5.0	8.5	7.0	7.5	---	---	---
10				6.0	4.5	5.5	9.5	8.0	8.5	18.5	18.0	18.0
11				---	---	---	10.0	9.0	9.5	19.0	18.0	18.5
12				5.5	5.0	5.0	10.5	10.0	10.0	19.5	18.5	19.0
13				5.0	4.5	5.0	10.5	9.5	10.0	19.5	19.0	19.0
14				4.5	4.0	4.5	9.5	9.5	9.5	19.5	19.0	19.0
15				4.5	4.0	4.0	9.5	9.0	9.5	20.0	19.0	19.5
16				4.5	3.5	4.0	10.0	9.5	9.5	20.5	19.5	20.0
17				4.5	4.5	4.5	10.5	10.0	10.5	20.5	20.0	20.0
18				4.5	3.5	4.0	11.5	10.5	11.0	20.5	20.0	20.0
19				---	---	---	12.0	11.5	11.5	20.0	19.5	20.0
20				---	---	---	12.0	11.5	12.0	20.0	19.5	19.5
21				---	---	---	12.0	12.0	12.0	19.5	19.5	19.5
22				---	---	---	12.0	12.0	12.0	19.5	19.5	19.5
23				---	---	---	12.0	11.5	12.0	19.5	19.0	19.5
24				---	---	---	12.0	11.5	12.0	20.0	19.5	19.5
25				---	---	---	12.0	11.5	11.5	20.0	19.5	20.0
26				6.0	5.5	6.0	12.0	11.5	11.5	20.5	20.0	20.0
27				6.5	6.0	6.0	11.5	11.0	11.5	20.0	20.0	20.0
28				7.5	6.0	6.5	12.5	11.5	12.0	20.5	20.0	20.0
29				8.0	7.0	7.5	13.0	12.5	12.5	20.5	20.5	20.5
30				8.0	7.5	8.0	13.0	12.5	13.0	20.5	20.0	20.5
31				7.5	6.0	7.0	---	---	---	20.5	20.5	20.5
MONTH				8.0	2.5	5.0	13.0	5.0	9.5	20.5	13.0	18.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	20.5	20.0	20.5	27.0	26.5	26.5	27.5	27.0	27.0	27.5	27.5	27.5
2	20.5	20.0	20.5	26.5	26.0	26.0	27.5	27.0	27.0	28.0	27.5	27.5
3	20.5	20.0	20.5	26.5	26.0	26.0	27.5	27.0	27.5	28.0	27.5	28.0
4	20.5	20.5	20.5	27.0	26.0	26.5	27.5	27.5	27.5	28.0	27.5	27.5
5	20.5	20.5	20.5	27.0	26.5	27.0	27.5	27.5	27.5	27.5	27.5	27.5
6	20.5	20.5	20.5	27.5	27.0	27.0	27.5	26.5	27.0	27.5	27.5	27.5
7	20.5	20.5	20.5	28.0	27.0	27.5	---	---	---	27.5	27.5	27.5
8	21.0	20.5	20.5	28.0	27.5	28.0	26.5	26.0	26.5	27.5	27.0	27.0
9	21.5	20.5	21.0	28.5	28.0	28.5	---	---	---	27.0	26.5	27.0
10	22.0	21.0	21.5	29.0	28.5	28.5	26.5	26.0	26.5	26.5	26.5	26.5
11	22.5	21.5	22.0	29.0	28.5	29.0	26.5	26.5	26.5	26.5	25.5	26.0
12	22.5	22.0	22.0	29.0	29.0	29.0	26.5	26.5	26.5	25.5	25.0	25.5
13	22.5	22.0	22.5	29.0	29.0	29.0	---	---	---	25.0	25.0	25.0
14	23.0	22.5	22.5	29.0	29.0	29.0	27.0	26.5	27.0	25.0	25.0	25.0
15	23.0	22.5	23.0	---	---	---	27.5	27.0	27.0	25.5	25.0	25.0
16	23.5	23.0	23.0	29.0	28.5	28.5	27.5	27.0	27.0	25.0	24.5	25.0
17	24.0	23.0	23.5	28.5	28.5	28.5	27.0	27.0	27.0	24.5	24.0	24.5
18	24.5	23.5	24.0	28.0	28.0	28.0	---	---	---	24.0	23.5	24.0
19	25.0	24.0	24.5	28.0	27.5	28.0	27.0	26.0	26.5	23.5	23.0	23.5
20	25.0	24.5	25.0	---	---	---	27.0	26.0	26.5	23.0	22.5	23.0
21	25.0	25.0	25.0	27.5	27.5	27.5	26.5	26.0	26.0	22.5	22.5	22.5
22	25.5	25.0	25.5	27.5	27.0	27.5	26.0	25.5	26.0	---	---	---
23	25.5	25.0	25.5	27.0	27.0	27.0	26.5	25.5	26.0	22.0	22.0	22.0
24	25.5	25.0	25.5	27.0	27.0	27.0	26.5	26.0	26.0	22.0	21.5	22.0
25	25.5	25.0	25.5	27.5	27.0	27.0	26.5	26.0	26.0	22.0	21.5	21.5
26	26.0	25.0	25.5	27.0	27.0	27.0	27.0	26.5	26.5	21.5	21.5	21.5
27	26.5	25.5	26.0	27.0	27.0	27.0	27.0	26.5	27.0	22.0	21.5	21.5
28	26.5	25.5	26.0	---	---	---	27.5	27.0	27.0	21.5	20.5	21.0
29	26.5	26.0	26.5	27.5	27.0	27.5	27.5	27.0	27.0	21.0	---	20.5
30	26.5	26.0	26.5	27.5	27.0	27.5	27.5	27.0	27.5	20.5	19.5	20.0
31	---	---	---	---	---	---	27.5	27.0	27.5	---	---	---
MONTH	26.5	20.0	23.0	29.0	26.0	27.5	27.5	25.5	27.0	28.0	19.5	24.5

DELAWARE RIVER BASIN

01467200 DELAWARE RIVER AT BENJAMIN FRANKLIN BRIDGE AT PHILADELPHIA, PA--Continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	---	---	---	7.2	6.8	6.9	---	---	---	---	---	---
2	---	---	---	7.2	6.9	7.0	---	---	---	---	---	---
3	---	---	---	7.1	6.8	6.9	---	---	---	---	---	---
4	---	---	---	7.3	6.8	7.0	---	---	---	---	---	---
5	6.4	6.1	6.2	7.7	7.0	7.3	---	---	---	---	---	---
6	6.5	6.2	6.3	7.9	7.2	7.7	---	---	---	---	---	---
7	6.5	6.1	6.3	8.0	7.6	7.8	---	---	---	---	---	---
8	6.4	6.1	6.2	8.2	7.8	8.1	---	---	---	---	---	---
9	6.4	6.0	6.2	8.3	8.0	8.2	---	---	---	---	---	---
10	6.2	5.9	6.0	8.3	8.0	8.2	---	---	---	---	---	---
11	6.1	5.8	5.9	8.3	8.0	8.1	---	---	---	---	---	---
12	---	---	---	8.4	8.0	8.1	---	---	---	---	---	---
13	6.2	5.6	5.9	8.4	8.1	8.3	---	---	---	---	---	---
14	6.2	5.7	5.9	8.7	8.3	8.4	---	---	---	---	---	---
15	6.1	5.7	5.9	8.9	8.4	8.7	---	---	---	---	---	---
16	6.1	5.6	5.9	9.2	8.8	9.0	---	---	---	---	---	---
17	6.3	6.0	6.1	9.4	8.9	9.1	---	---	---	---	---	---
18	6.3	5.9	6.1	9.3	9.0	9.2	---	---	---	---	---	---
19	6.3	5.9	6.1	9.3	8.9	9.1	---	---	---	---	---	---
20	6.7	6.2	6.5	9.4	8.9	9.2	---	---	---	---	---	---
21	6.8	6.5	6.6	9.4	9.0	9.2	---	---	---	---	---	---
22	6.8	6.5	6.7	9.4	8.8	9.1	---	---	---	---	---	---
23	7.0	6.6	6.7	9.4	8.9	9.1	---	---	---	---	---	---
24	6.9	6.6	6.8	10.0	9.1	9.5	---	---	---	---	---	---
25	7.0	6.6	6.8	10.0	9.0	9.7	---	---	---	---	---	---
26	7.0	6.8	6.9	10.3	8.5	9.6	---	---	---	---	---	---
27	7.1	6.9	7.0	9.7	9.0	9.3	---	---	---	---	---	---
28	7.1	6.8	6.9	---	---	---	---	---	---	---	---	---
29	7.1	6.7	6.9	---	---	---	---	---	---	---	---	---
30	7.1	6.7	6.8	---	---	---	---	---	---	---	---	---
31	7.1	6.8	6.9	---	---	---	---	---	---	---	---	---
MONTH	7.1	5.6	6.4	10.3	6.8	8.4	---	---	---	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	---	---	---	12.5	12.2	12.3	10.8	10.5	10.7	9.3	9.0	9.2
2	---	---	---	12.5	12.2	12.3	10.8	10.4	10.6	9.2	9.0	9.1
3	---	---	---	12.5	12.1	12.3	10.6	10.3	10.4	9.3	9.0	9.2
4	---	---	---	12.7	12.2	12.4	11.1	10.6	10.9	9.2	8.7	8.9
5	---	---	---	12.6	12.3	12.4	11.3	10.9	11.1	8.7	8.2	8.5
6	---	---	---	12.6	12.3	12.5	11.3	11.0	11.2	8.3	7.8	8.0
7	---	---	---	12.5	12.3	12.4	11.3	11.0	11.1	---	---	---
8	---	---	---	12.5	12.2	12.3	11.1	10.7	10.9	---	---	---
9	---	---	---	12.3	11.8	12.1	10.8	10.4	10.6	---	---	---
10	---	---	---	12.0	11.8	11.9	10.5	9.8	10.2	7.7	7.4	7.6
11	---	---	---	---	---	---	10.0	9.8	9.9	7.6	7.1	7.4
12	---	---	---	---	---	---	9.9	9.6	9.7	7.6	7.1	7.4
13	---	---	---	---	---	---	9.9	9.6	9.8	7.6	7.1	7.3
14	---	---	---	---	---	---	10.0	9.8	9.9	7.5	7.0	7.2
15	---	---	---	10.8	10.0	10.4	10.2	9.9	10.1	7.3	6.6	7.0
16	---	---	---	11.2	10.7	10.9	10.2	9.9	10.0	7.1	6.5	6.9
17	---	---	---	11.0	10.7	10.9	10.0	9.4	9.7	7.2	6.5	6.9
18	---	---	---	11.1	10.3	10.6	9.8	9.2	9.5	6.9	6.4	6.7
19	---	---	---	---	---	---	9.3	9.0	9.2	6.5	6.0	6.4
20	---	---	---	---	---	---	9.5	9.2	9.4	6.2	5.7	6.0
21	---	---	---	---	---	---	9.4	9.2	9.3	6.0	5.5	5.7
22	---	---	---	---	---	---	9.3	8.9	9.1	6.3	5.4	5.8
23	---	---	---	---	---	---	9.2	9.0	9.1	6.6	5.7	6.1
24	---	---	---	---	---	---	9.3	8.9	9.0	7.0	5.8	6.3
25	---	---	---	---	---	---	9.4	9.2	9.3	7.1	6.2	6.7
26	---	---	---	11.4	10.8	11.2	9.7	9.2	9.5	7.3	6.5	7.0
27	---	---	---	11.0	10.7	10.8	9.9	9.6	9.8	7.8	7.0	7.4
28	---	---	---	10.8	10.5	10.7	9.8	9.2	9.6	8.1	7.4	7.7
29	---	---	---	10.6	10.2	10.5	9.3	9.0	9.2	8.1	7.4	7.8
30	---	---	---	10.3	10.1	10.2	9.3	8.8	9.2	8.3	7.7	8.1
31	---	---	---	10.6	10.1	10.3	---	---	---	8.1	7.3	7.8
MONTH	---	---	---	12.7	10.0	11.4	11.3	8.8	9.9	9.3	5.4	7.4

DELAWARE RIVER BASIN

01467200 DELAWARE RIVER AT BENJAMIN FRANKLIN BRIDGE AT PHILADELPHIA, PA--Continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	7.6	6.9	7.2	4.0	3.4	3.7	4.5	3.7	3.9	4.4	2.7	4.0
2	7.5	6.7	7.1	3.8	3.4	3.7	4.4	3.7	3.9	4.6	3.8	4.1
3	7.5	6.5	6.9	3.5	3.1	3.3	4.2	3.6	3.8	4.8	4.0	4.4
4	7.8	6.4	7.1	3.5	3.0	3.2	4.1	3.5	3.7	4.6	3.9	4.3
5	7.5	6.5	6.9	3.7	3.1	3.4	4.0	3.4	3.7	4.6	3.9	4.3
6	7.2	6.1	6.6	4.0	3.6	3.8	3.9	3.5	3.7	5.0	4.1	4.5
7	7.2	6.0	6.3	4.0	3.5	3.7	3.8	3.5	3.6	4.9	2.7	4.4
8	6.7	5.8	6.1	3.9	3.3	3.7	3.6	3.2	3.4	4.7	2.7	4.1
9	6.4	5.5	5.8	3.9	3.4	3.6	---	---	---	4.3	3.7	3.9
10	5.9	5.1	5.5	4.1	3.4	3.7	4.3	3.3	3.7	4.0	3.4	3.8
11	5.9	4.9	5.3	3.9	3.3	3.7	4.1	3.6	3.8	4.3	3.6	3.9
12	6.0	4.9	5.4	4.0	3.4	3.6	4.1	3.5	3.7	4.8	3.9	4.3
13	6.1	5.1	5.5	---	---	---	3.8	3.5	3.7	5.1	4.2	4.6
14	6.1	5.0	5.5	3.8	3.2	3.4	---	---	---	5.3	4.4	4.7
15	6.2	5.1	5.6	---	---	---	4.6	3.4	3.8	5.3	4.5	4.8
16	6.2	5.3	5.7	3.1	2.7	2.9	4.3	3.5	3.8	5.0	4.5	4.8
17	6.3	5.4	5.7	3.1	2.6	2.9	4.1	3.4	3.6	4.9	4.4	4.5
18	6.1	5.3	5.6	4.2	2.8	3.5	---	---	---	4.5	3.8	4.1
19	5.6	5.1	5.3	4.1	3.4	3.8	3.7	3.4	3.6	3.9	3.6	3.8
20	5.4	4.7	5.0	---	---	---	3.5	3.2	3.4	4.3	3.9	4.1
21	5.0	4.3	4.5	3.4	2.9	3.1	3.4	2.8	3.0	---	---	---
22	4.3	3.7	3.9	3.6	2.9	3.2	3.6	2.8	3.0	---	---	---
23	4.0	3.6	3.8	3.9	2.9	3.5	3.7	2.8	3.1	4.3	3.8	4.0
24	4.0	3.6	3.7	4.1	3.5	3.9	3.9	2.9	3.3	4.4	2.3	3.8
25	4.1	3.5	3.7	4.3	3.7	4.1	3.9	3.2	3.5	4.7	4.2	4.4
26	4.5	3.6	4.0	4.6	3.9	4.2	3.9	2.6	3.3	4.8	4.4	4.6
27	4.3	3.6	4.0	4.3	3.6	3.9	3.9	3.2	3.5	4.8	4.3	4.5
28	4.3	3.6	4.0	---	---	---	3.9	3.2	3.5	5.1	2.5	4.5
29	4.3	3.7	4.0	4.3	3.6	3.8	4.2	3.3	3.7	5.4	2.5	4.9
30	4.0	3.6	3.8	4.4	3.6	3.9	4.2	3.5	3.9	5.4	4.8	5.0
31	---	---	---	---	---	---	4.5	3.6	4.1	---	---	---
MONTH	7.8	3.5	5.3	4.6	2.6	3.6	4.6	2.6	3.6	5.4	2.3	4.3

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 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 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.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	149	114	438	254	e190	e115	1810	564	235	104	70	56
2	136	125	405	233	e230	e120	2030	512	190	147	69	57
3	131	627	370	225	206	e130	1550	472	182	133	71	94
4	125	391	348	223	197	e250	1220	444	180	105	65	209
5	116	339	e310	433	e180	552	1010	906	182	97	65	88
6	113	327	e280	340	e170	412	855	1360	176	106	71	73
7	114	277	e260	325	e160	359	745	1020	163	118	78	69
8	101	255	255	326	e160	397	662	854	154	101	70	101
9	292	237	236	309	e150	416	606	743	181	98	66	91
10	603	225	234	287	e150	e370	1410	652	168	92	65	232
11	345	212	476	272	e140	e320	2210	583	142	91	85	104
12	294	262	413	273	e140	e280	1480	530	138	90	136	89
13	259	1040	377	405	e130	e260	1120	482	136	93	90	82
14	262	679	344	401	e130	e260	915	441	133	102	85	77
15	236	572	308	364	e125	286	795	412	126	94	68	101
16	201	489	293	351	e160	260	1350	384	125	83	78	132
17	185	432	485	335	e180	e330	1600	366	117	79	95	119
18	175	394	486	306	164	e445	1230	348	113	79	76	96
19	180	358	450	279	160	411	992	347	146	92	69	86
20	168	328	496	263	154	e397	839	327	150	82	71	71
21	157	329	427	253	151	e380	757	305	162	79	80	73
22	148	538	398	377	163	e360	1070	287	118	73	64	69
23	148	1540	393	303	154	e450	893	275	102	72	63	74
24	140	1060	367	295	139	e1030	801	264	105	71	63	75
25	148	890	328	e270	134	986	726	254	103	71	68	76
26	139	732	312	e260	e125	1070	856	241	159	71	58	233
27	131	644	282	e240	e120	1270	819	227	215	74	61	172
28	124	577	277	e230	e120	1550	727	217	118	68	66	170
29	130	526	278	e220	---	1740	675	209	112	140	56	126
30	118	474	282	e210	---	1620	610	203	107	76	51	110
31	116	---	285	e200	---	1340	---	228	---	71	52	---
TOTAL	5684	14993	10893	9062	4382	18166	32363	14457	4438	2852	2225	3205
MEAN	183	500	351	292	156	586	1079	466	148	92.0	71.8	107
MAX	603	1540	496	433	230	1740	2210	1360	235	147	136	233
MIN	101	114	234	200	120	115	606	203	102	68	51	56
CFSM	1.38	3.76	2.64	2.20	1.18	4.41	8.11	3.51	1.11	.69	.54	.80
IN.	1.59	4.19	3.05	2.53	1.23	5.08	9.05	4.04	1.24	.80	.62	.90

STATISTICS OF MONTHLY MEAN DATA FOR PERIOD OF DAILY RECORD, BY WATER YEAR (WY)

	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
MEAN	177	261	338	327	323	431	443	376	230	173	130	159					
MAX	760	569	805	887	620	929	1079	811	562	471	243	475					
(WY)	1977	1952	1951	1979	1981	1977	1993	1989	1982	1984	1973	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					

SUMMARY STATISTICS

	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		FOR PERIOD OF DAILY RECORD	
ANNUAL TOTAL	94298		122720		277	
ANNUAL MEAN	258		336		441	1952
HIGHEST ANNUAL MEAN					122	1965
LOWEST ANNUAL MEAN					4660	Apr 16 1983
HIGHEST DAILY MEAN	1790	Mar 27	2210	Apr 11	21	Nov 4 1963
LOWEST DAILY MEAN	e78	Feb 13	51	Aug 30	23	Oct 25 1963
ANNUAL SEVEN-DAY MINIMUM	90	Aug 21	57	Aug 27	8570	Nov 25 1950
INSTANTANEOUS PEAK FLOW			2610	Apr 11	13.60	Apr 16 1983
INSTANTANEOUS PEAK STAGE			8.90	Apr 11	19	Oct 30 1963
INSTANTANEOUS LOW FLOW			45	Aug 31	2.08	
ANNUAL RUNOFF (CFSM)	1.94		2.53		28.29	
ANNUAL RUNOFF (INCHES)	26.38		34.32			
10 PERCENT EXCEEDS	487		808		561	
50 PERCENT EXCEEDS	201		223		195	
90 PERCENT EXCEEDS	104		74		74	

- Gage height, 13.29 ft.
- Estimated.

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: 19220-21, 1933.

GAUGE.--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 fair. 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	59	36	134	99	81	e26	951	240	39	17	12	8.7
2	56	35	121	88	66	e25	1080	211	33	18	11	8.3
3	54	151	109	86	63	e24	826	195	31	21	9.6	10
4	49	125	97	86	62	e30	621	138	29	19	8.5	17
5	45	114	93	151	57	e50	456	235	28	17	7.5	15
6	42	110	88	144	54	52	306	420	28	16	7.7	12
7	40	99	79	134	52	45	238	409	26	18	12	10
8	38	90	71	134	50	44	199	300	26	24	19	12
9	98	82	65	128	46	50	173	253	31	20	13	14
10	250	78	63	117	45	54	435	230	32	16	11	53
11	160	72	109	108	44	54	1200	214	32	19	12	24
12	135	78	104	100	42	50	824	193	25	19	23	18
13	115	387	90	131	42	47	596	147	22	19	16	15
14	101	270	83	145	42	51	419	76	21	30	14	14
15	95	219	77	125	40	52	279	67	19	34	13	15
16	86	178	70	118	40	45	502	62	19	20	12	23
17	74	150	124	115	45	65	833	57	18	18	73	22
18	67	132	173	106	e40	103	585	51	18	16	31	20
19	64	115	161	97	e36	90	439	50	22	13	21	18
20	59	101	166	89	e54	85	301	48	27	13	18	16
21	56	96	157	84	e42	80	242	45	25	12	17	16
22	54	152	141	115	e37	77	378	42	26	11	14	16
23	51	721	139	110	e35	77	350	39	24	10	14	15
24	50	506	133	100	e33	197	286	36	20	9.7	13	15
25	53	367	121	106	e31	241	248	34	18	9.4	13	15
26	49	281	113	96	e29	328	306	30	18	9.4	12	43
27	46	228	100	94	e28	477	343	29	28	9.7	12	42
28	43	192	95	93	e27	674	293	30	21	8.7	11	49
29	41	167	95	91	---	918	284	31	19	24	9.9	35
30	40	148	96	86	---	948	265	31	18	15	9.4	30
31	37	---	104	85	---	796	---	33	---	13	9.3	---
TOTAL	2207	5480	3371	3361	1263	5855	14258	3976	743	518.9	478.9	621.0
MEAN	71.2	183	109	108	45.1	189	475	128	24.8	16.7	15.4	20.7
MAX	250	721	173	151	81	948	1200	420	39	34	73	53
MIN	37	35	63	84	27	24	173	29	18	8.7	7.5	8.3
MEAN‡	85.2	192	116	115	53.1	198	483	135	29.2	18.0	20.1	25.5
CFSM‡	1.99	4.48	2.70	2.68	1.24	4.62	11.26	3.15	.68	.42	.47	.59
IN.‡	2.29	5.01	3.11	3.09	1.29	5.33	12.56	3.63	.76	.48	.54	.66

‡ Adjusted for diversion and change in contents at Still Creek Reservoir.

e Estimated.

SCHUYLKILL RIVER BASIN

01469500 LITTLE SCHUYLKILL RIVER AT YAMAQUA, PA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1933 - 1993, BY WATER YEAR (WY) (SINCE REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	49.7	80.7	101	85.4	93.1	139	142	110	65.2	51.6	39.7	45.0
MAX	317	242	288	278	241	365	475	315	430	394	226	259
(WY)	1977	1952	1974	1979	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 1992 CALENDAR YEAR FOR 1993 WATER YEAR WATER YEARS 1933 - 1993

ANNUAL TOTAL	31718			42132.8					
ANNUAL MEAN	86.7			\$97.7			115		
HIGHEST ANNUAL MEAN							83.5		
LOWEST ANNUAL MEAN							\$91.0		
HIGHEST DAILY MEAN	721			Nov 23			1200		
LOWEST DAILY MEAN	18			Aug 25-27			7.5		
ANNUAL SEVEN-DAY MINIMUM	20			Aug 21			9.5		
INSTANTANEOUS PEAK FLOW							1310		
INSTANTANEOUS PEAK STAGE							5.08		
INSTANTANEOUS LOW FLOW							7.5		
ANNUAL RUNOFF (CFSM)	2.02			\$2.28			2.69		
ANNUAL RUNOFF (INCHES)	27.50			\$28.03			36.53		
10 PERCENT EXCEEDS	168						282		
50 PERCENT EXCEEDS	61						52		
90 PERCENT EXCEEDS	29						13		

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								

‡ Adjusted for diversion and change in contents in Still Creek Reservoir.

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

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 highway bridge 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 25.0 mi upstream. Several measurements of water temperature were made during the year. Satellite telemetry at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	398	300	1100	696	e460	e270	6000	1530	500	211	175	e80
2	364	307	e980	628	e550	e260	8370	1350	340	239	167	e72
3	340	1850	e900	591	e640	e300	5480	1220	302	364	158	e150
4	323	1330	e840	589	525	e460	3900	1120	298	253	158	e280
5	299	1050	e780	1140	e460	2170	3020	1450	294	219	155	e160
6	272	988	e720	1140	e410	1450	2430	3140	313	215	149	e100
7	264	815	e680	1040	e380	1110	2000	2340	277	316	172	e78
8	257	725	648	1000	e360	1150	1720	1920	264	220	184	e130
9	389	662	603	924	e350	1350	1530	1640	289	207	170	e220
10	1520	617	579	829	e330	1270	3860	1440	331	193	158	e170
11	879	575	e1100	774	e320	1130	8580	1300	266	181	157	e135
12	747	582	e1700	756	e320	962	5010	1170	246	179	300	e120
13	639	2310	e1300	999	e310	934	3500	1060	236	179	211	e105
14	580	1820	e1100	1240	e300	939	2690	887	226	190	183	e96
15	571	1470	e940	1100	e300	1020	2180	797	227	301	170	161
16	501	1230	859	1020	e320	932	3110	735	234	194	160	312
17	464	1070	1230	963	e520	1180	5310	681	210	176	312	279
18	425	967	1620	874	443	1850	3690	628	199	166	e210	246
19	420	860	1470	782	e400	1380	2850	629	216	170	e160	209
20	409	786	1450	714	e360	1200	2290	582	302	181	144	178
21	385	734	1300	674	e410	1120	1940	538	331	166	176	164
22	369	1270	1150	973	e380	1080	2870	501	309	155	144	165
23	350	4160	1090	877	e350	1180	2610	472	231	144	134	153
24	348	3420	1010	800	e320	3260	2220	451	213	147	126	173
25	371	2660	884	e740	e300	3320	1930	433	203	147	155	155
26	354	2100	837	e660	e290	3400	2150	399	203	149	146	484
27	340	1780	750	e620	e280	3950	2580	373	567	167	117	461
28	320	1520	723	e580	e270	4790	2120	355	277	172	111	602
29	319	1350	729	e540	---	5480	1920	343	243	252	111	411
30	320	1210	726	e520	---	5260	1700	327	223	230	94	310
31	310	---	752	e480	---	4300	---	342	---	186	84	---
TOTAL	13847	40518	30550	25263	10658	58457	99560	30153	8370	6269	5051	6359
MEAN	447	1351	985	815	381	1886	3319	973	279	202	163	212
MAX	1520	4160	1700	1240	640	5480	8580	3140	567	364	312	602
MIN	257	300	579	480	270	260	1530	327	199	144	84	72
CFSM	1.26	3.80	2.78	2.30	1.07	5.31	9.35	2.74	.79	.57	.46	.60
IN.	1.45	4.25	3.20	2.65	1.12	6.13	10.43	3.16	.88	.66	.53	.67

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1947 - 1993, BY WATER YEAR (WY)

	MEAN	409	692	909	781	884	1156	1140	899	567	375	337	357
MAX	1896	1631	2408	2547	1735	2454	3319	2689	3410	1240	1594	1381	
(WY)	1977	1971	1984	1979	1981	1977	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	

SUMMARY STATISTICS

FOR 1992 CALENDAR YEAR

FOR 1993 WATER YEAR

WATER YEARS 1947 - 1993

ANNUAL TOTAL	253317	335055	
ANNUAL MEAN	692	918	708
HIGHEST ANNUAL MEAN			1182
LOWEST ANNUAL MEAN			321
HIGHEST DAILY MEAN	6150	Mar 27	8580
LOWEST DAILY MEAN	174	Aug 27	e72
ANNUAL SEVEN-DAY MINIMUM	188	Aug 22	e96
INSTANTANEOUS PEAK FLOW			10500
INSTANTANEOUS PEAK STAGE			10.64
INSTANTANEOUS LOW FLOW			31
ANNUAL RUNOFF (CFSM)	1.95	2.59	1.99
ANNUAL RUNOFF (INCHES)	26.54	35.11	27.09
10 PERCENT EXCEEDS	1320	2160	1460
50 PERCENT EXCEEDS	495	484	447
90 PERCENT EXCEEDS	249	160	158

- a Computed using estimated daily discharges.
b From rating curve extended above 17,000 ft³/s.
c From floodmark in gage shelter.
e Estimated.

SCHUYLKILL RIVER BASIN

01470756 MAIDEN CREEK AT VIRGINVILLE, PA

LOCATION.--Lat 40°30'51", long 75°53'00", Berks County, Hydrologic Unit 02040203, on right bank 0.9 mi downstream from Sacony Creek, 0.9 mi southwest of Virginville, and 1.0 mi upstream from Moselem Creek.

DRAINAGE AREA.--159 mi².

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

REVISED RECORD.--WDR PA-87-1: 1975(P), 1976(P), 1978(P), 1979(P), 1982-84(P).

GAGE.--Water-stage recorder. Elevation of gage is 310 ft above sea level, from topographic map.

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

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 1972 reached a stage of 17.2 ft, from floodmarks, discharge, about 40,000 ft³/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	100	52	310	217	e160	e92	2010	434	218	57	41	24
2	90	53	276	179	e200	e90	2270	368	110	79	39	20
3	82	1030	248	165	216	e120	1430	321	98	158	37	23
4	74	609	219	173	157	e500	989	295	92	85	31	181
5	65	440	212	647	e140	2070	769	346	92	66	30	92
6	59	404	185	590	e130	1040	627	348	102	72	33	50
7	56	295	175	487	e120	762	521	266	86	298	52	39
8	54	250	161	426	e115	814	450	237	83	154	44	127
9	189	220	143	358	e110	873	396	220	98	133	36	141
10	325	198	137	295	e110	753	2070	203	101	119	31	142
11	194	181	796	266	e105	575	3150	189	78	105	29	88
12	183	181	826	266	e100	463	1460	180	68	93	63	65
13	149	420	644	454	e98	380	936	169	65	87	45	55
14	135	287	509	e526	e96	1600	713	164	62	87	36	49
15	135	251	416	e470	e94	1030	584	153	60	199	28	51
16	115	224	361	e408	e120	326	717	144	80	97	24	207
17	100	205	578	e350	e320	872	899	138	60	81	223	173
18	92	190	667	e310	226	1370	668	132	54	72	111	138
19	91	168	552	267	e190	789	572	146	56	113	62	122
20	83	150	524	239	e170	598	493	147	88	108	48	93
21	78	145	425	221	e220	544	438	136	214	78	66	85
22	75	414	363	401	295	563	854	124	151	66	42	87
23	70	2080	328	324	158	681	662	116	94	58	35	78
24	70	1160	291	286	132	2560	559	111	81	53	33	89
25	81	832	254	e260	e120	2040	486	108	75	50	71	70
26	69	641	237	e230	e110	1680	710	97	71	48	44	366
27	64	540	215	e210	e100	1540	968	96	120	52	34	563
28	59	457	229	e190	e96	1540	726	93	79	51	29	806
29	59	401	226	e180	---	1500	601	94	68	82	38	485
30	57	349	233	e170	---	1200	507	88	65	61	28	335
31	54	---	243	e170	---	922	---	104	---	46	27	---
TOTAL	3107	12827	10983	9735	4208	29887	28235	5767	2769	2908	1490	4844
MEAN	100	428	354	314	150	964	941	186	92.3	93.8	48.1	161
MAX	325	2080	826	647	320	2560	3150	434	218	298	223	806
MIN	54	52	137	165	94	90	396	88	54	46	24	20
CFSM	.63	2.69	2.23	1.98	.95	6.06	5.92	1.17	.58	.59	.30	1.02
IN.	.73	3.00	2.57	2.28	.98	6.99	6.61	1.35	.65	.68	.35	1.13

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1973 - 1993, BY WATER YEAR (WY)

	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
MEAN	164	233	339	341	344	418	408	325	191	143	98.4	143									
MAX	505	571	833	982	565	964	1049	1103	528	457	247	613									
(WY)	1980	1978	1978	1979	1979	1993	1983	1989	1982	1984	1978	1987									
MIN	29.2	67.5	49.7	35.3	110	124	92.4	119	58.1	44.4	21.9	17.6									
(WY)	1981	1981	1981	1981	1980	1985	1985	1986	1987	1987	1980	1983									

SUMMARY STATISTICS

FOR 1992 CALENDAR YEAR

FOR 1993 WATER YEAR

WATER YEARS 1973 - 1993

ANNUAL TOTAL	78755	116760	260	1984
ANNUAL MEAN	215	320	123	1985
HIGHEST ANNUAL MEAN			403	1985
LOWEST ANNUAL MEAN			123	1985
HIGHEST DAILY MEAN	2600	Mar 27	7010	May 6 1989
LOWEST DAILY MEAN	37	Sep 21	11	Sep 24 1980 ^a
ANNUAL SEVEN-DAY MINIMUM	43	Sep 16	13	Sep 24 1980
INSTANTANEOUS PEAK FLOW			17000	Jan 24 1979
INSTANTANEOUS PEAK STAGE		8.09	12.67	Jan 24 1979
INSTANTANEOUS LOW FLOW		20	11	Aug 25 1980 ^b
ANNUAL RUNOFF (CFSM)	1.35	2.01	1.64	
ANNUAL RUNOFF (INCHES)	18.43	27.32	22.26	
10 PERCENT EXCEEDS	424	765	565	
50 PERCENT EXCEEDS	142	161	152	
90 PERCENT EXCEEDS	60	52	42	

^a Also Sept. 25.

^b Also Sept. 24, 25.

^c Estimated.

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. 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 fair. 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 not determined.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	60	39	105	85	94	81	e560	233	104	72	e46	45
2	67	39	115	81	94	83	e669	216	97	91	e44	e40
3	67	307	114	77	87	97	521	203	96	108	e41	e30
4	66	128	107	78	98	366	406	193	95	80	e64	89
5	62	113	106	151	96	772	347	216	95	e75	e98	52
6	60	120	101	117	95	350	307	201	95	e70	e82	49
7	57	99	100	110	91	336	275	181	91	e63	e52	47
8	59	97	96	110	89	298	250	172	90	62	e62	105
9	79	91	93	102	77	253	231	165	93	60	e84	64
10	121	89	95	102	88	217	478	158	91	61	e52	49
11	79	86	275	99	88	209	564	154	87	63	e40	e46
12	73	89	176	99	90	189	368	149	84	64	e29	e43
13	69	152	155	146	96	169	312	149	83	54	e35	e40
14	65	111	140	141	90	142	274	143	82	63	e72	e37
15	58	111	122	127	87	154	254	138	81	67	e72	e52
16	55	107	120	124	99	155	478	134	81	62	e51	161
17	48	95	179	120	117	256	544	130	78	61	e44	73
18	45	90	160	111	102	318	329	129	77	60	51	64
19	46	87	140	100	93	237	285	132	78	63	50	57
20	43	84	142	98	92	213	277	126	82	63	e47	53
21	44	88	131	103	94	217	258	123	80	60	e56	52
22	44	158	131	131	94	242	513	121	79	58	e50	49
23	53	658	107	115	90	278	304	117	76	58	e43	48
24	57	199	101	109	87	757	278	116	74	56	e47	47
25	59	179	93	111	84	588	256	109	73	54	e49	47
26	56	155	91	102	84	496	433	110	76	48	e40	93
27	56	141	85	101	83	430	414	106	118	53	e35	81
28	55	133	86	99	81	404	307	103	78	53	e31	86
29	54	130	87	97	---	363	274	102	75	e52	e29	63
30	54	121	92	92	---	e329	252	83	73	e50	e35	58
31	54	---	91	94	---	e440	---	96	---	e48	e32	---
TOTAL	1865	4096	3736	3332	2560	9439	11018	4508	2562	1952	1563	1820
MEAN	60.2	137	121	107	91.4	304	367	145	85.4	63.0	50.4	60.7
MAX	121	658	275	151	117	772	669	233	118	108	98	161
MIN	43	39	85	77	77	81	231	83	73	48	29	30
CFSM	.90	2.05	1.81	1.62	1.37	4.58	5.52	2.19	1.28	.95	.76	.91
IN.	1.04	2.29	2.09	1.86	1.43	5.28	6.16	2.52	1.43	1.09	.87	1.02

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1975 - 1993, BY WATER YEAR (WY)

	MEAN	84.3	92.0	109	124	130	153	148	118	99.8	89.1	67.5	69.6
MAX	250	172	253	385	264	325	367	277	208	216	129	181	
(WY)	1977	1990	1984	1979	1979	1978	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 1992 CALENDAR YEAR

FOR 1993 WATER YEAR

WATER YEARS 1975 - 1993

ANNUAL TOTAL	29624	48451	
ANNUAL MEAN	80.9	133	105
HIGHEST ANNUAL MEAN			156
LOWEST ANNUAL MEAN			55.7
HIGHEST DAILY MEAN	658	Nov 23	772
LOWEST DAILY MEAN	31	Sep 2	e29
ANNUAL SEVEN-DAY MINIMUM	e35	Feb 8	e35
INSTANTANEOUS PEAK FLOW			1760
INSTANTANEOUS PEAK STAGE			6.56
ANNUAL RUNOFF (CFSM)	1.22		Nov 23
ANNUAL RUNOFF (INCHES)	16.57		2.00
10 PERCENT EXCEEDS	124		278
50 PERCENT EXCEEDS	67		93
90 PERCENT EXCEEDS	45		48

a Computed using estimated daily discharges.

b From rating curve extended above 740 ft³/s, on basis of contracted-opening measurement of peak flow.

e Estimated.

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 recording instrument.

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, 25.5°C, July 8, 10; minimum, 0.0°C, Feb. 19.

WATER TEMPERATURE, (DEG. C), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	12.5	11.5	12.0	9.0	8.0	8.5	7.5	7.0	7.5	7.0	6.5	7.0
2	13.5	12.0	12.5	8.0	7.5	7.5	7.5	7.0	7.0	6.5	5.5	5.5
3	14.5	13.0	13.5	10.5	7.5	9.5	7.0	6.5	7.0	5.5	5.0	5.0
4	14.5	14.0	14.5	10.5	10.0	10.0	6.5	6.0	6.0	6.5	5.0	6.0
5	14.0	13.0	13.5	11.0	10.0	10.5	6.0	4.0	5.5	7.0	6.0	7.0
6	13.0	12.0	12.0	10.0	9.0	9.0	4.5	3.0	3.5	7.0	6.0	6.5
7	12.0	11.5	12.0	9.0	8.5	8.5	5.0	4.5	4.5	6.0	5.5	6.0
8	13.5	11.5	12.0	8.5	7.5	8.0	5.0	4.5	4.5	6.0	5.5	6.0
9	15.0	13.5	14.5	7.5	6.5	6.5	4.5	3.5	4.0	6.0	5.0	5.5
10	16.0	15.0	15.5	8.0	7.0	7.5	3.5	1.5	2.5	5.0	4.5	4.5
11	15.5	14.5	15.0	8.5	8.0	8.5	8.5	2.5	7.5	4.5	4.0	4.0
12	14.5	13.5	14.0	11.0	8.5	9.5	8.0	6.0	6.5	4.5	4.0	4.0
13	13.5	12.5	13.0	11.0	9.5	10.5	6.5	5.5	6.0	5.0	4.5	5.0
14	12.5	11.0	11.5	9.5	7.0	8.0	5.5	5.0	5.5	5.0	5.0	5.0
15	14.0	11.5	13.0	7.0	6.0	6.0	5.5	4.0	4.5	5.0	5.0	5.0
16	15.0	14.0	14.5	6.0	5.0	5.5	6.5	5.0	5.5	5.0	4.5	5.0
17	15.0	10.5	13.0	6.5	5.5	6.0	9.0	6.0	7.5	5.0	4.5	4.5
18	10.5	9.0	9.5	7.0	6.5	7.0	8.0	5.5	6.0	4.5	4.0	4.5
19	9.0	6.5	8.5	7.0	6.5	6.5	6.5	5.0	6.0	4.0	3.5	3.5
20	7.5	6.0	7.0	6.5	5.5	6.0	7.5	6.0	7.0	4.0	3.0	3.5
21	9.5	7.5	8.5	7.5	6.5	6.5	7.5	5.5	6.0	4.5	3.5	4.0
22	9.5	7.5	8.5	9.0	7.5	8.0	7.0	6.0	6.5	6.5	4.5	6.0
23	9.5	8.0	8.5	11.5	9.0	11.0	7.0	6.0	6.5	6.5	5.5	6.0
24	10.0	8.5	9.0	11.0	10.0	10.5	7.0	4.5	6.0	6.5	4.5	5.5
25	10.0	8.5	9.5	10.0	10.0	10.0	4.5	4.0	4.5	6.5	4.0	5.0
26	9.0	7.5	8.5	10.0	10.0	10.0	4.5	4.0	4.0	4.0	2.0	3.0
27	10.5	9.0	9.5	10.0	9.0	9.5	4.0	3.5	3.5	3.5	2.0	3.0
28	9.5	8.0	9.0	9.0	8.5	8.5	4.5	3.5	4.0	3.5	2.5	3.0
29	9.5	8.5	9.0	8.5	8.5	8.5	6.5	4.5	5.0	3.5	2.0	3.0
30	10.0	9.5	10.0	8.5	7.5	8.0	7.0	6.5	6.5	2.0	.5	1.5
31	10.0	9.0	9.5	---	---	---	7.0	7.0	7.0	3.5	2.0	2.5
MONTH	16.0	6.0	11.5	11.5	5.0	8.5	9.0	1.5	5.5	7.0	.5	4.5

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 510 ft above sea level, from topographic map. Gage moved 760 ft upstream on Mar. 17, 1986, at datum 19.6 ft higher.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.6	1.9	5.9	6.4	e5.4	e3.5	72	17	6.3	3.8	1.9	e1.9
2	1.5	2.6	5.7	5.9	e8.0	e3.4	72	15	5.1	7.0	1.9	e1.5
3	1.4	27	5.4	5.9	6.3	e4.5	44	14	5.0	6.3	1.8	e2.3
4	1.3	5.1	5.2	6.1	e5.6	e12	34	14	5.1	5.9	2.4	e4.5
5	1.3	4.5	5.6	16	e5.4	30	28	20	5.6	6.0	e3.9	e3.0
6	1.3	5.7	5.0	9.0	e5.2	15	24	15	5.4	4.4	e3.4	e2.8
7	1.5	3.9	5.0	8.1	e5.0	13	21	13	4.7	3.5	e2.8	e2.6
8	1.3	3.4	4.8	8.7	e4.7	14	19	12	4.8	2.9	e3.7	e5.0
9	8.3	3.3	4.6	8.0	e4.6	16	17	11	8.0	2.2	e3.3	e3.5
10	5.4	3.3	5.6	7.2	e4.5	13	65	10	5.3	2.0	e2.5	e2.7
11	3.1	3.3	21	7.0	e4.3	12	49	10	4.6	2.0	e2.0	e2.4
12	2.0	3.6	11	8.1	e5.4	11	31	9.7	4.4	2.0	e1.7	e2.2
13	1.6	6.9	8.7	15	e7.0	12	25	10	4.3	2.0	e1.4	e2.1
14	1.6	3.9	7.7	11	6.3	13	22	9.1	4.1	2.1	e2.1	e2.0
15	1.6	3.6	7.3	9.6	5.9	11	20	8.5	4.0	2.0	e2.7	e3.0
16	1.5	3.4	7.2	9.2	12	9.7	48	8.2	3.9	2.0	e2.2	e7.6
17	1.8	3.3	14	8.8	9.7	30	33	7.9	3.7	1.9	e1.9	e4.0
18	1.4	3.2	9.7	8.1	6.6	22	24	8.2	3.7	1.9	e2.1	e3.5
19	1.7	3.2	8.6	7.6	e5.2	15	21	9.2	3.6	2.4	e2.0	e3.2
20	1.7	3.1	9.1	7.2	e4.8	13	19	10	3.8	3.1	e1.9	e3.0
21	1.8	3.4	7.9	7.2	e4.5	14	19	7.7	4.3	2.4	e2.4	e2.9
22	1.6	6.3	e7.2	11	e4.2	14	53	7.1	3.6	2.3	e2.1	e2.7
23	1.7	72	e6.8	8.4	e4.0	18	26	6.7	3.1	2.1	e1.9	e2.6
24	1.8	12	e6.2	e7.6	e3.8	51	22	6.7	3.0	2.0	e2.1	e2.5
25	2.1	11	e6.0	e6.8	e3.7	36	20	6.2	3.0	2.1	e2.3	e2.4
26	1.9	9.0	e5.6	e6.6	e3.6	39	40	6.0	3.2	2.2	e2.0	e4.2
27	1.8	8.1	e5.4	e6.2	e3.5	43	27	5.7	4.3	2.2	e1.8	e3.9
28	1.8	7.0	e5.0	e5.8	e3.5	58	22	5.5	3.3	1.9	e1.6	e4.1
29	1.8	6.4	e4.9	e5.8	---	54	20	5.6	3.3	2.3	e1.5	e3.5
30	1.9	6.1	e7.8	e5.6	---	43	18	5.2	3.2	2.0	e1.8	e3.2
31	2.0	---	7.5	e5.6	---	33	---	5.8	---	1.9	e2.1	---
TOTAL	63.1	239.5	227.4	249.5	152.7	676.1	955	300.0	129.7	88.8	69.2	94.8
MEAN	2.04	7.98	7.34	8.05	5.45	21.8	31.8	9.68	4.32	2.86	2.23	3.16
MAX	8.3	72	21	16	12	58	72	20	8.0	7.0	3.9	7.6
MIN	1.3	1.9	4.6	5.6	3.5	3.4	17	5.2	3.0	1.9	1.4	1.5
CFSM	.49	1.91	1.75	1.93	1.30	5.22	7.62	2.32	1.03	.69	.53	.76
IN.	.56	2.13	2.02	2.22	1.36	6.02	8.50	2.67	1.15	.79	.62	.84

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 1993, BY WATER YEAR (WY)

MEAN	2.84	5.57	6.95	6.01	8.06	10.9	12.6	10.8	5.70	4.25	2.85	2.56
MAX	6.38	10.3	17.3	11.9	14.1	21.8	31.8	24.7	14.8	11.7	8.98	4.85
(WY)	1990	1987	1984	1990	1986	1993	1993	1989	1989	1984	1986	1986
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

SUMMARY STATISTICS

FOR 1992 CALENDAR YEAR

FOR 1993 WATER YEAR

WATER YEARS 1983 - 1993

ANNUAL TOTAL	1744.2	3245.8	
ANNUAL MEAN	4.77	8.89	6.59
HIGHEST ANNUAL MEAN			9.71
LOWEST ANNUAL MEAN			3.82
HIGHEST DAILY MEAN	80	Mar 27	134
LOWEST DAILY MEAN	1.3	Sep 18a	.11
ANNUAL SEVEN-DAY MINIMUM	1.4	Oct 2	.19
INSTANTANEOUS PEAK FLOW		435	478
INSTANTANEOUS PEAK STAGE		3.51	4.16
ANNUAL RUNOFF (CFSM)	1.14	2.13	1.58
ANNUAL RUNOFF (INCHES)	15.52	28.89	21.41
10 PERCENT EXCEEDS	7.6	20	13
50 PERCENT EXCEEDS	3.6	5.2	4.4
90 PERCENT EXCEEDS	1.7	1.9	1.2

a Also Sept. 20, 21, 24.

b From rating curve extended above 70 ft³/s on basis of slope-area measurement of peak flow.

c Estimated.

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 RECORD.--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 except those for estimated daily discharges, which are fair. Flow regulated since April 1979 by Blue Marsh Lake (01470870) 0.8 mi upstream. Satellite telemetry at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	310	111	264	267	230	166	990	545	223	119	81	90
2	330	112	245	228	159	182	1020	509	241	98	76	60
3	328	588	244	180	136	193	1370	471	157	95	68	107
4	324	908	224	177	212	304	1650	471	136	95	101	e170
5	323	496	189	512	214	730	968	589	136	93	156	e145
6	323	298	187	408	165	1540	795	442	136	206	119	e140
7	323	264	235	197	165	1860	719	395	166	372	59	e105
8	319	264	266	328	192	1640	620	411	e170	312	59	e110
9	320	200	206	317	194	1130	615	363	e180	133	52	e140
10	323	143	173	272	165	823	828	330	e210	117	45	e195
11	320	142	606	272	164	700	564	299	163	117	46	e198
12	323	172	e934	272	217	505	1430	301	e160	117	46	e100
13	319	312	e393	369	190	459	1770	306	e150	100	71	e54
14	432	342	487	478	190	458	1600	283	e105	e94	115	53
15	207	338	e401	403	190	390	1030	264	e88	e105	115	55
16	136	276	e310	370	190	511	727	264	102	e90	87	561
17	131	197	e400	370	415	703	1260	264	123	e86	64	492
18	131	196	558	370	294	1100	1260	241	105	e86	63	158
19	106	190	578	309	178	936	1340	227	87	e92	64	158
20	81	166	473	228	150	629	1080	245	88	83	67	104
21	69	149	406	221	149	626	699	247	119	83	67	54
22	70	149	342	338	276	654	871	215	146	83	67	45
23	71	1060	313	278	234	737	1230	215	147	83	95	39
24	72	1570	248	278	148	934	534	215	128	83	121	62
25	72	1110	212	332	147	1130	538	213	114	84	89	117
26	94	706	212	319	147	1220	825	178	114	84	58	290
27	111	501	212	242	147	1230	1280	131	115	85	41	326
28	111	323	240	251	146	1220	1220	137	194	82	53	410
29	111	303	267	255	---	1610	896	144	201	81	57	553
30	111	290	267	230	---	1970	756	145	127	83	57	193
31	111	---	267	230	---	1800	---	146	---	82	91	---
TOTAL	6412	11876	10359	9301	5404	28090	30485	9206	4331	3523	2350	5284
MEAN	207	396	334	300	193	906	1016	297	144	114	75.8	176
MAX	432	1570	934	512	415	1970	1770	589	241	372	156	561
MIN	69	111	173	177	136	166	534	131	87	81	41	39
MEAN [‡]	131	395	337	300	195	914	1093	300	141	117	74.8	176
CFSM [‡]	.75	2.26	1.93	1.71	1.11	5.22	6.25	1.71	.81	.67	.43	1.01
IN. [‡]	.86	2.52	2.22	1.97	1.16	6.02	6.97	1.97	.90	.77	.50	1.13

[‡] Adjusted for change in contents of Blue Marsh Lake.

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 - 1993, BY WATER YEAR (WY) (SINCE REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	195	213	300	313	341	396	344	326	235	185	114	141
MAX	612	396	876	1151	596	906	1016	1058	606	543	234	379
(WY)	1980	1993	1984	1979	1979	1993	1993	1989	1982	1984	1984	1987
MIN	66.6	62.4	77.2	91.7	131	135	49.8	147	69.9	79.3	55.4	54.0
(WY)	1982	1981	1981	1981	1980	1981	1985	1985	1979	1985	1981	1983

SUMMARY STATISTICS

FOR 1992 CALENDAR YEAR

FOR 1993 WATER YEAR

WATER YEARS 1979 - 1993

ANNUAL TOTAL	86044		126621									
ANNUAL MEAN	235	‡ 235	347	‡348					258	‡271		
HIGHEST ANNUAL MEAN									433			1984
LOWEST ANNUAL MEAN									127			1981
HIGHEST DAILY MEAN			1730	Mar 28		1970	Mar 30		3950		Apr 18	1983
LOWEST DAILY MEAN			27	Apr 4-10		39	Sep 23		27		Aug 23	1985 ^a
ANNUAL SEVEN-DAY MINIMUM			27	Apr 4		54	Aug 7		27		Apr 4	1992
INSTANTANEOUS PEAK FLOW						2050	Mar 31		4000		Apr 18	1983
INSTANTANEOUS PEAK STAGE						6.00	Mar 31		7.56		Apr 18	1983
ANNUAL RUNOFF (CFSM)		1.34	‡1.34			1.98	‡1.99		1.48	‡1.55		
ANNUAL RUNOFF (INCHES)		18.29	‡18.51			26.92	‡26.99		20.05	‡21.14		
10 PERCENT EXCEEDS		441				881			509			
50 PERCENT EXCEEDS		169				214			167			
90 PERCENT EXCEEDS		70				82			65			

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	b16100			Jun 22	1972							
INSTANTANEOUS PEAK STAGE	c18.70			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											

‡ Adjusted for change in contents of Blue Marsh Lake.

^a Also April 4-10, 1992.^b From rating curve extended above 3,000 ft³/s, on basis of runoff comparison with downstream station.^c From floodmark.

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 recording instrument. 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, 23.5°C, several days in August and September; minimum, 2.0°C, several days in February and March.

WATER TEMPERATURE, (DEG. C), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	19.0	18.0	18.0	12.0	11.5	11.5	9.0	9.0	9.0	3.5	3.0	3.0
2	18.5	18.0	18.0	11.5	11.5	11.5	9.0	8.5	8.5	3.0	3.0	3.0
3	18.5	18.0	18.0	12.0	11.5	11.5	8.5	8.0	8.5	3.5	3.0	3.0
4	18.0	17.0	17.5	12.0	11.5	12.0	8.0	8.0	8.0	3.5	3.0	3.0
5	17.0	16.5	17.0	12.0	11.5	12.0	8.0	7.0	7.5	4.0	3.5	3.5
6	17.0	16.5	17.0	11.5	11.5	11.5	7.0	7.0	7.0	4.0	4.0	4.0
7	17.0	16.5	17.0	11.5	11.0	11.0	7.0	6.5	6.5	4.0	4.0	4.0
8	17.0	16.5	17.0	11.0	10.5	11.0	6.5	6.0	6.5	4.0	4.0	4.0
9	17.0	16.5	16.5	10.5	10.5	10.5	6.0	5.5	6.0	4.0	4.0	4.0
10	17.0	16.5	16.5	10.5	10.5	10.5	5.5	5.0	5.5	4.0	3.5	3.5
11	16.5	16.5	16.5	10.5	10.5	10.5	5.5	5.5	5.5	3.5	3.5	3.5
12	17.0	16.5	16.5	10.5	10.0	10.5	5.5	5.0	5.0	3.5	3.5	3.5
13	16.5	16.5	16.5	11.0	10.5	10.5	5.0	5.0	5.0	4.0	3.5	3.5
14	16.5	16.5	16.5	10.5	10.0	10.5	5.0	4.5	4.5	4.0	3.5	3.5
15	16.5	16.0	16.5	10.0	9.5	10.0	4.5	4.5	4.5	3.5	3.5	3.5
16	16.5	16.0	16.0	9.5	9.5	9.5	---	---	---	3.5	3.5	3.5
17	16.0	15.0	15.5	9.5	9.0	9.5	4.0	4.0	4.0	3.5	3.5	3.5
18	15.5	15.0	15.5	9.0	9.0	9.0	4.0	4.0	4.0	3.5	3.5	3.5
19	15.0	14.0	15.0	9.0	8.5	9.0	4.0	4.0	4.0	3.5	3.0	3.5
20	14.5	14.0	14.0	8.5	8.0	8.5	4.0	4.0	4.0	3.5	3.0	3.5
21	14.5	14.0	14.0	8.5	8.0	8.5	4.0	3.5	4.0	3.5	3.0	3.5
22	14.5	13.0	13.5	8.5	8.5	8.5	4.0	3.5	4.0	3.5	3.5	3.5
23	13.5	12.5	13.0	9.5	8.5	9.0	4.0	3.5	3.5	3.5	3.5	3.5
24	13.0	12.0	12.5	9.0	8.5	9.0	3.5	3.0	3.5	4.0	3.5	3.5
25	13.0	11.5	12.0	9.0	9.0	9.0	3.5	3.0	3.0	4.0	3.5	3.5
26	13.0	11.5	12.5	9.5	9.0	9.0	3.5	2.5	2.5	3.5	3.5	3.5
27	13.0	12.5	12.5	9.5	9.0	9.5	2.5	2.5	2.5	4.0	3.5	3.5
28	13.0	12.5	12.5	9.5	9.0	9.5	3.0	2.5	3.0	3.5	3.0	3.5
29	13.0	12.5	12.5	9.5	9.0	9.5	3.0	3.0	3.0	3.5	3.0	3.5
30	12.5	12.0	12.5	9.0	9.0	9.0	3.0	3.0	3.0	3.0	3.0	3.0
31	12.0	11.5	12.0	---	---	---	3.5	3.0	3.0	3.5	3.0	3.0
MONTH	19.0	11.5	15.0	12.0	8.0	10.0	9.0	2.5	5.0	4.0	3.0	3.5

SCHUYLKILL RIVER BASIN

01470960 TULPEHOCKEN CREEK AT BLUE MARSH DAMSITE NEAR READING, PA--Continued

WATER TEMPERATURE, (DEG. C), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	3.0	2.5	3.0	3.5	3.0	3.0	8.5	7.5	8.0	12.5	11.5	12.0
2	2.5	2.0	2.0	3.5	3.0	3.5	9.0	8.0	8.5	12.5	12.0	12.5
3	2.5	2.0	2.0	4.0	3.5	3.5	9.0	8.5	9.0	13.0	12.0	12.0
4	2.5	2.0	2.5	3.5	3.5	3.5	9.0	8.5	8.5	13.0	12.0	12.5
5	2.5	2.0	2.5	3.5	3.5	3.5	9.0	8.5	8.5	13.5	12.5	13.0
6	2.5	2.0	2.0	3.5	3.0	3.5	8.5	8.0	8.5	15.0	12.5	14.0
7	2.5	2.0	2.5	3.0	3.0	3.0	8.5	8.0	8.5	15.0	13.0	14.5
8	2.5	2.0	2.5	3.0	3.0	3.0	9.0	8.0	8.5	15.5	14.5	15.0
9	3.0	2.5	2.5	3.0	3.0	3.0	9.0	8.0	8.5	16.0	15.0	15.5
10	3.0	2.5	3.0	3.0	3.0	3.0	9.5	8.5	9.0	16.0	15.5	16.0
11	3.5	3.0	3.0	3.5	3.0	3.0	10.0	9.0	9.5	17.5	15.5	16.5
12	3.0	2.5	3.0	3.5	3.0	3.0	10.0	9.0	9.5	18.0	16.0	17.0
13	3.0	2.5	3.0	3.5	2.5	3.0	10.5	9.5	10.0	17.0	16.0	16.5
14	3.0	3.0	3.0	3.0	2.5	2.5	11.0	10.0	10.5	17.0	16.0	16.5
15	3.5	3.0	3.0	2.5	2.0	2.5	10.5	10.5	10.5	17.5	16.0	17.0
16	3.0	3.0	3.0	2.5	2.5	2.5	11.0	10.0	10.5	17.5	16.0	17.0
17	3.0	3.0	3.0	2.5	2.5	2.5	11.5	10.5	11.0	17.0	16.0	17.0
18	3.0	2.5	3.0	3.0	2.5	2.5	11.5	11.0	11.0	16.5	16.0	16.5
19	2.5	2.5	2.5	3.0	2.5	3.0	12.5	11.5	12.0	16.5	16.0	16.5
20	3.0	2.5	2.5	3.0	3.0	3.0	12.5	12.0	12.0	16.5	16.0	16.0
21	3.0	2.5	3.0	3.0	3.0	3.0	12.5	12.0	12.0	16.5	15.5	16.0
22	3.5	3.0	3.0	3.5	3.0	3.5	12.5	11.5	12.0	17.0	16.0	16.5
23	3.5	3.0	3.0	3.5	3.5	3.5	11.5	11.5	11.5	17.0	16.0	16.5
24	3.5	2.5	3.0	3.5	3.5	3.5	12.0	11.5	12.0	17.5	16.5	17.0
25	3.5	2.5	3.0	4.0	3.5	4.0	12.5	12.0	12.0	18.0	16.5	17.5
26	3.5	3.0	3.0	5.0	4.0	4.5	12.0	11.5	11.5	18.0	17.0	17.5
27	3.5	3.0	3.0	5.5	4.5	5.0	12.0	11.0	11.5	18.5	17.0	17.5
28	3.5	3.0	3.0	5.5	5.0	5.0	12.0	11.5	12.0	18.5	17.0	17.5
29	---	---	---	7.0	5.5	6.0	12.5	11.5	12.0	18.5	17.5	18.0
30	---	---	---	7.5	7.0	7.0	12.5	11.5	12.0	18.5	17.0	18.0
31	---	---	---	8.5	7.5	8.0	---	---	---	18.0	17.5	17.5
MONTH	3.5	2.0	3.0	8.5	2.0	3.5	12.5	7.5	10.5	18.5	11.5	16.0
	JUNE			JULY			AUGUST			SEPTEMBER		
1	18.5	17.5	18.0	19.0	18.0	18.5	21.5	19.5	20.0	23.0	21.0	22.0
2	18.0	17.5	17.5	18.5	18.0	18.5	21.0	18.5	19.5	23.0	21.0	21.5
3	18.5	17.5	18.0	19.5	18.0	18.5	20.5	18.5	19.0	23.5	21.5	22.0
4	18.5	17.5	18.0	20.5	18.5	19.0	21.0	18.5	19.5	22.5	21.5	22.0
5	18.0	17.5	17.5	20.5	18.5	19.0	21.0	19.5	20.0	22.5	21.5	22.0
6	18.5	17.5	18.0	19.5	18.5	19.0	20.5	19.0	19.5	23.0	21.5	22.0
7	18.5	17.5	18.0	20.5	19.0	20.0	20.0	19.0	19.5	---	---	---
8	18.5	18.0	18.0	20.5	18.5	19.5	21.5	19.0	19.5	---	---	---
9	19.0	18.0	18.5	20.0	17.0	18.5	22.0	19.0	20.0	---	---	---
10	20.0	18.0	19.0	19.0	17.0	18.0	21.5	19.0	20.0	---	---	---
11	20.0	19.0	19.5	19.0	17.5	18.0	20.5	19.0	19.5	---	---	---
12	20.0	19.0	19.5	19.0	17.5	18.0	21.5	19.5	20.0	---	---	---
13	20.5	19.0	19.5	20.0	18.0	19.0	22.0	19.5	20.5	---	---	---
14	21.5	19.0	20.0	20.0	18.5	19.0	22.0	20.5	21.0	23.5	21.0	22.0
15	21.5	19.0	20.5	---	---	---	22.0	20.0	21.0	23.5	21.0	22.0
16	21.5	18.5	19.5	---	---	---	21.5	20.5	21.0	23.5	21.5	22.5
17	19.5	18.0	19.0	---	---	---	21.0	20.5	20.5	22.0	21.5	21.5
18	20.0	18.5	19.0	---	---	---	21.5	20.0	20.5	21.5	21.0	21.5
19	20.5	18.5	19.5	---	---	---	22.5	20.0	20.5	22.0	21.0	21.0
20	20.5	18.5	19.5	---	---	---	21.5	20.5	21.0	21.0	20.0	20.5
21	20.0	18.5	19.5	---	---	---	22.0	20.5	21.0	20.0	19.5	20.0
22	20.0	18.5	19.0	---	---	---	22.5	20.0	21.0	21.0	19.0	19.5
23	19.0	18.5	19.0	---	---	---	22.5	20.5	21.0	21.0	18.5	19.5
24	20.0	18.0	19.0	---	---	---	22.5	21.0	21.5	22.5	18.0	19.0
25	20.5	18.5	19.5	---	---	---	22.5	21.5	22.0	19.5	18.5	19.0
26	21.0	18.5	19.5	---	---	---	23.5	21.0	21.5	19.5	18.5	19.0
27	21.0	18.5	20.0	---	---	---	23.5	21.0	22.0	19.5	19.0	19.0
28	20.5	18.5	19.5	21.0	19.0	20.5	23.5	21.0	21.5	19.0	18.5	19.0
29	19.0	18.5	19.0	21.0	19.0	20.0	23.5	20.5	21.5	19.0	18.0	18.5
30	19.5	18.5	18.5	21.0	19.0	20.0	23.0	21.0	21.5	18.0	17.5	18.0
31	---	---	---	20.5	19.5	19.5	22.5	21.0	21.5	---	---	---
MONTH	21.5	17.5	19.0	21.0	17.0	19.0	23.5	18.5	20.5	23.5	17.5	20.5
YEAR	23.5	2.0	12.0									

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, 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 except those for estimated daily discharges, which are fair. 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	309	140	314	306	280	211	1210	618	267	149	101	106
2	325	144	292	279	216	231	1230	581	285	141	93	61
3	322	638	290	229	180	247	1450	542	206	138	82	113
4	320	834	272	228	255	546	1760	538	182	126	113	224
5	320	501	239	532	264	1050	1050	636	183	122	189	177
6	320	323	236	473	213	1610	837	524	182	216	160	175
7	320	282	267	265	210	1920	772	469	205	371	81	138
8	320	278	298	387	235	1710	664	483	224	333	79	117
9	343	222	253	388	242	1200	652	432	219	166	70	167
10	347	166	220	337	210	843	1020	405	243	145	54	239
11	335	166	694	332	210	746	833	374	206	145	57	235
12	335	189	849	325	258	566	1520	372	193	145	65	166
13	331	317	468	417	239	521	1860	372	194	129	79	72
14	417	340	507	e495	234	516	1690	348	157	114	140	70
15	246	337	446	e460	233	459	1100	326	116	126	140	78
16	167	286	345	e430	255	525	816	324	136	113	113	495
17	160	213	438	e410	441	788	1310	319	162	112	82	495
18	163	210	562	e410	353	1170	1290	301	143	111	78	197
19	141	205	586	e400	e240	1030	1350	291	119	121	77	189
20	111	186	505	e320	e190	686	1120	304	121	115	92	142
21	95	165	451	272	e190	693	731	301	152	112	98	89
22	88	176	388	383	e290	723	988	272	184	112	85	75
23	88	1300	366	326	e240	811	1280	271	181	111	110	59
24	89	1580	310	326	198	1250	644	269	163	111	150	79
25	91	1130	273	366	196	1350	606	267	143	111	155	158
26	112	703	270	361	195	1390	934	239	143	111	124	357
27	140	544	267	291	194	1360	1360	185	149	112	75	460
28	140	380	285	296	193	1330	1330	190	210	106	69	461
29	140	359	306	301	---	1660	933	196	234	103	63	567
30	140	340	306	280	---	2030	835	195	157	102	60	256
31	140	---	306	280	---	1910	---	203	---	101	92	---
TOTAL	6915	12654	11609	10905	6654	31082	33175	11147	5459	4330	3026	6217
MEAN	223	422	374	352	238	1003	1106	360	182	140	97.6	207
MAX	417	1580	849	532	441	2030	1860	636	285	371	189	567
MIN	88	140	220	228	180	211	606	185	116	101	54	59
MEAN [‡]	147	421	377	352	240	1011	1183	363	179	143	96.6	207
CFSM [‡]	.70	2.00	1.79	1.67	1.14	4.79	5.61	1.72	.85	.68	.46	.98
IN. [‡]	.81	2.23	2.06	1.93	1.19	5.52	6.26	1.98	.95	.78	.53	1.09

[‡] Adjusted for change in contents of Blue Marsh Lake.

e Estimated.

SCHUYLKILL RIVER BASIN

01471000 TULPEHOCKEN CREEK NEAR READING, PA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1980 - 1993, BY WATER YEAR (WY) (SINCE REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	227	264	355	298	378	436	418	399	293	219	144	163
MAX	624	432	1044	545	663	1003	1191	1226	673	661	322	456
(WY)	1980	1990	1984	1991	1986	1993	1983	1989	1982	1984	1984	1987
MIN	83.5	83.6	93.8	99.8	149	153	64.2	179	122	115	63.1	63.0
(WY)	1982	1981	1981	1981	1980	1981	1985	1981	1986	1985	1981	1983

SUMMARY STATISTICS

FOR 1992 CALENDAR YEAR

FOR 1993 WATER YEAR

WATER YEARS 1980 - 1993

ANNUAL TOTAL	91935		143173									
ANNUAL MEAN	251	\$251	392	\$393						299	\$298	
HIGHEST ANNUAL MEAN										531		1984
LOWEST ANNUAL MEAN										146		1981
HIGHEST DAILY MEAN			1620	Mar 28		2030	Mar 30		3950		Apr 18	1983
LOWEST DAILY MEAN			56	Sep 18, 19		54	Aug 10		27		Sep 24	1991
ANNUAL SEVEN-DAY MINIMUM			60	Sep 15		69	Aug 7		39		Aug 25	1981
INSTANTANEOUS PEAK FLOW						2100	Mar 29		4040		Apr 17	1983
INSTANTANEOUS PEAK STAGE						4.08	Mar 29		5.65		Apr 17	1983
INSTANTANEOUS LOW FLOW						10	Sep 23		10		Sep 23	1993
ANNUAL RUNOFF (CFSM)			1.19	\$1.19		1.86	\$1.86		1.42		\$1.41	
ANNUAL RUNOFF (INCHES)			16.21	\$16.25		25.24	\$25.33		19.25		\$19.18	
10 PERCENT EXCEEDS			390			956			578			
50 PERCENT EXCEEDS			195			267			207			
90 PERCENT EXCEEDS			95			103			83			

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	23			Dec 1	1964c							
ANNUAL RUNOFF (CFSM)	1.49											
ANNUAL RUNOFF (INCHES)	20.23											
10 PERCENT EXCEEDS	613											
50 PERCENT EXCEEDS	211											
90 PERCENT EXCEEDS	86											

‡ Adjusted for change in contents of Blue Marsh Lake.

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

01471510 SCHUYLKILL RIVER AT READING, PA

LOCATION.--Lat 40°20'10", long 75°56'15", Berks County, Hydrologic Unit 02040203, 200 ft downstream from bridge on Penn Avenue at West Reading, and 0.8 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 1977 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, nonrecording gage. June 30, 1977, to July 5, 1979, water-stage recorder at site 1,500 ft downstream 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 and to some extent by Lake Ontelaunee. Several measurements of water temperature were made during the year. Satellite telemeter 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	856	528	2020	1510	e1100	e700	9050	3130	1160	431	329	273
2	838	577	1850	1390	e960	e760	11700	2820	1040	503	324	238
3	808	3340	1730	1230	e900	e900	9200	2540	867	711	300	272
4	775	3580	1610	1230	e840	e1900	7450	2380	720	524	306	768
5	743	2650	1530	2120	e980	6440	5700	2590	621	482	358	564
6	710	2210	1430	2590	e1100	5310	4650	4120	639	532	358	385
7	703	1700	1330	2140	921	4530	3950	3380	667	1160	287	393
8	696	1560	1290	2150	e840	4280	3420	2950	791	1000	298	605
9	906	1450	1190	2030	e800	4140	3110	2580	879	701	301	647
10	2210	1350	1180	1780	e780	3580	5750	2340	921	592	275	660
11	1770	1140	2630	1680	e760	3140	12600	2140	622	457	295	769
12	1600	1130	3580	1640	e740	2620	8870	2020	560	429	351	497
13	1290	2770	2860	2020	e700	2470	6960	1880	549	417	358	313
14	1380	2780	2500	2630	e700	2270	5730	1730	502	448	347	297
15	1130	2410	2210	2410	e680	2220	4520	1600	435	582	337	343
16	918	2100	1920	2240	e900	2030	4410	1500	549	451	305	973
17	828	1830	2340	2110	e1500	3050	8030	1350	634	402	332	1090
18	750	1670	3290	1970	1370	5430	6270	1320	443	382	423	686
19	729	1460	3020	1760	951	4210	5330	1320	410	511	326	591
20	654	1350	2820	1560	920	3300	4480	1280	586	595	473	514
21	580	1280	2590	1480	940	3100	3670	1220	790	518	344	527
22	574	1880	2240	1900	1090	3110	5090	1100	923	366	306	420
23	646	6970	2100	1890	1100	3480	5170	1000	743	348	286	304
24	556	6920	1930	1720	855	7090	4030	927	591	341	327	308
25	557	5190	1670	1830	791	7820	3590	927	454	343	390	400
26	575	3900	1600	1710	e700	7260	4110	1010	461	324	366	1110
27	562	3280	1500	1570	e700	7440	5860	884	823	343	272	1900
28	588	2710	1510	e1400	e660	7910	4910	784	725	334	252	2470
29	585	2430	1550	e1300	---	8740	4100	687	775	348	245	1960
30	591	2210	1550	e1200	---	8780	3650	665	534	414	231	1220
31	588	---	1560	e1100	---	7600	---	729	---	343	242	---
TOTAL	26696	74355	62130	55290	25278	135610	175360	54903	20414	15332	9944	21497
MEAN	861	2478	2004	1784	903	4375	5845	1771	680	495	321	717
MAX	2210	6970	3580	2630	1500	8780	12600	4120	1160	1160	473	2470
MIN	556	528	1180	1100	660	700	3110	665	410	324	231	238

• Estimated.

SCHUYLKILL RIVER BASIN

01471510 SCHUYLKILL RIVER AT READING, PA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1977 - 1993, BY WATER YEAR (WY)

MEAN	1000	1405	1932	1778	1895	2425	2524	2215	1367	943	685	758
MAX	3390	2681	5334	5682	3358	4375	6472	5493	3411	2907	1423	2705
(WY)	1980	1978	1984	1979	1984	1993	1983	1989	1982	1984	1984	1987
MIN	322	360	278	265	681	824	606	1005	486	395	321	273
(WY)	1981	1981	1981	1981	1980	1985	1985	1985	1991	1991	1993	1983

SUMMARY STATISTICS

FOR 1992 CALENDAR YEAR

FOR 1993 WATER YEAR

WATER YEARS 1977 - 1993

ANNUAL TOTAL	510092		676809									
ANNUAL MEAN	1394		1854									
HIGHEST ANNUAL MEAN									1579			
LOWEST ANNUAL MEAN									2559			1984
HIGHEST DAILY MEAN	8540	Mar 27	12600	Apr 11					805			1985
LOWEST DAILY MEAN	367	Sep 20	231	Aug 30					24700		Jan 25	1979
ANNUAL SEVEN-DAY MINIMUM	404	Sep 15	250	Aug 27					180		Oct 1	1980
INSTANTANEOUS PEAK FLOW			14800	Apr 11					224		Dec 24	1980
INSTANTANEOUS PEAK STAGE			10.90	Apr 11					^a 37500		Jan 25	1979
10 PERCENT EXCEEDS	2560		4330						^b 17.36		Jan 25	1979
50 PERCENT EXCEEDS	1120		1110						3240			
90 PERCENT EXCEEDS	554		346						1040			
									391			

^a From rating curve extended above 16,000 ft³/s.^b At site 1,500 ft downstream.

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 fair. 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.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	41	41	109	114	e62	e60	1250	229	148	53	44	30
2	40	46	104	100	e58	e62	672	212	96	75	42	31
3	38	470	99	96	e55	e120	459	200	89	126	39	44
4	38	149	94	100	e53	e300	362	193	88	73	36	193
5	35	111	107	278	e51	1290	316	200	87	60	37	74
6	34	137	93	179	e50	399	285	200	94	54	51	50
7	35	98	89	136	e49	334	261	173	82	107	59	54
8	35	83	84	138	e48	333	243	160	80	63	46	169
9	92	74	79	133	e47	313	228	153	98	51	42	119
10	175	71	107	115	e49	270	1610	146	86	47	41	71
11	106	68	820	110	e50	221	828	141	74	46	39	55
12	80	70	375	155	e56	197	419	135	70	44	46	47
13	e76	212	238	226	e130	192	340	137	68	43	46	44
14	e90	107	182	215	113	193	302	133	66	128	42	43
15	e78	86	152	164	93	207	280	129	63	164	37	47
16	e65	76	142	134	145	205	554	126	100	68	35	134
17	e55	72	337	126	287	604	524	126	70	55	83	101
18	e48	69	282	117	193	576	305	123	61	49	62	80
19	e44	66	195	108	e150	298	271	139	63	201	43	76
20	e42	63	191	109	e120	256	251	141	68	124	42	58
21	e40	64	167	105	e95	299	247	129	109	74	60	65
22	e37	94	143	190	e80	360	714	117	156	60	42	62
23	e40	1230	139	144	e68	405	327	109	75	53	36	56
24	42	258	129	126	e62	1240	268	105	62	50	34	61
25	52	214	125	132	e58	647	248	102	58	48	36	60
26	47	203	114	e100	e57	534	603	97	58	48	34	259
27	42	184	140	e90	e56	483	525	96	66	51	30	463
28	40	146	162	e80	e58	517	300	93	61	47	41	313
29	40	126	120	e75	---	562	267	92	59	49	43	127
30	40	116	135	e70	---	468	247	88	57	49	34	99
31	41	---	130	e65	---	348	---	97	---	45	31	---
TOTAL	1708	4804	5383	4030	2393	12293	13506	4321	2412	2205	1333	3085
MEAN	55.1	160	174	130	85.5	397	450	139	80.4	71.1	43.0	103
MAX	175	1230	820	278	287	1290	1610	229	156	201	83	463
MIN	34	41	79	65	47	60	228	88	57	43	30	30
CFSM	.64	1.87	2.03	1.52	1.00	4.64	5.27	1.63	.94	.83	.50	1.20
IN.	.74	2.09	2.34	1.75	1.04	5.35	5.88	1.88	1.05	.96	.58	1.34

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1974 - 1993, BY WATER YEAR (WY)

	MEAN	77.2	111	143	168	181	192	197	106	91.5	61.9	72.7
	MAX	212	187	425	499	356	397	450	266	312	138	191
	(WY)	1976	1978	1984	1979	1984	1993	1993	1989	1982	1984	1990
	MIN	34.0	37.9	36.7	28.0	69.0	69.6	53.6	67.4	43.1	36.4	21.6
	(WY)	1983	1982	1981	1981	1980	1981	1985	1987	1987	1981	1981

SUMMARY STATISTICS

FOR 1992 CALENDAR YEAR

FOR 1993 WATER YEAR

WATER YEARS 1974 - 1993

	ANNUAL TOTAL	34279	57473	130	1984
	ANNUAL MEAN	93.7	157	230	1981
	HIGHEST ANNUAL MEAN			63.4	1981
	LOWEST ANNUAL MEAN			14	1981
	HIGHEST DAILY MEAN	1230	Nov 23	1610	Apr 10
	LOWEST DAILY MEAN	28	Sep 15, 17-19	30	Aug 27, Sep 1
	ANNUAL SEVEN-DAY MINIMUM	29	Sep 14	34	Aug 27
	INSTANTANEOUS PEAK FLOW			3480	Apr 10
	INSTANTANEOUS PEAK STAGE			7.38	Apr 10
	INSTANTANEOUS LOW FLOW			27	Aug 28
	ANNUAL RUNOFF (CFSM)	1.10		1.84	
	ANNUAL RUNOFF (INCHES)	14.91		25.01	
	10 PERCENT EXCEEDS	149		320	
	50 PERCENT EXCEEDS	72		96	
	90 PERCENT EXCEEDS	40		42	

e Estimated.

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 0.4 mi downstream from Manatawny Creek.

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 lower.

REMARKS. --Records good except those for estimated daily discharges, which are fair. Flow regulated by Blue March Lake (station 01470870) since April 1979, and to some extent 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.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	987	628	2210	1750	1370	937	12300	3800	1440	651	466	385
2	920	632	2020	1620	1420	1030	14500	3440	1410	686	451	383
3	892	3420	1870	1410	1100	1160	12100	3100	1170	1200	436	398
4	864	4320	1740	1410	1180	3430	9430	2880	1050	820	416	1470
5	830	2900	1650	2340	1260	10400	7100	2860	927	702	486	920
6	794	2490	1570	3220	1380	7190	5620	4490	918	655	568	615
7	776	1870	1400	2460	1190	5810	4830	3970	873	1240	566	597
8	773	1650	1440	2410	1110	5470	4140	3470	1020	1350	451	1340
9	998	1530	1330	2380	1150	5120	3750	3030	1130	935	449	1180
10	2260	1420	1250	2050	1060	4440	7790	2750	1180	810	435	808
11	2050	1280	4310	1900	1060	3860	16500	2500	966	682	410	983
12	1760	1210	e4800	1890	1090	3270	11700	2350	791	598	479	775
13	1490	2560	e3540	2360	1300	2890	8740	2250	766	580	561	545
14	1350	3050	2950	3050	1220	2730	7080	2100	744	877	506	464
15	1340	2480	2700	2790	1090	2590	5620	1920	651	1230	492	458
16	1060	2180	2260	2550	1320	2380	5490	1830	723	741	479	979
17	953	1860	3040	2390	2400	4360	9960	1680	818	590	502	1600
18	880	1720	4030	2220	1950	7170	7730	1610	706	554	561	934
19	848	1500	3610	2030	1390	5530	6380	1680	615	923	535	834
20	806	1380	3280	1780	1200	4100	5530	1610	675	900	596	719
21	709	1290	3110	1640	1180	4020	4450	1590	1030	771	816	755
22	657	1550	2600	2050	1240	4120	6970	1390	1430	604	485	700
23	712	8630	2420	2270	1470	4450	6440	1340	1000	513	452	517
24	686	8760	2240	1970	1140	10000	5190	1220	867	490	456	490
25	671	6220	1950	2030	1000	10600	4370	1190	681	483	523	512
26	655	4480	1830	1980	998	9210	5230	1280	630	481	538	1650
27	666	3810	1700	1760	993	9020	7510	1190	853	483	464	3060
28	649	3010	1710	1720	924	9350	6120	1100	933	478	392	3570
29	683	2680	1770	1700	---	10400	4960	976	1010	514	491	2530
30	647	2400	1790	1640	---	11000	4540	935	821	529	370	1660
31	707	---	1800	1610	---	9210	---	936	---	512	364	---
TOTAL	30073	82910	73920	64380	35185	175247	222070	66467	27828	22582	15196	31831
MEAN	970	2764	2385	2077	1257	5653	7402	2144	928	728	490	1061
MAX	2260	8760	4800	3220	2400	11000	16500	4490	1440	1350	816	3570
MIN	647	628	1250	1410	924	937	3750	935	615	478	364	383

MEAN	1099	1649	2114	2131	2447	3115	2949	2317	1564	1261	1040	1068
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

ANNUAL TOTAL	571642		847689			
ANNUAL MEAN	1562		2322		1893	
HIGHEST ANNUAL MEAN					3211	1984
LOWEST ANNUAL MEAN					843	1965
HIGHEST DAILY MEAN	10300	Mar 28	16500	Apr 11	71200	Jun 23 1972
LOWEST DAILY MEAN	434	Sep 21	364	Aug 31	175	Sep 19 1932
ANNUAL SEVEN-DAY MINIMUM	468	Sep 16	398	Aug 28	210	Sep 19 1932
INSTANTANEOUS PEAK FLOW			18200	Apr 11	95900	Jun 23 1972
INSTANTANEOUS PEAK STAGE			11.04	Apr 11	29.97	Jun 23 1972
10 PERCENT EXCEEDS	2850		5510		3820	
50 PERCENT EXCEEDS	1200		1390		1290	
90 PERCENT EXCEEDS	632		514		469	

a 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.--Not determined.

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. 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; minimum recorded, 0.0°C, several days in February and March, 1993.

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 31.0°C, July 10, 11; minimum, 0.0°C, several days in February and March.

WATER TEMPERATURE, (DEG. C), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	15.0	13.5	14.0	11.0	10.5	10.5				---	---	---
2	16.0	13.5	14.5	10.5	9.5	9.5				---	---	---
3	17.0	14.5	15.5	11.5	9.5	10.5				---	---	---
4	16.5	16.0	16.5	11.5	10.5	11.0				---	---	---
5	16.0	14.5	15.0	11.5	11.0	11.5				---	---	---
6	15.0	13.5	14.5	11.0	10.5	10.5				---	---	---
7	15.0	13.0	14.0	10.5	9.5	10.0				---	---	---
8	15.5	13.5	14.5	9.5	8.5	9.0				---	---	---
9	16.5	15.0	15.5	8.5	7.0	8.0				---	---	---
10	17.0	16.0	16.5	8.5	7.0	7.5				---	---	---
11	16.0	14.5	15.0	8.5	7.5	8.0				---	---	---
12	15.5	14.0	14.5	11.5	8.5	9.5	3.5	3.0	3.0			
13	15.5	14.0	14.5	12.0	10.0	11.5	4.0	3.5	3.5			
14	14.5	13.0	13.5	10.0	8.0	9.0	4.0	4.0	4.0			
15	15.5	13.5	14.5	8.0	6.5	7.5	4.0	4.0	4.0			
16	16.5	14.5	15.5	6.5	5.5	6.0	4.0	3.5	4.0			
17	16.5	14.0	15.0	6.5	5.5	6.0	4.0	3.5	4.0			
18	14.0	12.5	13.0	6.5	6.5	6.5	4.0	3.0	3.5			
19	12.5	10.5	11.5	6.5	6.5	6.5	3.0	2.5	2.5			
20	10.5	9.5	10.0	6.5	5.5	6.0	3.0	1.5	2.0			
21	11.0	10.0	10.5	7.0	6.0	6.5	2.5	1.5	2.0			
22	11.0	10.0	10.5	---	---	---	4.5	2.5	3.5			
23	11.5	10.0	10.5	---	---	---	4.5	4.0	4.5			
24	11.5	10.0	11.0	---	---	---	5.0	4.0	4.5			
25	11.5	10.5	11.0	---	---	---	5.0	4.0	4.5			
26	11.0	9.5	10.0	---	---	---	4.0	2.5	3.0			
27	11.5	10.0	10.5	---	---	---	3.5	2.0	2.5			
28	11.0	9.5	10.0	---	---	---	3.0	2.0	2.5			
29	11.0	10.0	10.5	---	---	---	3.5	2.0	2.5			
30	11.5	10.5	11.0	---	---	---	2.5	1.0	2.0			
31	11.5	10.5	11.0	---	---	---	3.5	1.5	2.5			
MONTH	17.0	9.5	13.0	12.0	5.5	8.5	5.0	1.0	3.0			

SCHUYLKILL RIVER BASIN

01472104 SCHUYLKILL RIVER AT VINCENT DAM AT LINFIELD, PA--Continued

WATER TEMPERATURE. (DEG. C). WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	3.5	1.5	3.0	3.5	1.5	2.5	9.0	8.5	9.0	16.0	13.5	15.0
2	1.5	.0	.0	4.5	2.5	3.0	8.5	7.5	8.0	17.0	15.0	16.0
3	2.0	.0	.0	5.5	4.0	4.5	7.5	7.5	7.5	17.0	15.5	16.5
4	3.0	1.5	2.0	5.5	2.0	4.0	7.5	7.0	7.0	17.0	16.0	16.0
5	3.0	1.0	2.0	2.5	1.5	2.0	8.0	7.0	7.5	16.5	16.0	16.0
6	2.5	1.0	2.0	3.0	2.5	3.0	9.0	7.5	8.5	16.5	15.5	16.0
7	1.0	.0	.5	4.5	2.5	3.5	10.0	8.0	9.0	18.0	15.5	16.5
8	2.5	.5	1.5	4.5	3.5	4.0	11.0	8.5	10.0	18.0	15.5	17.0
9	2.5	1.0	2.0	5.0	4.0	4.5	11.5	10.0	11.0	18.5	16.5	17.5
10	3.5	1.0	2.0	4.5	4.0	4.0	11.5	11.0	11.0	19.5	17.5	18.5
11	4.0	2.5	3.5	4.5	3.5	4.0	11.0	9.5	10.0	20.5	18.5	19.5
12	4.0	2.0	3.0	5.0	3.5	4.0	10.0	9.5	10.0	21.0	19.5	20.0
13	2.5	1.5	2.0	4.5	.5	2.5	10.5	9.0	9.5	20.0	17.5	18.5
14	4.0	2.0	2.5	1.5	.0	.5	11.0	9.5	10.5	18.5	16.5	17.5
15	3.5	2.5	3.0	2.0	.0	1.0	11.5	10.5	11.0	20.0	17.0	18.5
16	3.0	2.5	2.5	3.0	1.0	2.0	12.5	11.5	12.0	20.5	18.0	19.0
17	3.5	2.0	2.5	4.0	2.0	3.0	12.5	11.0	12.0	20.0	17.5	18.5
18	3.0	1.5	2.5	2.5	1.0	2.0	11.5	10.0	11.0	18.5	16.0	17.0
19	1.5	.0	1.0	3.0	1.0	2.0	12.5	10.5	11.5	16.0	15.0	15.5
20	2.0	.0	1.0	4.0	2.0	3.0	14.0	12.0	13.0	16.0	15.0	15.0
21	1.0	.0	.5	5.0	3.5	4.0	14.0	13.5	13.5	17.0	14.0	15.5
22	2.5	.0	1.5	5.5	4.0	4.5	13.5	10.5	12.0	17.5	15.0	16.5
23	3.5	2.0	2.5	5.5	4.5	4.5	10.5	9.5	9.5	18.5	15.5	17.0
24	2.5	1.0	2.0	4.5	3.5	4.0	11.0	9.5	10.5	19.5	17.5	18.5
25	2.5	.5	1.5	5.5	4.5	5.0	13.5	10.5	12.0	21.5	19.0	20.0
26	2.0	1.0	1.5	6.5	5.0	6.0	13.5	12.0	13.0	21.5	19.5	20.5
27	3.5	1.0	2.0	7.0	6.5	6.5	12.5	11.0	12.0	20.5	19.0	20.0
28	3.5	1.5	2.5	8.0	7.0	7.5	13.0	11.0	12.0	21.5	19.0	20.5
29	---	---	---	8.0	8.0	8.0	14.0	11.5	13.0	22.5	20.5	21.5
30	---	---	---	8.5	8.0	8.0	14.5	13.0	13.5	21.5	19.0	20.5
31	---	---	---	9.0	8.0	8.5	---	---	---	20.5	18.0	19.0
MONTH	4.0	.0	2.0	9.0	.0	4.0	14.5	7.0	10.5	22.5	13.5	18.0
	JUNE			JULY			AUGUST			SEPTEMBER		
1	19.5	17.5	18.5	26.0	24.5	25.0	27.5	25.5	26.0	27.5	26.5	27.0
2	19.0	17.0	18.0	25.0	22.0	23.5	28.0	26.5	27.0	27.5	26.5	27.0
3	20.0	17.5	18.5	23.0	21.5	22.0	28.0	26.5	27.5	28.0	26.5	27.0
4	20.5	19.0	19.5	27.0	22.5	24.5	28.0	26.5	27.0	28.0	24.5	26.5
5	20.0	17.5	19.0	29.0	25.5	27.0	27.5	25.0	26.0	25.5	23.5	24.5
6	19.0	16.5	17.5	28.5	27.0	27.5	26.5	22.0	24.0	26.0	23.5	24.5
7	20.0	17.5	18.5	29.0	27.0	28.0	23.0	21.0	21.5	25.5	24.0	24.5
8	20.0	19.0	19.5	29.5	27.0	28.5	24.0	22.0	23.0	24.5	21.0	22.5
9	22.5	19.5	20.5	30.0	27.5	28.5	25.5	23.5	24.0	22.0	20.5	21.0
10	24.0	21.0	22.5	31.0	28.5	29.5	25.5	24.0	25.0	23.5	21.5	22.5
11	24.5	22.5	23.5	31.0	28.5	29.5	25.5	24.0	24.5	23.0	20.5	21.0
12	24.0	22.0	23.0	30.5	28.5	29.5	26.0	23.5	24.5	20.5	18.5	19.5
13	24.0	21.0	22.5	30.0	28.0	29.0	27.0	24.5	25.5	22.0	19.5	20.0
14	25.0	22.0	23.0	30.0	26.5	28.5	27.0	25.0	26.0	23.5	21.0	22.0
15	24.5	22.5	23.5	27.0	25.0	26.0	28.0	25.5	26.5	25.0	22.5	23.5
16	26.0	23.0	24.0	27.5	25.0	26.0	28.0	26.0	26.5	25.0	21.5	23.5
17	26.0	23.0	24.0	27.0	25.0	26.0	26.0	24.5	25.0	21.5	20.0	20.0
18	26.5	24.5	25.5	27.0	24.5	25.5	25.5	24.0	24.5	20.0	20.0	20.0
19	---	---	---	27.0	23.0	25.0	26.5	24.0	25.0	20.0	19.0	19.5
20	---	---	---	25.5	22.0	23.5	26.5	25.5	26.0	19.5	17.5	18.5
21	27.0	25.0	25.5	26.0	24.0	25.0	25.5	24.0	24.5	18.5	17.5	17.5
22	25.5	23.5	24.5	26.5	24.0	25.0	25.0	23.0	24.0	18.5	17.5	17.5
23	24.5	23.0	24.0	26.0	23.5	25.0	25.0	23.0	24.0	18.5	17.0	17.5
24	25.0	22.0	23.5	26.5	24.0	25.0	26.5	24.5	25.0	19.5	17.5	18.5
25	25.5	22.5	24.0	27.5	25.0	26.0	28.0	25.5	26.5	19.5	17.5	18.5
26	26.5	23.5	25.0	27.5	25.0	26.0	28.5	26.5	27.5	18.5	17.5	18.0
27	27.5	25.0	26.0	27.0	24.0	25.0	28.5	27.0	27.5	18.0	17.5	18.0
28	27.5	25.0	26.0	28.5	26.0	26.5	28.5	27.5	28.0	17.5	16.5	17.0
29	26.5	25.0	26.0	29.0	27.0	28.0	28.5	26.5	27.5	17.0	16.0	16.5
30	26.0	24.5	25.0	29.0	26.5	27.5	28.0	26.0	27.0	16.5	15.0	15.5
31	---	---	---	27.5	25.0	26.0	27.5	26.5	27.0	---	---	---
MONTH	27.5	16.5	22.5	31.0	21.5	26.5	28.5	21.0	25.5	28.0	15.0	21.0
YEAR	31.0	.0	14.5									

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, which are fair. Several measurements of water temperature were made during the year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	23	39	57	e42	e42	610	148	90	e26	19	13
2	20	24	36	49	e40	e48	399	143	61	37	19	13
3	19	248	34	46	e39	e72	279	139	57	70	18	13
4	19	83	32	48	e38	e97	244	137	56	38	e17	32
5	18	50	37	140	e37	965	226	139	56	32	e16	23
6	17	70	34	89	e36	289	211	157	58	30	33	16
7	17	47	33	66	e35	229	198	137	51	36	42	16
8	16	37	32	63	e35	232	190	128	51	30	22	43
9	38	33	30	64	e35	202	186	124	66	28	19	e30
10	122	31	34	56	e36	166	919	e115	72	26	17	e22
11	51	29	606	52	e36	141	496	e100	57	25	17	e17
12	51	30	288	62	e43	125	289	e96	46	24	e20	e16
13	33	267	144	156	95	120	260	e92	45	24	e20	e15
14	27	82	96	116	81	142	244	e90	45	37	17	e14
15	25	49	79	78	64	126	237	e88	41	73	15	e14
16	23	40	76	69	118	121	e350	e86	39	24	15	e35
17	23	37	197	64	235	404	e330	e84	38	20	15	e28
18	24	34	188	58	121	474	159	e84	36	19	16	27
19	23	33	101	53	78	231	139	113	36	28	15	24
20	25	31	100	52	e66	188	131	e100	37	34	15	18
21	24	31	89	51	e60	243	132	e92	54	24	25	23
22	22	37	78	106	e54	294	e420	e86	53	20	18	25
23	21	293	75	79	e50	324	e240	e80	38	e19	15	20
24	21	109	67	64	e48	1030	149	e74	34	e18	14	e19
25	27	82	57	73	e45	481	139	e68	e30	e17	14	e18
26	25	70	55	58	e44	351	e350	e64	e27	e19	13	e70
27	23	65	51	53	e43	281	205	e60	31	22	13	e220
28	21	55	56	e49	e42	276	173	58	e29	21	14	187
29	21	50	68	e48	---	313	156	57	e28	24	19	56
30	21	46	69	e45	---	310	149	54	e27	23	15	39
31	23	---	67	e43	---	229	---	56	---	20	13	---
TOTAL	861	2116	2948	2107	1696	9146	8210	3049	1389	888	560	1106
MEAN	27.8	70.5	95.1	68.0	60.6	295	274	98.4	46.3	28.6	18.1	36.9
MAX	122	293	606	156	235	1030	919	157	90	73	42	220
MIN	16	23	30	43	35	42	131	54	27	17	13	13
CFSM	.47	1.19	1.61	1.15	1.02	4.99	4.63	1.66	.78	.48	.31	.62
IN.	.54	1.33	1.86	1.33	1.07	5.76	5.17	1.92	.87	.56	.35	.70

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1969 - 1993, BY WATER YEAR (WY)

MEAN	45.6	71.6	96.3	106	127	135	136	109	84.4	65.8	40.3	45.0
MAX	125	166	267	394	266	319	306	250	353	258	110	125
(WY)	1980	1973	1984	1979	1984	1978	1983	1989	1972	1984	1971	1971
MIN	17.9	24.6	19.2	13.7	39.7	40.5	35.6	31.9	22.7	21.9	15.2	14.1
(WY)	1987	1982	1981	1981	1969	1981	1985	1969	1969	1985	1981	1980

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR	FOR 1993 WATER YEAR	WATER YEARS 1969 - 1993
ANNUAL TOTAL	20476	34076	
ANNUAL MEAN	55.9	93.4	88.2
HIGHEST ANNUAL MEAN			155
LOWEST ANNUAL MEAN			36.1
HIGHEST DAILY MEAN	606	1030	4530
LOWEST DAILY MEAN	11	13	8.9
ANNUAL SEVEN-DAY MINIMUM	b13	14	9.1
INSTANTANEOUS PEAK FLOW		1890	c11200
INSTANTANEOUS PEAK STAGE		8.30	13.66
INSTANTANEOUS LOW FLOW		12	8.9
ANNUAL RUNOFF (CFSM)	.95	1.58	1.49
ANNUAL RUNOFF (INCHES)	12.89	21.45	20.28
10 PERCENT EXCEEDS	93	233	169
50 PERCENT EXCEEDS	42	49	57
90 PERCENT EXCEEDS	20	18	21

a Also Aug. 27, 31, and Sept. 1-3.

b Computed using estimated daily discharges.

c From rating curve extended above 2,500 ft³/s, on basis of slope-area measurement of peak flow.

d Also Aug. 28 and Sept. 3.

e Estimated.

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 1992 TO SEPTEMBER 1993

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 AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)
OCT 14...	0845	27	165	7.2	6.0	9.5	1.1	12.1	58	15	4.9

DATE	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	SODIUM PERCENT (00932)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY WAT WE TOT IT FIELD (MG/L AS CACO3) (00419)	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, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)
OCT 14...	6.7	0.4	19	2.8	28	16	11	0.10	15	93	<0.010

DATE	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	ALUM-INUM, DIS-SOLVED (µG/L AS AL) (01106)	IRON, DIS-SOLVED (µG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (µG/L AS MN) (01056)
OCT 14...	1.10	0.020	0.30	0.30	0.030	0.030	0.020	20	120	6

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. Datum of gage is 288.50 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.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	20	49	51	e37	e26	708	96	88	22	16	18
2	21	21	47	45	e35	e30	389	87	39	31	16	17
3	20	314	44	43	e45	e40	226	79	34	55	15	19
4	18	68	42	46	e56	e250	179	76	36	29	14	115
5	17	51	43	183	e47	368	153	87	38	25	15	34
6	17	67	39	87	e37	133	134	82	39	22	19	26
7	19	43	37	66	e31	139	121	68	31	31	24	23
8	18	38	37	65	e33	138	112	63	31	23	17	78
9	63	34	34	59	e36	136	105	60	37	21	16	52
10	87	32	36	51	e33	108	448	57	34	20	16	36
11	64	30	575	50	e28	86	244	55	28	19	15	28
12	51	32	272	57	e35	74	157	53	27	18	16	25
13	38	208	159	122	e50	e70	128	53	28	17	16	23
14	32	58	108	100	46	e62	115	49	26	21	15	21
15	32	46	85	69	41	e56	109	48	26	79	14	21
16	30	40	74	63	95	e50	232	46	38	23	14	139
17	25	37	242	59	169	e250	191	45	27	20	1200	87
18	25	36	151	53	83	260	125	45	28	19	58	56
19	26	32	102	48	54	139	110	53	26	116	36	46
20	23	31	99	45	52	107	101	52	25	40	31	35
21	22	32	76	45	46	125	97	47	64	27	33	36
22	22	61	68	100	53	157	300	42	53	23	25	34
23	23	1470	e62	63	48	179	137	40	29	21	23	31
24	25	160	e56	57	42	699	112	40	26	20	22	35
25	29	129	e50	69	37	350	103	37	25	19	30	29
26	23	112	e46	50	e31	279	324	36	24	19	23	233
27	21	90	e42	e47	e29	235	199	35	25	19	21	396
28	22	68	e39	e43	e28	237	130	34	24	17	22	436
29	20	59	e46	e40	---	315	115	35	26	19	23	99
30	22	53	e56	e39	---	221	105	32	24	17	18	65
31	23	---	59	e37	---	161	---	41	---	16	18	---
TOTAL	900	3472	2875	1952	1357	5480	5709	1673	1006	868	1841	2293
MEAN	29.0	116	92.7	63.0	48.5	177	190	54.0	33.5	28.0	59.4	76.4
MAX	87	1470	575	183	169	699	708	96	88	116	1200	436
MIN	17	20	34	37	28	26	97	32	24	16	14	17
CFSM	.76	3.05	2.44	1.66	1.28	4.65	5.01	1.42	.88	.74	1.56	2.01
IN.	.88	3.40	2.81	1.91	1.33	5.36	5.59	1.64	.98	.85	1.80	2.24

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1982 - 1993, BY WATER YEAR (WY)

	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
MEAN	28.1	54.9	63.1	58.5	76.5	83.0	97.5	79.3	52.0	41.4	30.2	40.9
MAX	54.7	116	187	103	138	177	224	163	121	163	59.4	113
(WY)	1990	1993	1984	1990	1984	1993	1983	1989	1982	1984	1993	1987
MIN	13.6	16.7	18.1	26.4	33.6	34.5	24.9	36.7	24.7	22.9	14.4	13.4
(WY)	1982	1982	1990	1985	1992	1985	1985	1992	1991	1983	1985	1986

SUMMARY STATISTICS

	FOR 1992 CALENDAR YEAR	FOR 1993 WATER YEAR	WATER YEARS 1982 - 1993
ANNUAL TOTAL	17418	29426	
ANNUAL MEAN	47.6	80.6	58.6
HIGHEST ANNUAL MEAN			103
LOWEST ANNUAL MEAN			35.6
HIGHEST DAILY MEAN	1470	Nov 23	2360
LOWEST DAILY MEAN	16	Sep 21, 24	4.2
ANNUAL SEVEN-DAY MINIMUM	17	Sep 16	4.4
INSTANTANEOUS PEAK FLOW		6160	24900
INSTANTANEOUS PEAK STAGE		5.22	7.07
INSTANTANEOUS LOW FLOW		13	3.8
ANNUAL RUNOFF (CFSM)	1.25	2.12	1.54
ANNUAL RUNOFF (INCHES)	17.05	28.81	20.95
10 PERCENT EXCEEDS	73	160	109
50 PERCENT EXCEEDS	31	43	36
90 PERCENT EXCEEDS	20	20	16

e Estimated.

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. Datum of gage is 290.00 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.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	11	31	32	e19	e17	479	59	42	11	7.7	8.0
2	11	11	29	27	e17	e18	253	53	21	15	7.6	7.8
3	10	187	27	26	e20	e24	148	49	18	33	7.3	8.9
4	9.9	47	26	28	e23	e160	113	47	17	15	7.0	74
5	9.3	34	27	103	23	259	96	51	18	12	7.2	18
6	8.9	43	24	51	23	92	85	50	21	11	9.4	12
7	9.3	29	24	40	19	100	76	42	16	21	11	11
8	9.1	24	23	39	24	96	69	38	16	12	9.0	86
9	31	22	21	36	22	97	64	36	20	11	8.3	40
10	58	20	22	31	e19	77	335	34	17	9.8	7.9	23
11	36	19	304	30	e17	60	170	32	14	9.0	7.8	15
12	32	19	142	35	e21	51	100	31	13	8.6	8.0	13
13	23	113	84	85	e33	e47	83	31	12	8.3	7.7	12
14	19	37	59	64	29	e42	74	30	13	8.9	7.3	11
15	20	29	47	45	25	e38	70	28	13	34	6.7	17
16	16	26	43	39	52	e33	144	27	35	11	6.9	58
17	14	24	143	37	105	e200	127	27	16	9.5	138	41
18	13	22	87	33	50	177	77	26	14	8.8	19	29
19	13	20	57	30	35	87	68	31	13	66	12	25
20	12	18	57	28	33	69	61	31	14	24	11	17
21	12	18	46	28	30	82	58	28	31	14	12	20
22	12	44	41	65	35	106	189	25	37	11	9.5	17
23	11	595	39	42	30	126	80	23	16	9.8	8.6	15
24	12	92	35	36	26	395	66	22	13	9.4	8.7	17
25	15	77	32	42	23	219	59	21	12	9.1	10	15
26	13	67	30	32	e20	189	204	20	12	9.0	9.5	129
27	12	56	27	e27	e19	171	138	18	12	9.5	8.2	279
28	11	43	30	e25	e18	204	81	17	12	9.0	10	104
29	11	37	33	e23	---	269	71	18	13	9.5	21	47
30	11	34	38	e22	---	176	65	17	e12	8.6	9.4	35
31	11	---	38	e20	---	118	---	19	---	7.8	8.5	---
TOTAL	496.5	1818	1666	1201	810	3799	3703	981	533	445.6	422.2	1204.7
MEAN	16.0	60.6	53.7	38.7	28.9	123	123	31.6	17.8	14.4	13.6	40.2
MAX	58	595	304	103	105	395	479	59	42	66	138	279
MIN	8.9	11	21	20	17	17	58	17	12	7.8	6.7	7.8
CFSM	.70	2.63	2.34	1.68	1.26	5.33	5.37	1.38	.77	.62	.59	1.75
IN.	.80	2.94	2.69	1.94	1.31	6.14	5.99	1.59	.86	.72	.68	1.95

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1982 - 1993, BY WATER YEAR (WY)

	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
MEAN	16.7	33.8	44.3	37.1	48.0	54.1	62.9	50.8	32.4	23.9	15.6	19.5
MAX	35.3	60.6	165	64.0	93.8	123	146	114	83.7	99.0	33.8	42.7
(WY)	1990	1993	1984	1991	1984	1993	1983	1989	1982	1984	1990	1985
MIN	7.85	8.61	10.3	15.7	22.4	23.4	16.4	23.7	12.9	10.0	7.95	5.47
(WY)	1983	1982	1990	1985	1992	1985	1985	1992	1985	1986	1983	1983

SUMMARY STATISTICS

FOR 1992 CALENDAR YEAR

FOR 1993 WATER YEAR

WATER YEARS 1982 - 1993

ANNUAL TOTAL	10398.5	17080.0	36.5
ANNUAL MEAN	28.4	46.8	21.1
HIGHEST ANNUAL MEAN			69.5
LOWEST ANNUAL MEAN			1984
HIGHEST DAILY MEAN	595	Nov 23	1030
LOWEST DAILY MEAN	8.3	Sep 19	4.4
ANNUAL SEVEN-DAY MINIMUM	8.9	Sep 14	4.7
INSTANTANEOUS PEAK FLOW			2690
INSTANTANEOUS PEAK STAGE		1570	Nov 23
INSTANTANEOUS LOW FLOW		4.86	Nov 23
ANNUAL RUNOFF (CFSM)	1.24	2.03	1.59
ANNUAL RUNOFF (INCHES)	16.82	27.63	21.56
10 PERCENT EXCEEDS	46	103	72
50 PERCENT EXCEEDS	19	26	23
90 PERCENT EXCEEDS	11	9.4	8.0

• Estimated.

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 Perkasie, and 5.0 mi southeast of Quakertown.

DRAINAGE AREA.--4.05 mi².

PERIOD OF RECORD.--October 1983 to current year.

GAGE.--Water-stage recorder. Datum of gage is 334.12 ft above sea level.

REMARKS.--No estimated daily discharges. Records good. Diversion from Delaware River at Point Pleasant to Bradshaw Reservoir, 0.5 mi upstream of gage. Stream has received pumpage from Bradshaw Reservoir since August 1989. Peak flows are unregulated. Several measurements of water temperature were made during the year. Satellite telemetry at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	58	44	13	14	14	22	104	15	51	60	58	55
2	58	44	13	13	15	25	43	14	62	60	60	56
3	58	54	12	12	14	31	33	14	62	60	55	55
4	56	32	12	13	14	119	28	11	62	60	56	56
5	57	31	13	79	14	39	26	12	62	60	58	56
6	58	37	12	20	14	32	25	12	61	49	58	55
7	58	31	12	16	18	25	24	12	57	44	58	56
8	53	29	12	15	18	35	24	11	60	39	58	39
9	58	28	12	15	20	32	22	11	51	38	58	33
10	52	28	12	13	21	27	81	11	48	35	58	38
11	62	28	213	13	21	27	27	11	59	38	58	38
12	63	28	41	17	22	25	21	11	47	38	58	49
13	60	61	23	47	27	15	17	19	60	44	57	50
14	57	33	17	22	26	5.2	15	19	60	45	57	58
15	28	30	15	16	25	9.8	14	25	60	45	57	60
16	40	29	14	15	46	11	94	31	60	59	58	62
17	57	28	75	14	53	74	34	51	53	60	222	62
18	33	28	23	13	31	59	20	58	47	60	46	62
19	28	27	18	12	25	40	16	51	56	68	59	60
20	28	27	19	12	24	35	13	62	53	59	63	55
21	28	27	16	12	24	55	14	62	42	58	61	36
22	34	31	15	23	24	61	43	39	59	58	56	55
23	44	121	14	16	24	67	16	59	52	58	54	60
24	44	41	14	16	23	142	14	55	58	58	54	60
25	44	36	13	17	22	63	13	51	60	47	49	60
26	44	21	13	13	22	47	51	58	60	57	51	70
27	44	21	12	13	22	37	19	60	58	58	55	136
28	44	16	12	13	22	44	16	52	60	56	59	65
29	44	14	13	13	---	68	15	61	60	49	58	41
30	44	14	16	13	---	37	15	60	60	45	54	47
31	44	---	17	13	---	30	---	57	---	52	54	---
TOTAL	1480	1019	736	553	645	1339.0	897	1075	1700	1617	1917	1685
MEAN	47.7	34.0	23.7	17.8	23.0	43.2	29.9	34.7	56.7	52.2	61.8	56.2
MAX	63	121	213	79	53	142	104	62	62	68	222	136
MIN	28	14	12	12	14	5.2	13	11	42	35	46	33
(†)	-47.9	-25.9	-9.50	-10.1	-14.9	-12.6	-13.0	-33.3	-55.8	-54.8	-56.1	-53.4

† Pumpage from Bradshaw Reservoir into stream, equivalent in cubic feet per second.

SCHUYLKILL RIVER BASIN

01472620 EAST BRANCH PERKIOMEN CREEK NEAR DUBLIN, PA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 1993, BY WATER YEAR (WY) (SINCE REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	46.4	33.5	29.2	20.2	15.8	30.0	23.2	38.1	47.9	50.4	58.8	56.4
MAX	57.3	59.7	46.5	22.8	23.0	43.2	29.9	42.4	56.7	54.4	61.8	58.3
(WY)	1991	1992	1992	1990	1993	1993	1993	1991	1993	1991	1993	1991
MIN	23.8	12.8	22.6	17.8	12.3	17.2	16.4	34.7	34.8	44.5	56.0	54.6
(WY)	1990	1991	1990	1993	1991	1991	1992	1993	1992	1990	1992	1992

SUMMARY STATISTICS

FOR 1992 CALENDAR YEAR

FOR 1993 WATER YEAR

WATER YEARS 1990 - 1993

ANNUAL TOTAL	12346.3	14663.0	
ANNUAL MEAN	33.7	40.2	37.6
HIGHEST ANNUAL MEAN			40.2
LOWEST ANNUAL MEAN			35.7
HIGHEST DAILY MEAN	213	Dec 11	222
LOWEST DAILY MEAN	9.3	Feb 12	5.2
ANNUAL SEVEN-DAY MINIMUM	9.9	Feb 8	11
INSTANTANEOUS PEAK FLOW			1470
INSTANTANEOUS PEAK STAGE			6.94
10 PERCENT EXCEEDS	58		60
50 PERCENT EXCEEDS	32		39
90 PERCENT EXCEEDS	12		13

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	a2270	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 From slope-area measurement.

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 good except those for estimated daily discharges, which are fair. Diversion from Delaware River at Point Pleasant to Bradshaw Reservoir about 19 mi upstream. Stream has received pumpage from Bradshaw Reservoir since August 1989. Peak flows are unregulated. Several measurements of water temperature were made during the year. Satellite telemetry at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	74	63	60	63	e40	43	1000	74	89	58	68	67
2	72	64	54	46	e39	52	527	64	67	66	70	66
3	70	357	50	40	e47	117	226	57	67	89	68	68
4	68	136	45	40	40	983	160	e74	66	67	61	96
5	67	96	48	610	37	853	129	e96	65	66	63	71
6	67	157	44	216	35	244	110	e90	64	65	79	67
7	67	98	41	134	48	191	95	e82	62	57	82	73
8	67	78	40	109	52	195	84	e80	57	50	68	254
9	96	68	38	95	42	175	79	e76	64	45	66	132
10	193	e64	43	77	46	137	598	e74	58	42	65	81
11	148	e64	2690	63	41	118	353	e72	51	42	65	65
12	172	e150	e745	70	41	103	151	e70	54	45	66	61
13	107	e340	e276	311	94	94	110	e82	48	47	67	68
14	92	e200	159	229	111	76	87	e76	54	78	64	68
15	74	e130	110	127	88	94	76	e66	52	133	64	73
16	54	e84	88	98	198	89	263	e58	84	65	69	105
17	79	72	616	83	568	672	709	e58	56	71	2150	80
18	75	65	368	66	236	769	156	67	48	69	168	89
19	50	59	153	54	125	291	107	e84	43	278	123	89
20	48	55	137	49	98	215	86	76	52	131	113	79
21	47	54	109	48	81	315	74	78	47	87	108	91
22	46	62	80	136	81	526	398	63	54	80	93	83
23	60	848	68	108	86	454	169	66	51	86	87	85
24	66	223	59	74	61	2080	115	68	47	85	86	93
25	68	179	48	96	53	628	92	66	52	79	90	85
26	66	136	48	67	66	395	309	57	54	63	90	311
27	65	158	51	e56	48	269	296	68	55	72	73	741
28	64	99	46	e50	43	275	137	65	56	70	80	463
29	65	79	47	e48	---	631	103	57	59	69	79	157
30	65	68	59	e45	---	324	87	66	58	65	69	116
31	64	---	88	e43	---	193	---	66	---	60	68	---
TOTAL	2416	4306	6508	3351	2545	11601	6886	2196	1734	2380	4562	3977
MEAN	77.9	144	210	108	90.9	374	230	70.8	57.8	76.8	147	133
MAX	193	848	2690	610	568	2080	1000	96	89	278	2150	741
MIN	46	54	38	40	35	43	74	57	43	42	61	61
(†)	-47.9	-25.9	-9.5	-10.1	-14.9	-12.6	-13.0	-33.3	-55.8	-54.8	-56.1	-53.4

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 1993, BY WATER YEAR (WY)

	1991	1992	1993	1991	1992	1993	1991	1992	1993	1991	1992	1993
MEAN	76.7	114	174	89.4	75.9	213	127	74.3	70.2	79.1	99.7	93.8
MAX	77.9	144	210	108	90.9	374	230	84.1	84.6	90.4	147	133
(WY)	1993	1993	1993	1993	1993	1993	1993	1991	1991	1991	1993	1993
MIN	75.5	84.9	138	70.7	60.2	119	43.2	68.1	57.8	70.1	72.5	71.3
(WY)	1992	1992	1992	1992	1992	1992	1992	1992	1993	1992	1992	1991

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR			FOR 1993 WATER YEAR			WATER YEARS 1991 - 1993		
ANNUAL TOTAL	33550			52462					
ANNUAL MEAN	91.7			144			112		
HIGHEST ANNUAL MEAN							144		
LOWEST ANNUAL MEAN							80.6		
HIGHEST DAILY MEAN	2690	Dec 11		2690	Dec 11		2690	Dec 11	1992
LOWEST DAILY MEAN	e28	Feb 13		35	Feb 6		28	Feb 13	1992
ANNUAL SEVEN-DAY MINIMUM	a30	Feb 7		a40	Jan 31		30	Feb 7	1992
INSTANTANEOUS PEAK FLOW				5620	Aug 17		5620	Aug 17	1993
INSTANTANEOUS PEAK STAGE				8.79	Aug 17		8.79	Aug 17	1993
10 PERCENT EXCEEDS	136			277			167		
50 PERCENT EXCEEDS	65			74			68		
90 PERCENT EXCEEDS	40			48			45		

† Pumpage from Bradshaw Reservoir into stream, equivalent in cubic feet per second.

a Computed using estimated daily discharges.

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 Landis Brook, 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 to the East Branch Perkiomen Creek (Bradshaw Reservoir) since August 1989. Several measurements of water temperature were made during the year. Satellite telemetry at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	159	117	e500	335	e170	176	4990	420	303	116	109	105
2	144	125	e440	249	e160	190	2960	376	204	125	113	105
3	134	1630	e380	217	e200	321	1280	341	e200	221	113	107
4	127	627	e340	213	163	2610	835	318	e200	170	110	291
5	122	347	e310	1750	151	4560	637	309	e190	135	113	221
6	119	486	e270	841	153	1330	525	395	e190	123	136	146
7	119	325	e250	483	141	982	452	323	e160	124	162	180
8	120	244	e230	403	168	1070	416	273	142	118	129	967
9	128	203	e220	381	181	934	399	246	167	104	123	666
10	424	180	e250	308	151	729	2890	232	170	97	116	282
11	416	169	6920	268	152	555	2510	219	e155	93	116	189
12	493	165	3130	317	164	482	895	203	e160	94	119	142
13	370	2060	1200	1140	304	e420	632	194	e140	96	119	135
14	278	585	656	996	373	e360	508	196	e155	205	116	127
15	242	348	479	534	303	e330	455	181	e150	454	114	128
16	205	267	413	418	593	e310	943	180	225	147	122	322
17	185	226	2010	363	2360	e2250	2630	180	160	124	3670	298
18	182	202	1790	312	968	3650	785	190	128	118	637	273
19	155	186	675	261	463	1310	548	227	120	668	263	243
20	141	168	594	227	361	859	460	233	132	468	195	188
21	132	160	502	218	292	1200	410	e220	145	216	196	220
22	127	215	392	538	316	2010	2450	e200	253	157	158	207
23	128	7700	e330	504	327	1930	955	e210	177	135	150	181
24	143	2630	e280	348	261	e8730	579	e220	127	125	128	186
25	147	1940	e250	396	213	e6000	473	e200	118	124	116	172
26	153	1630	e220	301	202	2010	1170	e180	114	110	110	1510
27	147	1700	e200	263	189	1420	2010	e210	113	121	107	2490
28	124	e1200	e190	e230	178	1360	729	e190	111	119	110	2490
29	116	e900	e210	e210	---	2580	556	e180	116	118	132	592
30	115	e640	e290	e190	---	1910	473	e200	119	111	110	381
31	116	---	397	e180	---	930	---	e200	---	104	105	---
TOTAL	5711	27375	24318	13394	9657	53508	35555	7446	4844	5240	8117	13544
MEAN	184	912	784	432	345	1726	1185	240	161	169	262	451
MAX	493	7700	6920	1750	2360	8730	4990	420	303	668	3670	2490
MIN	115	117	190	180	141	176	399	180	111	93	105	105
MEAN‡	135	890	775	420	330	1718	1164	203	104	112	207	402
CFSM‡	.48	3.19	2.78	1.50	1.18	6.16	4.17	.73	.37	.40	.74	1.44
IN.‡	.55	3.56	3.21	1.73	1.23	7.10	4.65	.84	.41	.46	.85	1.61

‡ Adjusted for pumpage from Bradshaw Reservoir into East Branch Perkiomen Creek and change in contents of Green Lane Reservoir.

• Estimated.

SCHUYLKILL RIVER BASIN

01473000 PERKIOMEN CREEK AT GRATERFORD, PA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1957 - 1993, BY WATER YEAR (WY) (SINCE REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	179	358	497	530	605	725	635	418	265	201	144	218
MAX	657	1182	1491	2071	1241	1726	1759	1298	1330	1286	493	1163
(WY)	1980	1973	1984	1979	1971	1993	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 1992 CALENDAR YEAR

FOR 1993 WATER YEAR

WATER YEARS 1957 - 1993

ANNUAL TOTAL	123954		208709									
ANNUAL MEAN	339	‡309	572	‡540					397	‡391		
HIGHEST ANNUAL MEAN									767			1984
LOWEST ANNUAL MEAN									165			1965
HIGHEST DAILY MEAN	7700		Nov 23			‡8730		Mar 24	14800		Jul 7	1984
LOWEST DAILY MEAN	88		Jul 2			93		Jul 11	13		Sep 1	1957
ANNUAL SEVEN-DAY MINIMUM	93		Jun 28			104		Jul 7	19		Aug 31	1957
INSTANTANEOUS PEAK FLOW						14000		Nov 23	35800		Jun 22	1972
INSTANTANEOUS PEAK STAGE						10.70		Nov 23	17.08		Jun 22	1972
INSTANTANEOUS LOW FLOW						87		Jul 10 ^a	13		Sep 1	1957
ANNUAL RUNOFF (CFSM)	1.21		‡1.11			2.05		‡1.94	1.42		‡1.40	
ANNUAL RUNOFF (INCHES)	16.53		‡15.04			27.83		‡26.20	19.32		‡19.04	
10 PERCENT EXCEEDS	531					1380			820			
50 PERCENT EXCEEDS	186					221			170			
90 PERCENT EXCEEDS	105					118			58			

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	‡39900				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											

‡ Adjusted for diversion from Delaware River and change in contents of Green Lane Reservoir.

^a Also July 11, 12, 26, 31.^b From rating curve extended above 12,000 ft³/s, on basis of slope-area measurement at gage height 16.23 ft.^c Estimated.

SCHUYLKILL RIVER BASIN

01473120 SKIPPACK CREEK NEAR COLLEGEVILLE, PA

LOCATION.--Lat 40°09'52", long 75°26'01", Montgomery County, Hydrologic Unit 02040203, on right bank 60 ft downstream from two-span highway bridge, 1.5 mi upstream from mouth, and 2.0 mi southeast of Collegeville.

DRAINAGE AREA.--53.7 mi².

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

GAGE.--Water-stage recorder. Datum of gage is 99.03 ft above sea level. Prior to June 15, 1967, nonrecording gage at site 60 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.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	8.6	30	51	e32	e32	810	75	34	13	11	10
2	9.1	8.1	27	41	e27	e37	498	65	17	12	9.8	12
3	7.8	194	25	39	e36	e60	199	58	14	54	11	11
4	8.1	44	21	39	28	1030	143	53	14	23	10	62
5	6.7	28	24	384	e24	599	119	52	14	16	11	25
6	6.9	58	21	135	e22	198	101	50	14	14	44	14
7	7.0	29	19	94	e21	145	85	42	13	17	54	16
8	7.0	20	18	80	e20	135	76	37	13	16	20	456
9	28	17	16	72	e19	121	69	33	16	13	15	117
10	70	15	17	61	e18	95	661	31	30	13	15	89
11	21	14	2750	55	e17	87	237	29	15	10	13	46
12	34	14	675	78	e19	73	134	26	12	8.8	13	31
13	18	194	225	234	e110	66	105	26	11	11	21	26
14	13	48	132	154	108	90	88	25	9.5	33	13	24
15	12	30	99	102	83	104	79	22	9.7	218	11	20
16	11	23	82	84	398	87	581	20	11	27	10	45
17	8.5	20	570	74	537	1180	351	19	10	17	716	26
18	9.5	19	274	61	191	721	143	19	8.4	13	82	31
19	8.5	16	130	52	109	242	113	28	8.0	278	41	38
20	8.5	15	135	47	91	183	93	25	11	147	30	23
21	8.2	14	103	43	71	401	85	26	21	41	58	92
22	8.0	16	84	122	84	519	547	19	27	25	24	57
23	7.9	456	75	78	90	489	152	17	13	20	18	41
24	8.4	94	65	63	62	1920	113	16	12	16	17	42
25	9.1	72	51	70	50	424	94	16	12	14	17	31
26	8.7	61	49	54	e45	251	406	14	11	13	16	230
27	8.2	78	43	52	e40	173	215	11	10	13	14	1000
28	7.9	51	44	47	e36	175	125	11	11	12	12	328
29	8.5	41	51	43	---	458	104	11	12	13	12	115
30	8.5	34	59	36	---	242	87	9.4	13	14	11	e81
31	8.9	---	64	37	---	150	---	9.7	---	12	12	---
TOTAL	396.9	1731.7	5978	2582	2388	10487	6613	895.1	426.6	1146.8	1361.8	3139
MEAN	12.8	57.7	193	83.3	85.3	338	220	28.9	14.2	37.0	43.9	105
MAX	70	456	2750	384	537	1920	810	75	34	278	716	1000
MIN	6.7	8.1	16	36	17	32	69	9.4	8.0	8.8	9.8	10
CFSM	.24	1.07	3.59	1.55	1.59	6.30	4.10	.54	.26	.69	.82	1.95
IN.	.27	1.20	4.14	1.79	1.65	7.26	4.58	.62	.30	.79	.94	2.17

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 1993, BY WATER YEAR (WY)

	MEAN	33.7	73.8	108	113	111	133	106	74.5	52.5	47.6	33.3	45.0
MAX	154	236	315	390	274	338	316	230	189	345	175	314	314
(WY)	1980	1973	1974	1979	1979	1993	1983	1984	1982	1975	1971	1971	1971
MIN	2.99	12.8	9.59	9.25	19.3	22.1	17.6	15.1	6.59	3.11	.70	1.76	1.76
(WY)	1969	1975	1981	1981	1980	1985	1985	1986	1969	1966	1966	1968	1968

SUMMARY STATISTICS

FOR 1992 CALENDAR YEAR

FOR 1993 WATER YEAR

WATER YEARS 1966 - 1993

ANNUAL TOTAL	20344.2	37145.9	78.0	1984
ANNUAL MEAN	55.6	102	131	1969
HIGHEST ANNUAL MEAN			32.5	1971
LOWEST ANNUAL MEAN			6600	Sep 13 1971
HIGHEST DAILY MEAN	2750	Dec 11	2750	Dec 11
LOWEST DAILY MEAN	4.4	Sep 21	6.7	Oct 5
ANNUAL SEVEN-DAY MINIMUM	5.5	Sep 16	7.5	Oct 2
INSTANTANEOUS PEAK FLOW			4520	Dec 11
INSTANTANEOUS PEAK STAGE			9.25	Dec 11
INSTANTANEOUS LOW FLOW			1.0	Sep 12 1966
ANNUAL RUNOFF (CFSM)	1.04	1.90	1.45	
ANNUAL RUNOFF (INCHES)	14.09	25.73	19.73	
10 PERCENT EXCEEDS	100	227	139	
50 PERCENT EXCEEDS	25	32	28	
90 PERCENT EXCEEDS	7.4	10	6.1	

a From rating curve extended above 8,400 ft³/s, on basis of slope-area measurement of peak flow.

b From floodmark.

c Estimated.

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, and near 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.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	15	17	e20	20	22	116	39	44	18	15	12
2	14	19	16	e18	20	17	70	38	26	28	15	12
3	14	98	16	e18	19	18	52	38	25	27	15	12
4	14	20	16	e18	19	242	48	37	25	20	15	25
5	13	20	17	e47	20	80	46	39	25	20	15	14
6	13	22	16	e35	20	43	44	37	24	20	41	13
7	13	17	16	e27	21	35	42	35	24	20	20	13
8	13	16	15	e27	19	32	41	34	24	19	17	15
9	33	15	15	e27	18	30	40	34	34	19	16	14
10	26	15	24	e25	18	28	185	33	27	19	16	33
11	19	15	314	e23	18	28	59	32	23	19	16	15
12	16	17	61	e27	21	26	48	32	22	19	16	14
13	15	41	34	34	43	31	45	35	22	19	16	13
14	15	17	27	25	26	29	44	32	22	52	16	13
15	14	16	25	23	22	29	44	31	21	37	16	13
16	15	16	23	22	52	29	116	31	21	20	15	23
17	15	16	57	22	41	176	61	30	21	17	15	24
18	16	15	30	21	26	73	46	35	20	17	15	22
19	16	15	26	21	23	42	43	34	21	39	14	15
20	16	15	30	21	23	37	42	31	21	21	24	14
21	16	15	24	21	23	55	44	30	27	18	24	27
22	16	17	23	36	31	55	98	29	22	17	15	16
23	16	132	e23	23	24	74	46	28	20	17	14	15
24	19	22	e23	22	19	240	44	27	19	16	13	15
25	18	21	e22	24	17	76	42	27	19	16	13	16
26	14	24	e21	21	18	62	76	26	19	16	13	57
27	14	21	e23	21	28	55	48	26	19	16	13	170
28	14	18	e23	21	26	57	42	25	18	16	13	30
29	14	18	e20	20	---	65	41	25	19	16	13	20
30	14	17	e24	20	---	52	40	25	18	15	12	18
31	16	---	e23	20	---	46	---	30	---	15	12	---
TOTAL	496	745	1044	750	675	1884	1753	985	692	648	503	713
MEAN	16.0	24.8	33.7	24.2	24.1	60.8	58.4	31.8	23.1	20.9	16.2	23.8
MAX	33	132	314	47	52	242	185	39	44	52	41	170
MIN	13	15	15	18	17	17	40	25	18	15	12	12
CFSM	.77	1.19	1.62	1.16	1.16	2.92	2.81	1.53	1.11	1.00	.78	1.14
IN.	.89	1.33	1.87	1.34	1.21	3.37	3.14	1.76	1.24	1.16	.90	1.28

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 1993, BY WATER YEAR (WY)

	MEAN	20.7	28.6	29.8	28.6	32.8	39.2	44.4	40.2	30.0	28.4	24.5	25.3
MAX	34.7	48.8	60.8	40.6	53.5	65.5	98.8	77.5	49.9	46.4	36.3	50.7	
(WY)	1990	1987	1984	1990	1984	1983	1983	1984	1984	1984	1989	1989	
MIN	15.0	19.5	18.9	16.8	19.1	17.9	18.1	23.9	16.9	15.9	14.8	15.4	
(WY)	1987	1991	1989	1985	1992	1985	1985	1992	1985	1992	1992	1986	

SUMMARY STATISTICS

FOR 1992 CALENDAR YEAR

FOR 1993 WATER YEAR

WATER YEARS 1983 - 1993

ANNUAL TOTAL	7801	10888	
ANNUAL MEAN	21.3	29.8	31.0
HIGHEST ANNUAL MEAN			47.0
LOWEST ANNUAL MEAN			20.3
HIGHEST DAILY MEAN	314	Dec 11	684
LOWEST DAILY MEAN	11	Aug 10 ^a	9.8
ANNUAL SEVEN-DAY MINIMUM	11	Aug 22	11
INSTANTANEOUS PEAK FLOW		900	1580
INSTANTANEOUS PEAK STAGE		7.47	9.02
ANNUAL RUNOFF (CFSM)	1.02	1.43	1.49
ANNUAL RUNOFF (INCHES)	13.95	19.47	20.26
10 PERCENT EXCEEDS	27	46	51
50 PERCENT EXCEEDS	18	21	24
90 PERCENT EXCEEDS	13	15	16

^a Also Aug. 22-28, Aug. 30 to Sept. 2, Sept. 5.

^b Also Aug. 31 to Sept. 3.

^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, concrete control, and crest-stage gage. Datum of gage is 26.41 ft above sea level. Prior to October 1965, water-stage recorder at about same site and datum.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28	24	40	57	53	53	656	101	213	34	29	20
2	24	29	39	54	50	56	348	94	56	39	36	34
3	32	357	37	53	50	60	197	88	52	77	28	30
4	34	54	32	53	54	741	158	89	52	45	29	64
5	31	47	44	289	54	626	141	91	52	38	26	48
6	22	62	40	87	51	146	127	88	53	34	210	35
7	21	44	34	64	46	108	117	80	49	32	107	31
8	21	37	31	63	54	105	108	82	49	33	45	129
9	44	33	30	61	54	102	106	72	78	30	37	80
10	69	35	37	57	51	90	729	68	105	28	34	150
11	40	37	2330	54	50	85	252	69	49	28	35	47
12	37	36	546	65	55	76	142	68	47	25	34	36
13	29	200	178	106	190	86	124	79	45	26	46	29
14	22	52	97	95	112	93	115	71	42	409	36	28
15	22	43	78	66	81	78	110	69	41	228	34	29
16	25	40	67	60	169	82	464	63	41	48	28	61
17	19	39	303	58	290	625	767	65	41	44	653	55
18	20	37	205	56	113	600	163	73	39	37	73	57
19	21	34	91	54	79	188	137	83	41	461	48	42
20	21	35	107	52	68	144	125	65	53	217	44	31
21	22	42	86	53	67	249	130	64	92	57	53	89
22	27	41	74	153	92	335	405	58	66	49	40	54
23	26	446	70	71	92	292	149	55	44	45	34	41
24	42	69	65	62	68	1420	126	53	37	45	32	39
25	53	54	60	70	59	383	114	54	40	42	37	41
26	36	76	58	58	58	275	294	51	42	39	30	347
27	28	96	56	57	56	211	225	49	36	37	32	593
28	23	53	57	56	55	218	121	48	34	35	26	245
29	22	48	57	54	---	365	112	48	34	37	27	61
30	24	44	69	52	---	231	104	45	37	35	23	55
31	23	---	64	53	---	162	---	89	---	34	23	---
TOTAL	908	2244	5082	2243	2271	8285	6866	2172	1660	2368	1969	2601
MEAN	29.3	74.8	164	72.4	81.1	267	229	70.1	55.3	76.4	63.5	86.7
MAX	69	446	2330	289	290	1420	767	101	213	461	653	593
MIN	19	24	30	52	46	53	104	45	34	25	23	20
CFSM	.46	1.17	2.56	1.13	1.27	4.18	3.58	1.09	.86	1.19	.99	1.35
IN.	.53	1.30	2.95	1.30	1.32	4.82	3.99	1.26	.96	1.38	1.14	1.51

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 1993, BY WATER YEAR (WY)

	MEAN	62.7	84.1	111	114	122	145	142	119	91.0	83.4	75.2	75.4
MAX	176	265	275	378	266	275	410	229	244	230	171	245	
(WY)	1980	1973	1984	1979	1979	1983	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	

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1966 - 1993	
ANNUAL TOTAL	25729		38669		102	
ANNUAL MEAN	70.3		106		160	
HIGHEST ANNUAL MEAN					50.6	
LOWEST ANNUAL MEAN					1966	
HIGHEST DAILY MEAN	2330	Dec 11	2330	Dec 11	3320	Sep 27 1985
LOWEST DAILY MEAN	19	Sep 18, 21	19	Oct 17	9.7	Sep 13 1966
ANNUAL SEVEN-DAY MINIMUM	21	Sep 15	21	Oct 14	12	Aug 27 1966
INSTANTANEOUS PEAK FLOW			3340	Dec 11	6870	Jun 29 1973
INSTANTANEOUS PEAK STAGE			5.79	Dec 11	7.92	Jun 29 1973
INSTANTANEOUS LOW FLOW			16	Oct 8	2.0	Jul 18 1905 ^a
ANNUAL RUNOFF (CFSM)	1.10		1.66		1.59	
ANNUAL RUNOFF (INCHES)	14.95		22.48		21.65	
10 PERCENT EXCEEDS	96		217		175	
50 PERCENT EXCEEDS	47		54		59	
90 PERCENT EXCEEDS	24		29		28	

^a Also July 19. Minimum observed outside computed statistical period.

SCHUYLKILL RIVER BASIN

01474500 SCHUYLKILL RIVER AT PHILADELPHIA, PA
(National stream-quality accounting network station)

LOCATION.--Lat 39°58'00", long 75°11'20", Philadelphia County, Hydrologic Unit 02040203, on right bank 150 ft upstream from Fairmount Dam, 1,500 ft upstream from bridge on Spring Garden Street in Philadelphia, and 8.7 mi upstream from mouth. Water-quality sampling site 1.6 mi upstream.

DRAINAGE AREA.--1,893 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 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 Fairmount Dam at same datum. Nov. 26, 1956, to Oct. 6, 1966, water-stage recorder at site on left bank 40 ft upstream from Fairmount Dam at same datum.

REMARKS.--No estimated daily discharges. Records good. 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 ratings extended above 46,000 ft³/s. Flood of Mar. 1, 1902 reached a stage of 14.8 ft, discharge, 98,000 ft³/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1220	659	2550	2050	1720	1160	18500	4890	1770	724	444	267
2	935	670	2320	1900	1360	1140	19500	4250	1630	636	454	255
3	916	3650	2110	1720	1410	1380	16300	3810	1360	1070	400	241
4	878	5850	1890	1570	1230	4740	12500	3420	1150	1100	388	575
5	875	3760	1860	3720	1210	20400	9860	3250	1070	760	353	1460
6	802	3080	1750	5050	1350	11900	7620	3990	993	706	806	784
7	757	2510	1660	3530	1290	8050	6410	4960	1010	665	1040	578
8	736	1840	1500	2850	1240	7750	5440	4040	942	1210	626	1610
9	814	1650	1450	2870	1180	6950	4790	3460	1210	1010	489	3120
10	1940	1470	1370	2570	1190	6180	8890	3150	1450	698	449	1680
11	2730	1320	17600	2270	1130	5130	20700	2830	1130	631	419	928
12	2270	1250	12700	2190	1160	4290	15500	2600	888	592	393	951
13	1850	3800	7010	3300	1920	3880	11300	2530	809	500	552	770
14	1410	3910	4690	4720	2010	3610	9040	2340	811	1320	525	553
15	1370	2730	3750	3820	1710	3250	7400	2120	737	2580	477	456
16	1160	2270	3130	3200	1880	3040	6900	2040	677	1080	487	679
17	967	1890	4180	2930	6240	5840	15000	1980	783	667	4200	1360
18	897	1630	8790	2700	4440	16200	10700	1850	775	565	1970	1540
19	864	1480	5230	2380	2500	9600	8330	1930	592	1730	829	1010
20	773	1270	4550	2110	1800	6630	7110	1910	591	2290	644	855
21	745	1200	4290	1900	1680	6280	5880	1830	983	1090	863	1010
22	664	1170	3410	2460	1780	8140	10400	1700	1350	815	714	969
23	594	10800	2950	3110	1940	8560	9460	1490	1220	624	503	765
24	718	12900	2730	2580	1720	22600	7320	1430	921	563	431	563
25	784	8410	2290	2480	1340	17500	5700	1330	764	518	433	565
26	720	6380	2090	2400	1220	13900	5750	1260	579	516	451	2420
27	654	5320	1930	2140	1240	12200	12000	1290	565	491	393	5650
28	628	4080	1880	1970	1190	11900	8310	1140	878	472	275	9920
29	611	3340	1980	1880	---	13600	6650	1080	825	481	276	3680
30	618	2890	2040	1800	---	15500	5660	961	885	466	450	2530
31	649	---	2170	1780	---	12100	---	1080	---	439	274	---
TOTAL	31549	103179	117850	81950	50080	273400	298920	75941	29348	27009	21008	47744
MEAN	1018	3439	3802	2644	1789	8819	9964	2450	978	871	678	1591
MAX	2730	12900	17600	5050	6240	22600	20700	4960	1770	2580	4200	9920
MIN	594	659	1370	1570	1130	1140	4790	961	565	439	274	241
CFSM	.54	1.82	2.01	1.40	.94	4.66	5.26	1.29	.52	.46	.36	.84
IN.	.62	2.03	2.32	1.61	.98	5.37	5.87	1.49	.58	.53	.41	.94

SCHUYLKILL RIVER BASIN

01474500 SCHUYLKILL RIVER AT PHILADELPHIA, PA--Continued
(National stream-quality accounting network station)

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1932 - 1993, BY WATER YEAR (WY)

MEAN	1312	2284	3066	3244	3611	4738	4263	3149	2117	1628	1378	1400
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

SUMMARY STATISTICS

FOR 1992 CALENDAR YEAR

FOR 1993 WATER YEAR

WATER YEARS 1932 - 1993

ANNUAL TOTAL	795887		1157978				
ANNUAL MEAN	2175		3173				
HIGHEST ANNUAL MEAN						2677	
LOWEST ANNUAL MEAN						4791	1984
HIGHEST DAILY MEAN	17600	Dec 11	22600	Mar 24		1014	1965
LOWEST DAILY MEAN	569	Sep 18	241	Sep 3		93400	Jun 23 1972
ANNUAL SEVEN-DAY MINIMUM	609	Sep 16	291	Aug 28		.60	Sep 2 1966
INSTANTANEOUS PEAK FLOW			29200	Mar 24		24	Sep 28 1941
INSTANTANEOUS PEAK STAGE			9.87	Mar 24		14.65	Jun 23 1972
INSTANTANEOUS LOW FLOW						.00	Jun 23 1972
ANNUAL RUNOFF (CFSM)	1.15		1.68			1.41	Sep 2 1966
ANNUAL RUNOFF (INCHES)	15.64		22.76			19.22	
10 PERCENT EXCEEDS	3960		8320			5810	
50 PERCENT EXCEEDS	1550		1710			1640	
90 PERCENT EXCEEDS	770		563			408	

SCHUYLKILL RIVER BASIN

01474500 SCHUYLKILL RIVER AT PHILADELPHIA, PA--Continued
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1945 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE.--October 1963 to November 1980, January 1986 to May 1990.

pH.--January 1968 to November 1980.

WATER TEMPERATURE.--October 1945 to November 1980, January 1986 to May 1990.

DISSOLVED OXYGEN.--January 1966 to November 1980, January 1986 to May 1990.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPECIFIC CONDUCTANCE (μS/CM) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	TEMPERATURE WATER (DEG C) (00010)	BAROMETRIC PRES-SURE (MM OF HG) (00025)	TURBIDITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)	COLIFORM, FE CAL, 0.45 μM-MF (COLS./100 ML) (31616)	STREPTOCOCCI, FE CAL, KF AGAR (COLS. PER 100 ML) (31673)
DEC 21...	1120	4350	310	7.4	5.0	738	2.1	12.8	K 450	K 60
MAR 17...	1035	3350	380	7.8	3.5	733	0.60	13.4	K 190	K 210
JUN 17...	1125	922	490	7.7	24.5	743	2.1	10.7	--	--
SEP 23...	1140	874	430	7.8	20.0	740	2.2	12.3	K 210	K 270

DATE	HARDNESS TOTAL (MG/L AS CAC03) (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)	SODIUM AD-SORPTION RATIO (00931)	SODIUM PERCENT (00932)	POTASSIUM, DIS-SOLVED (MG/L AS K) (00935)	BICARBONATE WATER WH IT FIELD (MG/L AS HCO3) (00450)	CARBONATE WATER WH IT FIELD (MG/L AS CO3) (00447)	ALKALINITY WAT WH TOT IT FIELD (MG/L AS CAC03) (00419)
DEC 21...	110	29	9.5	13	0.5	20	2.7	65	0	53
MAR 17...	110	29	10	25	1	32	3.2	78	0	64
JUN 17...	170	41	17	28	0.9	26	4.0	104	0	86
SEP 23...	150	37	15	25	0.9	25	5.1	152	0	125

DATE	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	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)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	NITROGEN, NITRATE DIS-SOLVED (MG/L AS N) (00618)	NITROGEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)
DEC 21...	47	19	<0.10	9.2	199	178	2340	0.27	3.52	0.080
MAR 17...	46	46	<0.10	8.3	217	220	1960	0.30	3.05	0.050
JUN 17...	80	36	0.20	7.4	290	282	722	0.39	3.66	0.040
SEP 23...	63	33	0.20	7.6	256	276	604	0.35	3.16	0.040

DATE	NITROGEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOSPHORUS TOTAL (MG/L AS P) (00665)	PHOSPHORUS, DIS-SOLVED (MG/L AS P) (00666)	PHOSPHORUS, ORTHO, DIS-SOLVED (MG/L AS P) (00671)	ALUMINUM, DIS-SOLVED (μG/L AS AL) (01106)	BARIUM, DIS-SOLVED (μG/L AS BA) (01005)
DEC 21...	3.60	0.170	0.170	0.33	0.50	0.100	0.120	0.080	--	31
MAR 17...	3.10	0.210	--	0.39	0.60	0.110	0.080	0.080	--	35
JUN 17...	3.70	0.040	--	0.36	0.40	0.250	0.260	0.250	20	44
SEP 23...	3.20	0.180	--	0.32	0.50	0.290	0.330	0.300	30	35

SCHUYLKILL RIVER BASIN

01474500 SCHUYLKILL RIVER AT PHILADELPHIA, PA--Continued
(National stream-quality accounting network station)

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	COBALT, DIS- SOLVED (μ G/L AS CO) (01035)	IRON, DIS- SOLVED (μ G/L AS FE) (01046)	LITHIUM DIS- SOLVED (μ G/L AS LI) (01130)	MANGA- NESE, DIS- SOLVED (μ G/L AS MN) (01056)	MOLYB- DENUM, DIS- SOLVED (μ G/L AS MO) (01060)	NICKEL, DIS- SOLVED (μ G/L AS NI) (01065)	SELE- NIUM, DIS- SOLVED (μ G/L AS SE) (01145)	SILVER, DIS- SOLVED (μ G/L AS AG) (01075)	STRON- TIUM, DIS- SOLVED (μ G/L AS SR) (01080)	VANA- DIUM, DIS- SOLVED (μ G/L AS V) (01085)
DEC 21...	<3	140	5	98	<10	10	<1	<1.0	150	<6
MAR 17...	<3	48	5	99	<10	6	<1	<1.0	130	<6
JUN 17...	<3	17	9	25	<10	4	<1	<1.0	220	<6
SEP 23...	<3	33	4	76	<10	4	<1	<1.0	200	<6

SCHUYLKILL RIVER BASIN

01474505 SCHUYLKILL RIVER ABOVE PASSYUNK AVENUE AT PHILADELPHIA, PA

LOCATION.--Lat 39°55'18", long 75°12'16", Philadelphia County, Hydrologic Unit 02040203, on left bank, on west face of Philadelphia Fire Department dock in the embayment off the main channel of the Schuylkill River, and 1,200 ft upstream of Passyunk Avenue at Philadelphia.

DRAINAGE AREA.--1,900 mi².

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

GAGE.--Water-stage recorder. Datum of gage is sea level (from U.S. Army Corps of Engineers benchmark).

REMARKS.--Records good.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 8.03 ft, Oct. 25, 1980; minimum, -5.88 ft, Dec. 27, 1989.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 7.79 ft, Oct. 1; minimum, -4.84 ft, Mar. 15.

Summaries of tide elevations during current water year:

	Maximum elevation	High tide date	Minimum elevation	Low tide date	Mean high tide	Mean water level	Mean low tide
Oct. 1992.....	7.79	1	-3.67	17	4.40	1.21	-2.19
Nov.....	5.69	25	-2.79	14	4.48	1.48	-1.85
Dec.....	7.57	11	-4.63	24	4.39	1.29	-2.30
Jan. 1993.....	5.70	10	-3.94	30	4.27	1.20	-2.22
Feb.....	5.26	13	-4.10	2	4.18	1.15	-2.32
Mar.....	6.12	5	-4.84	15	4.28	1.35	-2.03
Apr.....	6.50	1	-3.38	23	5.19	2.27	-1.20
May.....	5.70	31	-2.69	26	4.95	1.65	-1.97
June.....	5.53	5	-3.48	6	4.86	1.42	-2.28
July.....	5.65	3	-2.58	23	4.82	1.53	-2.06
Aug.....	5.74	19	-2.33	4	4.84	1.63	-1.89
Sept.....	5.37	17	-2.92	16	4.67	1.58	-1.90

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. 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, 8,380 acre-ft, Nov. 24, elevation, 1,182.3 ft; minimum contents, 7,120 acre-ft, Sept. 23, elevation, 1,177.90 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. Datum of gage is sea level (levels by U.S. Army Corps of Engineers).

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), 15,770 acre-ft, Mar. 21, 1986, elevation of 283.00 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 27,210 acre-ft, Apr. 12, elevation, 293.53 ft; minimum contents, 17,060 acre-ft, Nov. 27, elevation, 284.41.

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 of 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 of 251.60 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 14,360 acre-ft, Apr. 1, elevation, 287.05 ft; minimum contents, 12,420 acre-ft, Aug. 16, elevation, 284.85 ft.

SCHUYLKILL RIVER BASIN

LAKES AND RESERVOIRS IN SCHUYLKILL RIVER BASIN--Continued

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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)
01469200 Still Creek Reservoir				01470870 Blue Marsh Lake		
Sept. 30	1,180.3	7,790	--	289.46	22,280	--
Oct. 31	1,181.8	8,230	+7.2	284.97	17,590	-76.3
Nov. 30	1,182.2	8,340	+1.8	284.90	17,530	- 1.0
Dec. 31	1,182.1	8,320	-0.3	285.07	17,690	+ 2.6
CAL YR 1992	--	--	+3.3	--	--	+ 0.3
Jan. 31	1,182.0	8,300	-0.3	285.06	17,680	- 0.2
Feb. 28	1,182.0	8,290	-0.2	285.17	17,790	+ 2.0
Mar. 31	1,182.0	8,290	0	285.68	18,290	+ 8.1
Apr. 31	1,182.0	8,290	0	289.97	22,860	+76.8
May 31	1,181.9	8,260	-0.5	290.15	23,070	+ 3.4
June 30	1,181.1	8,020	-4.0	290.00	22,900	- 2.9
July 31	1,179.8	7,650	-6.0	290.14	23,060	+ 2.6
Aug. 31	1,178.6	7,310	-5.5	290.09	23,000	- 1.0
Sept. 30	1,177.9	7,120	-3.2	290.11	23,020	+ 0.3
WTR YR 1993	--	--	-0.9	--	--	+ 1.0
01472200 Green Lane Reservoir						
Sept. 30	285.94	13,380	--			
Oct. 31	285.84	13,290	-1.5			
Nov. 30	286.06	13,490	+3.4			
Dec. 31	286.11	13,530	+0.7			
CAL YR 1992	--	--	+0.1			
Jan. 31	286.00	13,430	-1.6			
Feb. 28	286.00	13,430	0			
Mar. 31	286.34	13,730	+4.9			
Apr. 30	286.18	13,590	-2.4			
May 31	285.94	13,380	-3.4			
June 30	285.85	13,300	-1.3			
July 31	285.69	13,150	-2.4			
Aug. 31	285.75	13,210	+1.0			
Sept. 30	286.08	13,500	+4.9			
WTR YR 1993	--	--	+0.2			

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 September 1976, February 1981 to current year.

INSTRUMENTATION.--Water-quality monitor July 1970 to June 1976. 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 1992 TO SEPTEMBER 1993

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	361	329	347	376	351	362						
2	357	328	342	361	334	349						
3	352	316	335	449	316	361						
4	341	322	334	449	313	359						
5	357	330	345	436	296	346						
6	366	334	348	357	288	316						
7	353	325	343	348	279	312						
8	350	327	341	347	274	300						
9	351	322	340	330	277	298						
10	360	326	343	304	268	289						
11	362	327	347	308	272	284						
12	392	334	355	291	268	280						
13	384	339	356	351	266	301						
14	377	333	351	371	266	319						
15	356	312	338	364	266	307						
16	337	306	323	328	259	279						
17	358	315	325	291	235	258						
18	337	315	324	297	241	260						
19	338	316	329	302	233	256						
20	340	311	325	294	221	254						
21	337	310	323	270	224	246						
22	331	306	320	276	242	254						
23	333	309	319	354	232	287						
24	344	309	324	332	203	258						
25	357	330	339	271	215	239						
26	353	326	340	260	206	232						
27	382	339	352	255	155	205						
28	369	349	359	254	164	210						
29	378	356	365	261	178	214						
30	383	355	367	263	181	208						
31	376	350	358	---	---	---						
MONTH	392	306	341	449	155	281						

DELAWARE RIVER BASIN

01474703 DELAWARE RIVER AT FORT MIFFLIN AT PHILADELPHIA, PA--Continued

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25° CELSIUS, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1				289	208	229	211	154	188	272	167	214
2				277	194	225	200	136	168	273	166	209
3				268	204	224	200	131	179	298	173	236
4				307	200	232	207	143	184	281	176	212
5				375	208	286	235	143	201	282	178	219
6				259	183	222	260	166	225	286	174	216
7				260	218	246	280	173	232	311	186	243
8				276	249	266	296	177	234	317	195	251
9				279	259	270	281	179	226	342	208	262
10				273	248	263	297	176	231	342	213	258
11				273	247	259	297	165	204	297	214	240
12				285	252	269	221	163	199	290	216	242
13				292	268	279	210	171	194	287	211	240
14				336	278	301	237	156	200	288	214	245
15				337	306	320	255	170	210	308	224	253
16				357	306	329	270	167	220	303	221	253
17				415	349	362	281	151	221	307	225	256
18				481	358	414	250	147	204	337	225	260
19				373	315	339	254	174	221	339	215	256
20				374	340	354	248	189	220	327	215	254
21				398	360	378	263	163	214	312	222	262
22				415	367	393	289	152	225	275	233	243
23				420	378	404	275	162	219	264	226	245
24				386	293	354	242	166	203	258	231	248
25				355	287	316	260	168	206	270	244	255
26				368	332	346	275	182	229	---	---	---
27				352	304	325	278	175	224	---	---	---
28				320	274	300	241	160	198	---	---	---
29				284	254	272	256	161	209	---	---	---
30				258	216	238	270	184	224	---	---	---
31				218	164	202	---	---	---	---	---	---
MONTH				481	164	297	297	131	210	342	166	243
	JUNE			JULY			AUGUST			SEPTEMBER		
1	---	---	---	418	350	369	---	---	---	369	308	330
2	---	---	---	403	342	361	---	---	---	390	326	350
3	390	292	342	411	346	362	407	372	394	426	271	341
4	410	292	322	408	349	367	448	382	399	332	234	289
5	400	295	318	400	346	363	436	385	403	365	302	331
6	393	290	327	401	350	364	488	386	413	373	329	354
7	371	297	320	585	354	385	452	393	415	405	341	372
8	358	295	314	---	---	---	439	398	416	424	355	380
9	383	295	329	405	343	361	425	387	407	533	388	447
10	405	305	368	405	351	370	431	387	405	495	402	433
11	405	310	340	405	352	375	435	390	406	415	338	383
12	387	277	330	401	364	377	437	390	404	393	334	360
13	---	---	---	391	362	375	563	386	490	382	325	349
14	---	---	---	403	370	385	582	503	522	382	306	333
15	---	---	---	416	363	392	582	483	514	373	295	323
16	---	---	---	408	369	386	559	481	513	362	281	311
17	---	---	---	394	373	383	662	469	537	375	285	317
18	---	---	---	392	367	380	660	437	532	351	275	302
19	---	---	---	415	364	387	480	407	439	317	263	280
20	---	---	---	412	375	388	455	310	416	299	254	276
21	---	---	---	393	357	372	443	287	319	307	253	281
22	---	---	---	368	346	357	443	355	381	---	---	---
23	---	---	---	367	338	353	389	330	357	---	---	---
24	---	---	---	366	338	348	389	315	344	---	---	---
25	380	324	344	369	339	351	366	299	330	---	---	---
26	379	338	352	387	348	359	382	298	325	---	---	---
27	388	336	352	396	351	370	426	311	347	---	---	---
28	392	340	353	379	355	368	426	271	351	---	---	---
29	403	335	363	392	356	369	339	254	275	---	---	---
30	417	339	370	---	---	---	328	272	294	---	---	---
31	---	---	---	---	---	---	358	291	317	---	---	---
MONTH	417	277	340	585	338	371	662	254	402	533	234	340

DELAWARE RIVER BASIN

01474703 DELAWARE RIVER AT FORT MIFFLIN AT PHILADELPHIA, PA--Continued

WATER TEMPERATURE, (DEG. C), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	19.5	18.5	19.0	13.5	13.0	13.0						
2	19.0	18.5	19.0	13.5	13.0	13.0						
3	19.5	18.5	18.5	13.5	12.0	13.0						
4	18.5	18.5	18.5	13.0	12.0	13.0						
5	18.5	18.0	18.0	13.0	12.5	13.0						
6	18.0	17.5	18.0	13.0	12.0	12.5						
7	18.0	17.5	17.5	12.5	11.5	12.0						
8	18.0	17.5	17.5	12.0	11.0	11.5						
9	18.0	17.5	18.0	12.0	11.0	11.5						
10	18.0	17.5	18.0	11.5	11.0	11.0						
11	18.0	17.5	17.5	11.5	10.5	11.0						
12	18.0	17.0	17.5	12.0	10.5	11.0						
13	18.0	17.0	17.5	12.5	10.5	11.0						
14	17.5	17.0	17.5	11.0	10.5	11.0						
15	17.5	17.0	17.5	11.0	10.5	10.5						
16	17.5	17.0	17.5	10.5	10.0	10.5						
17	17.5	16.5	17.0	10.0	9.0	9.5						
18	17.0	16.5	17.0	9.5	8.5	9.5						
19	16.5	16.0	16.5	9.0	8.5	9.0						
20	16.0	15.5	15.5	9.0	8.0	8.5						
21	15.5	15.0	15.5	9.0	8.0	8.5						
22	15.5	15.0	15.0	9.0	8.0	8.5						
23	15.0	14.5	15.0	10.0	8.5	9.0						
24	15.0	14.5	15.0	11.5	9.5	11.0						
25	15.0	14.0	14.5	11.5	9.5	10.5						
26	14.5	14.0	14.0	10.0	9.0	9.5						
27	14.5	13.5	14.0	10.0	9.0	9.5						
28	14.0	13.5	14.0	10.0	9.5	10.0						
29	14.0	13.5	13.5	10.0	9.5	9.5						
30	14.0	13.5	13.5	9.5	9.0	9.5						
31	13.5	13.0	13.5	---	---	---						
MONTH	19.5	13.0	16.5	13.5	8.0	10.5						
FEBRUARY			MARCH			APRIL			MAY			
1			2.5	2.0	2.0	10.0	6.5	9.0	15.5	13.0	14.0	
2			3.0	2.0	2.5	9.5	6.0	8.0	16.5	13.5	14.5	
3			3.0	2.5	2.5	8.0	6.0	7.5	17.0	14.0	15.0	
4			3.5	2.5	3.0	7.5	5.5	7.0	16.5	14.5	15.0	
5			---	---	---	7.5	5.5	6.5	17.0	14.5	15.5	
6			3.0	2.0	2.5	7.5	6.0	7.0	17.0	15.0	16.0	
7			3.0	2.5	3.0	8.5	6.0	7.0	17.5	15.5	16.5	
8			4.5	3.0	3.5	9.0	6.0	7.5	18.5	16.5	17.0	
9			5.0	3.5	4.5	10.0	6.5	8.0	19.0	17.0	17.5	
10			4.5	4.0	4.5	11.5	7.5	9.0	19.5	17.5	18.5	
11			4.5	4.0	4.5	11.5	8.0	10.0	20.0	18.0	18.5	
12			4.5	4.0	4.5	11.0	9.0	10.0	21.0	18.5	19.5	
13			4.5	3.0	4.0	11.0	9.5	10.0	20.5	19.0	19.5	
14			4.0	2.0	3.5	11.0	9.5	10.0	21.0	19.0	19.5	
15			3.5	2.0	3.0	11.5	9.5	10.5	21.5	19.0	20.0	
16			3.5	2.0	2.5	12.0	10.0	11.0	20.5	19.5	20.0	
17			3.5	2.0	2.5	13.5	10.0	12.0	21.5	20.0	20.5	
18			3.5	1.5	3.0	13.0	10.5	11.5	20.5	18.5	20.0	
19			3.0	1.0	2.0	12.5	11.0	12.0	20.0	19.5	19.5	
20			3.0	2.0	2.5	13.0	11.5	12.5	19.5	19.0	19.5	
21			4.0	2.5	3.5	14.0	12.0	13.0	19.5	19.0	19.0	
22			5.5	3.5	4.5	14.5	12.0	13.0	19.5	19.0	19.0	
23			5.0	4.0	5.0	13.0	10.0	12.0	19.5	18.5	19.0	
24			5.5	3.5	4.5	11.5	10.5	11.0	20.0	19.0	19.5	
25			5.0	3.5	4.0	12.0	10.5	11.5	20.5	19.0	19.5	
26			6.5	4.5	5.5	13.0	11.5	12.0	20.0	19.5	19.5	
27			7.5	6.0	6.5	14.0	11.5	12.5	20.0	19.5	20.0	
28			8.0	6.5	7.0	13.5	11.5	12.5	21.0	19.5	20.0	
29			8.5	6.5	7.5	14.0	12.0	13.0	21.0	20.0	20.5	
30			9.0	7.5	8.5	14.5	12.5	13.5	21.0	20.0	20.5	
31			9.5	7.5	8.5	---	---	---	20.5	20.0	20.5	
MONTH			9.5	1.0	4.0	14.5	5.5	10.5	21.5	13.0	18.5	

DELAWARE RIVER BASIN

01474703 DELAWARE RIVER AT FORT MIFFLIN AT PHILADELPHIA, PA--Continued

WATER TEMPERATURE, (DEG. C), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	21.0	20.0	20.5	26.5	25.5	26.0	27.5	26.5	27.0	27.5	27.0	27.5
2	21.0	20.0	20.5	26.0	25.5	25.5	27.5	26.5	27.0	27.5	27.0	27.5
3	21.0	20.0	20.5	26.5	25.5	25.5	27.5	27.0	27.0	28.0	27.0	27.5
4	20.5	20.0	20.5	27.0	25.5	26.0	27.5	27.0	27.0	27.5	27.0	27.5
5	20.5	20.0	20.0	27.0	26.0	26.5	27.0	27.0	27.0	27.5	27.0	27.5
6	20.5	20.0	20.0	27.0	26.5	27.0	27.0	26.0	26.5	27.5	27.0	27.5
7	20.5	19.5	20.0	27.5	26.5	27.0	26.5	26.0	26.5	27.5	27.0	27.5
8	20.5	20.0	20.0	28.0	27.0	27.5	27.0	26.0	26.5	27.5	26.5	27.0
9	22.0	20.0	20.5	28.5	27.5	28.0	27.0	26.0	26.5	27.0	26.5	26.5
10	22.0	20.5	21.0	29.0	28.0	28.5	26.5	26.0	26.5	27.0	26.0	26.5
11	22.0	21.0	21.5	29.5	28.0	28.5	26.5	26.0	26.5	26.0	25.0	25.5
12	22.5	21.5	22.0	29.0	28.5	28.5	27.0	26.0	26.5	25.5	24.5	25.0
13	23.0	21.5	22.0	29.5	28.5	29.0	27.0	26.0	26.5	25.0	24.5	24.5
14	23.5	22.0	22.5	29.5	28.5	29.0	27.0	26.5	26.5	25.0	24.5	24.5
15	23.5	22.0	22.5	30.0	28.5	29.0	27.0	26.5	26.5	25.0	24.5	24.5
16	23.5	22.5	23.0	29.0	28.5	28.5	27.0	26.5	27.0	25.0	24.0	24.5
17	24.0	22.5	23.0	28.5	28.0	28.0	27.0	26.5	26.5	24.0	23.5	24.0
18	24.5	23.0	23.5	28.5	27.5	28.0	27.0	26.5	26.5	23.5	23.0	23.5
19	24.5	23.5	24.0	28.0	27.0	27.5	27.0	26.0	26.5	23.5	22.5	23.0
20	25.0	24.0	24.5	27.5	27.0	27.5	26.5	26.0	26.5	22.5	22.0	22.5
21	25.0	24.5	25.0	27.5	26.5	27.0	26.5	26.0	26.5	22.5	22.0	22.0
22	26.0	24.5	25.0	27.0	26.5	27.0	26.5	26.0	26.0	22.0	21.5	22.0
23	25.5	24.5	25.0	27.0	26.5	26.5	26.5	26.0	26.0	22.0	21.5	21.5
24	25.5	24.5	25.0	27.0	26.5	27.0	26.5	25.5	26.0	22.0	21.5	21.5
25	26.0	24.5	25.0	27.5	26.5	27.0	27.0	26.0	26.0	21.5	21.5	21.5
26	26.0	24.5	25.0	27.0	26.5	27.0	27.0	26.0	26.5	22.0	21.0	21.5
27	26.5	25.0	25.5	27.0	26.5	26.5	27.5	26.5	27.0	21.5	21.0	21.0
28	26.5	25.0	25.5	27.5	26.5	27.0	27.5	26.5	27.0	21.5	20.0	20.5
29	26.5	25.5	26.0	27.5	26.5	27.0	27.5	26.5	27.0	20.5	19.5	20.0
30	27.0	25.5	26.0	27.5	27.0	27.0	27.5	27.0	27.0	20.0	19.0	19.5
31	---	---	---	27.0	26.5	27.0	28.0	27.0	27.0	---	---	---
MONTH	27.0	19.5	23.0	30.0	25.5	27.5	28.0	25.5	26.5	28.0	19.0	24.0

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. Elevation of gage is 310 ft above sea level, from topographic map.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.7	4.1	4.6	6.7	6.3	5.9	48	9.8	13	2.9	2.0	1.3
2	3.6	5.6	4.6	6.1	5.5	6.8	24	9.6	5.8	6.0	2.0	1.2
3	3.6	39	4.4	6.1	5.9	8.0	16	9.4	5.3	5.9	1.9	2.1
4	3.6	5.3	4.2	6.1	6.1	110	15	9.2	5.7	3.5	1.8	3.4
5	3.5	5.8	5.3	29	6.0	25	14	10	5.4	3.1	1.7	1.9
6	3.4	7.6	4.4	8.8	6.2	13	13	9.4	5.1	2.9	9.1	1.4
7	3.2	4.3	4.4	7.3	6.1	10	13	8.7	4.8	2.9	4.2	1.3
8	2.7	4.1	4.3	7.3	6.4	10	12	8.2	4.7	2.9	2.6	3.3
9	6.8	3.8	4.2	7.5	6.0	9.2	12	8.1	13	2.7	2.3	2.2
10	5.2	3.8	9.0	6.6	6.0	8.5	55	8.1	7.4	2.5	2.2	5.3
11	3.9	3.8	197	6.4	6.1	8.2	17	7.9	4.7	2.4	2.1	1.8
12	3.7	4.7	24	10	6.9	7.7	14	8.2	4.4	2.4	2.2	1.4
13	3.1	20	14	14	20	9.8	13	9.7	4.2	2.3	2.2	1.4
14	3.1	5.1	9.3	9.0	10	10	12	8.0	4.1	21	1.9	1.3
15	6.6	4.6	8.1	7.6	7.7	8.1	12	7.7	4.1	9.1	1.7	1.3
16	3.5	4.3	7.5	7.2	17	8.9	44	7.6	3.9	3.8	1.7	4.9
17	3.8	4.2	29	7.0	16	56	18	7.5	3.9	3.1	2.1	7.3
18	4.0	4.1	12	6.6	9.2	26	13	10	3.8	2.6	2.0	5.9
19	4.0	4.0	8.5	6.4	7.2	14	12	9.8	3.7	9.9	1.6	2.7
20	5.1	4.0	10	6.2	6.8	12	11	8.5	3.8	4.9	3.7	2.0
21	3.1	4.0	8.0	6.4	7.0	19	12	7.5	9.8	3.2	3.9	8.0
22	3.2	5.8	7.8	15	11	21	35	7.3	5.4	2.8	1.9	3.3
23	3.0	54	8.1	7.5	8.4	29	13	7.0	3.7	2.7	1.6	2.5
24	4.2	6.6	7.4	7.8	6.9	82	12	6.7	3.3	2.5	1.5	2.4
25	5.0	6.3	6.9	7.6	6.1	26	11	6.5	3.2	2.5	1.4	3.1
26	4.0	10	6.7	6.7	6.1	20	22	6.1	3.2	2.5	1.3	24
27	2.6	7.9	6.2	6.7	6.1	17	13	6.0	3.1	2.5	1.3	108
28	4.0	5.6	7.4	6.4	6.0	20	11	5.9	3.0	2.3	1.3	9.3
29	3.4	4.9	7.2	6.4	---	22	10	5.8	2.9	2.8	1.2	4.9
30	2.1	4.7	8.4	6.2	---	17	10	5.6	3.9	2.2	1.2	3.8
31	2.7	---	7.3	6.2	---	14	---	9.2	---	2.0	1.3	---
TOTAL	117.4	252.0	450.2	254.8	225.0	654.1	537	249.0	152.3	124.8	68.9	222.7
MEAN	3.79	8.40	14.5	8.22	8.04	21.1	17.9	8.03	5.08	4.03	2.22	7.42
MAX	6.8	54	197	29	20	110	55	10	13	21	9.1	108
MIN	2.1	3.8	4.2	6.1	5.5	5.9	10	5.6	2.9	2.0	1.2	1.2
CFSM	.74	1.63	2.82	1.60	1.56	4.10	3.48	1.56	.99	.78	.43	1.44
IN.	.85	1.82	3.25	1.84	1.63	4.72	3.88	1.80	1.10	.90	.50	1.61

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1972 - 1993, BY WATER YEAR (WY)

	MEAN	5.20	8.05	9.64	10.4	10.5	12.5	12.4	10.7	8.89	6.96	5.18	5.97
MAX	15.9	22.2	18.9	30.2	27.4	28.5	26.4	18.8	20.4	16.6	8.70	26.4	
(WY)	1980	1973	1974	1979	1979	1978	1983	1984	1982	1975	1978	1979	
MIN	2.34	2.90	1.92	1.71	5.52	4.15	3.67	4.90	2.50	2.67	2.12	1.62	
(WY)	1986	1981	1981	1981	1980	1985	1985	1986	1985	1985	1980	1980	

SUMMARY STATISTICS

FOR 1992 CALENDAR YEAR

FOR 1993 WATER YEAR

WATER YEARS 1972 - 1993

ANNUAL TOTAL	2648.6	3308.2	8.80	1979
ANNUAL MEAN	7.24	9.06	14.3	1985
HIGHEST ANNUAL MEAN			4.53	1985
LOWEST ANNUAL MEAN			268	Jun 22 1972
HIGHEST DAILY MEAN	197	Dec 11	.83	Nov 8 1980
LOWEST DAILY MEAN	2.1	Oct 30	1.0	Nov 6 1980
ANNUAL SEVEN-DAY MINIMUM	2.7	Sep 15	1.3	Aug 27
INSTANTANEOUS PEAK FLOW			677	Nov 23
INSTANTANEOUS PEAK STAGE			5.13	Nov 23
INSTANTANEOUS LOW FLOW			.29	Nov 12
ANNUAL RUNOFF (CFSM)	1.41		1.76	
ANNUAL RUNOFF (INCHES)	19.13		23.90	
10 PERCENT EXCEEDS	11		15	
50 PERCENT EXCEEDS	4.9		6.1	
90 PERCENT EXCEEDS	3.1		2.2	

a Also Aug. 30 and Sept. 1.

DARBY CREEK BASIN

01475300 DARBY CREEK AT WATERLOO MILLS NEAR DEVON, PA--Continued

WATER-QUALITY RECORDS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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 AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)	HARD-NESS TOTAL (MG/L AS CaCO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS Ca) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS Mg) (00925)	
OCT 21...	1150	4.2	278	7.3	15.5	10.0	2.5	11.6	100	25	10	
DATE		SODIUM, DIS-SOLVED (MG/L AS Na) (00930)	SODIUM AD-SORP-TION RATIO (00931)	SODIUM PERCENT (00932)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY WAT WH TOT IT FIELD (MG/L AS CaCO3) (00419)	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, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)
OCT 21...	14	0.6		22	2.2	110	18	26	0.10	14	182	<0.010
DATE		NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	ALUM-INUM, DIS-SOLVED (μG/L AS AL) (01106)	IRON, DIS-SOLVED (μG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (μG/L AS MN) (01056)	
OCT 21...		1.50	<0.010	<0.20	0.20	0.040	0.010	<0.010	20	41	11	

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 Geist 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. Datum of gage is 225.75 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.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.6	e7.2	13	18	14	14	130	28	37	9.3	6.1	4.8
2	8.1	e9.0	12	17	11	16	74	27	17	13	6.0	4.8
3	7.0	107	11	17	13	20	47	26	16	18	5.7	5.3
4	6.7	18	11	17	13	268	40	26	16	11	6.2	8.8
5	6.8	15	15	74	13	99	38	29	16	9.7	5.9	6.1
6	6.8	23	12	26	14	39	36	27	16	9.3	19	5.1
7	6.7	14	12	21	14	31	34	24	15	9.0	13	4.9
8	6.7	11	12	20	14	30	32	23	15	8.7	7.6	8.4
9	19	10	11	20	13	28	31	23	29	8.1	7.1	6.9
10	23	10	15	18	13	24	181	22	25	7.6	6.9	13
11	14	17	370	18	14	24	57	22	15	7.5	6.6	6.4
12	18	26	81	27	16	22	41	21	14	7.3	6.9	5.7
13	13	24	39	41	49	27	36	25	13	7.1	6.7	5.6
14	e10	15	26	27	32	28	34	22	13	38	6.3	5.4
15	e7.4	12	22	21	23	23	34	20	13	30	5.9	5.3
16	e8.6	11	21	19	46	23	103	20	12	9.8	5.9	12
17	e6.6	10	75	19	57	127	68	20	12	8.7	6.4	15
18	e6.8	10	40	17	28	97	38	25	11	8.1	6.5	18
19	e7.0	9.7	24	16	18	41	35	26	11	14	6.1	8.4
20	e7.2	9.4	28	16	17	35	33	23	12	13	12	6.8
21	e9.0	9.5	23	16	17	57	33	21	20	9.1	17	22
22	e10	13	20	42	28	71	96	19	18	8.4	6.7	10
23	e10	127	21	21	25	77	39	18	12	7.8	6.2	7.9
24	e15	22	19	18	18	262	34	18	11	7.3	6.0	7.5
25	24	19	17	20	15	86	32	17	10	7.3	5.7	7.7
26	17	28	18	16	15	61	56	17	10	7.5	5.4	69
27	e13	27	16	16	15	49	44	16	10	7.7	5.2	249
28	e9.0	17	20	15	14	53	32	16	9.6	6.8	5.0	34
29	e6.8	15	21	15	---	62	30	16	9.6	7.7	4.9	14
30	e7.2	13	25	13	---	52	29	15	9.5	6.6	4.7	11
31	e7.0	---	22	15	---	41	---	23	---	6.1	4.8	---
TOTAL	325.0	658.8	1072	676	579	1887	1547	675	447.7	329.5	224.4	588.8
MEAN	10.5	22.0	34.6	21.8	20.7	60.9	51.6	21.8	14.9	10.6	7.24	19.6
MAX	24	127	370	74	57	268	181	29	37	38	19	249
MIN	6.6	7.2	11	13	11	14	29	15	9.5	6.1	4.7	4.8
CFSM	.66	1.39	2.19	1.38	1.31	3.85	3.26	1.38	.94	.67	.46	1.24
IN.	.77	1.55	2.52	1.59	1.36	4.44	3.64	1.59	1.05	.78	.53	1.39

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1982 - 1993, BY WATER YEAR (WY)

	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
MEAN	12.4	20.6	22.9	23.5	27.0	31.2	33.5	27.0	20.4	15.9	12.6	12.6
MAX	27.5	37.3	55.6	37.0	42.7	63.7	76.8	58.9	43.8	36.2	18.6	22.1
(WY)	1990	1987	1984	1990	1984	1983	1984	1982	1989	1991	1989	1989
MIN	8.57	7.98	10.3	7.45	17.1	11.7	9.45	13.8	5.85	6.99	6.64	6.42
(WY)	1982	1982	1990	1985	1992	1985	1985	1985	1985	1985	1986	1986

SUMMARY STATISTICS

FOR 1992 CALENDAR YEAR

FOR 1993 WATER YEAR

WATER YEARS 1982 - 1993

ANNUAL TOTAL	6633.6	9010.2	21.6
ANNUAL MEAN	18.1	24.7	34.7
HIGHEST ANNUAL MEAN			12.3
LOWEST ANNUAL MEAN			1985
HIGHEST DAILY MEAN	370	Dec 11	535
LOWEST DAILY MEAN	2.0	Aug 10	.64
ANNUAL SEVEN-DAY MINIMUM	3.3	Aug 4	2.4
INSTANTANEOUS PEAK FLOW			1350
INSTANTANEOUS PEAK STAGE			7.79
ANNUAL RUNOFF (CFSM)	1.15		1.37
ANNUAL RUNOFF (INCHES)	15.62		18.58
10 PERCENT EXCEEDS	28		37
50 PERCENT EXCEEDS	14		15
90 PERCENT EXCEEDS	6.7		6.2

a From rating curve extended above 830 ft³/s.

e Estimated.

RIDLEY CREEK BASIN

01476480 RIDLEY CREEK AT MEDIA, PA

LOCATION.--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.

DRAINAGE AREA.--30.5 mi².

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

GAGE.--Water-stage recorder. Elevation of gage is 110 ft above sea level, from topographic map.

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26	12	29	37	e31	e37	e300	e54	105	18	11	12
2	22	13	28	33	e29	e38	e180	e52	37	25	10	11
3	21	187	26	34	e31	e60	e110	e50	36	46	8.4	14
4	21	46	25	35	e30	e330	e92	e52	36	25	8.4	20
5	20	37	30	144	e30	e200	e86	e62	36	21	9.3	15
6	20	47	25	59	e34	e80	e78	e56	35	19	36	10
7	21	29	26	45	e39	e62	e70	e50	32	19	33	11
8	21	25	24	43	e36	e66	e66	e45	32	17	12	26
9	32	23	23	41	e35	e62	e62	e44	53	15	8.6	19
10	55	23	30	36	e34	e52	e170	e43	69	15	7.1	43
11	34	22	487	36	e34	e50	e100	e42	36	14	6.9	9.8
12	32	26	167	57	e60	e47	e70	e41	29	15	7.9	6.3
13	27	110	85	77	e150	e54	e60	e52	28	13	8.9	6.5
14	25	36	54	56	e90	e64	e60	e48	27	63	7.6	9.3
15	26	28	45	44	e60	e54	e58	e43	27	85	7.0	12
16	26	24	44	45	e120	e44	e300	e42	25	21	6.5	27
17	25	25	118	41	e110	e250	e280	e43	24	17	7.2	40
18	27	23	93	35	e64	e150	e100	e58	24	15	7.2	66
19	28	23	53	34	e52	e80	e76	e70	25	19	5.8	24
20	28	24	57	33	e50	e60	e70	e68	25	25	43	16
21	30	26	49	99	e48	e90	e80	e45	35	18	92	55
22	21	31	44	59	e72	e130	e160	e35	43	14	12	29
23	12	186	45	e45	e52	e250	e74	e30	26	13	9.9	17
24	13	53	39	e41	e37	e450	e66	29	19	13	8.8	15
25	18	43	36	e45	e33	e250	e62	37	18	13	12	15
26	13	56	37	e36	e35	e170	e150	33	20	12	14	232
27	12	62	32	e33	e40	e130	e90	30	21	15	13	371
28	12	38	40	e32	e38	e150	e62	32	20	12	15	146
29	11	33	44	e32	---	e200	e60	34	19	15	14	42
30	12	30	50	e32	---	e150	e58	29	19	12	12	32
31	13	---	46	e33	---	e110	---	50	---	11	11	---
TOTAL	704	1341	1931	1452	1474	3920	3250	1399	981	655	465.5	1351.9
MEAN	22.7	44.7	62.3	46.8	52.6	126	108	45.1	32.7	21.1	15.0	45.1
MAX	55	187	487	144	150	450	300	70	105	85	92	371
MIN	11	12	23	32	29	37	58	29	18	11	5.8	6.3
(†)	3.7	4.0	4.2	4.2	3.4	5.0	4.6	4.9	4.0	4.7	6.5	4.1
MEAN‡	26.4	48.7	66.5	51.0	56.0	131	113	50.0	36.7	25.8	21.5	49.2
CFSM‡	.87	1.60	2.18	1.67	1.84	4.30	3.70	1.64	1.20	.85	.70	1.61
IN‡	1.00	1.78	2.51	1.92	1.92	4.96	4.13	1.89	1.34	.98	.81	1.80

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 1993, BY WATER YEAR (WY)

	1987	1988	1989	1990	1991	1992	1993
MEAN	21.4	38.5	42.9	50.3	46.1	59.1	55.5
MAX	49.3	62.4	84.0	82.7	74.3	126	108
(WY)	1990	1987	1987	1990	1988	1993	1989
MIN	9.11	21.4	19.5	28.2	29.0	32.3	28.8
(WY)	1987	1991	1989	1992	1992	1988	1992

SUMMARY STATISTICS

FOR 1992 CALENDAR YEAR

FOR 1993 WATER YEAR

WATER YEARS 1987 - 1993

ANNUAL TOTAL	12689.2	18924.4	
ANNUAL MEAN	34.7	51.8	41.8
HIGHEST ANNUAL MEAN		51.8	51.8
LOWEST ANNUAL MEAN			30.3
HIGHEST DAILY MEAN	487	487	693
LOWEST DAILY MEAN	6.8	5.8	5.7
ANNUAL SEVEN-DAY MINIMUM	7.5	7.2	6.3
INSTANTANEOUS PEAK FLOW		1800	1940
INSTANTANEOUS PEAK STAGE		7.57	7.78
ANNUAL RUNOFF (CFSM)	1.14	1.70	1.37
ANNUAL RUNOFF (INCHES)	15.48	23.08	18.60
10 PERCENT EXCEEDS	54	102	73
50 PERCENT EXCEEDS	26	35	30
90 PERCENT EXCEEDS	13	12	12

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

‡ Adjusted for diversion.

e Estimated.

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. Several measurements of water temperature were made during the year. Satellite telemetry at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	38	39	61	78	e58	72	579	e145	269	50	30	30
2	38	40	60	70	e56	78	362	e135	96	66	29	28
3	37	468	57	68	e86	86	224	e130	87	109	30	28
4	34	89	54	71	65	869	e180	e140	84	64	31	45
5	34	68	66	398	65	658	e160	e190	80	53	44	30
6	33	97	56	132	66	195	e150	e180	83	48	97	26
7	33	59	54	96	73	138	143	e170	76	51	89	29
8	32	51	53	91	66	127	139	e160	76	51	42	62
9	57	47	50	92	63	120	136	e150	124	50	41	43
10	79	46	60	83	61	107	974	e145	135	52	42	122
11	44	46	1100	78	63	104	342	140	82	49	40	44
12	47	50	376	127	72	96	213	e150	73	53	41	38
13	40	266	165	159	277	106	186	e160	71	48	42	37
14	35	77	108	117	143	131	174	e115	70	91	39	34
15	37	60	91	91	98	106	169	103	68	138	36	30
16	35	e54	84	84	221	103	378	99	66	67	37	84
17	35	e50	235	80	271	524	446	100	63	62	44	124
18	35	e52	185	76	126	482	209	114	62	59	38	163
19	36	e54	100	72	91	190	184	135	61	63	36	62
20	40	e49	111	69	82	160	176	109	60	69	87	46
21	37	48	96	69	82	249	176	102	90	60	206	132
22	36	63	85	233	126	290	430	96	111	53	49	65
23	36	374	e76	102	127	283	216	91	68	52	42	48
24	37	111	e70	86	90	1100	183	89	58	51	41	46
25	52	83	e66	91	78	347	173	87	e50	50	38	46
26	38	104	e62	78	76	261	239	83	e46	49	34	624
27	36	133	e60	e70	75	219	240	80	e68	47	32	675
28	35	76	e58	e66	71	227	176	77	e60	43	32	247
29	36	66	e80	e62	---	342	167	75	e52	41	43	82
30	36	63	e100	e60	---	257	e150	71	e47	35	30	66
31	40	---	94	e58	---	196	---	121	---	30	30	---
TOTAL	1218	2883	3973	3107	2828	8223	7674	3742	2436	1804	1492	3136
MEAN	39.3	96.1	128	100	101	265	256	121	81.2	58.2	48.1	105
MAX	79	468	1100	398	277	1100	974	190	269	138	206	675
MIN	32	39	50	58	56	72	136	71	46	30	29	26
CFSM	.64	1.57	2.10	1.64	1.65	4.34	4.19	1.98	1.33	.95	.79	1.71
IN.	.74	1.76	2.42	1.89	1.72	5.01	4.67	2.28	1.48	1.10	.91	1.91

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1932 - 1993, BY WATER YEAR (WY)

	MEAN	53.3	77.4	87.1	101	114	132	129	102	77.7	69.4	62.6	65.0
MAX	234	233	232	326	326	297	413	224	176	254	217	543	
(WY)	1980	1951	1984	1979	1979	1980	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	

SUMMARY STATISTICS

FOR 1992 CALENDAR YEAR

FOR 1993 WATER YEAR

WATER YEARS 1932 - 1993

ANNUAL TOTAL	25967	42516	
ANNUAL MEAN	70.9	116	89.0
HIGHEST ANNUAL MEAN			168
LOWEST ANNUAL MEAN			39.3
HIGHEST DAILY MEAN	1100	Dec 11	1100
LOWEST DAILY MEAN	25	Sep 2	26
ANNUAL SEVEN-DAY MINIMUM	28	Sep 16	31
INSTANTANEOUS PEAK FLOW			2340
INSTANTANEOUS PEAK STAGE			8.00
INSTANTANEOUS LOW FLOW			24
ANNUAL RUNOFF (CFSM)	1.16	1.91	1.46
ANNUAL RUNOFF (INCHES)	15.81	25.89	19.78
10 PERCENT EXCEEDS	107	225	151
50 PERCENT EXCEEDS	52	75	60
90 PERCENT EXCEEDS	34	36	27

a 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.

b 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 1992 TO SEPTEMBER 1993

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER				NOVEMBER			DECEMBER			JANUARY		
1	541	393	462	758	405	550	---	---	---	---	---	---
2	596	399	474	975	409	585	---	---	---	---	---	---
3	525	398	458	731	364	507	---	---	---	---	---	---
4	609	396	467	579	363	437	---	---	---	---	---	---
5	933	406	557	459	354	394	---	---	---	---	---	---
6	757	410	542	414	351	373	---	---	---	---	---	---
7	700	403	522	386	336	363	---	---	---	---	---	---
8	709	403	526	378	318	350	---	---	---	---	---	---
9	776	417	550	364	308	337	---	---	---	---	---	---
10	776	406	545	353	306	330	---	---	---	---	---	---
11	720	391	530	346	299	324	---	---	---	---	---	---
12	649	380	482	332	296	316	---	---	---	---	---	---
13	595	376	462	342	296	315	---	---	---	---	---	---
14	546	366	446	320	291	304	---	---	---	---	---	---
15	524	367	435	309	292	300	---	---	---	---	---	---
16	515	369	435	311	289	299	---	---	---	---	---	---
17	453	343	398	305	284	296	---	---	---	---	---	---
18	572	358	424	298	278	288	---	---	---	---	---	---
19	560	359	426	294	268	283	---	---	---	---	---	---
20	638	355	445	299	262	279	---	---	---	---	---	---
21	563	363	438	282	256	271	---	---	---	---	---	---
22	585	355	427	276	254	266	---	---	---	---	---	---
23	596	359	456	272	231	252	---	---	---	---	---	---
24	612	371	466	263	235	246	---	---	---	---	---	---
25	552	359	438	256	228	249	---	---	---	---	---	---
26	749	376	482	251	213	231	---	---	---	---	---	---
27	634	375	477	222	205	213	---	---	---	---	---	---
28	736	395	511	212	204	207	---	---	---	---	---	---
29	744	396	527	209	202	204	---	---	---	---	---	---
30	758	401	534	212	202	206	---	---	---	---	---	---
31	793	404	551	---	---	---	---	---	---	---	---	---
MONTH	933	343	480	975	202	319	---	---	---	---	---	---

DELAWARE RIVER BASIN

01477050 DELAWARE RIVER AT CHESTER, PA--Continued

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25° CELSIUS, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY				MARCH			APRIL			MAY		
1	---	---	---	---	---	---	219	181	199	193	171	180
2	---	---	---	---	---	---	194	162	178	195	174	183
3	---	---	---	---	---	---	179	158	166	211	178	186
4	---	---	---	---	---	---	195	151	170	200	179	188
5	---	---	---	---	---	---	196	156	175	205	180	190
6	---	---	---	---	---	---	197	168	184	200	182	190
7	---	---	---	---	---	---	200	160	180	202	184	190
8	---	---	---	---	---	---	215	169	186	210	186	196
9	---	---	---	---	---	---	209	172	192	215	190	202
10	---	---	---	---	---	---	206	179	192	218	197	207
11	---	---	---	---	---	---	204	175	188	222	203	211
12	---	---	---	---	---	---	204	178	188	224	205	214
13	---	---	---	---	---	---	195	172	184	225	209	217
14	---	---	---	---	---	---	192	171	181	231	214	222
15	---	---	---	---	---	---	190	162	173	237	217	224
16	---	---	---	---	---	---	190	163	172	235	219	225
17	---	---	---	---	---	---	179	151	166	235	218	226
18	---	---	---	---	---	---	182	162	172	234	218	227
19	---	---	---	---	---	---	186	162	171	250	221	234
20	---	---	---	---	---	---	191	162	179	240	228	233
21	---	---	---	---	---	---	203	168	183	245	226	237
22	---	---	---	---	---	---	194	176	184	247	230	238
23	---	---	---	---	---	---	196	178	188	249	232	240
24	---	---	---	334	280	303	196	176	186	253	233	243
25	---	---	---	292	263	281	198	181	186	256	238	247
26	---	---	---	280	251	263	198	175	184	256	207	245
27	---	---	---	268	253	260	195	180	189	278	250	257
28	---	---	---	271	260	263	204	184	193	267	248	257
29	---	---	---	265	244	254	197	174	186	268	254	261
30	---	---	---	249	228	238	196	166	177	272	256	264
31	---	---	---	238	211	226	---	---	---	275	254	266
MONTH	---	---	---	334	211	261	219	151	182	278	171	223

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE				JULY			AUGUST			SEPTEMBER		
1	267	253	259	478	364	385	1270	478	792	1100	696	879
2	274	259	267	478	367	399	1390	561	882	1200	720	949
3	283	264	274	544	366	409	1380	589	920	1350	717	979
4	287	269	279	465	365	404	1420	648	973	986	622	823
5	290	273	282	481	368	409	1430	667	994	1200	615	831
6	292	275	283	514	393	433	1520	648	1040	1190	627	829
7	294	275	284	500	397	436	1540	686	1040	1340	550	852
8	297	279	286	501	388	433	1330	678	974	1240	530	808
9	294	279	285	515	398	445	1340	667	955	1350	499	815
10	289	280	285	520	404	453	1400	669	965	1050	497	767
11	296	282	287	525	412	461	1510	684	996	983	519	710
12	302	286	294	540	412	462	1720	687	1050	1130	517	730
13	308	293	299	575	408	476	1700	700	1050	1140	527	743
14	311	299	304	630	411	489	1760	707	1050	1090	519	725
15	314	302	307	536	389	450	1760	711	1070	1050	530	749
16	321	305	313	579	387	449	1820	764	1130	1030	485	745
17	345	311	321	642	392	453	1840	636	1060	1440	526	874
18	327	312	320	642	400	488	1200	540	779	1170	464	761
19	324	311	318	777	416	534	1060	517	741	929	453	664
20	328	313	320	651	406	490	984	452	717	955	464	660
21	333	311	321	639	405	487	809	432	597	900	475	666
22	329	304	316	629	411	497	896	447	621	841	436	602
23	323	307	314	687	428	521	944	456	642	863	457	630
24	326	305	313	819	430	557	998	466	660	848	445	595
25	357	308	340	832	418	569	874	482	635	860	448	606
26	365	345	354	885	434	608	1030	483	653	827	366	543
27	365	342	354	930	440	638	1130	524	707	600	304	429
28	398	346	362	888	431	610	1150	519	703	440	296	347
29	399	349	368	923	445	654	903	591	773	371	324	350
30	422	356	374	916	451	681	832	604	691	359	302	334
31	---	---	---	928	459	686	905	627	756	---	---	---
MONTH	422	253	309	930	364	499	1840	432	859	1440	296	700

DELAWARE RIVER BASIN

01477050 DELAWARE RIVER AT CHESTER, PA--Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	7.1	7.0	7.0	7.2	7.0	7.1	---	---	---	---	---	---
2	7.1	7.0	7.1	7.3	7.0	7.2	---	---	---	---	---	---
3	7.1	7.0	7.1	7.3	7.1	7.2	---	---	---	---	---	---
4	7.2	7.1	7.1	7.2	7.0	7.1	---	---	---	---	---	---
5	7.3	7.1	7.2	7.1	7.0	7.0	---	---	---	---	---	---
6	7.3	7.1	7.2	7.0	7.0	7.0	---	---	---	---	---	---
7	7.2	7.1	7.2	7.0	6.9	7.0	---	---	---	---	---	---
8	7.2	7.1	7.2	6.9	6.9	6.9	---	---	---	---	---	---
9	7.2	7.0	7.1	6.9	6.8	6.9	---	---	---	---	---	---
10	7.2	7.0	7.1	6.8	6.8	6.8	---	---	---	---	---	---
11	7.2	7.0	7.1	6.8	6.8	6.8	---	---	---	---	---	---
12	7.1	6.9	7.0	6.8	6.6	6.7	---	---	---	---	---	---
13	7.1	6.9	7.0	7.0	6.6	6.9	---	---	---	---	---	---
14	7.1	7.0	7.0	7.0	7.0	7.0	---	---	---	---	---	---
15	7.1	6.9	7.0	7.0	7.0	7.0	---	---	---	---	---	---
16	7.1	6.9	7.0	7.0	7.0	7.0	---	---	---	---	---	---
17	7.4	7.0	7.0	7.1	7.0	7.0	---	---	---	---	---	---
18	7.1	7.0	7.1	7.0	7.0	7.0	---	---	---	---	---	---
19	7.1	7.0	7.1	7.0	7.0	7.0	---	---	---	---	---	---
20	7.2	7.0	7.1	7.0	7.0	7.0	---	---	---	---	---	---
21	7.2	7.1	7.1	7.0	6.9	7.0	---	---	---	---	---	---
22	7.2	7.0	7.1	7.0	6.9	6.9	---	---	---	---	---	---
23	7.2	7.0	7.1	6.9	6.8	6.9	---	---	---	---	---	---
24	7.2	7.0	7.1	7.0	6.9	6.9	---	---	---	---	---	---
25	7.2	7.0	7.1	6.9	6.9	6.9	---	---	---	---	---	---
26	7.2	7.1	7.2	6.9	6.8	6.9	---	---	---	---	---	---
27	7.2	7.1	7.2	6.9	6.8	6.8	---	---	---	---	---	---
28	7.3	7.1	7.2	6.9	6.9	6.9	---	---	---	---	---	---
29	7.2	7.0	7.1	6.9	6.9	6.9	---	---	---	---	---	---
30	7.2	7.0	7.1	6.9	6.9	6.9	---	---	---	---	---	---
31	7.2	7.0	7.1	---	---	---	---	---	---	---	---	---
MONTH	7.4	6.9	7.1	7.3	6.6	7.0	---	---	---	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	---	---	---	---	---	---	---	---	---	6.9	6.8	6.8
2	---	---	---	---	---	---	7.1	7.0	7.1	6.9	6.8	6.8
3	---	---	---	---	---	---	7.0	6.9	7.0	6.8	6.8	6.8
4	---	---	---	---	---	---	7.0	6.9	7.0	6.8	6.7	6.8
5	---	---	---	---	---	---	7.0	6.9	6.9	6.7	6.7	6.7
6	---	---	---	---	---	---	7.0	6.9	6.9	6.7	6.6	6.7
7	---	---	---	---	---	---	7.0	6.9	7.0	6.8	6.6	6.7
8	---	---	---	---	---	---	7.1	6.9	7.0	6.8	6.7	6.7
9	---	---	---	---	---	---	7.0	6.9	6.9	6.8	6.7	6.8
10	---	---	---	---	---	---	7.0	6.8	6.9	6.8	6.7	6.8
11	---	---	---	---	---	---	7.0	6.9	6.9	6.8	6.7	6.8
12	---	---	---	---	---	---	7.0	6.9	7.0	6.8	6.7	6.8
13	---	---	---	---	---	---	7.0	7.0	7.0	6.8	6.7	6.8
14	---	---	---	---	---	---	7.0	7.0	7.0	6.8	6.7	6.8
15	---	---	---	---	---	---	7.0	6.9	6.9	6.9	6.8	6.8
16	---	---	---	---	---	---	7.0	6.9	7.0	6.9	6.8	6.8
17	---	---	---	---	---	---	7.0	6.9	6.9	6.9	6.7	6.8
18	---	---	---	---	---	---	7.0	6.9	6.9	6.8	6.7	6.8
19	---	---	---	---	---	---	6.9	6.8	6.9	6.8	6.7	6.7
20	---	---	---	---	---	---	6.9	6.9	6.9	6.8	6.7	6.7
21	---	---	---	---	---	---	6.9	6.9	6.9	6.8	6.6	6.7
22	---	---	---	---	---	---	6.9	6.8	6.9	6.8	6.7	6.8
23	---	---	---	---	---	---	7.2	6.9	7.0	6.9	6.7	6.8
24	---	---	---	---	---	---	7.0	6.9	7.0	6.9	6.8	6.9
25	---	---	---	---	---	---	7.0	6.9	6.9	7.0	6.8	6.9
26	---	---	---	---	---	---	7.0	6.9	6.9	7.1	6.9	7.0
27	---	---	---	---	---	---	7.0	6.9	6.9	7.2	7.0	7.1
28	---	---	---	---	---	---	7.0	6.9	6.9	7.2	6.8	7.1
29	---	---	---	---	---	---	6.9	6.8	6.9	7.2	7.1	7.1
30	---	---	---	---	---	---	6.9	6.8	6.9	7.2	7.0	7.1
31	---	---	---	---	---	---	---	---	---	7.1	7.0	7.1
MONTH	---	---	---	---	---	---	7.2	6.8	6.9	7.2	6.6	6.8

DELAWARE RIVER BASIN

01477050 DELAWARE RIVER AT CHESTER, PA--Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	7.1	6.9	7.0	6.9	6.8	6.8	7.1	6.9	7.1	7.3	7.0	7.1
2	7.0	6.9	7.0	6.9	6.8	6.9	7.2	7.0	7.1	7.2	7.0	7.1
3	7.0	6.9	7.0	6.9	6.8	6.8	7.2	7.0	7.1	7.3	7.0	7.1
4	7.0	6.9	6.9	6.9	6.8	6.8	7.2	7.0	7.1	7.2	6.9	7.0
5	6.9	6.8	6.9	6.9	6.8	6.8	7.2	7.0	7.1	7.1	6.9	7.0
6	6.9	6.8	6.9	6.9	6.8	6.9	7.2	7.0	7.1	7.1	7.0	7.0
7	6.9	6.9	6.9	6.9	6.9	6.9	7.2	7.0	7.1	7.1	6.9	7.0
8	6.9	6.8	6.9	6.9	6.8	6.9	7.1	7.0	7.0	7.1	6.9	7.0
9	6.9	6.8	6.9	6.9	6.8	6.9	7.1	6.9	7.0	7.1	6.9	7.0
10	6.9	6.8	6.8	6.9	6.8	6.9	7.1	6.9	7.0	7.0	6.9	7.0
11	6.9	6.8	6.8	6.9	6.8	6.9	7.1	7.0	7.1	7.1	6.9	7.0
12	6.9	6.8	6.9	6.9	6.8	6.9	7.1	7.0	7.1	7.1	6.9	7.0
13	7.0	6.8	6.9	6.9	6.8	6.9	7.1	7.0	7.1	7.1	7.0	7.1
14	7.0	6.9	7.0	6.9	6.8	6.9	7.1	6.9	7.0	7.1	7.0	7.1
15	7.1	6.9	7.0	6.9	6.8	6.8	7.1	6.9	7.0	7.1	7.0	7.1
16	7.1	6.9	7.0	6.9	6.8	6.8	7.1	6.9	7.0	7.1	6.9	7.0
17	7.2	6.9	7.0	6.9	6.8	6.9	7.1	6.9	7.0	7.2	6.9	7.1
18	7.2	6.9	7.1	7.0	6.8	6.9	7.0	6.8	6.9	7.1	6.8	7.0
19	7.1	6.9	7.0	7.0	6.9	7.0	7.0	6.8	6.9	7.0	6.8	6.9
20	7.0	6.9	7.0	7.0	6.8	6.9	7.0	6.8	6.9	7.0	6.8	6.9
21	7.0	6.9	6.9	7.0	6.9	6.9	7.0	6.8	6.9	7.0	6.9	6.9
22	6.9	6.8	6.9	7.0	6.9	7.0	7.0	6.9	6.9	7.0	6.8	6.9
23	6.9	6.8	6.9	7.1	6.9	7.0	7.0	6.9	7.0	7.0	6.8	6.9
24	6.9	6.8	6.9	7.1	7.0	7.0	7.1	6.9	7.0	7.0	6.8	6.9
25	6.9	6.9	6.9	7.1	6.9	7.0	7.1	7.0	7.0	7.0	6.8	6.9
26	7.0	6.9	6.9	7.1	7.0	7.0	7.1	6.9	7.0	7.0	6.8	6.9
27	6.9	6.9	6.9	7.1	7.0	7.0	7.1	6.9	7.0	6.9	6.8	6.8
28	7.0	6.9	6.9	7.1	6.9	7.0	7.1	6.9	7.0	6.9	6.8	6.9
29	6.9	6.9	6.9	7.1	6.9	7.0	7.2	7.0	7.1	6.9	6.6	6.8
30	6.9	6.8	6.9	7.1	6.9	7.0	7.1	7.0	7.0	6.9	6.8	6.9
31	---	---	---	7.1	6.9	7.0	7.2	7.0	7.1	---	---	---
MONTH	7.2	6.8	6.9	7.1	6.8	6.9	7.2	6.8	7.0	7.3	6.6	7.0

WATER TEMPERATURE, (DEG. C), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	19.0	18.5	19.0	13.5	13.0	13.5						
2	19.0	18.5	18.5	13.0	13.0	13.0						
3	19.0	18.5	18.5	13.5	12.5	13.0						
4	19.0	18.5	18.5	13.5	13.0	13.0						
5	18.5	18.0	18.0	13.5	13.0	13.5						
6	18.0	17.5	18.0	13.0	12.5	13.0						
7	18.0	17.0	17.5	13.0	12.0	12.5						
8	18.0	17.0	17.5	12.5	11.5	12.0						
9	18.0	17.5	18.0	12.0	11.0	11.5						
10	18.5	17.5	18.0	12.0	11.0	11.5						
11	18.0	18.0	18.0	11.5	11.0	11.5						
12	18.0	17.5	17.5	12.5	11.5	12.0						
13	17.5	17.0	17.5	12.5	11.5	12.0						
14	17.5	17.0	17.0	12.0	10.5	11.5						
15	17.5	17.0	17.5	11.0	10.0	10.5						
16	18.0	17.5	17.5	10.5	10.0	10.0						
17	18.0	16.5	17.5	10.5	10.0	10.0						
18	17.0	16.5	17.0	10.5	10.0	10.0						
19	16.5	15.5	16.0	10.0	9.5	10.0						
20	16.0	15.0	15.5	10.0	9.5	9.5						
21	15.5	15.0	15.5	10.0	9.0	9.5						
22	15.5	15.0	15.0	10.0	9.5	10.0						
23	15.5	14.5	15.0	11.0	10.0	10.5						
24	15.0	14.5	15.0	10.5	10.0	10.5						
25	15.0	14.5	14.5	10.5	10.0	10.5						
26	14.5	14.0	14.5	10.5	10.5	10.5						
27	14.5	14.0	14.0	10.5	9.5	10.0						
28	14.0	13.5	14.0	10.0	9.5	10.0						
29	14.0	13.5	14.0	9.5	9.5	9.5						
30	14.0	14.0	14.0	9.5	9.0	9.5						
31	14.0	13.5	13.5	---	---	---						
MONTH	19.0	13.5	16.5	13.5	9.0	11.0						

DELAWARE RIVER BASIN

01477050 DELAWARE RIVER AT CHESTER, PA--Continued

WATER TEMPERATURE, (DEG. C), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1				---	---	---	9.5	8.5	9.0	14.5	13.0	14.0
2				---	---	---	8.5	7.5	8.0	15.5	14.0	14.5
3				---	---	---	8.0	7.5	7.5	15.5	14.5	15.0
4				---	---	---	8.0	7.0	7.5	15.5	15.0	15.0
5				---	---	---	8.5	6.5	7.5	15.5	15.0	15.5
6				---	---	---	8.0	7.0	7.5	16.5	15.5	16.0
7				---	---	---	8.5	7.0	7.5	17.0	15.5	16.5
8				---	---	---	8.5	7.5	8.0	17.0	16.0	16.5
9				---	---	---	9.5	8.0	9.0	18.0	16.5	17.5
10				---	---	---	10.0	9.0	9.5	18.5	17.5	18.0
11				---	---	---	11.0	9.5	10.0	19.0	17.5	18.5
12				---	---	---	11.0	10.0	10.5	20.0	18.5	19.0
13				---	---	---	11.0	10.0	10.5	19.5	19.0	19.0
14				---	---	---	12.0	10.5	11.0	19.5	18.5	19.0
15				---	---	---	12.0	11.0	11.5	20.0	18.5	19.5
16				---	---	---	12.5	11.5	12.0	20.5	19.5	19.5
17				---	---	---	12.5	11.5	12.0	20.5	19.5	20.0
18				---	---	---	12.5	11.0	11.5	19.5	19.0	19.5
19				---	---	---	13.0	11.5	12.0	19.0	18.5	19.0
20				---	---	---	14.5	12.0	13.5	19.0	18.5	18.5
21				---	---	---	14.0	13.5	14.0	19.0	18.0	18.5
22				---	---	---	14.5	12.0	13.5	19.0	18.5	19.0
23				5.5	5.0	5.0	12.0	11.0	11.5	19.5	18.5	19.0
24				5.5	5.0	5.5	12.0	11.0	11.5	19.5	19.0	19.5
25				6.0	5.5	5.5	13.0	11.5	12.0	20.0	19.0	20.0
26				6.5	5.5	6.0	13.0	12.5	12.5	20.5	19.5	20.0
27				7.5	6.0	6.5	12.5	12.0	12.5	20.0	19.5	20.0
28				8.5	7.0	7.5	13.0	12.0	12.5	20.5	19.5	20.0
29				8.5	7.5	8.0	13.0	12.5	12.5	21.0	20.0	20.5
30				8.5	8.0	8.0	14.0	12.5	13.0	21.0	20.0	20.5
31				9.5	8.0	9.0	---	---	---	20.0	20.0	20.0
MONTH				9.5	5.0	7.0	14.5	6.5	10.5	21.0	13.0	18.5
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	20.0	19.0	20.0	26.5	25.5	26.0	27.0	26.5	26.5	28.0	27.5	27.5
2	20.0	19.0	19.5	25.5	25.0	25.5	27.5	26.5	27.0	28.0	27.5	27.5
3	20.5	19.5	20.0	26.0	25.0	25.5	28.0	26.5	27.0	28.5	27.5	28.0
4	20.5	20.0	20.0	26.5	25.5	26.0	27.5	27.0	27.5	28.0	27.5	27.5
5	20.0	19.5	20.0	27.0	26.0	26.5	27.5	27.0	27.0	27.5	27.0	27.5
6	20.0	19.5	19.5	27.5	26.0	27.0	27.0	25.0	26.0	27.5	26.5	27.0
7	20.0	19.5	20.0	28.0	26.5	27.0	26.0	25.0	25.5	27.0	27.0	27.0
8	20.0	20.0	20.0	28.5	27.0	28.0	26.0	25.5	26.0	27.0	26.5	26.5
9	21.0	20.0	20.5	28.5	27.5	28.0	26.5	25.5	26.0	26.5	26.0	26.5
10	22.0	20.5	21.5	29.0	28.0	28.5	26.5	25.5	26.0	26.5	25.5	26.0
11	22.0	21.0	21.5	29.0	28.0	28.5	26.5	26.0	26.0	26.0	24.5	25.0
12	22.0	21.5	21.5	29.0	28.5	29.0	27.0	26.0	26.5	25.0	24.0	24.5
13	22.5	21.5	22.0	29.5	28.5	29.0	27.0	26.0	26.5	25.0	24.0	24.5
14	22.5	21.5	22.0	29.5	28.5	29.0	27.5	26.5	26.5	25.5	24.0	24.5
15	23.0	22.0	22.5	29.0	28.0	28.5	27.5	26.5	27.0	25.5	24.5	25.0
16	23.5	22.5	23.0	29.0	27.5	28.0	27.5	26.5	27.0	25.0	24.0	24.5
17	24.0	22.5	23.0	28.5	27.5	28.0	27.0	26.5	26.5	24.0	22.5	23.5
18	24.5	23.0	23.5	28.5	27.0	27.5	26.5	26.0	26.5	23.0	22.5	23.0
19	24.5	23.5	24.0	27.5	27.0	27.0	26.5	26.0	26.5	23.0	22.5	23.0
20	25.0	24.0	24.5	27.5	26.5	27.0	27.0	26.0	26.0	22.5	22.0	22.0
21	25.5	24.5	24.5	27.5	27.0	27.0	26.5	25.5	26.0	22.0	21.5	22.0
22	25.5	24.5	25.0	27.0	26.5	27.0	26.0	25.5	26.0	22.0	21.5	21.5
23	25.0	24.5	24.5	26.5	26.5	26.5	26.5	25.5	26.0	22.0	21.5	21.5
24	25.0	24.0	24.5	27.0	26.0	26.5	26.5	25.5	26.0	22.0	21.5	21.5
25	25.0	24.0	24.5	27.5	26.5	27.0	27.0	26.0	26.5	22.0	21.0	21.5
26	25.5	24.5	25.0	27.0	26.5	26.5	27.5	26.5	27.0	21.5	21.0	21.0
27	25.5	24.5	25.0	27.0	26.5	26.5	27.5	24.5	27.0	22.0	21.0	21.5
28	26.0	25.0	25.5	27.5	26.5	27.0	28.0	27.0	27.0	22.0	20.0	20.5
29	26.5	25.5	25.5	28.0	27.0	27.0	28.0	27.5	27.5	25.0	19.5	22.5
30	26.5	25.5	26.0	27.5	26.5	27.0	27.5	27.0	27.0	24.0	19.0	21.0
31	---	---	---	27.0	26.0	26.5	28.0	27.5	28.0	---	---	---
MONTH	26.5	19.0	22.5	29.5	25.0	27.0	28.0	24.5	26.5	28.5	19.0	24.0

DELAWARE RIVER BASIN

01477050 DELAWARE RIVER AT CHESTER, PA--Continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	6.5	6.1	6.3	7.6	7.3	7.5	---	---	---	---	---	---
2	6.8	6.3	6.6	7.9	7.4	7.7	---	---	---	---	---	---
3	7.1	6.7	6.9	8.3	7.8	8.0	---	---	---	---	---	---
4	7.0	6.8	6.9	7.8	7.4	7.6	---	---	---	---	---	---
5	7.6	6.9	7.3	7.5	7.1	7.2	---	---	---	---	---	---
6	7.7	7.3	7.5	7.4	7.0	7.1	---	---	---	---	---	---
7	7.6	7.1	7.4	7.4	7.1	7.2	---	---	---	---	---	---
8	7.6	7.1	7.4	7.5	7.2	7.3	---	---	---	---	---	---
9	7.4	7.2	7.3	7.6	7.3	7.4	---	---	---	---	---	---
10	7.4	7.0	7.2	7.7	7.4	7.5	---	---	---	---	---	---
11	7.1	6.5	6.8	7.8	7.5	7.6	---	---	---	---	---	---
12	6.8	6.3	6.7	8.2	7.5	7.8	---	---	---	---	---	---
13	6.8	6.4	6.7	8.4	8.1	8.2	---	---	---	---	---	---
14	6.7	6.3	6.5	8.4	8.1	8.2	---	---	---	---	---	---
15	6.7	6.2	6.5	8.5	8.0	8.3	---	---	---	---	---	---
16	6.8	6.2	6.5	8.6	8.3	8.5	---	---	---	---	---	---
17	7.9	6.4	6.6	8.6	8.3	8.5	---	---	---	---	---	---
18	6.7	6.4	6.5	8.6	8.3	8.5	---	---	---	---	---	---
19	6.8	6.5	6.6	8.5	8.2	8.3	---	---	---	---	---	---
20	7.1	6.7	6.9	8.7	8.2	8.4	---	---	---	---	---	---
21	7.4	7.0	7.2	8.8	8.3	8.6	---	---	---	---	---	---
22	7.4	7.0	7.2	8.7	8.3	8.5	---	---	---	---	---	---
23	7.4	7.0	7.3	8.6	8.3	8.4	---	---	---	---	---	---
24	7.4	7.1	7.3	8.9	8.4	8.7	---	---	---	---	---	---
25	7.5	7.0	7.3	8.8	8.6	8.7	---	---	---	---	---	---
26	7.6	7.3	7.4	9.0	8.5	8.7	---	---	---	---	---	---
27	7.7	7.5	7.6	9.2	8.6	8.9	---	---	---	---	---	---
28	7.7	7.4	7.6	9.3	8.9	9.1	---	---	---	---	---	---
29	7.6	7.3	7.5	9.2	9.0	9.1	---	---	---	---	---	---
30	7.6	7.2	7.4	9.1	9.0	9.0	---	---	---	---	---	---
31	7.6	7.3	7.4	---	---	---	---	---	---	---	---	---
MONTH	7.9	6.1	7.0	9.3	7.0	8.1	---	---	---	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	---	---	---	---	---	---	12.8	11.4	12.0	11.2	10.5	10.8
2	---	---	---	---	---	---	12.4	11.3	11.9	11.2	10.6	10.9
3	---	---	---	---	---	---	12.7	12.3	12.5	11.4	10.8	11.0
4	---	---	---	---	---	---	12.7	12.4	12.5	11.3	10.7	11.1
5	---	---	---	---	---	---	12.5	12.0	12.3	11.0	9.7	10.4
6	---	---	---	---	---	---	12.5	12.0	12.3	10.9	9.5	10.4
7	---	---	---	---	---	---	12.6	12.0	12.3	10.6	8.7	9.7
8	---	---	---	---	---	---	12.6	11.7	12.1	9.1	8.5	8.8
9	---	---	---	---	---	---	12.2	11.1	11.8	9.0	8.4	8.7
10	---	---	---	---	---	---	11.1	8.2	9.7	8.8	8.3	8.6
11	---	---	---	---	---	---	11.3	9.2	10.5	8.8	8.2	8.5
12	---	---	---	---	---	---	10.9	10.4	10.6	8.7	7.5	8.3
13	---	---	---	---	---	---	11.1	10.6	10.8	8.3	8.0	8.2
14	---	---	---	---	---	---	11.4	10.4	10.9	8.4	7.7	8.1
15	---	---	---	---	---	---	12.0	11.2	11.5	8.7	7.7	8.2
16	---	---	---	---	---	---	11.9	8.0	10.7	8.5	7.8	8.2
17	---	---	---	---	---	---	11.5	7.9	10.1	8.8	7.7	8.2
18	---	---	---	---	---	---	12.8	11.1	12.0	8.2	7.1	7.7
19	---	---	---	---	---	---	12.6	12.0	12.3	7.7	7.0	7.5
20	---	---	---	---	---	---	12.5	12.0	12.3	7.3	6.5	7.0
21	---	---	---	---	---	---	12.3	8.7	11.7	7.6	6.5	7.0
22	---	---	---	---	---	---	12.2	7.3	10.3	7.9	6.6	7.4
23	---	---	---	---	---	---	---	---	---	8.3	7.0	7.8
24	---	---	---	---	---	---	---	---	---	8.7	7.6	8.2
25	---	---	---	---	---	---	---	---	---	9.0	8.0	8.6
26	---	---	---	13.7	13.3	13.4	---	---	---	9.2	8.4	8.8
27	---	---	---	13.7	12.8	13.5	---	---	---	9.6	8.5	9.0
28	---	---	---	16.3	13.1	15.5	---	---	---	9.1	8.0	8.6
29	---	---	---	15.5	14.1	14.7	---	---	---	8.8	8.0	8.4
30	---	---	---	14.1	13.3	13.7	10.7	10.1	10.4	9.0	7.5	8.1
31	---	---	---	13.4	12.8	13.1	---	---	---	8.2	7.0	7.5
MONTH	---	---	---	16.3	12.8	14.0	12.8	7.3	11.5	11.4	6.5	8.7

DELAWARE RIVER BASIN

01477050 DELAWARE RIVER AT CHESTER, PA--Continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	8.5	7.4	8.0	4.2	3.6	3.9	7.6	6.8	7.2	5.5	4.9	5.2
2	8.4	7.5	7.9	3.8	3.5	3.6	7.9	6.8	7.3	5.5	4.9	5.1
3	8.4	7.6	8.0	4.5	3.6	4.1	7.6	6.9	7.2	5.5	4.8	5.1
4	8.3	7.3	7.9	4.6	3.8	4.2	7.6	6.4	7.2	5.2	4.7	4.9
5	7.7	7.3	7.5	4.4	3.7	4.1	7.5	6.7	7.1	5.4	4.5	5.0
6	8.1	7.2	7.7	4.1	3.3	3.7	7.1	5.9	6.5	5.5	4.7	5.0
7	7.8	7.1	7.5	3.8	3.3	3.5	7.1	5.9	6.6	5.1	4.6	4.9
8	7.3	6.7	7.1	3.9	3.4	3.6	7.5	6.7	7.1	5.2	4.7	5.0
9	7.4	6.3	6.9	3.6	3.1	3.3	7.8	6.5	7.1	5.1	4.5	4.8
10	7.3	6.2	6.9	3.7	2.9	3.3	7.7	6.9	7.2	5.5	4.6	5.0
11	7.1	6.5	6.8	3.5	3.1	3.3	7.2	6.4	6.8	5.0	4.1	4.6
12	7.3	6.5	6.9	3.6	2.8	3.2	7.0	6.4	6.7	5.3	4.2	4.8
13	7.9	6.6	7.2	3.3	3.1	3.2	7.5	5.9	6.8	5.9	4.8	5.3
14	8.1	7.0	7.4	3.4	3.0	3.2	7.5	6.6	7.0	5.8	4.7	5.3
15	8.2	7.0	7.5	3.3	3.0	3.3	7.0	5.9	6.3	6.0	4.9	5.4
16	8.5	7.4	7.8	3.6	2.9	3.3	6.4	5.7	6.1	---	---	---
17	8.1	7.1	7.6	3.9	3.2	3.5	6.6	5.4	6.0	---	---	---
18	8.2	6.9	7.5	3.9	3.2	3.5	6.5	5.8	6.0	---	---	---
19	8.2	7.0	7.5	3.7	3.2	3.4	6.6	6.0	6.3	---	---	---
20	7.5	6.6	7.2	3.9	3.4	3.7	6.7	6.1	6.4	---	---	---
21	7.1	6.1	6.6	3.9	3.4	3.7	6.9	6.4	6.6	---	---	---
22	6.9	6.0	6.5	4.0	3.3	3.7	7.1	6.4	6.7	---	---	---
23	6.9	6.2	6.6	4.1	3.4	3.7	7.2	6.5	6.8	---	---	---
24	6.8	6.0	6.4	3.9	3.4	3.7	7.5	6.6	7.0	---	---	---
25	6.5	3.7	5.0	4.0	3.3	3.7	7.7	6.9	7.2	---	---	---
26	4.5	3.5	4.0	3.6	3.3	3.5	7.3	6.2	6.9	---	---	---
27	4.3	3.7	4.1	4.0	3.3	3.7	7.2	6.0	6.4	---	---	---
28	4.4	3.6	4.0	4.1	3.5	3.8	7.3	5.9	6.4	---	---	---
29	4.4	3.6	4.0	4.0	3.3	3.7	7.0	5.3	6.5	---	---	---
30	4.2	3.6	3.9	6.7	3.4	4.8	6.6	5.3	6.0	---	---	---
31	---	---	---	7.9	6.7	7.3	6.0	4.9	5.8	---	---	---
MONTH	8.5	3.5	6.7	7.9	2.8	3.7	7.9	4.9	6.7	6.0	4.1	5.0

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, on 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. Elevation of gage is 200 ft above sea level, from topographic map.

REMARKS.--Records good except those for estimated daily discharges, which are fair.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	16	21	27	e19	e24	202	47	76	18	13	e13
2	15	18	21	25	e18	e27	117	46	34	23	13	e13
3	15	153	20	25	e20	e33	66	45	33	29	13	e13
4	14	27	20	25	e19	481	57	45	32	19	15	e45
5	14	24	23	98	e18	155	53	55	31	17	14	e35
6	14	31	20	36	e20	59	51	49	30	17	32	e28
7	14	19	20	30	e18	45	48	45	29	16	22	e19
8	14	17	20	30	e21	43	46	42	29	16	15	e150
9	22	17	19	31	e23	40	46	42	32	16	15	e110
10	26	16	35	27	e19	37	464	41	33	15	14	e80
11	20	16	324	27	e22	36	93	40	27	15	14	e45
12	23	19	106	46	e25	34	69	40	26	15	17	e22
13	17	83	41	55	99	e32	61	43	25	15	19	e16
14	16	24	32	38	48	e31	58	40	25	18	14	e15
15	15	21	29	32	36	e30	57	38	24	18	14	e15
16	15	19	28	30	93	e29	142	37	24	15	14	e50
17	15	19	89	29	93	e200	86	37	23	14	15	e45
18	15	19	51	27	42	145	60	43	23	14	15	e40
19	16	18	32	26	32	58	56	45	28	16	14	e37
20	16	18	37	25	29	52	53	40	26	22	32	e33
21	16	18	31	26	30	97	59	37	54	15	41	e37
22	16	22	29	69	56	105	146	35	38	14	17	e35
23	16	185	30	32	42	114	61	34	24	13	16	e32
24	16	32	28	30	31	436	55	34	22	13	16	e28
25	17	28	25	30	28	115	53	33	21	13	15	e28
26	16	37	e24	27	e26	77	89	32	20	13	15	e90
27	16	33	e21	e26	e25	63	65	32	20	14	e15	e370
28	16	25	e25	e24	e24	73	53	31	19	13	e15	e360
29	17	23	e29	e23	---	130	51	30	19	15	e18	e150
30	16	22	35	e21	---	81	49	29	19	13	e15	e50
31	18	---	30	e20	---	59	---	48	---	13	e13	---
TOTAL	511	1019	1295	1017	976	2941	2566	1235	866	497	530	2004
MEAN	16.5	34.0	41.8	32.8	34.9	94.9	85.5	39.8	28.9	16.0	17.1	66.8
MAX	26	185	324	98	99	481	464	55	76	29	41	370
MIN	14	16	19	20	18	24	46	29	19	13	13	13
CFSM	.58	1.20	1.47	1.16	1.23	3.35	3.02	1.41	1.02	.57	.60	2.36
IN.	.67	1.34	1.70	1.34	1.28	3.86	3.37	1.62	1.14	.65	.70	2.63

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 1993, BY WATER YEAR (WY)

	MEAN	26.3	33.9	34.5	43.7	40.7	50.7	47.1	48.6	35.3	34.0	24.4	32.0
MAX	55.3	44.8	54.7	66.9	68.0	94.9	85.5	79.2	56.4	94.5	42.9	66.8	66.8
(WY)	1990	1989	1991	1990	1988	1993	1993	1989	1990	1989	1989	1993	1993
MIN	16.0	19.5	20.0	22.0	26.8	34.0	24.9	30.4	23.2	16.0	16.6	15.5	15.5
(WY)	1992	1992	1989	1992	1992	1990	1992	1992	1988	1992	1991	1990	1990

SUMMARY STATISTICS

FOR 1992 CALENDAR YEAR

FOR 1993 WATER YEAR

WATER YEARS 1988 - 1993

ANNUAL TOTAL	9486	15457	38.1	1989
ANNUAL MEAN	25.9	42.3	47.3	1992
HIGHEST ANNUAL MEAN			23.6	1992
LOWEST ANNUAL MEAN			922	Jul 5 1989
HIGHEST DAILY MEAN	324	Dec 11	481	Mar 4
LOWEST DAILY MEAN	a12	Jul 21	b13	Jul 23
ANNUAL SEVEN-DAY MINIMUM	12	Aug 2	13	Jul 22
INSTANTANEOUS PEAK FLOW			1380	Mar 4
INSTANTANEOUS PEAK STAGE			6.64	Mar 4
ANNUAL RUNOFF (CFSM)	.91		1.49	
ANNUAL RUNOFF (INCHES)	12.46		20.30	
10 PERCENT EXCEEDS	35		78	
50 PERCENT EXCEEDS	20		28	
90 PERCENT EXCEEDS	13		15	

a Also July 22, 29-30, Aug. 2-3, 5-10, Sept. 19-21.

b Also July 24-26, 28, July 30-Aug. 3, Aug. 31-Sept. 3 (some days estimated).

e Estimated.

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.

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.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	18	31	47	38	e28	438	95	94	24	13	12
2	16	18	31	39	29	e33	269	89	44	30	14	12
3	15	220	30	38	35	e38	162	84	42	44	13	12
4	15	54	28	40	36	e700	131	84	42	30	12	40
5	14	37	34	139	35	949	119	91	42	25	12	22
6	14	65	29	66	35	202	109	108	42	24	34	14
7	14	37	29	50	32	180	99	81	38	36	44	12
8	14	30	27	49	37	192	96	73	38	26	20	25
9	52	26	26	50	35	150	90	69	53	22	16	19
10	146	26	32	44	34	105	589	67	46	21	16	47
11	47	25	521	41	36	86	334	65	36	19	15	23
12	63	26	262	55	40	72	155	62	34	18	15	15
13	30	284	108	136	69	77	127	71	33	17	15	14
14	24	58	61	90	56	68	114	65	32	129	15	13
15	22	38	50	57	44	80	111	60	32	80	15	13
16	21	33	46	51	91	73	376	56	30	29	14	38
17	18	30	177	48	174	299	345	56	29	23	15	26
18	18	29	151	43	83	417	141	60	28	20	15	29
19	18	27	64	40	47	172	122	69	28	22	14	22
20	18	26	79	39	e45	128	114	73	40	26	39	16
21	18	26	65	39	e39	184	117	63	83	21	72	21
22	17	31	50	93	e35	238	467	54	48	18	20	22
23	17	292	e45	61	e33	257	162	51	33	16	15	17
24	18	72	e41	49	e32	925	126	49	28	16	14	17
25	26	52	e37	56	e30	350	116	47	27	15	13	16
26	20	43	e34	44	e29	231	202	44	26	15	13	51
27	18	42	e32	41	e28	182	212	43	25	16	12	212
28	16	37	e40	41	e27	192	122	42	25	15	15	144
29	17	34	49	40	---	237	108	41	27	16	24	34
30	17	32	56	36	---	219	102	38	26	16	14	25
31	18	---	57	39	---	140	---	51	---	14	12	---
TOTAL	799	1768	2322	1701	1284	7204	5775	2001	1151	843	590	983
MEAN	25.8	58.9	74.9	54.9	45.9	232	192	64.5	38.4	27.2	19.0	32.8
MAX	146	292	521	139	174	949	589	108	94	129	72	212
MIN	14	18	26	36	27	28	90	38	25	14	12	12
(†)	4.7	5.0	4.7	4.6	4.5	4.9	4.9	4.1	4.6	4.6	4.6	4.4
MEAN‡	30.5	63.9	79.6	59.5	50.4	237	197	68.6	43.0	31.8	23.6	37.2
CFSM‡	.67	1.40	1.74	1.30	1.10	5.17	4.30	1.50	.94	.69	.52	.81
IN.‡	.77	1.56	2.01	1.50	1.14	5.96	4.80	1.73	1.05	.80	.60	.90

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1944 - 1993, BY WATER YEAR (WY)

	MEAN	36.2	57.0	68.4	77.7	88.7	91.0	86.6	75.7	62.8	53.3	33.6	37.6
MAX	118	114	152	262	179	232	197	159	236	176	82.9	136	
(WY)	1980	1973	1984	1979	1971	1993	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	10.6	10.1	
(WY)	1987	1982	1981	1981	1992	1985	1985	1977	1986	1944	1944	1986	

SUMMARY STATISTICS

	FOR 1992 CALENDAR YEAR	FOR 1993 WATER YEAR	WATER YEARS 1944 - 1993
ANNUAL TOTAL	14987	26421	
ANNUAL MEAN	40.9	72.4	64.0
HIGHEST ANNUAL MEAN			98.6
LOWEST ANNUAL MEAN			28.1
HIGHEST DAILY MEAN	521	949	3400
LOWEST DAILY MEAN	11	12	4.6
ANNUAL SEVEN-DAY MINIMUM	12	13	6.3
INSTANTANEOUS PEAK FLOW		2240	8100
INSTANTANEOUS PEAK STAGE		6.93	10.08
ANNUAL RUNOFF (CFSM)	.89	1.58	1.40
ANNUAL RUNOFF (INCHES)	12.17	21.46	18.98
10 PERCENT EXCEEDS	63	162	112
50 PERCENT EXCEEDS	28	38	43
90 PERCENT EXCEEDS	15	15	16

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

‡ Adjusted for diversion from Rock Run Reservoir.

• Also Aug. 5, 27, Aug. 31-Sept. 3, 7.

e Estimated.

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 good 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	29	e38	63	47	e39	494	131	e90	39	22	22
2	24	38	35	51	39	e40	328	131	e76	53	23	19
3	23	303	31	45	40	e48	216	125	70	72	21	25
4	21	74	32	51	45	e300	177	116	65	48	23	68
5	20	54	43	171	40	1070	164	120	66	42	20	35
6	22	82	34	88	45	250	152	138	69	40	69	25
7	20	e58	34	67	37	196	145	116	62	59	71	24
8	21	e45	33	59	47	230	135	111	66	43	34	43
9	93	e39	31	65	41	185	130	107	86	37	28	31
10	182	e37	52	59	42	150	585	97	71	34	29	74
11	71	e35	605	51	39	e110	428	100	58	35	24	37
12	87	e37	307	72	54	120	201	96	51	31	25	25
13	41	329	139	150	94	e100	173	109	52	30	28	24
14	35	76	89	116	68	e130	154	102	51	172	25	21
15	31	45	72	72	56	120	156	91	50	117	23	22
16	31	41	61	68	109	114	370	92	47	46	25	58
17	28	36	216	60	201	360	418	85	45	36	26	50
18	26	35	184	57	111	458	184	96	47	35	28	46
19	e26	34	e130	47	80	213	153	102	44	39	22	37
20	e26	e32	e135	50	67	160	150	103	74	45	57	26
21	e26	e30	e94	46	e60	207	146	98	116	37	101	37
22	e26	e33	e80	119	e52	265	491	83	73	33	31	35
23	e26	e410	67	85	e48	292	200	79	51	29	25	30
24	e28	e100	e62	65	e45	960	167	e78	45	30	25	e27
25	e34	e70	e54	69	e43	423	156	e76	46	27	22	e23
26	e30	e60	e48	58	e40	288	218	e69	42	26	22	e60
27	e26	e54	e44	52	e38	233	265	e68	41	28	21	e180
28	e26	e50	e42	49	e36	246	155	e66	44	28	37	e100
29	30	e45	e58	e48	---	286	148	e60	43	28	48	51
30	28	e42	80	47	---	273	142	e58	45	27	23	41
31	33	---	71	e50	---	183	---	e100	---	26	21	---
TOTAL	1166	2353	3001	2150	1664	8049	7001	3003	1786	1372	999	1296
MEAN	37.6	78.4	96.8	69.4	59.4	260	233	96.9	59.5	44.3	32.2	43.2
MAX	182	410	605	171	201	1070	585	138	116	172	101	180
MIN	20	29	31	45	36	39	130	58	41	26	20	19
(†)	4.7	5.0	4.7	4.6	4.5	4.9	4.9	4.1	4.6	4.6	4.6	4.4
MEAN‡	42.3	83.4	102	74.0	63.9	265	238	101	64.1	48.9	36.8	47.6
CFSM‡	.77	1.52	1.85	1.35	1.16	4.82	4.33	1.84	1.17	.89	.67	.87
IN.‡	.89	1.70	2.13	1.56	1.21	5.56	4.83	2.12	1.31	1.03	.77	.97

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

‡ Adjusted for diversion.

e Estimated.

CHRISTINA RIVER BASIN

01480617 WEST BRANCH BRANDYWINE CREEK AT MODENA, PA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 1993, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	54.1	74.2	91.5	101	112	117	118	101	88.7	77.2	49.5	55.1
MAX	147	139	207	330	235	260	241	213	302	236	123	186
(WY)	1980	1973	1984	1979	1971	1993	1983	1989	1972	1984	1971	1979
MIN	22.0	28.7	25.6	20.1	41.9	43.0	39.9	52.2	32.6	30.8	25.6	21.4
(WY)	1987	1982	1981	1981	1992	1985	1985	1985	1985	1986	1981	1981

SUMMARY STATISTICS

FOR 1982 CALENDAR YEAR

FOR 1993 WATER YEAR

WATER YEARS 1970 - 1993

ANNUAL TOTAL	20201		33840									
ANNUAL MEAN	55.2		92.7		86.6		88.4					
HIGHEST ANNUAL MEAN	#60.6		#97.3		130						1979	
LOWEST ANNUAL MEAN					37.6						1981	
HIGHEST DAILY MEAN	605	Dec 11	1070	Mar 5	4010	Jun 22	1972					
LOWEST DAILY MEAN	17	Sep 21	19	Sep 2	9.8	Sep 13	1981					
ANNUAL SEVEN-DAY MINIMUM	19	Sep 15	22	Oct 2	15	Sep 9	1981					
INSTANTANEOUS PEAK FLOW			2820	Mar 4	a9600	Jun 29	1973					
INSTANTANEOUS PEAK STAGE			7.59	Mar 4	12.47	Jun 29	1973					
INSTANTANEOUS LOW FLOW			4.6	Sep 2	1.8	Aug 29	1974					
ANNUAL RUNOFF (CFSM)	1.00	#1.10	1.69	#1.77	1.57	#1.61						
ANNUAL RUNOFF (INCHES)	13.66	#14.96	22.89	#24.08	21.38	#21.83						
10 PERCENT EXCEEDS	90		198		146							
50 PERCENT EXCEEDS	37		52		59							
90 PERCENT EXCEEDS	23		26		27							

‡ Adjusted for diversion.

a From rating curve extended above 920 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 1978, August 1981 to current year.

pH: May 1971 to October 1978, August 1981 to current year.

WATER TEMPERATURES: May 1971 to October 1978, August 1981 to current year.

DISSOLVED OXYGEN: May 1971 to October 1978, August 1981 to current year.

INSTRUMENTATION.--Water-quality monitor May 1971 to October 1978. Probes interfaced with a data collection platform since the 1986 water year.

REMARKS.--Since water year 1981 no data recorded during winter months. 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 1992 TO SEPTEMBER 1993

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (000061)	SPE- CIFIC CON- DUCT- ANCE (μS/CM) (000095)	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							
01...	0625	23	384	6.6	12.0	9.5	5300
08...	0615	20	383	6.6	11.5	10.4	K 830
15...	0600	30	355	6.7	12.5	10.3	K 1500
22...	0610	13	357	6.6	9.5	9.4	2100
NOV							
04...	0645	82	234	6.8	11.0	11.0	63000
12...	0605	--	--	--	--	--	4800
MAR							
09...	0700	202	265	8.0	4.5	--	K 630
18...	0730	497	173	7.1	1.0	--	2300
25...	0835	397	185	7.5	5.0	13.0	--
30...	1120	378	225	7.2	10.5	11.5	2200
APR							
06...	0700	155	250	6.9	7.5	12.0	K 190
15...	0650	155	244	7.2	11.5	11.2	K 180
21...	0625	139	251	7.5	14.5	10.3	370
27...	0645	338	178	7.0	10.5	11.2	61000
MAY							
05...	0630	118	247	6.9	16.0	9.0	290
11...	0630	98	262	6.9	17.5	8.8	470
19...	0615	106	337	6.4	14.0	9.4	3300
26...	0610	--	277	6.9	18.0	8.8	K 1400
JUN							
09...	0600	30	277	--	12.5	8.3	2200
16...	0600	20	302	7.4	18.5	7.8	K 1600
22...	0555	64	281	7.3	21.5	7.6	K 8700
30...	0620	33	301	7.5	21.5	7.9	K 2200
JUL							
07...	0620	201	287	7.4	24.0	7.2	47000
13...	0600	25	313	7.5	21.0	8.0	K 1300
21...	0600	195	320	7.6	22.0	7.3	K 6400
29...	0600	169	360	7.6	24.0	6.7	5200
AUG							
12...	0605	177	350	7.5	21.0	7.5	2900
17...	0620	6.2	357	7.4	23.0	5.8	K 8600
26...	0630	13	387	7.6	23.5	6.1	2400
31...	0610	17	370	7.6	23.0	6.6	3000
SEP							
08...	0620	22	275	7.4	21.5	6.8	--
16...	1035	45	343	7.6	21.5	7.8	K 4200
21...	1210	31	274	7.5	17.0	8.4	K 8500
29...	0610	262	184	7.4	16.5	8.7	K 310000

CHRISTINA RIVER BASIN

01480617 WEST BRANCH BRANDYWINE CREEK AT MODEMA, PA--Continued

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25° CELSIUS, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	392	366	379	372	309	339	---	---	---	---	---	---
2	389	354	373	371	302	346	---	---	---	---	---	---
3	396	369	383	---	---	---	---	---	---	---	---	---
4	405	374	383	295	234	259	---	---	---	---	---	---
5	398	366	386	331	278	298	---	---	---	---	---	---
6	414	366	387	308	269	286	---	---	---	---	---	---
7	403	355	369	340	308	316	---	---	---	---	---	---
8	388	348	373	368	308	329	---	---	---	---	---	---
9	376	172	290	---	---	---	---	---	---	---	---	---
10	251	167	220	---	---	---	---	---	---	---	---	---
11	285	243	261	---	---	---	---	---	---	---	---	---
12	303	222	273	---	---	---	---	---	---	---	---	---
13	328	297	308	259	177	198	---	---	---	---	---	---
14	354	325	337	---	---	---	---	---	---	---	---	---
15	361	347	353	---	---	---	---	---	---	---	---	---
16	362	348	354	---	---	---	---	---	---	---	---	---
17	377	340	362	320	295	309	---	---	---	---	---	---
18	377	352	366	354	309	331	---	---	---	---	---	---
19	---	---	---	357	330	343	---	---	---	---	---	---
20	---	---	---	365	328	346	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	366	337	353	---	---	---	---	---	---	---	---	---
23	361	324	344	---	---	---	---	---	---	---	---	---
24	365	344	351	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	363	346	355	---	---	---	---	---	---	---	---	---
29	377	347	363	---	---	---	---	---	---	---	---	---
30	377	323	350	---	---	---	---	---	---	---	---	---
31	353	310	333	---	---	---	---	---	---	---	---	---
MONTH	414	167	344	372	177	308	---	---	---	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	---	---	---	356	322	338	259	158	187	259	250	253
2	---	---	---	372	319	344	226	190	208	263	253	256
3	---	---	---	320	284	304	250	225	238	273	256	261
4	---	---	---	432	179	248	257	250	253	272	240	253
5	---	---	---	---	---	---	259	249	254	259	247	251
6	---	---	---	---	---	---	263	254	259	250	225	235
7	---	---	---	---	---	---	266	258	262	249	238	243
8	---	---	---	---	---	---	270	254	262	252	246	249
9	---	---	---	253	230	246	272	202	264	266	248	255
10	---	---	---	253	222	241	266	133	184	267	253	259
11	---	---	---	239	213	224	212	141	181	275	261	267
12	---	---	---	248	217	234	241	212	227	293	267	275
13	---	---	---	260	217	239	249	237	243	285	259	270
14	---	---	---	285	246	261	262	246	252	276	262	266
15	---	---	---	309	248	267	255	247	251	281	270	275
16	---	---	---	591	281	367	258	125	218	285	278	282
17	---	---	---	530	184	345	223	128	177	289	268	278
18	---	---	---	219	173	193	242	223	231	291	260	275
19	---	---	---	276	213	253	251	240	246	275	252	266
20	---	---	---	300	260	275	257	247	252	274	245	264
21	---	---	---	323	229	281	258	208	254	268	258	262
22	---	---	---	259	199	238	208	152	170	278	264	270
23	309	297	303	246	171	224	230	193	213	280	267	272
24	334	295	315	171	135	148	246	229	236	288	272	278
25	372	310	330	203	165	189	253	241	247	294	273	279
26	472	312	353	227	190	214	257	173	234	---	---	---
27	357	326	340	246	214	234	227	173	201	---	---	---
28	376	330	342	241	231	235	250	227	237	---	---	---
29	---	---	---	246	202	228	256	242	248	---	---	---
30	---	---	---	245	213	229	261	247	251	---	---	---
31	---	---	---	259	245	253	---	---	---	---	---	---
MONTH	472	295	330	591	135	254	272	125	231	294	225	264

CHRISTINA RIVER BASIN

01480617 WEST BRANCH BRANDYWINE CREEK AT MODENA, PA--Continued

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25° CELSIUS, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	---	---	---	363	305	323	369	338	357	374	357	366
2	294	285	289	358	226	333	358	319	348	406	361	375
3	300	274	289	296	226	268	374	341	361	373	269	363
4	302	278	292	310	296	303	384	339	370	309	201	255
5	314	289	297	331	292	309	403	354	383	356	252	306
6	319	282	298	324	306	316	389	206	319	374	352	360
7	330	288	300	331	272	297	318	231	267	383	340	362
8	305	282	294	336	289	315	344	314	328	355	235	296
9	297	271	283	335	307	324	357	334	343	349	291	327
10	299	268	280	345	310	328	350	333	343	324	216	249
11	321	290	304	350	324	337	363	330	349	351	249	303
12	318	241	297	351	319	336	359	324	342	363	342	349
13	315	295	306	358	318	343	357	339	349	382	333	355
14	315	296	307	359	136	285	361	340	353	390	344	366
15	320	293	308	280	159	226	382	354	364	407	356	382
16	331	306	319	332	280	306	386	362	374	399	253	312
17	330	313	322	363	299	332	375	347	357	337	214	298
18	328	312	322	383	344	366	358	319	341	305	279	292
19	334	318	326	383	323	357	376	344	357	331	284	305
20	332	129	301	340	291	312	372	135	335	370	313	341
21	275	199	237	346	313	329	286	163	225	356	244	318
22	287	262	272	359	333	349	344	286	308	333	306	319
23	319	287	303	357	315	342	354	330	343	358	322	335
24	329	304	319	351	329	341	365	330	355	367	328	341
25	331	314	324	363	324	349	366	339	356	---	---	---
26	331	303	318	363	332	352	382	357	373	---	---	---
27	332	314	322	360	330	344	379	351	370	316	137	247
28	330	305	315	360	335	347	394	150	354	262	165	216
29	311	296	305	364	329	344	301	170	268	325	262	292
30	313	294	306	360	326	340	367	298	331	348	319	331
31	---	---	---	367	346	357	374	343	366	---	---	---
MONTH	334	129	302	383	136	326	403	135	342	407	137	320

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	7.2	6.5	6.8	7.0	6.3	6.6	---	---	---	---	---	---
2	7.5	6.6	7.0	6.5	6.2	6.3	---	---	---	---	---	---
3	8.1	6.9	7.5	---	---	---	---	---	---	---	---	---
4	8.0	7.1	7.6	6.9	6.8	6.8	---	---	---	---	---	---
5	7.9	6.9	7.4	7.4	6.8	7.1	---	---	---	---	---	---
6	7.7	6.6	7.2	6.9	6.7	6.8	---	---	---	---	---	---
7	7.7	6.4	7.1	6.9	6.6	6.7	---	---	---	---	---	---
8	8.0	6.6	7.3	6.9	6.5	6.7	---	---	---	---	---	---
9	7.7	6.9	7.2	---	---	---	---	---	---	---	---	---
10	7.3	6.9	7.0	---	---	---	---	---	---	---	---	---
11	7.6	6.7	6.8	---	---	---	---	---	---	---	---	---
12	6.9	6.6	6.7	---	---	---	---	---	---	---	---	---
13	7.0	6.5	6.7	7.2	6.6	6.8	---	---	---	---	---	---
14	7.0	6.5	6.7	---	---	---	---	---	---	---	---	---
15	7.5	6.7	7.0	---	---	---	---	---	---	---	---	---
16	8.2	6.9	7.4	---	---	---	---	---	---	---	---	---
17	8.3	7.3	7.8	7.4	6.7	6.9	---	---	---	---	---	---
18	7.5	6.7	7.1	8.3	6.9	7.2	---	---	---	---	---	---
19	---	---	---	8.3	6.9	7.4	---	---	---	---	---	---
20	---	---	---	8.2	6.8	7.3	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	8.3	7.2	7.7	---	---	---	---	---	---	---	---	---
23	8.3	7.3	7.8	---	---	---	---	---	---	---	---	---
24	8.0	7.4	7.8	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	7.7	6.9	7.5	---	---	---	---	---	---	---	---	---
29	7.9	6.4	7.1	---	---	---	---	---	---	---	---	---
30	8.0	6.8	7.4	---	---	---	---	---	---	---	---	---
31	7.2	6.4	6.9	---	---	---	---	---	---	---	---	---
MONTH	8.3	6.4	7.2	8.3	6.2	6.9	---	---	---	---	---	---

CHRISTINA RIVER BASIN

01480617 WEST BRANCH BRANDYWINE CREEK AT MODENA, PA--Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	---	---	---	8.5	6.9	7.6	7.7	7.1	7.2	8.7	7.1	7.8
2	---	---	---	8.7	7.2	7.8	7.2	7.0	7.1	8.8	7.2	8.0
3	---	---	---	8.9	7.3	7.9	7.2	6.9	7.0	8.7	7.1	7.9
4	---	---	---	8.1	7.4	7.7	7.2	6.9	7.1	8.8	7.0	7.9
5	---	---	---	---	---	---	7.6	7.0	7.3	8.3	6.9	7.4
6	---	---	---	---	---	---	7.4	7.0	7.2	8.6	6.8	7.6
7	---	---	---	---	---	---	7.7	6.9	7.2	8.6	6.8	7.7
8	---	---	---	---	---	---	8.0	7.0	7.5	8.6	6.8	7.6
9	---	---	---	8.0	7.7	7.9	8.5	7.3	7.8	8.8	6.8	7.7
10	---	---	---	7.7	7.4	7.6	7.5	7.2	7.3	8.8	6.8	7.8
11	---	---	---	7.4	7.1	7.4	7.4	7.1	7.2	8.7	6.9	7.8
12	---	---	---	7.1	6.8	7.0	8.0	7.4	7.6	8.7	6.9	7.6
13	---	---	---	7.0	6.9	6.9	8.2	7.4	7.7	8.1	6.8	7.3
14	---	---	---	6.9	6.7	6.8	8.1	7.3	7.6	8.2	6.7	7.4
15	---	---	---	6.8	6.5	6.6	8.4	7.2	7.7	8.3	6.6	7.4
16	---	---	---	7.1	6.7	6.9	8.5	7.1	7.7	8.6	6.7	7.5
17	---	---	---	8.4	7.1	7.4	7.2	7.1	7.1	8.6	6.9	7.8
18	---	---	---	7.2	6.8	7.0	7.5	7.1	7.2	7.4	6.6	7.0
19	---	---	---	7.1	6.9	7.0	8.1	7.1	7.6	7.6	6.5	6.9
20	---	---	---	7.3	7.1	7.2	8.5	7.5	7.9	7.9	6.6	7.0
21	---	---	---	7.3	7.1	7.2	8.5	7.4	7.8	8.0	6.6	7.2
22	---	---	---	7.4	7.2	7.3	7.4	6.7	7.0	8.2	6.7	7.4
23	8.1	6.7	7.7	7.4	7.2	7.2	7.3	6.7	6.9	8.5	6.7	7.6
24	7.7	6.4	6.9	---	---	---	7.8	7.0	7.3	8.7	7.0	7.8
25	7.7	6.2	6.7	7.5	7.4	7.5	8.2	7.2	7.6	8.8	7.0	8.0
26	7.7	6.2	6.8	7.6	7.3	7.4	8.0	7.1	7.5	---	---	---
27	8.0	6.4	7.1	7.6	7.2	7.4	7.7	7.0	7.3	---	---	---
28	8.2	6.6	7.2	7.4	7.2	7.2	7.9	7.2	7.5	---	---	---
29	---	---	---	7.9	7.1	7.3	8.2	7.0	7.5	---	---	---
30	---	---	---	7.4	7.1	7.3	8.5	7.1	7.7	---	---	---
31	---	---	---	7.6	7.2	7.4	---	---	---	---	---	---
MONTH	8.2	6.2	7.1	8.9	6.5	7.3	8.5	6.7	7.4	8.8	6.5	7.6

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	---	---	---	8.9	7.5	8.1	9.2	7.6	8.6	8.8	7.6	8.3
2	---	---	---	7.8	7.0	7.6	9.2	7.6	8.6	8.6	6.5	8.2
3	---	---	---	8.5	7.5	7.9	9.2	7.6	8.6	8.6	7.6	8.1
4	---	---	---	8.7	7.5	8.0	9.1	7.6	8.6	7.8	7.3	7.6
5	---	---	---	8.8	7.4	8.1	9.1	7.6	8.5	8.7	7.5	8.0
6	---	---	---	8.9	7.4	8.1	8.9	7.6	7.8	8.5	7.6	8.1
7	---	---	---	8.7	7.3	7.9	8.6	7.5	7.9	8.7	7.6	8.1
8	---	---	---	8.9	7.4	8.1	8.9	7.4	8.1	8.1	7.5	7.7
9	---	---	---	8.9	7.4	8.1	8.8	7.5	8.1	8.4	7.7	8.0
10	8.2	7.5	7.7	9.0	7.4	8.2	9.1	7.5	8.3	8.0	7.5	7.7
11	8.3	7.4	7.8	9.0	7.4	8.2	9.1	7.5	8.4	8.3	7.6	7.9
12	8.4	7.4	7.8	9.0	7.4	8.3	9.1	7.5	8.4	8.4	7.7	8.0
13	8.5	7.4	7.9	9.1	7.5	8.3	9.1	7.5	8.4	8.5	7.7	8.1
14	8.5	7.4	7.9	8.9	7.2	7.8	9.1	7.5	8.4	8.6	7.2	8.2
15	8.6	7.4	7.9	7.9	7.3	7.6	9.0	7.5	8.4	8.6	7.6	8.2
16	8.6	7.4	7.9	8.1	7.5	7.8	8.9	7.5	8.3	8.1	7.3	7.6
17	8.8	7.5	8.0	8.5	7.6	8.0	8.5	7.4	7.9	7.8	7.5	7.6
18	8.7	7.5	8.1	8.6	7.7	8.1	8.7	7.4	7.8	7.8	7.6	7.6
19	8.7	7.5	8.0	8.1	7.6	7.8	8.8	7.5	8.2	8.2	7.6	7.9
20	8.6	7.3	7.9	8.8	7.6	8.1	8.7	7.5	7.9	8.3	7.6	7.9
21	7.8	7.3	7.5	8.9	7.6	8.2	8.0	7.4	7.6	8.0	7.5	7.7
22	8.1	7.4	7.7	9.0	7.6	8.3	8.4	7.5	7.9	8.1	7.6	7.8
23	8.3	7.5	7.8	9.0	7.6	8.4	8.7	7.6	8.1	8.4	7.6	7.9
24	8.5	7.5	8.0	9.2	7.7	8.5	8.9	7.6	8.3	8.1	7.6	7.9
25	8.6	7.6	8.0	9.0	7.6	8.5	9.0	7.6	8.4	---	---	---
26	8.7	7.6	8.1	8.9	7.6	8.2	9.0	7.5	8.4	---	---	---
27	8.8	7.6	8.1	9.1	7.6	8.4	9.1	7.5	8.5	7.8	7.3	7.6
28	9.0	7.6	8.2	9.1	7.6	8.5	9.1	7.6	8.4	7.6	7.4	7.5
29	8.9	7.4	8.1	9.0	7.6	8.3	8.4	7.5	7.9	7.8	7.5	7.6
30	8.9	7.5	8.2	9.0	7.6	8.4	8.7	7.4	8.1	8.0	7.6	7.7
31	---	---	---	9.1	7.6	8.5	8.8	7.6	8.2	---	---	---
MONTH	9.0	7.3	7.9	9.2	7.0	8.1	9.2	7.4	8.2	8.8	6.5	7.9

CHRISTINA RIVER BASIN

01480617 WEST BRANCH BRANDYWINE CREEK AT MODENA, PA--Continued

WATER TEMPERATURE, (DEG. C), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	14.5	11.5	13.0	10.0	9.5	10.0						
2	15.5	11.5	13.5	10.0	9.0	9.5						
3	17.0	13.0	15.0	---	---	---						
4	16.0	14.5	15.5	13.0	11.0	11.5						
5	15.5	13.5	14.5	13.0	11.0	12.5						
6	14.5	11.5	13.5	11.0	9.5	10.0						
7	14.5	10.5	12.5	10.0	8.0	9.0						
8	15.5	11.0	13.5	8.5	7.0	7.5						
9	17.0	14.0	15.5	---	---	---						
10	17.0	15.0	16.0	---	---	---						
11	15.5	14.0	14.5	---	---	---						
12	15.0	13.0	14.0	---	---	---						
13	14.5	12.5	13.5	14.5	11.5	12.5						
14	13.5	11.0	12.5	---	---	---						
15	16.0	12.0	14.0	---	---	---						
16	17.0	13.5	15.0	---	---	---						
17	16.0	12.5	14.0	7.0	5.0	6.0						
18	12.5	10.5	11.5	8.5	7.0	7.5						
19	---	---	---	8.0	7.0	7.5						
20	---	---	---	8.0	6.0	7.0						
21	---	---	---	---	---	---						
22	12.0	9.0	10.5	---	---	---						
23	11.5	6.5	10.0	---	---	---						
24	10.5	9.5	10.5	---	---	---						
25	---	---	---	---	---	---						
26	---	---	---	---	---	---						
27	---	---	---	---	---	---						
28	11.0	9.5	10.0	---	---	---						
29	11.5	9.5	10.5	---	---	---						
30	12.0	11.0	11.5	---	---	---						
31	11.0	10.0	10.5	---	---	---						
MONTH	17.0	6.5	13.0	14.5	5.0	9.0						

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	---	---	---	4.0	.0	2.0	11.5	9.5	10.0	18.5	13.5	16.0
2	---	---	---	5.5	1.0	3.0	9.5	9.0	9.0	19.0	14.5	16.5
3	---	---	---	5.5	3.0	4.5	9.5	8.0	8.5	18.5	15.0	17.0
4	---	---	---	4.5	1.5	2.5	9.0	7.0	8.0	17.0	15.0	16.0
5	---	---	---	---	---	---	10.0	7.0	8.5	16.5	15.5	16.0
6	---	---	---	---	---	---	11.5	7.5	9.5	18.5	15.0	16.5
7	---	---	---	---	---	---	12.5	7.5	10.0	19.0	15.0	17.0
8	---	---	---	---	---	---	13.5	8.5	11.0	19.0	14.5	16.5
9	---	---	---	7.0	4.5	5.5	14.0	10.0	12.0	20.0	15.0	17.5
10	---	---	---	6.0	4.5	5.0	13.5	11.5	12.0	20.0	16.5	18.5
11	---	---	---	6.0	4.0	5.0	12.5	10.0	11.0	21.5	17.0	19.0
12	---	---	---	6.5	3.0	5.0	13.0	10.0	11.0	21.0	17.5	19.0
13	---	---	---	6.0	.5	2.5	13.5	9.0	11.0	18.5	15.5	17.0
14	---	---	---	2.5	.5	1.0	12.5	9.5	11.5	18.5	14.0	16.0
15	---	---	---	3.5	.5	1.5	13.5	11.0	12.0	19.5	14.5	17.0
16	---	---	---	4.5	1.0	2.5	14.0	12.5	13.0	19.0	16.5	18.0
17	---	---	---	3.5	1.5	2.5	13.5	11.5	12.5	19.5	15.5	17.5
18	---	---	---	3.0	.5	1.5	14.0	9.5	11.5	16.5	14.0	14.5
19	---	---	---	4.5	.5	2.5	15.5	10.0	12.5	14.5	13.5	14.0
20	---	---	---	6.0	2.0	4.0	17.0	12.5	14.5	15.5	14.0	14.5
21	---	---	---	6.5	4.0	5.0	16.0	14.0	14.5	16.5	12.5	14.5
22	---	---	---	7.0	3.5	5.0	14.0	9.0	11.0	17.0	13.0	15.0
23	3.5	2.5	3.0	5.5	4.0	5.0	11.0	8.0	9.5	18.0	13.0	15.5
24	3.0	.5	2.0	---	---	---	13.0	8.5	10.5	19.0	15.0	17.0
25	3.5	.0	1.5	7.5	5.0	6.0	16.5	10.5	13.5	21.5	16.5	19.0
26	2.5	.5	1.5	10.5	5.5	7.5	15.5	12.5	14.5	---	---	---
27	4.0	.5	2.0	10.0	7.0	8.5	14.5	10.5	12.5	---	---	---
28	4.0	.0	1.5	10.0	9.0	9.5	15.5	10.0	13.0	---	---	---
29	---	---	---	10.0	9.5	10.0	16.5	11.5	14.0	---	---	---
30	---	---	---	11.0	10.0	10.5	16.5	12.5	14.5	---	---	---
31	---	---	---	13.0	9.0	11.0	---	---	---	---	---	---
MONTH	4.0	.0	2.0	13.0	.0	5.0	17.0	7.0	11.5	21.5	12.5	16.5

CHRISTINA RIVER BASIN

01480617 WEST BRANCH BRANDYWINE CREEK AT MODENA, PA--Continued

WATER TEMPERATURE, (DEG. C), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	---	---	---	23.0	21.0	22.0	27.0	22.0	24.5	26.0	22.5	24.5
2	18.0	15.0	16.0	21.5	19.5	20.0	27.0	22.5	25.0	26.0	23.0	24.5
3	20.0	15.0	17.5	23.5	19.0	21.0	26.5	22.5	24.5	27.0	24.0	25.5
4	20.0	16.5	18.0	26.5	20.5	23.5	26.5	22.5	24.5	25.0	23.5	24.5
5	18.5	16.5	17.0	27.5	22.0	24.5	24.5	21.0	23.0	25.5	22.0	23.5
6	20.0	15.0	17.0	27.0	23.0	25.0	23.0	18.0	20.0	25.0	20.5	23.0
7	20.0	15.5	17.5	27.5	23.5	25.5	21.5	18.0	19.5	24.0	21.0	22.5
8	19.0	17.0	18.0	29.0	24.0	26.0	24.0	19.0	21.5	22.0	20.0	21.0
9	23.0	17.5	20.0	29.0	24.0	26.5	23.5	20.0	21.5	22.5	20.0	21.0
10	24.5	19.0	21.5	29.0	24.5	26.5	24.0	19.5	22.0	22.5	19.5	21.0
11	24.5	20.5	22.0	28.0	24.5	26.0	23.0	20.0	21.5	19.5	11.5	18.5
12	22.0	19.0	20.5	28.0	23.5	25.5	24.5	20.0	22.5	18.5	15.0	17.0
13	22.5	17.5	20.0	28.0	23.0	25.5	24.5	21.0	23.0	20.5	16.5	18.5
14	23.5	17.5	20.5	25.5	22.5	24.0	25.5	21.0	23.5	22.0	17.0	19.5
15	23.0	18.5	20.5	25.5	23.0	24.0	25.5	21.5	23.5	23.5	18.5	21.0
16	24.5	19.5	21.5	25.0	20.5	23.0	24.5	22.0	23.5	22.0	18.0	20.0
17	24.5	19.0	21.5	25.0	20.0	22.5	24.0	22.0	23.0	18.0	17.0	17.5
18	25.0	20.0	22.0	25.5	19.5	22.5	25.5	22.0	23.0	18.0	17.0	17.5
19	26.0	21.0	23.5	23.0	20.5	21.0	25.5	21.5	23.5	19.5	16.0	17.5
20	26.0	21.5	23.5	25.5	20.0	22.5	25.0	22.0	23.0	17.0	14.5	16.0
21	24.5	21.5	22.5	24.0	21.0	22.5	24.5	21.5	22.5	16.5	15.5	16.0
22	24.5	20.5	22.5	24.5	19.5	22.5	23.5	19.5	21.5	17.5	16.5	17.0
23	24.0	19.5	21.5	24.5	19.5	22.0	24.0	19.0	21.5	18.0	15.0	16.5
24	23.5	18.0	21.0	25.0	20.0	22.5	25.0	20.5	22.5	18.0	16.0	17.0
25	24.5	18.5	21.0	26.0	21.0	23.5	26.0	21.5	24.0	---	---	---
26	25.5	19.0	22.0	24.5	22.5	23.0	26.5	22.0	24.0	---	---	---
27	26.0	21.0	23.0	27.0	21.5	24.0	26.5	22.0	24.5	18.5	17.5	17.5
28	26.0	21.0	23.5	28.0	23.0	25.5	26.5	22.5	24.5	17.5	15.5	16.5
29	24.0	21.5	23.0	28.0	23.5	26.0	25.5	21.5	23.5	16.5	14.0	15.0
30	24.5	21.0	22.5	26.0	22.5	24.5	25.5	21.0	23.5	14.5	13.0	14.0
31	---	---	---	25.5	21.5	23.5	28.0	22.0	24.0	---	---	---
MONTH	26.0	15.0	20.5	29.0	19.0	24.0	28.0	18.0	23.0	27.0	11.5	19.5

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	12.9	10.4	11.5	13.5	10.8	11.8	---	---	---	---	---	---
2	13.3	10.4	11.6	12.6	11.0	11.5	---	---	---	---	---	---
3	13.7	9.7	11.5	---	---	---	---	---	---	---	---	---
4	13.3	9.1	11.0	11.1	9.9	10.7	---	---	---	---	---	---
5	14.3	9.4	11.5	10.4	9.9	10.1	---	---	---	---	---	---
6	14.7	9.5	12.0	11.7	10.2	11.1	---	---	---	---	---	---
7	14.9	9.6	12.3	12.1	11.0	11.4	---	---	---	---	---	---
8	14.8	10.4	12.1	12.7	11.4	11.9	---	---	---	---	---	---
9	10.4	9.6	9.9	---	---	---	---	---	---	---	---	---
10	10.7	9.9	10.3	---	---	---	---	---	---	---	---	---
11	10.2	9.6	9.9	---	---	---	---	---	---	---	---	---
12	10.9	9.3	10.2	---	---	---	---	---	---	---	---	---
13	11.2	9.2	10.0	10.3	9.1	9.4	---	---	---	---	---	---
14	11.6	9.3	10.2	---	---	---	---	---	---	---	---	---
15	11.7	8.4	9.8	---	---	---	---	---	---	---	---	---
16	10.8	8.1	9.1	---	---	---	---	---	---	---	---	---
17	11.4	7.7	9.5	12.9	11.4	12.2	---	---	---	---	---	---
18	12.2	9.1	10.3	12.0	11.2	11.6	---	---	---	---	---	---
19	---	---	---	12.2	11.2	11.6	---	---	---	---	---	---
20	---	---	---	13.4	11.4	12.5	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	13.3	10.2	11.4	---	---	---	---	---	---	---	---	---
23	13.6	10.5	11.7	---	---	---	---	---	---	---	---	---
24	13.2	10.4	12.0	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	12.0	9.0	10.8	---	---	---	---	---	---	---	---	---
30	12.9	8.7	10.6	---	---	---	---	---	---	---	---	---
31	12.7	10.2	11.3	---	---	---	---	---	---	---	---	---
MONTH	14.9	7.7	10.9	13.5	9.1	11.3	---	---	---	---	---	---

CHRISTINA RIVER BASIN

01480617 WEST BRANCH BRANDYWINE CREEK AT MODENA, PA--Continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	---	---	---	---	---	---	11.6	10.9	11.5	12.7	9.2	10.9
2	---	---	---	---	---	---	11.9	11.6	11.8	12.7	9.1	10.7
3	---	---	---	---	---	---	12.5	11.9	12.3	13.0	9.1	10.7
4	---	---	---	---	---	---	13.0	12.3	12.6	12.6	9.1	10.5
5	---	---	---	---	---	---	13.0	11.2	12.3	11.7	9.0	10.0
6	---	---	---	---	---	---	---	---	---	12.1	8.7	10.0
7	---	---	---	---	---	---	---	---	---	12.5	8.6	10.3
8	---	---	---	---	---	---	---	---	---	12.5	8.3	10.2
9	---	---	---	---	---	---	13.2	10.3	12.3	12.4	7.9	10.0
10	---	---	---	---	---	---	11.5	10.4	11.0	12.8	7.9	9.9
11	---	---	---	---	---	---	12.0	10.1	11.6	12.8	8.2	10.2
12	---	---	---	---	---	---	12.8	11.7	12.2	12.8	7.9	9.8
13	---	---	---	---	---	---	13.4	10.9	12.3	11.5	8.2	9.8
14	---	---	---	---	---	---	13.3	10.9	11.9	12.4	8.9	10.6
15	---	---	---	---	---	---	12.8	10.4	11.6	12.7	8.4	10.4
16	---	---	---	---	---	---	12.3	10.3	11.0	12.5	8.4	9.8
17	---	---	---	---	---	---	11.2	10.6	10.9	12.5	8.6	10.2
18	---	---	---	---	---	---	12.6	10.9	11.8	10.9	8.7	9.9
19	---	---	---	---	---	---	12.8	10.3	11.7	11.4	9.6	10.4
20	---	---	---	---	---	---	12.3	9.9	11.1	11.9	9.7	10.5
21	---	---	---	---	---	---	12.2	9.9	10.9	12.5	9.8	11.0
22	---	---	---	---	---	---	11.8	10.3	11.2	12.8	9.7	11.0
23	---	---	---	---	---	---	12.6	11.4	12.1	13.3	9.5	11.3
24	---	---	---	---	---	---	12.8	10.7	11.9	13.2	8.9	10.9
25	---	---	---	13.0	12.5	12.8	12.2	9.5	11.0	12.9	8.6	10.5
26	---	---	---	13.0	11.9	12.5	11.0	9.5	10.2	---	---	---
27	---	---	---	12.6	11.6	12.1	12.2	10.6	11.2	---	---	---
28	---	---	---	12.0	11.6	11.8	12.9	10.4	11.7	---	---	---
29	---	---	---	11.7	11.5	11.6	12.7	9.9	11.3	---	---	---
30	---	---	---	11.7	11.0	11.4	12.8	9.7	11.1	---	---	---
31	---	---	---	11.9	10.8	11.4	---	---	---	---	---	---
MONTH	---	---	---	13.0	10.8	11.9	13.4	9.5	11.6	13.3	7.9	10.4

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	---	---	---	11.8	7.7	9.4	12.9	7.1	9.5	11.7	6.9	8.6
2	11.0	9.0	10.4	9.8	8.4	9.0	12.4	6.8	9.0	11.4	5.8	8.5
3	10.5	8.5	9.5	10.7	8.5	9.6	12.6	6.3	8.9	11.0	6.7	8.3
4	10.4	8.5	9.2	11.1	8.0	9.4	12.7	6.3	8.6	8.4	6.3	7.6
5	9.7	8.5	9.1	12.7	7.9	9.4	12.6	6.0	9.0	10.3	7.4	8.5
6	10.5	8.8	9.6	11.5	7.2	9.1	8.8	6.9	8.0	10.1	7.3	8.4
7	10.7	8.7	9.6	10.3	7.2	8.4	10.2	8.1	9.1	11.4	7.3	8.6
8	10.0	8.6	9.2	11.1	6.8	8.6	11.0	7.8	9.2	9.1	7.1	8.1
9	10.0	8.2	8.9	11.0	6.8	8.4	11.7	7.8	9.3	10.1	7.9	8.7
10	9.5	7.6	8.8	11.2	6.7	8.6	12.2	8.0	9.7	8.7	7.4	8.0
11	9.5	7.4	8.4	11.4	6.5	8.5	12.3	7.4	9.7	9.6	7.9	8.8
12	10.0	7.6	8.9	12.0	6.1	8.7	12.8	7.7	9.9	10.4	8.4	9.2
13	10.3	8.0	9.0	12.4	6.8	9.0	12.3	7.6	9.4	10.7	8.2	9.1
14	10.5	7.9	9.0	13.3	6.7	8.3	12.4	7.6	9.5	11.6	7.3	9.0
15	10.5	7.8	9.0	8.4	7.7	8.1	13.2	7.5	9.8	10.6	6.9	8.6
16	10.5	7.7	8.8	9.2	7.6	8.4	12.5	7.4	9.2	8.7	6.5	7.9
17	11.1	7.7	9.0	9.5	7.6	8.5	10.6	7.1	8.2	9.2	8.4	8.7
18	10.9	7.4	8.9	10.3	7.4	8.8	9.7	6.5	7.5	9.5	8.7	9.0
19	10.3	6.9	8.4	8.8	7.4	8.2	10.5	6.4	8.3	10.3	8.7	9.4
20	10.0	6.8	8.2	10.2	7.4	8.8	8.8	6.0	6.9	11.1	9.0	9.8
21	8.5	7.6	8.0	10.8	7.1	8.8	8.4	7.6	7.9	9.8	9.1	9.4
22	9.0	7.6	8.3	11.6	7.8	9.2	10.0	7.6	8.5	10.1	9.0	9.3
23	10.3	7.8	8.8	12.2	7.7	9.5	10.7	7.3	8.8	10.7	8.8	9.5
24	10.5	8.2	9.2	12.2	7.8	9.6	11.6	7.3	8.9	10.5	8.5	9.7
25	10.4	8.1	9.1	12.0	7.5	9.2	12.0	7.1	9.0	---	---	---
26	10.5	7.8	8.9	12.6	7.3	8.7	12.0	6.8	8.9	---	---	---
27	10.8	7.7	8.9	11.2	6.4	9.0	13.0	6.6	9.1	9.2	8.4	10.3
28	11.4	7.6	9.2	12.1	6.4	8.9	13.2	6.6	8.9	9.5	9.1	9.2
29	11.2	7.2	9.0	11.0	6.7	8.3	9.7	6.9	8.0	10.1	9.4	9.8
30	11.5	8.1	9.5	11.6	6.8	8.9	10.9	6.7	8.5	10.8	9.8	10.3
31	---	---	---	12.0	7.2	9.2	11.6	6.9	8.7	---	---	---
MONTH	11.5	6.8	9.0	13.3	6.1	8.9	13.2	6.0	8.8	11.7	5.8	8.9

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).

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 fair. Several measurements of water temperature were made during the year.

REVISIONS.--The minimum daily discharge for water year 1992 and the period of record have been revised to 1.4 ft³/s, Oct. 24, 1992, and 0.40 ft³/s, Sept. 2, 1966, respectively. Revised daily discharges, in cubic feet per second, for June 17, 18, 1992 and revised yearly summaries are given below. These figures supercede those published in the report for 1992.

June 17, 1992 4.3
June 18, 1992 4.1

	<u>TOTAL</u>	<u>MEAN</u>	<u>MAX</u>	<u>MIN</u>	<u>CFSM</u>	<u>IN</u>
June 1992	331.3	11.0	55	4.1	1.29	1.44
WTR YR 1992	2791.9	7.63	92	1.4	.89	12.12

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.2	3.7	5.5	11	7.9	e5.0	84	18	e21	3.5	2.2	1.8
2	2.9	4.3	5.5	7.4	4.5	e6.0	71	17	e15	5.6	2.2	1.8
3	2.8	36	5.4	6.6	4.8	e12	38	16	e14	10	2.1	1.9
4	2.6	31	4.8	7.4	5.9	66	29	16	e15	7.5	2.1	4.6
5	2.6	11	6.4	20	6.1	199	26	17	e14	4.4	2.0	3.6
6	2.5	12	5.4	18	6.3	59	24	19	e14	3.6	5.1	2.8
7	2.5	9.6	5.2	11	6.0	30	22	16	e14	6.4	6.7	3.2
8	2.6	6.3	5.0	9.6	6.9	37	21	14	e14	6.0	4.9	12
9	8.1	4.7	4.5	10	6.7	30	20	13	e19	3.9	3.4	8.2
10	22	4.4	5.6	8.7	6.7	23	142	12	e16	3.2	2.6	9.1
11	16	4.4	90	7.5	7.9	19	110	e11	e14	2.9	2.5	6.7
12	11	4.4	91	9.9	8.4	17	36	e11	e12	2.8	2.8	4.0
13	7.4	35	31	21	13	15	28	e12	e11	2.7	3.1	2.8
14	4.7	27	15	21	14	12	25	e12	e9.6	3.5	2.7	2.4
15	3.9	9.2	10	12	12	14	24	e12	e8.6	5.2	2.3	2.3
16	3.5	6.3	9.7	9.9	16	17	41	e11	e7.2	3.5	2.2	4.2
17	3.1	5.5	21	9.0	32	43	89	e11	e8.0	2.9	2.3	5.7
18	2.8	5.4	32	8.2	25	89	30	e13	e7.8	2.6	2.3	7.0
19	3.1	5.0	15	7.0	12	68	24	e15	e7.4	3.7	2.2	5.4
20	3.2	4.7	14	6.1	8.8	30	21	e13	e8.4	5.5	3.2	3.9
21	3.1	4.6	13	6.2	8.0	32	22	e12	e10	4.1	5.3	4.8
22	3.0	6.8	10	16	10	47	91	e11	e8.6	3.1	4.0	4.7
23	3.0	32	10	15	12	54	41	e10	e7.0	2.7	2.9	4.2
24	3.3	30	9.3	11	9.8	163	23	e9.8	e6.0	2.5	2.5	3.4
25	6.1	13	6.7	12	7.2	101	21	e9.4	e4.8	2.3	2.2	3.0
26	5.1	10	e5.2	9.1	e6.2	60	31	e8.6	e4.4	2.3	2.1	9.0
27	3.9	9.3	e4.9	7.7	e5.6	43	45	e8.6	e5.4	2.5	2.0	17
28	3.4	7.7	e5.4	7.4	e5.2	39	23	e8.0	e4.5	2.3	1.9	34
29	3.2	6.6	e8.0	7.9	---	46	20	e7.6	e4.0	2.9	2.6	19
30	3.2	6.0	e12	6.0	---	58	19	e8.8	3.8	2.8	2.0	7.3
31	3.7	---	13	6.8	---	33	---	e12	---	2.4	1.9	---
TOTAL	151.5	355.9	479.5	326.4	274.9	1467.0	1241	384.8	308.5	119.3	88.3	199.8
MEAN	4.89	11.9	15.5	10.5	9.82	47.3	41.4	12.4	10.3	3.85	2.85	6.66
MAX	22	36	91	21	32	199	142	19	21	10	6.7	34
MIN	2.5	3.7	4.5	6.0	4.5	5.0	19	7.6	3.8	2.3	1.9	1.8
CFSM	.57	1.38	1.80	1.23	1.15	5.52	4.83	1.45	1.20	.45	.33	.78
IN.	.66	1.54	2.08	1.42	1.19	6.37	5.39	1.67	1.34	.52	.38	.87

e Estimated.

CHRISTINA RIVER BASIN

01480675 MARSH CREEK NEAR GLENMOORE, PA

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 1993, BY WATER YEAR (WY)

MEAN	6.94	10.9	13.7	13.6	17.0	19.6	18.9	15.5	11.6	9.22	5.91	6.24
MAX	21.2	21.8	43.4	35.9	44.8	47.3	47.4	36.7	42.2	34.0	22.1	21.4
(WY)	1980	1973	1984	1978	1971	1993	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	1.15	.88
(WY)	1982	1982	1981	1981	1980	1981	1985	1969	1986	1987	1966	1980

SUMMARY STATISTICS

FOR 1992 CALENDAR YEAR

FOR 1993 WATER YEAR

WATER YEARS 1966 - 1993

ANNUAL TOTAL	3211.1			5396.9								
ANNUAL MEAN	8.77			14.8						12.4		
HIGHEST ANNUAL MEAN										23.2		1984
LOWEST ANNUAL MEAN										4.99		1981
HIGHEST DAILY MEAN	92	Mar 27		199	Mar 5					444	Jun 22	1972
LOWEST DAILY MEAN	1.4	Sep 1		1.8	Sep 1, 2					.40	Sep 2	1966
ANNUAL SEVEN-DAY MINIMUM	1.6	Sep 15		2.0	Aug 28					.41	Sep 7	1966
INSTANTANEOUS PEAK FLOW				290	Mar 5					946	Jun 22	1972
INSTANTANEOUS PEAK STAGE				2.79	Mar 5					4.68	Jun 22	1972
INSTANTANEOUS LOW FLOW				1.7	Sep 3					.30	Aug 31	1966
ANNUAL RUNOFF (CFSM)	1.02			1.73						1.45		
ANNUAL RUNOFF (INCHES)	13.94			23.43						19.70		
10 PERCENT EXCEEDS	15			32						24		
50 PERCENT EXCEEDS	5.7			7.9						7.7		
90 PERCENT EXCEEDS	2.5			2.6						2.2		

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 Resources).

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 Resources.

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, 15,440 acre-ft, Mar. 25, elevation, 361.79 ft; minimum contents, 12,740 acre-ft, Dec. 21, elevation, 356.65 ft.

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

Date	Elevation (feet)	Contents (acre- feet)	Change in contents (equivalent in ft ³ /s)
01480684 Marsh Creek Reservoir			
Sept. 30	359.88	14,390	--
Oct. 31	359.70	14,290	- 1.6
Nov. 30	359.92	14,420	+ 2.2
Dec. 31	357.55	13,180	-20.2
CAL YR 1992	--	--	- 0.2
Jan. 31	357.70	13,260	+ 1.3
Feb. 28	357.83	13,320	+ 1.1
Mar. 31	360.05	14,490	+19.0
Apr. 30	359.89	14,400	- 1.5
May 31	359.80	14,350	- 0.8
June 30	359.62	14,250	- 1.7
July 31	359.30	14,080	- 2.8
Aug. 31	358.70	13,760	- 5.2
Sept. 30	359.35	14,100	+ 5.7
WTR YR 1993	--	--	- 0.4

CHRISTINA RIVER BASIN

01480685 MARSH CREEK NEAR DOWNINGTOWN, PA

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.

DRAINAGE AREA.--20.3 mi².

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

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 280 ft above sea level, from topographic map.

REMARKS.--No estimated daily discharges. Records good. Flow completely regulated since November 1973 by Marsh Creek Reservoir.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.8	10	23	4.5	9.4	11	52	26	14	11	10	10
2	8.0	11	21	9.0	9.8	11	72	28	15	11	10	10
3	9.7	17	20	11	9.8	11	91	29	15	12	11	10
4	9.8	31	15	10	9.9	13	88	31	16	12	11	10
5	9.8	32	12	11	10	50	138	32	16	11	11	10
6	10	31	11	30	10	90	81	34	16	11	11	10
7	11	25	11	63	10	87	81	35	15	11	11	10
8	10	19	11	63	10	83	80	35	15	11	11	10
9	12	17	11	38	10	79	77	35	16	11	10	10
10	13	16	11	8.3	10	54	74	34	17	11	11	10
11	14	15	33	8.3	10	27	227	33	17	10	11	6.7
12	15	15	90	8.3	10	29	318	32	16	10	11	2.0
13	15	25	104	14	33	36	209	33	15	10	11	8.5
14	14	38	239	29	63	40	38	32	15	11	10	10
15	13	36	318	63	63	39	11	31	15	12	10	10
16	13	32	313	63	64	37	15	30	14	11	10	5.9
17	11	29	207	34	63	55	64	29	13	11	10	2.7
18	10	27	66	8.3	63	85	79	29	13	10	10	2.6
19	10	24	66	8.5	63	94	75	30	13	11	10	2.6
20	9.3	16	66	8.7	49	90	63	29	13	11	10	2.6
21	9.2	13	36	8.7	11	87	32	28	14	11	10	2.8
22	10	13	8.3	9.0	11	87	69	27	14	10	10	3.0
23	10	23	5.5	21	11	88	89	26	14	10	10	2.9
24	11	34	2.6	63	11	82	82	26	13	10	10	2.9
25	11	34	2.2	63	11	129	77	25	12	10	10	3.1
26	11	32	1.1	33	11	135	75	23	12	10	10	3.2
27	11	30	1.1	9.0	11	123	77	22	12	10	10	3.2
28	10	28	1.2	9.0	11	117	75	21	11	10	10	3.1
29	10	26	1.2	9.0	---	164	72	15	11	10	10	17
30	10	24	1.2	9.0	---	249	60	12	11	10	10	50
31	10	---	1.2	9.0	---	233	---	13	---	10	10	---
TOTAL	338.6	723	1709.6	735.6	667.9	2515	2641	865	423	330	320	244.8
MEAN	10.9	24.1	55.1	23.7	23.9	81.1	88.0	27.9	14.1	10.6	10.3	8.16
MAX	15	38	318	63	64	249	318	35	17	12	11	50
MIN	7.8	10	1.1	4.5	9.4	11	11	12	11	10	10	2.0
MEAN [‡]	9.3	26.3	34.9	25.0	25.0	100	86.5	27.1	12.4	7.8	5.1	13.9
CFSM [‡]	.46	1.30	1.72	1.23	1.23	4.93	4.26	1.34	.61	.38	.25	.68
IN. [‡]	.53	1.45	1.98	1.42	1.28	5.68	4.75	1.54	.68	.44	.29	.76

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1973 - 1993, BY WATER YEAR (WY)

	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
MEAN	19.7	22.3	40.0	43.8	33.3	36.9	40.6	35.2	25.1	23.8	14.5	16.0									
MAX	52.5	60.0	87.4	128	72.3	83.7	140	83.4	71.2	81.6	31.4	54.3									
(WY)	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990									
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	1976	1983	1981	1981	1981									

SUMMARY STATISTICS

FOR 1992 CALENDAR YEAR

FOR 1993 WATER YEAR

WATER YEARS 1973 - 1993

ANNUAL TOTAL	6913.6		11513.5																		
ANNUAL MEAN	18.9	‡18.7	31.5	‡31.1																	
HIGHEST ANNUAL MEAN																					
LOWEST ANNUAL MEAN																					
HIGHEST DAILY MEAN	318	Dec 15	318	Dec 15, Apr 12																	
LOWEST DAILY MEAN	1.1	Dec 26, 27	1.1	Dec 26, 27																	
ANNUAL SEVEN-DAY MINIMUM	1.3	Dec 25	1.3	Dec 25																	
INSTANTANEOUS PEAK FLOW			467	Dec 14																	
INSTANTANEOUS PEAK STAGE			3.54	Dec 14																	
ANNUAL RUNOFF (CFSM)	.93	‡.92	1.55	‡1.53																	
ANNUAL RUNOFF (INCHES)	12.67	‡12.54	21.10	‡20.80																	
10 PERCENT EXCEEDS	31		78																		
50 PERCENT EXCEEDS	12		13																		
90 PERCENT EXCEEDS	5.7		8.9																		

‡ Adjusted for change in contents at Marsh Creek Reservoir.

a From rating curve extended above 200 ft³/s.

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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	30	53	49	e34	e43	437	113	91	34	26	e20
2	21	33	51	49	e38	e48	302	110	62	42	25	e19
3	23	250	49	50	e44	e52	233	108	60	59	25	e19
4	22	83	43	50	48	564	204	107	62	42	25	e30
5	22	66	41	134	47	777	245	112	61	38	24	e25
6	22	84	39	90	46	301	181	128	60	35	47	e19
7	23	58	37	111	48	246	176	110	57	45	52	e22
8	23	46	36	110	50	242	170	110	57	36	36	e35
9	63	40	35	91	48	211	163	113	65	32	32	e24
10	107	38	38	54	46	156	798	110	60	30	30	e66
11	53	36	486	52	47	109	558	106	55	29	29	e50
12	57	36	365	60	51	101	494	100	52	27	32	e37
13	41	237	211	122	102	103	351	101	52	27	30	e29
14	36	89	300	104	121	124	149	95	51	48	29	e25
15	34	70	370	117	110	110	118	89	49	58	26	e23
16	32	62	359	112	160	107	262	86	47	39	25	e38
17	30	55	372	84	233	347	359	86	46	35	e30	e56
18	29	52	178	54	143	415	212	88	44	32	e28	e88
19	29	47	124	51	114	232	189	96	44	41	e26	e60
20	28	38	130	49	e72	199	167	94	47	45	e45	e36
21	26	35	97	50	e54	230	130	89	65	37	e100	e70
22	28	39	59	93	e48	275	464	82	58	33	e30	e50
23	27	230	e47	76	e62	308	251	78	48	31	e28	e40
24	30	100	e40	e66	e52	935	199	76	43	30	e26	e35
25	41	85	e38	e54	e48	511	183	74	41	29	e25	e32
26	34	75	e35	e42	e45	378	241	70	40	29	e23	e300
27	31	70	e32	e41	e43	304	285	68	39	30	e22	e180
28	29	63	e40	e39	e41	284	190	66	37	28	e32	e110
29	28	59	e48	e37	---	369	172	60	36	30	e26	e70
30	28	55	54	e36	---	439	155	55	37	29	e20	e47
31	30	---	53	e35	---	368	---	63	---	26	e20	---
TOTAL	1050	2261	3860	2162	1995	8888	8038	2843	1566	1106	974	1655
MEAN	33.9	75.4	125	69.7	71.2	287	268	91.7	52.2	35.7	31.4	55.2
MAX	107	250	486	134	233	935	798	128	91	59	100	300
MIN	21	30	32	35	34	43	118	55	36	26	20	19
MEAN [‡]	32.3	77.6	105	71.0	72.3	306	266	90.9	50.5	32.9	26.2	60.9
CFSM [‡]	.53	1.28	1.73	1.17	1.19	5.05	4.39	1.50	.83	.54	.43	1.00
IN. [‡]	.61	1.43	1.99	1.35	1.24	5.82	4.90	1.73	.93	.62	.48	1.12

[‡] Adjusted for change in contents in Marsh Creek Reservoir.

e Estimated.

CHRISTINA RIVER BASIN

01480700 EAST BRANCH BRANDYWINE CREEK NEAR DOWNINGTOWN, PA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1974 - 1993, BY WATER YEAR (WY) (SINCE REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	57.6	73.7	106	120	113	128	128	110	74.8	72.3	44.4	54.8
MAX	150	148	217	361	242	287	365	246	181	257	90.9	191
(WY)	1980	1989	1978	1979	1979	1993	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 1992 CALENDAR YEAR

FOR 1993 WATER YEAR

WATER YEARS 1974 - 1993

ANNUAL TOTAL	21486						36398					
ANNUAL MEAN	58.7	§58.5					99.7	§99.3		90.1	§90.0	
HIGHEST ANNUAL MEAN										150		1984
LOWEST ANNUAL MEAN										39.3		1981
HIGHEST DAILY MEAN				486	Dec 11		935	Mar 24		2020		Jan 26 1978
LOWEST DAILY MEAN				11	Sep 18		e19	Sep 2, 3, 6		11		Sep 18 1992
ANNUAL SEVEN-DAY MINIMUM				13	Sep 15		a22	Aug 31		13		Sep 15 1992
INSTANTANEOUS PEAK FLOW							1940	Apr 10		4750		Jan 25 1978
INSTANTANEOUS PEAK STAGE							5.93	Apr 10		8.95		Jan 25 1979
INSTANTANEOUS LOW FLOW										7.3		Feb 12 1992 ^b
ANNUAL RUNOFF (CFSM)		.97	§ .97				1.65	§1.64		1.49	§1.49	
ANNUAL RUNOFF (INCHES)		13.19	§13.16				22.34	§22.22		20.21	§20.17	
10 PERCENT EXCEEDS				98			243			170		
50 PERCENT EXCEEDS				43			52			59		
90 PERCENT EXCEEDS				25			27			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								1973
LOWEST ANNUAL MEAN				51.6								1969
HIGHEST DAILY MEAN				3220		Jun 22 1972						
LOWEST DAILY MEAN				7.2		Sep 12 1966						
ANNUAL SEVEN DAY MINIMUM				8.0		Sep 7 1966						
INSTANTANEOUS PEAK FLOW				c8070		Jun 22 1972						
INSTANTANEOUS PEAK STAGE				d12.06		Jun 22 1972						
INSTANTANEOUS LOW FLOW				7.2		Sep 2, 3, 11-13, 1966						
ANNUAL RUNOFF (CFSM)				1.44								
ANNUAL RUNOFF (INCHES)				19.51								
10 PERCENT EXCEEDS				163								
50 PERCENT EXCEEDS				56								
90 PERCENT EXCEEDS				23								

§ Adjusted for change in contents in Marsh Creek Reservoir.

a Computed using estimated daily discharges.

b Also Sept. 17, 1992.

c From rating curve extended above 5,000 ft³/s.

d From floodmark.

e Estimated.

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 1992 TO SEPTEMBER 1993

DATE	TIME	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 AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	TUR- BID- ITY (NTU) (00076)	OXYGEN, DIS- SOLVED (MG/L) (00300)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)
OCT 30...	0900	28	200	7.4	11.0	10.5	1.3	10.7	69	18	5.8
DATE	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	SODIUM PERCENT (00932)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- LITY WAT WH TOT IT FIELD (MG/L AS CACO3) (00419)	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, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	NITRO- GEN, DIS- SOLVED (MG/L AS N) (00618)
OCT 30...	9.1	0.5	22	2.3	49	15	16	0.10	12	116	1.68
DATE	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	ALUM- INUM, DIS- SOLVED (μ G/L AS AL) (01106)	IRON, DIS- SOLVED (μ G/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (μ G/L AS MN) (01056)
OCT 30...	0.020	1.70	0.060	0.20	0.20	<0.010	0.010	<0.010	<10	98	240

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 good except those for estimated daily discharges, which are fair. 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	45	49	77	86	e82	e64	851	209	168	56	43	41
2	43	55	75	81	e72	e72	607	202	97	69	43	40
3	44	494	72	84	e80	e86	469	195	94	95	42	42
4	43	123	71	87	81	e1000	410	193	92	65	42	87
5	43	102	73	252	79	1220	441	203	92	e58	42	51
6	43	123	70	135	81	545	335	221	95	e54	87	44
7	43	91	68	152	74	406	311	191	87	e68	79	42
8	42	71	66	150	83	406	292	179	87	58	50	49
9	113	64	64	136	78	344	272	174	110	54	47	45
10	169	66	75	92	78	249	1340	169	99	51	46	90
11	81	68	892	87	80	172	897	164	85	49	45	e64
12	86	67	e500	100	87	191	766	161	80	48	46	e52
13	65	359	e330	183	163	160	603	171	79	48	45	e47
14	57	114	397	153	170	200	316	160	78	e68	44	e43
15	54	92	519	159	150	173	249	150	76	e80	43	e41
16	52	84	507	152	286	165	489	145	74	59	42	e62
17	50	78	630	128	438	639	644	145	72	51	43	e90
18	48	75	307	92	207	751	397	152	71	48	45	e130
19	48	70	182	87	162	417	351	163	69	55	43	e80
20	47	62	190	84	146	350	316	154	74	62	111	e66
21	46	57	156	85	100	425	249	148	112	51	144	e100
22	47	65	104	159	e76	509	801	137	88	48	50	e70
23	46	454	e90	117	e94	573	450	131	73	47	45	e58
24	50	140	e80	150	e80	1540	359	128	67	46	44	e50
25	66	117	e72	162	e70	e900	330	124	65	45	43	e44
26	54	107	e64	e110	e68	e650	445	119	61	45	43	113
27	47	99	e60	e88	e64	e540	505	115	e60	46	41	245
28	46	90	e70	e86	e60	e490	337	112	e58	44	43	173
29	46	84	e84	e84	---	e650	304	106	e58	46	51	64
30	47	80	e90	e80	---	e750	274	98	59	46	43	102
31	49	---	94	e84	---	624	---	111	---	44	42	---
TOTAL	1760	3600	6129	3685	3289	15261	14410	4830	2480	1704	1617	2225
MEAN	56.8	120	198	119	117	492	480	156	82.7	55.0	52.2	74.2
MAX	169	494	892	252	438	1540	1340	221	168	95	144	245
MIN	42	49	60	80	60	64	249	98	58	44	41	40
MEAN [‡]	55.2	122	178	120	118	511	478	155	81.0	52.2	47.0	79.9
CFSM [‡]	.61	1.36	1.98	1.33	1.31	5.68	5.32	1.72	.90	.58	.52	.89
IN. [‡]	.70	1.52	2.28	1.53	1.36	6.55	5.94	1.98	1.00	.67	.60	.99

[‡] Adjusted for change in contents in Marsh Creek Reservoir.

e Estimated.

CHRISTINA RIVER BASIN

01480870 EAST BRANCH BRANDYWINE CREEK BELOW DOWNINGTOWN, PA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1974 - 1993, BY WATER YEAR (WY) (SINCE REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	88.0	113	163	182	181	205	210	180	126	119	75.0	90.3
MAX	224	214	449	527	409	492	594	410	315	421	132	292
(WY)	1980	1989	1984	1979	1979	1993	1983	1989	1982	1984	1989	1979
MIN	41.2	43.6	40.8	30.9	74.6	61.6	53.1	81.9	47.0	41.1	38.2	29.5
(WY)	1987	1974	1981	1981	1980	1985	1985	1976	1985	1977	1980	1980

SUMMARY STATISTICS

FOR 1992 CALENDAR YEAR

FOR 1993 WATER YEAR

WATER YEARS 1974 - 1993

ANNUAL TOTAL	34933		60990									
ANNUAL MEAN	95.4	§95.2	167	§167					144	§148		
HIGHEST ANNUAL MEAN									257			1984
LOWEST ANNUAL MEAN									59.7			1981
HIGHEST DAILY MEAN	892	Dec 11	1540	Mar 24					3040	Jan 26		1978
LOWEST DAILY MEAN	28	Sep 18,21	40	Sep 2					25	Sep 17		1980
ANNUAL SEVEN-DAY MINIMUM	30	Sep 15	43	Oct 2					26	Sep 16		1980
INSTANTANEOUS PEAK FLOW			3370	Mar 4					a8160	Jun 22		1972
INSTANTANEOUS PEAK STAGE			9.60	Mar 4					b13.40	Jun 22		1972
INSTANTANEOUS LOW FLOW			32	Sep 17					22	Sep 25		1980
ANNUAL RUNOFF (CFSM)	1.06	§1.06	1.86	§1.86					1.60	§1.65		
ANNUAL RUNOFF (INCHES)	14.46	§14.44	25.24	§25.12					21.79	§22.36		
10 PERCENT EXCEEDS	148		439						277			
50 PERCENT EXCEEDS	71		85						95			
90 PERCENT EXCEEDS	43		45						42			

§ Adjusted for change in contents in Marsh Creek Reservoir.

a From rating curve extended above 3,600 ft³/s on basis of slope-area measurement of peak flow.

b Maximum for period of record, 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. Probes interfaced with a data collection platform since the 1986 water year.

REMARKS.--Data collection discontinued during winter months since water year 1981. 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 1992 TO SEPTEMBER 1993

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)	OXYGEN, DIS- SOLVED (MG/L) (00300)	COLI- FORM, FECAL, 0.45 μM-MF (COLS./ 100 ML) (31616)
OCT							
01...	0645	43	377	7.6	12.0	8.9	340
08...	0630	40	351	7.4	12.0	8.1	K 200
15...	0625	52	304	7.3	13.5	8.2	K 90
22...	0630	44	350	7.3	10.5	8.8	K 130
NOV							
04...	0900	130	212	7.1	10.0	9.8	K 9100
12...	0630	65	300	7.5	10.0	10.4	K 200
MAR							
09...	0750	349	210	7.2	3.5	12.1	220
18...	0800	780	185	7.0	1.0	12.5	K 1000
26...	1010	872	--	--	--	--	K 150
30...	1055	559	199	7.1	8.0	11.7	K 710
APR							
06...	0845	340	213	7.0	6.0	12.6	K 120
15...	0730	225	236	7.2	10.0	10.3	--
21...	0650	219	237	7.2	11.5	9.4	220
27...	0730	567	181	7.1	9.5	10.4	K 10000
MAY							
05...	0650	195	248	7.2	13.5	9.0	250
11...	0700	157	243	7.2	14.5	8.5	370
19...	0650	164	241	7.2	12.0	9.8	530
26...	0645	116	267	7.4	16.5	8.0	K 720
JUN							
09...	0630	99	267	7.2	16.5	8.3	K 1000
15...	0625	71	--	--	--	--	520
22...	0620	90	272	7.2	20.0	7.5	K 1800
30...	0645	59	302	7.2	20.5	7.0	470
JUL							
07...	0640	54	232	7.2	23.5	6.8	570
13...	0640	45	321	7.1	23.0	--	360
21...	0620	51	306	--	22.0	6.8	470
29...	0620	45	361	7.2	23.0	5.3	420
AUG							
12...	0630	44	311	7.2	19.5	6.7	490
17...	0650	41	319	7.1	21.5	6.1	K 1000
26...	0650	40	334	7.3	22.0	8.3	K 1400
31...	0640	40	336	7.2	21.5	7.0	560
SEP							
08...	0650	44	338	7.3	21.0	9.5	K 1100
16...	1007	52	288	7.3	21.0	7.1	3300
21...	1150	71	299	7.4	16.5	10.2	K 1000
28...	0635	182	180	7.2	16.0	10.9	60000

CHRISTINA RIVER BASIN

01480870 EAST BRANCH BRANDYWINE CREEK BELOW DOWNINGTOWN, PA--Continued

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25° CELSIUS, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	377	295	328	347	301	325	409	291	360	---	---	---
2	366	316	344	342	298	324	419	282	360	---	---	---
3	354	308	334	---	---	---	424	331	391	---	---	---
4	355	300	332	251	216	230	---	---	---	---	---	---
5	353	304	337	271	225	252	---	---	---	---	---	---
6	352	314	342	259	233	245	---	---	---	---	---	---
7	354	314	342	279	240	260	---	---	---	---	---	---
8	358	318	345	395	267	303	---	---	---	---	---	---
9	367	194	299	445	291	357	---	---	---	---	---	---
10	250	183	209	433	284	324	---	---	---	---	---	---
11	290	249	265	309	281	297	---	---	---	---	---	---
12	282	239	260	314	283	299	---	---	---	---	---	---
13	302	270	289	294	157	192	---	---	---	---	---	---
14	313	281	301	242	195	222	---	---	---	---	---	---
15	317	284	305	245	225	235	---	---	---	---	---	---
16	336	292	314	239	194	212	---	---	---	---	---	---
17	345	298	324	216	162	194	---	---	---	---	---	---
18	347	285	322	---	---	---	---	---	---	---	---	---
19	344	309	331	---	---	---	---	---	---	---	---	---
20	422	304	336	---	---	---	---	---	---	---	---	---
21	345	310	334	---	---	---	---	---	---	---	---	---
22	357	315	335	---	---	---	---	---	---	---	---	---
23	367	293	334	---	---	---	---	---	---	---	---	---
24	349	300	327	---	---	---	---	---	---	---	---	---
25	325	277	302	249	230	240	---	---	---	---	---	---
26	332	285	312	257	229	243	---	---	---	---	---	---
27	338	295	320	334	233	251	---	---	---	---	---	---
28	345	295	327	352	249	302	---	---	---	---	---	---
29	354	322	340	386	252	294	---	---	---	---	---	---
30	345	304	331	403	320	379	---	---	---	---	---	---
31	354	305	332	---	---	---	---	---	---	---	---	---
MONTH	422	183	318	445	157	272	424	282	370	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	---	---	---	322	276	297	226	148	176	246	231	242
2	---	---	---	306	284	294	206	180	193	253	236	246
3	---	---	---	345	269	299	216	206	211	254	246	250
4	---	---	---	311	101	217	220	210	214	254	240	249
5	---	---	---	163	104	130	222	195	211	253	242	249
6	---	---	---	215	163	191	227	216	221	249	233	240
7	---	---	---	261	194	217	228	224	226	252	239	247
8	---	---	---	223	181	197	229	221	226	262	242	251
9	---	---	---	223	207	213	232	223	228	252	237	247
10	---	---	---	241	202	217	227	101	164	261	241	249
11	---	---	---	245	222	234	183	136	166	267	245	255
12	---	---	---	250	232	239	195	183	190	265	249	257
13	---	---	---	249	218	231	226	193	200	261	246	253
14	---	---	---	228	212	221	235	218	224	262	247	254
15	---	---	---	274	227	244	248	233	238	268	244	255
16	---	---	---	333	248	271	249	247	248	264	247	257
17	---	---	---	337	198	283	---	---	---	266	250	259
18	274	239	252	220	180	196	---	---	---	269	250	259
19	276	243	260	237	207	221	---	---	---	261	245	253
20	273	252	259	311	226	247	233	221	226	265	248	257
21	308	267	286	266	226	248	244	233	239	---	---	---
22	445	279	338	251	211	237	234	153	174	---	---	---
23	403	338	368	225	187	209	216	182	202	---	---	---
24	343	305	322	187	118	141	223	215	219	277	267	274
25	347	294	309	185	155	177	227	221	224	285	258	274
26	323	287	303	---	---	---	229	185	218	286	268	277
27	327	286	307	---	---	---	214	180	191	285	261	274
28	326	281	303	---	---	---	227	214	220	287	263	278
29	---	---	---	---	---	---	234	218	227	303	267	284
30	---	---	---	203	189	198	234	223	229	307	279	292
31	---	---	---	226	195	204	---	---	---	305	260	288
MONTH	445	239	301	345	101	225	249	101	211	307	231	260

CHRISTINA RIVER BASIN

01480870 EAST BRANCH BRANDYWINE CREEK BELOW DOWNINGTOWN, PA--Continued

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25° CELSIUS, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	274	213	243	325	297	316	373	317	352	355	310	341
2	289	265	278	330	275	311	392	323	356	365	326	349
3	293	270	284	288	246	267	394	325	360	366	320	349
4	301	236	286	310	277	294	373	324	355	335	237	266
5	303	273	288	322	282	304	370	322	352	325	267	292
6	300	271	285	---	---	---	365	222	308	356	294	323
7	298	272	288	---	---	---	310	231	269	358	308	339
8	302	278	290	318	287	305	351	296	319	364	303	328
9	291	267	284	330	298	319	342	286	315	343	300	326
10	---	---	---	341	300	323	332	291	318	338	231	261
11	---	---	---	346	302	328	332	292	317	334	270	298
12	---	---	---	345	303	325	329	292	314	399	325	353
13	---	---	---	340	309	329	329	288	315	401	335	372
14	---	---	---	347	312	332	337	288	319	---	---	---
15	---	---	---	---	---	---	343	290	321	---	---	---
16	---	---	---	330	287	307	341	294	326	323	284	293
17	---	---	---	341	274	317	341	295	325	350	274	327
18	---	---	---	344	302	326	338	302	328	339	265	299
19	---	---	---	337	304	320	340	296	327	---	---	---
20	---	---	---	315	283	303	348	170	310	---	---	---
21	284	272	275	329	295	315	280	159	228	---	---	---
22	293	261	282	336	305	328	323	271	295	372	312	331
23	314	282	302	344	311	334	331	288	316	403	358	384
24	323	294	310	352	310	337	355	297	328	388	336	370
25	321	292	311	358	309	339	367	302	337	397	337	368
26	322	293	312	359	318	345	361	303	335	356	204	262
27	---	---	---	360	314	342	377	305	343	284	171	237
28	---	---	---	365	321	348	384	312	352	278	161	218
29	326	303	311	375	321	351	333	289	312	323	278	301
30	321	293	312	364	319	347	346	291	328	312	237	254
31	---	---	---	373	322	355	354	309	339	---	---	---
MONTH	326	213	291	375	246	324	394	159	323	403	161	314

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	7.8	7.4	7.6	7.8	7.2	7.4	7.4	7.3	7.3	---	---	---
2	7.8	7.4	7.6	7.5	7.2	7.4	7.5	7.2	7.3	---	---	---
3	8.0	7.4	7.6	---	---	---	7.5	7.2	7.4	---	---	---
4	8.2	7.4	7.6	7.4	7.2	7.3	---	---	---	---	---	---
5	8.3	7.4	7.7	7.5	7.3	7.4	---	---	---	---	---	---
6	8.4	7.4	7.7	7.6	7.3	7.5	---	---	---	---	---	---
7	8.5	7.4	7.8	7.7	7.3	7.5	---	---	---	---	---	---
8	8.5	7.4	7.8	7.8	7.4	7.5	---	---	---	---	---	---
9	7.5	7.1	7.3	7.8	7.4	7.6	---	---	---	---	---	---
10	7.4	7.2	7.3	7.9	7.5	7.6	---	---	---	---	---	---
11	7.5	7.2	7.4	7.9	7.5	7.6	---	---	---	---	---	---
12	7.9	7.3	7.5	8.1	7.3	7.6	---	---	---	---	---	---
13	7.9	7.3	7.5	7.4	7.0	7.2	---	---	---	---	---	---
14	7.9	7.3	7.5	7.7	7.4	7.6	---	---	---	---	---	---
15	7.9	7.3	7.5	7.8	7.6	7.7	---	---	---	---	---	---
16	8.0	7.3	7.6	7.9	7.7	7.8	---	---	---	---	---	---
17	8.1	7.3	7.5	7.8	7.8	7.8	---	---	---	---	---	---
18	8.3	7.3	7.6	---	---	---	---	---	---	---	---	---
19	8.0	7.3	7.5	---	---	---	---	---	---	---	---	---
20	8.1	7.3	7.6	---	---	---	---	---	---	---	---	---
21	8.0	7.3	7.6	---	---	---	---	---	---	---	---	---
22	8.2	7.3	7.6	---	---	---	---	---	---	---	---	---
23	8.2	7.3	7.6	---	---	---	---	---	---	---	---	---
24	8.2	7.3	7.6	---	---	---	---	---	---	---	---	---
25	8.1	7.3	7.5	7.3	7.0	7.2	---	---	---	---	---	---
26	8.0	7.3	7.6	7.3	7.1	7.2	---	---	---	---	---	---
27	8.1	7.3	7.6	7.6	7.1	7.3	---	---	---	---	---	---
28	8.0	7.3	7.5	7.2	7.2	7.3	---	---	---	---	---	---
29	7.6	7.2	7.4	7.4	7.2	7.3	---	---	---	---	---	---
30	8.0	7.2	7.5	7.5	7.2	7.3	---	---	---	---	---	---
31	7.6	7.2	7.4	---	---	---	---	---	---	---	---	---
MONTH	8.5	7.1	7.6	8.1	7.0	7.5	7.5	7.2	7.3	---	---	---

CHRISTINA RIVER BASIN

01480870 EAST BRANCH BRANDYWINE CREEK BELOW DOWNINGTOWN, PA--Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY				MARCH			APRIL			MAY		
1	---	---	---	7.9	7.3	7.5	7.2	7.0	7.1	8.3	7.3	7.6
2	---	---	---	8.0	7.3	7.5	7.2	7.1	7.1	8.3	7.3	7.6
3	---	---	---	8.0	7.3	7.5	7.3	7.1	7.2	8.4	7.2	7.7
4	---	---	---	7.3	6.7	7.1	7.3	7.1	7.2	8.1	7.3	7.6
5	---	---	---	7.0	6.8	6.9	7.3	7.1	7.2	7.8	7.3	7.5
6	---	---	---	7.1	7.0	7.1	7.5	7.1	7.3	8.4	7.2	7.7
7	---	---	---	7.2	7.1	7.1	7.5	7.1	7.3	8.5	7.3	7.8
8	---	---	---	7.2	7.1	7.2	7.5	7.1	7.3	8.5	7.3	7.8
9	---	---	---	7.3	7.1	7.2	7.7	7.2	7.4	8.6	7.3	7.8
10	---	---	---	7.2	7.2	7.2	7.3	6.8	7.0	8.6	7.3	7.9
11	---	---	---	7.3	7.2	7.2	7.1	6.9	7.0	8.5	7.3	7.8
12	---	---	---	7.4	7.2	7.3	7.2	7.0	7.1	8.4	7.3	7.7
13	---	---	---	7.3	7.2	7.2	7.5	7.0	7.3	8.0	7.2	7.5
14	---	---	---	7.3	7.2	7.2	7.6	7.3	7.4	8.4	7.3	7.7
15	---	---	---	7.3	7.2	7.3	7.8	7.3	7.5	8.4	7.3	7.7
16	---	---	---	7.4	7.2	7.3	7.6	7.4	7.5	8.4	7.2	7.6
17	---	---	---	7.3	7.0	7.2	---	---	---	8.4	7.2	7.6
18	7.8	7.3	7.5	7.2	7.0	7.1	---	---	---	7.5	7.3	7.4
19	7.8	7.4	7.6	7.3	7.1	7.2	---	---	---	7.6	7.2	7.4
20	7.9	7.4	7.6	7.4	7.2	7.2	8.0	7.2	7.5	7.8	7.3	7.5
21	7.7	7.5	7.6	7.3	7.2	7.2	7.9	7.2	7.5	---	---	---
22	7.9	7.4	7.6	7.4	7.1	7.2	7.3	7.1	7.2	---	---	---
23	7.7	7.4	7.5	7.2	7.1	7.2	7.6	7.2	7.4	---	---	---
24	7.7	7.3	7.5	7.1	6.9	6.9	7.8	7.2	7.4	8.4	7.5	8.1
25	8.0	7.3	7.5	7.2	7.0	7.1	8.1	7.2	7.5	8.5	7.4	7.8
26	7.7	7.3	7.5	---	---	---	7.6	7.2	7.4	8.5	7.4	7.8
27	7.8	7.3	7.5	---	---	---	7.7	7.2	7.4	8.5	7.4	7.8
28	7.9	7.3	7.5	---	---	---	7.8	7.2	7.4	8.4	7.4	7.8
29	---	---	---	---	---	---	8.2	7.3	7.5	8.2	7.4	7.7
30	---	---	---	7.3	7.1	7.2	8.1	7.3	7.6	8.2	7.5	7.8
31	---	---	---	7.3	7.1	7.2	---	---	---	8.1	7.5	7.7
MONTH	8.0	7.3	7.5	8.0	6.7	7.2	8.2	6.8	7.3	8.6	7.2	7.7

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE				JULY			AUGUST			SEPTEMBER		
1	7.7	7.3	7.4	8.6	7.3	7.8	9.0	7.0	8.0	8.6	7.3	7.8
2	7.9	7.3	7.5	7.6	7.2	7.4	9.2	7.2	8.1	8.6	7.3	7.7
3	7.9	7.3	7.5	8.1	7.2	7.5	9.2	7.2	8.1	8.6	7.2	7.7
4	7.9	7.3	7.5	8.5	7.2	7.7	9.2	7.2	8.0	7.5	7.1	7.3
5	7.5	7.3	7.4	8.7	7.2	8.0	9.2	7.2	8.1	8.2	7.2	7.6
6	7.8	7.3	7.5	---	---	---	7.6	6.8	7.3	8.3	7.3	7.6
7	7.8	7.3	7.5	---	---	---	8.5	7.2	7.6	8.3	7.3	7.7
8	7.6	7.3	7.4	9.0	7.2	7.9	8.8	7.3	7.8	7.8	7.3	7.5
9	7.6	7.3	7.5	9.0	7.2	7.9	8.8	7.3	7.9	8.2	7.4	7.6
10	---	---	---	9.0	7.1	7.9	9.1	7.3	8.0	7.5	7.2	7.4
11	---	---	---	9.0	7.2	7.9	9.0	7.3	8.1	8.0	7.3	7.6
12	---	---	---	9.1	7.2	8.0	9.2	7.3	8.1	8.3	7.4	7.7
13	---	---	---	9.2	7.2	8.1	9.2	7.3	8.1	8.2	7.4	7.7
14	---	---	---	8.9	7.3	8.2	9.2	7.2	8.1	---	---	---
15	---	---	---	---	---	---	9.3	7.2	8.1	---	---	---
16	---	---	---	---	---	---	9.1	7.2	7.9	7.6	7.2	7.4
17	---	---	---	---	---	---	8.7	7.2	7.7	7.7	7.3	7.5
18	---	---	---	---	---	---	8.7	7.2	7.6	7.6	7.3	7.5
19	---	---	---	---	---	---	8.7	7.2	7.5	---	---	---
20	---	---	---	---	---	---	8.9	7.1	7.8	---	---	---
21	7.7	7.3	7.5	8.8	7.5	8.1	7.6	7.0	7.3	---	---	---
22	7.9	7.3	7.5	8.9	7.4	8.0	8.2	7.3	7.6	7.9	7.5	7.7
23	8.0	7.3	7.6	9.1	7.4	8.0	8.4	7.3	7.7	7.8	7.4	7.6
24	8.1	7.3	7.6	9.2	7.3	8.1	8.6	7.3	7.8	8.0	7.4	7.6
25	8.2	7.3	7.6	9.2	7.3	8.2	8.6	7.3	7.8	8.4	7.4	7.7
26	8.4	7.3	7.9	8.7	7.3	7.8	8.5	7.3	7.8	7.5	7.3	7.3
27	---	---	---	9.1	7.3	8.1	8.6	7.3	7.8	7.4	7.1	7.3
28	---	---	---	9.2	7.3	8.1	8.7	7.2	7.8	7.5	7.0	7.3
29	8.5	7.4	8.0	9.1	7.3	8.0	8.4	7.2	7.6	7.7	7.3	7.5
30	8.7	7.3	7.9	9.2	7.2	8.0	8.6	7.2	7.7	7.6	7.4	7.5
31	---	---	---	9.1	7.3	8.1	8.7	7.3	7.8	---	---	---
MONTH	8.7	7.3	7.6	9.2	7.1	7.9	9.3	6.8	7.8	8.6	7.0	7.6

CHRISTINA RIVER BASIN

01480870 EAST BRANCH BRANDYWINE CREEK BELOW DOWNINGTOWN, PA--Continued

WATER TEMPERATURE, (DEG. C), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	14.5	11.5	13.0	10.5	10.0	10.0	6.5	5.0	6.0			
2	15.5	11.0	13.0	10.0	9.0	9.5	7.0	6.0	6.5			
3	16.0	12.0	14.0	---	---	---	7.0	5.5	6.0			
4	15.0	13.5	14.5	11.5	10.0	11.0	---	---	---			
5	15.0	12.5	13.5	12.0	10.5	11.5	---	---	---			
6	14.0	11.0	12.0	10.5	9.0	9.5	---	---	---			
7	14.0	10.0	12.0	10.0	8.5	9.0	---	---	---			
8	14.5	10.5	12.5	9.0	7.5	8.0	---	---	---			
9	15.0	13.5	14.0	8.0	6.0	7.0	---	---	---			
10	16.5	15.0	15.5	9.0	6.5	8.0	---	---	---			
11	15.5	14.5	15.0	10.0	8.5	9.0	---	---	---			
12	15.0	13.0	14.0	12.5	10.0	11.0	---	---	---			
13	15.0	13.0	14.0	13.0	11.5	12.0	---	---	---			
14	14.0	11.5	13.0	12.5	11.5	12.0	---	---	---			
15	16.0	13.0	14.5	14.0	11.5	12.5	---	---	---			
16	17.5	14.5	16.0	15.0	13.5	14.0	---	---	---			
17	17.0	13.0	14.5	15.0	14.5	15.0	---	---	---			
18	13.0	11.0	12.0	---	---	---	---	---	---			
19	12.0	10.0	11.5	---	---	---	---	---	---			
20	11.0	8.5	9.5	---	---	---	---	---	---			
21	12.5	10.0	11.0	---	---	---	---	---	---			
22	12.5	9.5	10.5	---	---	---	---	---	---			
23	12.0	9.0	10.5	---	---	---	---	---	---			
24	12.0	9.5	11.0	---	---	---	---	---	---			
25	12.0	9.5	11.0	9.5	9.0	9.5	---	---	---			
26	11.0	8.0	9.5	10.0	9.5	9.5	---	---	---			
27	12.0	9.5	10.5	10.0	8.0	8.5	---	---	---			
28	11.0	8.5	10.0	8.0	7.0	7.5	---	---	---			
29	11.5	9.5	10.5	7.5	6.5	7.0	---	---	---			
30	12.0	11.0	11.5	7.0	5.5	6.5	---	---	---			
31	11.5	10.5	11.0	---	---	---	---	---	---			
MONTH	17.5	8.0	12.5	15.0	5.5	10.0	7.0	5.0	6.0			

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	---	---	---	4.5	1.0	3.0	8.0	7.0	7.5	17.0	13.0	15.0
2	---	---	---	5.5	2.0	4.0	7.5	6.5	7.0	17.5	14.0	16.0
3	---	---	---	6.0	4.0	5.0	7.0	6.0	6.5	17.5	14.5	16.0
4	---	---	---	5.5	1.0	3.5	6.5	5.5	6.0	16.5	14.5	15.5
5	---	---	---	2.5	1.5	2.0	7.5	5.5	6.5	15.5	14.5	15.0
6	---	---	---	3.5	2.5	3.0	9.5	6.0	7.5	17.5	14.0	15.5
7	---	---	---	5.5	3.0	4.0	10.0	6.0	8.0	17.0	14.0	16.0
8	---	---	---	5.5	3.5	4.5	10.5	6.5	8.5	17.0	13.5	15.5
9	---	---	---	6.0	3.5	5.0	11.0	7.5	9.5	17.5	13.5	16.0
10	---	---	---	4.5	3.5	4.0	10.5	9.5	10.0	18.0	14.5	16.5
11	---	---	---	5.5	3.5	4.5	9.5	8.5	9.0	18.5	15.5	17.0
12	---	---	---	5.5	3.0	4.5	9.5	8.0	8.5	18.5	15.5	17.0
13	---	---	---	5.0	.5	2.0	11.0	7.5	9.0	17.0	15.0	16.0
14	---	---	---	2.0	.5	1.0	11.0	8.0	10.0	16.5	13.0	15.0
15	---	---	---	3.0	.5	1.5	12.0	10.0	11.0	17.5	14.0	16.0
16	---	---	---	4.5	.5	2.5	12.0	11.5	12.0	18.0	15.5	16.5
17	---	---	---	3.5	1.0	2.5	---	---	---	18.0	15.0	16.5
18	4.0	2.5	3.0	3.0	.5	1.5	---	---	---	16.0	14.0	14.5
19	3.0	1.0	2.0	3.5	.5	2.0	---	---	---	14.5	13.5	14.0
20	4.5	1.0	2.5	5.0	2.0	3.5	15.0	11.0	13.0	14.5	14.0	14.0
21	3.0	2.0	2.5	5.5	3.5	4.5	14.0	12.5	13.5	---	---	---
22	5.5	2.5	4.0	5.5	3.0	4.5	13.5	9.5	11.5	---	---	---
23	4.5	2.5	3.5	5.0	3.5	4.5	10.5	9.0	9.5	---	---	---
24	2.5	1.0	2.0	4.0	2.5	3.0	12.0	9.0	10.5	17.5	16.5	17.0
25	4.0	.5	1.5	6.0	4.0	5.0	14.5	10.0	12.0	20.0	16.0	18.0
26	3.0	1.0	2.0	---	---	---	13.5	11.5	12.5	19.0	16.0	17.5
27	4.5	1.5	3.0	---	---	---	13.5	10.0	12.0	18.0	14.5	16.5
28	4.5	1.0	2.5	---	---	---	14.0	10.0	12.0	19.0	15.5	17.5
29	---	---	---	---	---	---	15.0	10.5	13.0	19.5	17.0	18.0
30	---	---	---	7.5	6.0	7.0	15.5	11.5	13.5	18.5	14.5	16.5
31	---	---	---	8.5	5.5	7.0	---	---	---	16.5	14.5	15.5
MONTH	5.5	.5	2.5	8.5	.5	3.5	15.5	5.5	10.0	20.0	13.0	16.0

CHRISTINA RIVER BASIN

01480870 EAST BRANCH BRANDYWINE CREEK BELOW DOWNINGTOWN, PA--Continued

WATER TEMPERATURE, (DEG. C), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	17.5	15.0	16.0	22.5	21.0	22.0	24.5	21.5	23.0	25.5	22.0	23.5
2	16.5	13.5	15.5	21.5	19.5	20.5	26.0	21.5	23.5	25.0	22.5	23.5
3	18.5	14.5	16.5	22.5	19.0	20.5	26.0	22.0	24.0	27.0	23.5	24.5
4	18.5	15.5	17.0	25.0	20.5	22.5	26.0	22.5	23.5	24.5	22.5	23.5
5	17.5	16.0	16.5	26.0	22.0	24.0	24.5	20.0	22.5	24.5	21.0	22.5
6	18.5	14.5	16.5	---	---	---	22.0	19.0	20.5	24.5	20.0	22.0
7	18.0	15.0	16.5	---	---	---	21.5	18.5	20.0	23.5	20.5	22.0
8	17.5	16.5	17.0	27.5	23.5	25.5	23.5	19.5	21.0	22.0	20.5	21.0
9	20.0	16.5	18.5	28.0	23.5	25.5	23.0	20.0	21.5	22.5	20.0	21.0
10	---	---	---	28.0	24.0	26.0	23.5	19.5	21.5	22.5	20.5	21.5
11	---	---	---	28.5	24.0	25.5	22.5	20.0	21.0	20.5	18.0	19.0
12	---	---	---	27.0	23.5	25.0	23.5	20.0	21.5	20.5	16.0	18.0
13	---	---	---	27.5	23.0	25.0	24.0	20.5	22.0	22.0	18.0	19.5
14	---	---	---	24.5	18.5	21.0	25.5	20.5	22.5	---	---	---
15	---	---	---	---	---	---	25.5	21.0	23.0	---	---	---
16	---	---	---	25.0	20.5	22.5	24.0	21.5	22.5	21.0	19.0	20.5
17	---	---	---	25.0	20.5	22.0	23.0	21.5	22.0	19.0	18.5	19.0
18	---	---	---	25.0	19.5	22.0	23.5	21.5	22.0	19.0	18.5	18.5
19	---	---	---	22.5	20.5	21.0	23.5	20.5	21.5	---	---	---
20	---	---	---	24.5	20.0	22.0	24.0	21.5	22.5	---	---	---
21	23.0	21.5	22.0	23.5	21.0	22.0	23.5	21.0	22.0	---	---	---
22	23.5	20.5	22.0	24.5	19.5	21.5	22.5	19.0	20.5	18.5	17.0	17.5
23	24.0	19.5	21.5	24.5	19.0	21.5	23.5	19.0	21.0	18.5	16.0	17.0
24	23.5	18.0	20.5	25.0	19.5	22.0	24.5	20.5	22.0	20.0	16.5	18.0
25	23.5	18.5	20.5	24.5	21.0	22.5	25.5	21.5	23.0	18.5	15.5	17.0
26	24.5	19.5	22.0	23.0	21.5	22.0	26.0	22.0	23.5	18.5	16.5	17.5
27	---	---	---	25.5	21.0	23.0	26.0	22.0	24.0	19.0	17.0	18.0
28	---	---	---	27.0	22.0	24.0	26.5	22.5	24.0	17.5	15.5	16.5
29	23.5	22.0	22.5	26.5	23.0	24.5	25.5	22.0	23.5	16.5	14.5	15.5
30	24.0	21.0	22.5	25.5	22.0	23.5	25.5	21.0	23.0	15.0	13.5	14.0
31	---	---	---	24.5	21.0	22.5	25.5	22.0	23.5	---	---	---
MONTH	24.5	13.5	19.0	28.5	18.5	23.0	26.5	18.5	22.5	27.0	13.5	19.5

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER				NOVEMBER			DECEMBER			JANUARY		
1	10.8	8.9	9.6	12.5	9.0	10.2	12.3	11.0	11.6	---	---	---
2	10.9	8.7	9.5	11.2	9.2	9.9	12.3	11.0	11.4	---	---	---
3	10.3	7.7	9.0	---	---	---	12.6	10.9	11.7	---	---	---
4	11.0	7.6	8.8	10.1	9.1	9.8	---	---	---	---	---	---
5	11.7	7.8	9.3	10.1	9.1	9.6	---	---	---	---	---	---
6	12.2	8.4	9.7	11.3	9.7	10.7	---	---	---	---	---	---
7	12.8	8.6	10.0	12.1	10.6	11.1	---	---	---	---	---	---
8	13.1	8.3	10.0	12.7	10.7	11.6	---	---	---	---	---	---
9	9.1	7.8	8.2	13.2	11.1	12.0	---	---	---	---	---	---
10	9.3	8.0	8.8	13.2	10.9	11.5	---	---	---	---	---	---
11	9.5	8.0	8.7	11.2	10.5	10.9	---	---	---	---	---	---
12	10.6	8.6	9.4	13.0	9.4	11.0	---	---	---	---	---	---
13	11.4	8.8	9.8	11.4	8.9	10.0	---	---	---	---	---	---
14	11.9	9.1	10.2	10.2	9.7	9.9	---	---	---	---	---	---
15	12.1	8.8	10.2	10.1	9.3	9.7	---	---	---	---	---	---
16	12.3	8.3	9.8	9.6	9.1	9.4	---	---	---	---	---	---
17	12.8	8.1	9.8	9.3	9.0	9.1	---	---	---	---	---	---
18	13.9	9.3	11.0	---	---	---	---	---	---	---	---	---
19	13.4	9.7	11.0	---	---	---	---	---	---	---	---	---
20	14.4	10.5	11.9	---	---	---	---	---	---	---	---	---
21	14.0	10.3	11.6	---	---	---	---	---	---	---	---	---
22	14.7	10.0	11.8	---	---	---	---	---	---	---	---	---
23	14.7	10.2	11.8	---	---	---	---	---	---	---	---	---
24	13.7	8.9	11.1	---	---	---	---	---	---	---	---	---
25	12.9	8.4	10.3	11.6	10.2	10.7	---	---	---	---	---	---
26	13.5	9.5	10.8	10.8	9.8	10.3	---	---	---	---	---	---
27	13.2	9.2	10.6	12.4	10.0	11.0	---	---	---	---	---	---
28	13.5	9.3	10.8	12.1	10.5	11.2	---	---	---	---	---	---
29	11.6	9.0	10.0	11.9	10.7	11.2	---	---	---	---	---	---
30	13.2	8.7	10.2	12.2	10.8	11.5	---	---	---	---	---	---
31	11.4	8.6	9.6	---	---	---	---	---	---	---	---	---
MONTH	14.7	7.6	10.1	13.2	8.9	10.6	12.6	10.9	11.6	---	---	---

CHRISTINA RIVER BASIN

01480870 EAST BRANCH BRANDYWINE CREEK BELOW DOWNINGTOWN, PA--Continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY				MARCH			APRIL			MAY		
1	---	---	---	14.5	11.6	12.8	12.1	11.0	11.7	11.3	8.6	9.7
2	---	---	---	14.2	11.1	12.5	12.4	11.9	12.2	11.1	8.5	9.7
3	---	---	---	14.2	11.1	12.3	13.0	12.0	12.5	11.4	8.5	9.9
4	---	---	---	12.6	11.2	11.9	13.1	12.1	12.6	11.0	8.9	9.8
5	---	---	---	12.6	12.4	12.6	13.1	11.5	12.4	10.7	9.0	9.7
6	---	---	---	12.4	12.0	12.2	12.8	10.9	11.9	11.2	8.7	9.8
7	---	---	---	12.5	11.6	12.1	12.6	10.7	11.6	11.5	8.7	9.8
8	---	---	---	12.2	11.6	11.9	12.5	10.5	11.4	11.6	8.6	9.8
9	---	---	---	12.3	11.7	12.0	12.3	10.2	11.3	11.6	8.3	9.7
10	---	---	---	12.5	11.8	12.2	10.4	9.6	10.1	11.5	8.2	9.6
11	---	---	---	12.5	11.8	12.1	11.2	7.2	10.0	11.5	8.0	9.5
12	---	---	---	12.8	11.7	12.3	11.7	7.7	10.4	11.4	7.7	9.1
13	---	---	---	12.8	11.7	12.3	11.9	10.3	11.2	10.9	7.7	9.1
14	---	---	---	13.1	12.3	12.8	12.0	10.1	11.0	11.6	8.4	9.8
15	---	---	---	13.4	12.9	13.1	11.8	9.7	10.8	11.8	7.9	9.7
16	---	---	---	13.4	12.4	13.0	11.0	9.7	10.5	11.8	7.8	9.2
17	---	---	---	12.7	12.2	12.5	---	---	---	12.5	8.0	9.8
18	13.0	11.5	12.1	12.7	11.9	12.4	---	---	---	10.9	9.0	10.0
19	13.1	11.5	12.1	12.8	11.9	12.3	---	---	---	11.3	9.7	10.4
20	12.8	11.2	12.0	12.5	11.4	12.0	11.5	8.8	10.4	11.6	9.7	10.6
21	12.5	11.1	11.6	12.1	11.2	11.6	11.6	9.3	10.2	---	---	---
22	12.6	10.5	11.4	12.2	11.3	11.8	10.9	9.4	10.3	---	---	---
23	13.8	10.5	12.0	13.5	11.5	12.7	12.1	10.8	11.4	---	---	---
24	14.1	11.7	12.8	---	---	---	12.4	10.3	11.3	11.7	8.2	11.0
25	14.3	12.2	13.0	---	---	---	12.2	9.5	10.9	11.5	7.7	9.3
26	14.1	12.0	12.9	---	---	---	11.2	9.5	10.1	11.3	6.9	9.0
27	14.1	11.7	12.8	---	---	---	11.5	9.9	10.7	11.5	8.0	9.4
28	14.3	11.7	12.8	---	---	---	11.9	9.8	10.8	11.3	7.7	9.2
29	---	---	---	---	---	---	11.7	9.0	10.6	10.9	7.6	8.8
30	---	---	---	12.3	11.9	12.0	11.1	8.8	9.9	10.9	7.5	9.0
31	---	---	---	12.8	11.0	12.2	---	---	---	10.6	7.9	8.9
MONTH	14.3	10.5	12.3	14.5	11.0	12.3	13.1	7.2	11.0	12.5	6.9	9.6

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE				JULY			AUGUST			SEPTEMBER		
1	9.8	8.1	8.7	11.4	6.7	8.4	14.5	5.3	8.9	9.5	6.6	7.7
2	10.6	8.2	9.3	8.7	7.0	7.6	15.9	6.4	9.8	9.5	6.4	7.6
3	10.4	7.9	9.0	10.0	7.1	8.3	16.2	6.1	9.7	8.9	6.1	7.1
4	10.2	6.4	8.6	10.8	6.4	8.2	16.2	6.1	9.2	9.8	5.9	7.8
5	9.0	7.7	8.4	11.3	6.5	8.8	15.4	6.1	9.8	10.9	9.3	10.0
6	10.0	7.8	8.9	---	---	---	9.1	6.3	7.8	11.1	9.2	10.1
7	10.5	7.6	8.9	---	---	---	12.1	7.8	9.8	11.5	9.4	10.2
8	9.6	7.6	8.8	12.6	5.8	8.4	13.6	7.6	9.8	10.9	9.4	10.1
9	9.9	8.3	9.3	12.5	6.0	8.2	13.5	7.6	9.9	11.2	9.4	10.3
10	---	---	---	12.6	6.0	8.0	14.6	7.6	10.2	10.2	9.4	9.8
11	---	---	---	12.1	6.1	8.3	13.6	7.1	9.7	11.4	9.9	10.7
12	---	---	---	12.4	6.0	8.2	15.0	6.5	9.6	12.4	10.5	11.4
13	---	---	---	13.4	5.7	8.4	10.8	6.5	8.0	11.2	9.7	10.5
14	---	---	---	12.0	5.7	9.4	10.9	6.3	7.9	---	---	---
15	---	---	---	---	---	---	10.8	6.2	7.9	---	---	---
16	---	---	---	10.3	6.3	8.0	10.7	6.1	7.6	8.3	7.5	7.9
17	---	---	---	10.9	6.4	8.3	9.8	6.0	7.5	9.0	8.2	8.5
18	---	---	---	11.7	6.7	8.4	10.1	6.6	7.4	8.9	8.4	8.6
19	---	---	---	8.5	6.5	7.5	10.5	6.6	7.6	---	---	---
20	---	---	---	11.4	6.8	8.8	10.6	6.7	8.2	---	---	---
21	9.1	7.4	8.5	12.2	6.7	8.7	8.8	7.5	8.3	---	---	---
22	9.4	7.2	8.1	12.9	6.6	9.0	10.5	8.7	9.5	10.9	9.6	10.5
23	9.7	7.2	8.2	14.0	6.8	9.2	10.5	8.1	9.4	11.0	8.8	10.1
24	10.1	7.0	8.5	14.4	6.5	9.5	10.5	7.5	8.9	10.6	8.8	9.6
25	10.4	7.3	8.6	13.7	6.2	9.2	10.0	7.1	8.3	11.6	9.3	10.2
26	10.4	7.3	9.1	11.6	5.7	7.8	9.9	6.8	8.1	10.1	8.6	9.5
27	---	---	---	13.4	5.7	8.8	9.9	6.5	7.9	9.5	8.5	8.9
28	---	---	---	13.8	5.4	8.3	10.0	6.3	7.7	10.8	9.5	10.3
29	11.0	7.0	9.2	13.4	5.2	8.0	9.2	6.4	7.6	11.2	10.1	10.7
30	11.3	6.8	8.6	13.8	5.3	8.3	9.9	6.9	8.1	11.6	9.3	11.1
31	---	---	---	12.8	5.3	8.2	9.8	6.7	7.9	---	---	---
MONTH	11.3	6.4	8.7	14.4	5.2	8.4	16.2	5.3	8.6	12.4	5.9	9.6

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 fair. Several measurements of water temperature were made during the year. Some diversion by quarry upstream.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.7	5.2	4.9	8.7	e6.2	e9.6	102	24	26	5.0	2.9	e2.1
2	4.3	5.2	4.6	8.2	e8.0	e10	62	23	16	11	2.4	e2.0
3	4.9	7.7	4.3	7.9	e9.0	e11	43	23	15	14	3.0	e2.0
4	4.9	9.8	5.1	9.3	8.4	e200	39	22	17	7.1	3.6	e3.3
5	3.1	8.7	8.9	4.7	7.9	95	36	25	17	6.2	2.8	e3.0
6	2.1	14	7.3	16	8.0	37	34	23	16	5.4	18	e2.4
7	1.9	8.5	5.5	15	e11	30	32	23	16	5.3	7.3	e3.0
8	2.2	7.6	4.8	15	e10	28	30	21	16	5.1	4.4	e7.0
9	22	5.9	3.9	13	e9.2	26	29	21	23	4.7	3.5	e5.0
10	16	4.9	11	10	e8.8	24	202	21	20	6.0	3.5	e23
11	7.4	3.6	185	10	e9.0	22	57	20	16	6.0	3.4	e9.0
12	6.0	3.5	65	16	e10	21	43	20	14	4.6	3.6	e4.5
13	4.2	30	25	25	42	22	38	23	12	3.7	e3.3	e4.0
14	4.2	9.2	16	14	20	24	35	22	11	26	e3.0	e3.7
15	4.0	8.0	15	12	15	22	34	21	10	17	e2.7	e3.3
16	4.3	5.6	15	12	58	22	76	21	9.2	6.6	e2.8	e12
17	7.9	5.0	59	13	50	120	44	20	10	6.2	e3.4	e21
18	5.9	5.2	27	12	23	75	33	25	9.3	6.7	e3.1	e30
19	4.2	5.4	18	11	18	38	32	27	8.7	13	e2.8	e15
20	4.7	5.1	21	14	16	34	31	23	10	9.0	e10	e5.4
21	5.8	5.9	16	24	16	50	33	22	13	6.0	e38	e24
22	3.7	6.6	14	11	23	55	70	21	9.8	5.1	e3.5	e15
23	4.9	99	e11	14	18	67	34	20	7.2	4.7	e3.4	e11
24	9.0	13	e9.4	13	15	234	31	19	6.5	5.1	e3.2	e7.0
25	9.3	11	e8.4	e11	14	81	30	17	5.5	5.2	e3.0	e5.0
26	3.5	13	e7.6	e9.2	e12	60	53	16	6.6	3.9	e2.7	e115
27	3.0	12	e6.8	e8.0	e11	52	36	16	7.8	3.6	e2.5	e120
28	2.9	9.5	e9.0	e7.4	e10	53	30	15	5.9	2.7	e3.5	e50
29	2.9	8.8	e11	e6.8	---	52	28	14	5.4	3.4	e2.6	e25
30	3.7	6.2	e13	e6.6	---	46	26	13	5.3	2.7	e2.1	e8.0
31	7.0	---	11	e6.4	---	39	---	15	---	2.9	e2.1	---
TOTAL	174.6	412.4	623.5	406.5	466.5	1659.6	1403	636	365.2	213.9	156.1	540.7
MEAN	5.63	13.7	20.1	13.1	16.7	53.5	46.8	20.5	12.2	6.90	5.04	18.0
MAX	22	99	185	47	58	234	202	27	26	26	38	120
MIN	1.9	3.5	3.9	6.4	6.2	9.6	26	13	5.3	2.7	2.1	2.0
CFSM	.39	.95	1.39	.90	1.15	3.69	3.23	1.41	.84	.48	.35	1.24
IN.	.45	1.06	1.60	1.04	1.20	4.26	3.60	1.63	.94	.55	.40	1.39

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 1993, BY WATER YEAR (WY)

	1990	1991	1992	1993
MEAN	9.38	10.5	14.5	17.8
MAX	19.5	14.8	20.1	25.1
(WY)	1990	1990	1993	1993
MIN	5.33	5.76	8.09	7.84
(WY)	1992	1992	1990	1992

SUMMARY STATISTICS

FOR 1992 CALENDAR YEAR

FOR 1993 WATER YEAR

WATER YEARS 1990 - 1993

ANNUAL TOTAL	3980.7	7058.0	14.7
ANNUAL MEAN	10.9	19.3	19.3
HIGHEST ANNUAL MEAN			9.50
LOWEST ANNUAL MEAN			1.5
HIGHEST DAILY MEAN	e200	Mar 27	247
LOWEST DAILY MEAN	1.7	Sep 16	1.9
ANNUAL SEVEN-DAY MINIMUM	2.8	Aug 20	e2.3
INSTANTANEOUS PEAK FLOW			681
INSTANTANEOUS PEAK STAGE			6.80
ANNUAL RUNOFF (CFSM)	.75		1.33
ANNUAL RUNOFF (INCHES)	10.21		18.11
10 PERCENT EXCEEDS	18		40
50 PERCENT EXCEEDS	7.1		11
90 PERCENT EXCEEDS	3.4		3.4

a Computed using estimated daily discharges.

e Estimated.

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. 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	142	142	222	301	272	e200	2230	712	669	187	121	125
2	134	140	216	275	221	e220	1720	681	354	193	120	121
3	130	1180	211	263	249	e280	1260	651	323	327	118	118
4	128	458	200	269	255	e1700	1100	629	316	222	118	196
5	126	267	211	730	238	5280	1090	667	312	197	124	183
6	116	336	208	513	252	1510	958	724	317	181	181	135
7	116	268	201	403	218	1000	906	631	289	181	320	127
8	116	212	191	389	268	1070	863	587	284	187	168	163
9	176	196	189	396	245	935	827	578	336	167	148	172
10	674	182	194	312	242	773	2890	553	393	157	133	245
11	280	176	2350	290	255	640	2620	532	279	153	132	188
12	285	180	1640	338	270	579	1530	513	259	148	148	138
13	199	878	852	547	593	e560	1320	555	254	140	135	126
14	169	420	644	547	515	e520	985	527	247	168	132	130
15	159	260	742	431	420	e480	900	478	234	642	126	123
16	151	232	700	398	513	e470	1160	457	234	201	120	186
17	144	210	981	e381	1250	e1300	2240	452	225	173	126	227
18	135	204	1060	309	641	2380	1110	462	217	158	130	297
19	135	196	525	286	434	1180	963	548	214	170	129	182
20	135	182	513	270	404	936	903	494	220	194	181	153
21	134	177	508	277	352	1040	826	478	477	171	609	181
22	132	191	359	530	e330	1330	1990	424	332	157	191	181
23	130	1320	e320	439	e300	1380	1200	403	246	147	155	157
24	133	599	e280	391	e270	4490	957	385	213	139	141	148
25	170	351	e240	433	e250	2440	895	376	202	139	139	139
26	156	343	e210	382	e230	1800	999	e360	201	135	133	667
27	140	322	e190	309	e220	1500	1400	344	196	135	128	1180
28	126	271	e230	296	e210	1420	905	330	193	133	124	1060
29	126	246	e270	287	---	1580	827	319	191	136	195	261
30	128	232	e330	265	---	1640	790	299	193	134	147	229
31	138	---	358	278	---	1370	---	320	---	124	130	---
TOTAL	5163	10371	15345	11535	9917	42003	38364	15469	8420	5696	5002	7538
MEAN	167	346	495	372	354	1355	1279	499	281	184	161	251
MAX	674	1320	2350	730	1250	5280	2890	724	669	642	609	1180
MIN	116	140	189	263	210	200	790	299	191	124	118	118
MEAN‡	165	348	475	373	355	1374	1278	498	279	181	156	257
CFSM‡	.57	1.21	1.66	1.30	1.24	4.79	4.45	1.74	.97	.63	.54	.90
IN.‡	.66	1.35	1.91	1.50	1.29	5.52	4.96	2.01	1.08	.73	.62	1.00

‡ Adjusted for change in contents in Marsh Creek Reservoir.

e Estimated.

CHRISTINA RIVER BASIN

01481000 BRANDYWINE CREEK AT CHADDS FORD, PA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1974 - 1993, BY WATER YEAR (WY) (SINCE REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	261	324	445	533	546	604	619	545	404	368	242	268
MAX	832	693	1125	1664	1308	1355	1509	1097	833	1153	456	905
(WY)	1980	1980	1984	1979	1979	1993	1983	1989	1975	1975	1978	1979
MIN	115	136	130	106	217	195	200	262	154	149	126	93.2
(WY)	1987	1982	1981	1981	1992	1981	1985	1985	1985	1977	1980	1980
SUMMARY STATISTICS												
	FOR 1992 CALENDAR YEAR					FOR 1993 WATER YEAR			WATER YEARS 1974 - 1993			
ANNUAL TOTAL	101999					174823						
ANNUAL MEAN	279					479			430			
HIGHEST ANNUAL MEAN	279					479			430			
LOWEST ANNUAL MEAN									714			
HIGHEST DAILY MEAN	2350					5280			10600			
LOWEST DAILY MEAN	94					116			84			
ANNUAL SEVEN-DAY MINIMUM	99					123			88			
INSTANTANEOUS PEAK FLOW						8110			16400			
INSTANTANEOUS PEAK STAGE						10.91			14.35			
INSTANTANEOUS LOW FLOW						108			8.4			
ANNUAL RUNOFF (CFSM)	.97					1.67			1.50			
ANNUAL RUNOFF (INCHES)	13.22					22.66			20.33			
10 PERCENT EXCEEDS	479					1090			802			
50 PERCENT EXCEEDS	211					270			303			
90 PERCENT EXCEEDS	130					133			132			

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	23800	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	

‡ Adjusted for change in contents in Marsh Creek Reservoir.

* 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

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. Probes interfaced with a data collection platform since the 1986 water year.

REMARKS.--Data collection discontinued during winter months since water year 1981. 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 1992 TO SEPTEMBER 1993

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)	OXYGEN, DIS- SOLVED (MG/L) (00300)	COLI- FORM, FECAL, 0.45 µM-MF (COLS./ 100 ML) (31616)
OCT							
06...	1422	115	358	7.4	14.5	11.1	K 100
13...	1515	187	276	7.3	15.0	9.9	K 840
22...	1515	139	315	7.6	12.0	12.8	--
27...	1440	132	301	7.5	11.5	12.7	K 80
NOV							
03...	1510	1780	206	6.8	13.0	8.5	K 11000
10...	1502	184	302	7.1	8.0	11.3	K 110
17...	1500	213	267	7.0	6.5	12.1	K 180
24...	1410	475	204	6.8	13.0	9.8	K 8700
MAR							
09...	0840	1050	247	6.1	7.5	10.9	K 620
11...	1515	644	234	--	6.0	12.5	--
22...	1455	1130	272	7.2	6.5	12.4	--
30...	1510	1460	207	7.2	10.5	10.7	--
APR							
06...	1455	954	222	7.3	10.0	11.9	740
13...	1325	1330	211	7.3	12.5	11.5	K 90
19...	1430	956	217	7.7	13.0	11.2	240
27...	1515	1200	190	7.2	13.5	10.3	K 8500
MAY							
04...	1500	639	229	7.6	17.0	10.7	230
10...	1515	562	231	8.0	20.0	10.8	K 80
17...	1530	460	239	7.9	19.0	11.1	K 150
26...	1518	365	261	7.4	20.0	9.9	--
JUN							
02...	1520	347	239	7.2	17.0	9.4	K 1900
07...	1450	285	253	7.4	18.0	9.5	K 120
17...	1448	224	272	7.8	23.0	9.8	K 160
22...	1440	294	239	7.1	24.0	7.9	K 1700
30...	1520	191	282	7.4	25.0	8.5	K 130
JUL							
06...	1110	176	276	7.3	26.0	7.6	K 180
13...	1530	139	287	7.8	29.0	8.6	K 160
20...	1535	187	301	7.2	24.5	8.6	300
AUG							
02...	1500	121	329	8.0	26.5	9.6	K 100
10...	1515	124	278	7.6	24.5	9.0	K 70
18...	1505	127	294	7.6	25.5	8.6	K 190
24...	1445	130	276	7.6	25.0	9.0	310
30...	1500	127	286	7.5	26.5	8.4	K 140
SEP							
07...	1525	115	267	6.8	21.0	6.3	220
13...	1525	120	274	7.7	21.0	9.6	290
20...	1550	149	275	7.3	18.0	9.6	350
28...	1445	649	174	6.8	17.5	8.2	K 54000

CHRISTINA RIVER BASIN

01481000 BRANDYWINE CREEK AT CHADDS FORD, PA--Continued

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25° CELSIUS, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	333	308	314	330	323	327	281	275	279	---	---	---
2	349	333	342	334	324	330	---	---	---	---	---	---
3	357	343	351	330	189	251	---	---	---	---	---	---
4	364	345	350	250	207	232	---	---	---	---	---	---
5	367	349	357	274	250	265	---	---	---	---	---	---
6	373	349	359	294	268	283	---	---	---	---	---	---
7	380	353	359	291	287	289	---	---	---	---	---	---
8	389	347	358	309	291	300	---	---	---	---	---	---
9	463	342	374	308	288	297	---	---	---	---	---	---
10	373	301	335	302	295	298	---	---	---	---	---	---
11	385	311	358	309	297	302	---	---	---	---	---	---
12	388	365	380	299	244	285	---	---	---	---	---	---
13	383	276	326	297	166	216	---	---	---	---	---	---
14	307	291	302	263	166	223	---	---	---	---	---	---
15	310	297	302	311	260	276	---	---	---	---	---	---
16	320	305	310	311	272	291	---	---	---	---	---	---
17	322	315	319	272	260	266	---	---	---	---	---	---
18	325	319	322	267	257	262	---	---	---	---	---	---
19	325	315	321	272	263	268	---	---	---	---	---	---
20	324	317	321	278	264	268	---	---	---	---	---	---
21	322	311	318	281	271	276	---	---	---	---	---	---
22	321	309	316	283	275	279	---	---	---	---	---	---
23	314	310	313	284	161	207	---	---	---	---	---	---
24	315	305	310	217	177	197	---	---	---	---	---	---
25	315	306	312	245	217	235	---	---	---	---	---	---
26	314	303	309	258	243	248	---	---	---	---	---	---
27	310	299	304	257	244	253	---	---	---	---	---	---
28	312	303	308	268	256	263	---	---	---	---	---	---
29	315	305	311	277	265	272	---	---	---	---	---	---
30	320	306	314	279	268	273	---	---	---	---	---	---
31	323	313	318	---	---	---	---	---	---	---	---	---
MONTH	463	276	329	334	161	268	281	275	279	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	---	---	---	283	267	275	221	161	187	223	218	220
2	---	---	---	272	260	266	192	175	186	224	221	222
3	---	---	---	262	246	253	---	---	---	226	223	225
4	---	---	---	---	---	---	---	---	---	230	223	227
5	---	---	---	---	---	---	220	210	218	229	224	227
6	---	---	---	---	---	---	---	---	---	227	222	226
7	---	---	---	---	---	---	---	---	---	230	221	225
8	---	---	---	---	---	---	221	218	220	231	227	229
9	---	---	---	223	211	219	222	219	220	231	228	229
10	---	---	---	225	218	222	241	123	181	251	229	231
11	---	---	---	235	222	231	193	128	161	237	230	233
12	---	---	---	238	233	235	208	193	202	240	234	237
13	---	---	---	239	224	232	212	206	209	239	234	236
14	---	---	---	234	225	230	226	211	222	236	229	232
15	---	---	---	242	231	235	232	226	230	236	231	234
16	---	---	---	282	242	265	---	---	---	248	233	237
17	---	---	---	347	250	302	---	---	---	240	235	238
18	---	---	---	253	194	211	---	---	---	246	239	242
19	---	---	---	266	250	255	---	---	---	245	235	239
20	---	---	---	258	247	252	219	216	218	247	238	240
21	---	---	---	286	248	255	223	216	220	249	241	245
22	---	---	---	309	265	280	221	163	184	274	243	245
23	---	---	---	278	240	256	202	167	187	251	245	247
24	---	---	---	298	143	198	211	202	209	259	251	255
25	298	282	293	273	210	256	216	211	215	258	251	254
26	293	277	284	263	245	255	218	201	215	---	---	---
27	296	276	283	324	251	267	203	181	190	258	250	253
28	301	274	286	314	249	268	213	192	206	278	252	256
29	---	---	---	250	201	233	218	213	216	259	254	256
30	---	---	---	207	200	203	222	217	219	267	258	264
31	---	---	---	211	202	206	---	---	---	269	250	262
MONTH	301	274	286	347	143	245	241	123	205	278	218	239

CHRISTINA RIVER BASIN

01481000 BRANDYWINE CREEK AT CHADDS FORD, PA--Continued

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25° CELSIUS, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	250	219	234	296	274	277	328	310	317	307	284	292
2	243	228	237	281	274	276	336	305	317	339	293	302
3	267	205	249	284	259	272	342	306	313	316	305	310
4	256	246	254	265	253	257	355	300	317	317	309	313
5	261	254	259	278	260	272	311	298	303	323	273	283
6	261	254	258	280	273	276	355	276	298	276	267	271
7	258	252	255	294	273	278	284	236	258	299	275	282
8	260	252	256	287	280	284	259	235	246	320	277	292
9	271	247	253	291	278	281	298	258	266	304	275	293
10	251	231	240	296	273	283	283	276	280	285	243	269
11	253	234	247	295	285	288	288	283	286	287	244	253
12	263	252	257	295	279	289	295	276	285	260	251	255
13	265	260	262	333	286	296	285	277	280	282	256	271
14	269	260	265	305	271	287	301	279	285	351	282	303
15	272	258	262	279	181	209	304	281	288	311	298	307
16	260	254	257	251	209	229	293	287	291	298	278	287
17	272	254	266	276	244	262	293	287	291	297	249	281
18	275	267	270	288	276	279	315	289	292	266	252	261
19	282	265	270	300	283	288	296	291	293	268	246	256
20	285	272	282	317	293	301	315	224	288	312	263	275
21	279	221	253	305	284	290	241	179	204	295	275	283
22	250	227	238	320	283	287	240	208	222	300	280	288
23	261	250	257	302	291	295	267	240	253	316	277	283
24	271	260	266	310	299	303	301	267	276	298	284	294
25	283	269	274	328	261	304	291	279	289	315	290	301
26	285	273	279	310	302	306	311	291	297	---	---	---
27	289	278	280	325	302	308	328	297	303	196	125	175
28	296	276	280	357	307	314	326	297	303	194	155	n175
29	284	277	280	335	304	313	306	287	298	241	194	218
30	282	276	280	325	307	313	306	266	288	278	239	261
31	---	---	---	337	309	317	291	266	282	---	---	---
MONTH	296	205	261	357	181	285	355	179	284	351	125	274

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	7.4	7.3	7.4	7.2	7.1	7.2	7.4	7.3	7.3	---	---	---
2	7.4	7.3	7.3	7.2	7.1	7.2	---	---	---	---	---	---
3	7.4	7.3	7.3	7.3	6.9	7.1	---	---	---	---	---	---
4	7.4	7.2	7.3	7.1	7.1	7.1	---	---	---	---	---	---
5	7.5	7.2	7.3	7.3	7.1	7.1	---	---	---	---	---	---
6	7.5	7.3	7.4	7.3	7.2	7.2	---	---	---	---	---	---
7	7.6	7.3	7.4	7.3	7.2	7.2	---	---	---	---	---	---
8	7.8	7.3	7.5	7.3	7.2	7.3	---	---	---	---	---	---
9	7.5	7.2	7.4	7.5	7.3	7.4	---	---	---	---	---	---
10	7.3	7.0	7.1	7.5	7.1	7.4	---	---	---	---	---	---
11	7.0	6.9	6.9	7.2	7.0	7.1	---	---	---	---	---	---
12	7.0	6.9	6.9	7.3	7.1	7.1	---	---	---	---	---	---
13	7.3	6.9	7.1	7.3	6.8	7.0	---	---	---	---	---	---
14	7.4	7.2	7.3	6.9	6.7	6.8	---	---	---	---	---	---
15	7.4	7.2	7.3	6.8	6.7	6.8	---	---	---	---	---	---
16	7.4	7.2	7.3	6.9	6.8	6.9	---	---	---	---	---	---
17	7.4	7.2	7.3	7.4	6.9	7.1	---	---	---	---	---	---
18	7.5	7.2	7.4	7.4	7.3	7.3	---	---	---	---	---	---
19	7.6	7.3	7.4	7.4	7.3	7.3	---	---	---	---	---	---
20	7.6	7.3	7.5	7.4	7.3	7.4	---	---	---	---	---	---
21	7.7	7.3	7.5	7.4	7.3	7.4	---	---	---	---	---	---
22	7.8	7.3	7.5	7.3	7.2	7.3	---	---	---	---	---	---
23	8.0	7.4	7.6	7.3	6.8	7.0	---	---	---	---	---	---
24	7.9	7.3	7.6	7.1	6.8	6.9	---	---	---	---	---	---
25	7.7	7.3	7.5	7.2	7.1	7.1	---	---	---	---	---	---
26	7.6	7.3	7.4	7.2	7.1	7.2	---	---	---	---	---	---
27	7.6	7.2	7.4	7.3	7.2	7.2	---	---	---	---	---	---
28	7.6	7.2	7.4	7.3	7.2	7.3	---	---	---	---	---	---
29	7.4	7.2	7.3	7.3	7.3	7.3	---	---	---	---	---	---
30	7.5	7.1	7.3	7.4	7.3	7.3	---	---	---	---	---	---
31	7.3	7.1	7.2	---	---	---	---	---	---	---	---	---
MONTH	8.0	6.9	7.3	7.5	6.7	7.2	7.4	7.3	7.3	---	---	---

CHRISTINA RIVER BASIN

01481000 BRANDYWINE CREEK AT CHADDS FORD, PA--Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	---	---	---	---	---	---	7.4	7.2	7.3	8.6	7.3	7.8
2	---	---	---	---	---	---	7.3	7.2	7.3	8.6	7.3	7.9
3	---	---	---	---	---	---	---	---	---	8.6	7.3	7.9
4	---	---	---	---	---	---	---	---	---	8.4	7.4	7.9
5	---	---	---	---	---	---	7.5	7.4	7.4	7.9	7.4	7.6
6	---	---	---	---	---	---	---	---	---	8.2	7.3	7.7
7	---	---	---	---	---	---	---	---	---	8.4	7.3	7.8
8	---	---	---	---	---	---	7.9	7.3	7.5	8.4	7.4	7.8
9	---	---	---	---	---	---	8.3	7.3	7.7	8.5	7.3	7.8
10	---	---	---	---	---	---	7.9	6.9	7.2	8.5	7.3	7.9
11	---	---	---	---	---	---	7.1	6.9	7.0	8.5	7.3	7.9
12	---	---	---	---	---	---	7.2	7.0	7.1	8.2	7.3	7.7
13	---	---	---	---	---	---	7.3	7.1	7.1	7.6	7.2	7.4
14	---	---	---	---	---	---	7.3	7.1	7.2	8.2	7.2	7.6
15	---	---	---	---	---	---	7.2	7.1	7.2	8.3	7.3	7.7
16	---	---	---	7.5	7.3	7.5	---	---	---	7.9	7.2	7.6
17	---	---	---	7.3	7.1	7.2	---	---	---	8.3	7.2	7.6
18	---	---	---	7.1	7.0	7.1	---	---	---	7.8	7.2	7.3
19	---	---	---	7.2	7.0	7.1	---	---	---	7.4	7.2	7.3
20	---	---	---	7.3	7.2	7.2	8.2	7.3	7.6	7.4	7.2	7.3
21	---	---	---	7.4	7.3	7.3	8.0	7.3	7.6	7.6	7.2	7.4
22	---	---	---	7.4	7.1	7.3	7.6	7.2	7.3	7.6	7.2	7.4
23	---	---	---	7.2	7.1	7.1	7.5	7.3	7.4	7.7	7.2	7.4
24	---	---	---	7.2	6.9	7.0	7.6	7.3	7.4	7.7	7.2	7.4
25	---	---	---	6.9	6.8	6.9	8.0	7.3	7.5	7.6	7.1	7.4
26	---	---	---	6.9	6.8	6.8	7.7	7.3	7.4	---	---	---
27	---	---	---	6.8	6.8	6.8	7.4	7.2	7.3	7.7	7.2	7.5
28	---	---	---	6.9	6.8	6.8	7.7	7.3	7.5	7.6	7.3	7.4
29	---	---	---	6.9	6.8	6.9	8.0	7.3	7.6	7.7	7.1	7.3
30	---	---	---	7.4	6.9	7.1	8.3	7.3	7.7	7.4	7.2	7.3
31	---	---	---	7.4	7.3	7.4	---	---	---	7.3	7.1	7.2
MONTH	---	---	---	7.5	6.8	7.1	8.3	6.9	7.4	8.6	7.1	7.6

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	7.2	7.0	7.1	7.6	7.3	7.4	8.2	7.4	7.7	7.8	7.3	7.5
2	7.3	7.0	7.1	7.4	7.3	7.3	8.3	7.4	7.7	7.8	7.3	7.5
3	7.3	7.2	7.2	7.4	7.2	7.3	8.3	7.4	7.7	7.9	7.3	7.5
4	7.3	7.1	7.2	7.4	7.2	7.3	8.2	7.4	7.6	7.5	7.3	7.4
5	7.2	7.1	7.1	7.6	7.2	7.4	7.9	7.3	7.5	7.5	7.2	7.3
6	7.3	7.1	7.2	7.7	7.3	7.5	7.4	7.2	7.4	7.6	7.2	7.4
7	7.4	7.1	7.3	7.7	7.3	7.5	7.5	7.3	7.4	7.8	7.3	7.5
8	7.2	7.1	7.1	7.8	7.3	7.5	7.6	7.2	7.4	7.6	7.4	7.5
9	7.2	7.0	7.1	7.8	7.3	7.5	7.6	7.2	7.4	7.8	7.4	7.6
10	7.1	6.9	7.0	7.9	7.3	7.5	7.8	7.3	7.5	7.6	7.4	7.5
11	7.2	6.9	7.1	7.9	7.3	7.6	7.9	7.3	7.6	7.7	7.4	7.5
12	7.3	7.0	7.1	7.9	7.3	7.5	7.9	7.3	7.6	7.8	7.4	7.5
13	7.3	7.1	7.2	7.9	7.3	7.5	7.9	7.3	7.6	7.9	7.4	7.6
14	7.4	7.1	7.3	7.6	7.3	7.4	8.0	7.3	7.6	8.1	7.5	7.7
15	7.5	7.1	7.3	7.4	7.0	7.1	8.1	7.3	7.6	8.2	7.5	7.7
16	7.8	7.3	7.5	7.4	7.1	7.2	8.0	7.3	7.6	7.6	7.4	7.5
17	8.0	7.3	7.6	7.6	7.2	7.4	7.6	7.3	7.4	7.5	7.3	7.4
18	8.0	7.4	7.7	7.7	7.3	7.5	7.7	7.3	7.4	7.4	7.3	7.3
19	8.0	7.4	7.6	7.4	7.3	7.4	7.8	7.0	7.5	7.5	7.3	7.4
20	7.9	7.3	7.6	7.5	7.3	7.4	7.8	6.9	7.4	7.7	7.4	7.5
21	7.6	7.1	7.3	7.6	7.3	7.4	7.4	7.1	7.2	7.4	7.3	7.4
22	7.4	7.1	7.2	7.8	7.3	7.5	7.2	7.1	7.2	7.5	7.3	7.4
23	7.5	7.2	7.3	7.9	7.4	7.6	7.5	7.2	7.3	7.6	7.4	7.4
24	7.5	7.2	7.4	8.1	7.4	7.7	7.7	7.2	7.4	7.6	7.4	7.5
25	7.5	7.3	7.4	8.4	7.4	7.9	7.9	7.3	7.5	7.8	7.4	7.5
26	7.6	7.3	7.4	8.2	7.5	7.8	8.0	7.3	7.6	---	---	---
27	7.6	7.3	7.4	8.1	7.4	7.8	8.0	7.3	7.6	7.1	6.8	7.0
28	7.7	7.3	7.4	8.4	7.5	7.9	8.1	7.3	7.6	7.1	7.0	7.1
29	7.6	7.3	7.4	8.1	7.5	7.8	7.7	7.3	7.5	7.2	7.1	7.2
30	7.6	7.3	7.4	8.3	7.4	7.8	7.7	7.2	7.4	7.4	7.2	7.3
31	---	---	---	8.1	7.4	7.8	7.8	7.2	7.4	---	---	---
MONTH	8.0	6.9	7.3	8.4	7.0	7.5	8.3	6.9	7.5	8.2	6.8	7.4

CHRISTINA RIVER BASIN

01481000 BRANDYWINE CREEK AT CHADDS FORD, PA--Continued

WATER TEMPERATURE, (DEG. C), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	14.5	13.0	13.5	11.5	10.5	11.0	7.5	7.0	7.5	---	---	---
2	14.5	12.0	13.5	10.5	10.0	10.5	---	---	---	---	---	---
3	16.0	13.0	14.5	13.0	10.5	12.0	---	---	---	---	---	---
4	15.5	14.5	15.0	13.0	12.0	12.5	---	---	---	---	---	---
5	15.5	14.0	15.0	13.5	12.5	13.0	---	---	---	---	---	---
6	15.0	12.5	13.5	12.5	10.5	11.5	---	---	---	---	---	---
7	14.0	11.5	13.0	10.5	9.5	10.0	---	---	---	---	---	---
8	14.0	11.5	13.0	9.5	8.0	9.0	---	---	---	---	---	---
9	15.5	13.5	14.5	8.0	6.5	7.0	---	---	---	---	---	---
10	17.0	15.5	16.5	8.0	6.5	7.5	---	---	---	---	---	---
11	16.5	15.5	16.0	10.0	8.0	9.0	---	---	---	---	---	---
12	15.5	14.5	15.0	13.5	10.0	11.5	---	---	---	---	---	---
13	15.0	14.0	14.5	14.0	12.0	13.5	---	---	---	---	---	---
14	14.0	12.5	13.5	12.0	9.0	10.5	---	---	---	---	---	---
15	15.5	13.0	14.0	9.0	7.0	8.0	---	---	---	---	---	---
16	17.5	14.5	16.0	7.0	6.5	6.5	---	---	---	---	---	---
17	17.5	15.0	15.5	7.0	6.0	6.5	---	---	---	---	---	---
18	15.0	12.5	13.5	8.0	7.0	7.5	---	---	---	---	---	---
19	13.0	11.0	12.0	8.0	7.5	7.5	---	---	---	---	---	---
20	11.0	9.0	10.0	7.5	6.5	7.0	---	---	---	---	---	---
21	11.5	9.5	10.5	8.5	7.0	7.5	---	---	---	---	---	---
22	12.0	10.0	11.0	12.0	8.5	10.5	---	---	---	---	---	---
23	11.5	9.5	10.5	15.0	12.0	14.0	---	---	---	---	---	---
24	11.5	9.5	10.5	14.0	12.0	13.0	---	---	---	---	---	---
25	12.0	11.0	11.5	12.5	12.0	12.0	---	---	---	---	---	---
26	11.0	9.5	10.5	13.0	12.5	12.5	---	---	---	---	---	---
27	11.5	9.5	10.5	13.0	11.0	12.0	---	---	---	---	---	---
28	11.0	9.0	10.0	11.0	10.0	10.0	---	---	---	---	---	---
29	11.0	9.5	10.5	10.0	9.0	9.5	---	---	---	---	---	---
30	12.0	11.0	11.5	9.0	7.5	8.5	---	---	---	---	---	---
31	12.0	11.5	11.5	---	---	---	---	---	---	---	---	---
MONTH	17.5	9.0	13.0	15.0	6.0	10.0	7.5	7.0	7.5	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	---	---	---	5.0	3.0	4.0	11.5	10.5	11.0	18.0	15.0	16.5
2	---	---	---	6.5	4.0	5.0	10.5	9.5	10.0	19.0	16.5	17.5
3	---	---	---	8.0	6.0	7.0	---	---	---	19.0	17.0	18.0
4	---	---	---	---	---	---	---	---	---	18.5	17.0	17.5
5	---	---	---	---	---	---	9.5	7.5	8.0	17.0	16.5	17.0
6	---	---	---	---	---	---	---	---	---	18.5	16.0	17.5
7	---	---	---	---	---	---	---	---	---	19.0	16.5	18.0
8	---	---	---	---	---	---	13.0	10.0	11.0	19.0	16.0	17.5
9	---	---	---	---	---	---	14.0	11.5	12.5	20.0	16.5	18.0
10	---	---	---	---	---	---	14.0	13.0	13.5	20.5	18.0	19.5
11	---	---	---	---	---	---	13.5	11.5	12.5	21.0	18.5	20.0
12	---	---	---	6.5	4.5	5.5	13.0	11.0	12.0	21.0	19.0	20.0
13	---	---	---	6.5	.5	3.5	13.5	10.5	12.0	20.0	17.0	18.5
14	---	---	---	1.0	.5	.5	13.5	11.5	12.5	18.0	15.0	16.5
15	---	---	---	1.5	.5	1.0	13.5	13.0	13.0	19.0	15.5	17.5
16	---	---	---	4.5	.5	2.0	---	---	---	19.0	17.5	18.5
17	---	---	---	5.0	2.5	4.5	---	---	---	19.5	17.0	18.0
18	---	---	---	3.0	1.0	2.0	---	---	---	18.5	15.0	16.5
19	---	---	---	4.5	1.5	3.0	---	---	---	15.0	14.0	14.5
20	---	---	---	6.5	3.5	5.0	17.0	14.0	15.0	15.0	14.0	14.5
21	---	---	---	7.5	6.0	6.5	17.0	15.5	16.0	15.5	13.5	14.5
22	---	---	---	7.5	6.0	6.5	15.5	11.0	13.5	16.0	13.5	15.0
23	---	---	---	7.0	6.0	6.0	11.0	9.0	10.0	17.0	14.0	15.5
24	---	---	---	6.0	3.5	4.5	12.5	9.5	11.0	19.0	16.0	17.5
25	3.0	1.5	2.0	7.5	5.0	6.0	16.0	11.5	13.5	21.0	18.0	19.5
26	3.0	2.0	2.5	9.5	6.5	8.0	16.0	14.5	15.5	---	---	---
27	5.0	3.0	4.0	9.5	8.5	9.0	14.5	12.0	13.5	21.0	17.5	19.0
28	4.5	2.5	4.0	10.5	9.5	10.0	15.0	12.0	13.5	21.0	17.5	19.0
29	---	---	---	10.5	10.0	10.5	16.0	12.5	14.0	21.0	19.5	20.5
30	---	---	---	11.0	10.0	10.5	16.0	14.0	15.0	20.0	17.5	19.0
31	---	---	---	12.0	9.0	10.5	---	---	---	19.0	17.0	17.5
MONTH	5.0	1.5	3.0	12.0	.5	5.5	17.0	7.5	12.5	21.0	13.5	17.5

CHRISTINA RIVER BASIN

01481000 BRANDYWINE CREEK AT CHADDS FORD, PA--Continued

WATER TEMPERATURE, (DEG. C), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	18.5	16.0	17.0	24.5	23.5	24.0	26.0	23.0	24.5	27.0	24.5	26.0
2	17.5	15.5	16.5	23.5	21.0	22.0	27.0	24.0	25.5	27.0	25.0	26.0
3	19.0	16.0	17.5	23.0	20.5	21.5	27.0	24.5	26.0	28.5	25.5	26.5
4	19.5	17.5	18.5	25.5	22.5	24.0	27.5	25.0	26.0	27.0	25.0	26.0
5	19.0	17.0	18.0	27.0	24.5	26.0	25.5	23.5	24.5	25.5	23.5	24.5
6	18.0	16.0	17.0	28.0	25.5	26.5	24.0	20.5	22.5	25.0	22.0	23.5
7	18.5	16.5	17.5	28.5	26.0	27.0	22.0	20.0	21.0	24.0	22.5	23.5
8	19.0	18.0	18.5	29.0	27.0	28.0	24.0	21.0	22.5	23.0	22.0	22.5
9	21.5	18.5	20.0	29.5	27.0	28.5	24.5	22.0	23.5	23.0	21.5	22.0
10	24.0	20.5	22.0	30.0	27.5	28.5	24.5	22.0	23.5	23.5	22.0	22.5
11	24.0	22.0	23.0	29.5	27.5	28.5	24.5	22.5	23.5	22.0	20.0	21.0
12	23.0	21.5	22.0	29.0	27.0	28.0	24.5	22.0	23.5	20.0	17.5	19.0
13	22.0	20.0	21.0	28.5	26.0	27.5	25.5	22.5	24.0	22.5	18.0	19.5
14	22.5	20.0	21.5	27.5	25.0	26.5	26.0	23.0	24.5	22.5	19.5	21.0
15	22.0	20.5	21.5	26.0	24.0	25.0	26.5	23.5	25.0	24.5	21.0	22.5
16	23.5	21.0	22.5	25.5	23.5	24.5	26.0	24.5	25.0	23.5	21.0	22.5
17	23.5	21.5	22.5	25.5	23.0	24.5	25.0	24.0	24.5	21.0	19.0	20.0
18	24.0	22.0	23.0	25.5	22.0	24.0	25.0	23.5	24.5	19.0	18.5	19.0
19	25.5	23.0	24.5	24.5	22.5	23.5	25.5	23.0	24.5	19.5	17.5	18.5
20	26.0	24.0	25.0	24.5	21.5	23.0	25.5	23.5	24.5	18.5	16.5	17.5
21	25.5	23.5	24.0	25.0	23.0	24.0	24.5	23.0	23.5	17.5	16.5	17.0
22	25.0	22.5	23.5	24.5	22.0	23.5	23.5	21.5	22.5	18.0	17.0	17.5
23	24.0	22.0	23.5	24.5	21.5	23.5	24.0	21.5	23.0	18.0	16.5	17.5
24	23.5	21.0	22.5	25.0	21.5	23.5	25.5	22.5	23.5	19.0	17.0	18.0
25	24.0	21.0	22.5	26.0	23.0	24.5	26.5	23.5	25.0	18.0	16.5	17.5
26	25.0	22.0	23.5	25.5	23.5	24.0	27.5	24.5	26.0	---	---	---
27	25.5	23.5	24.5	25.5	22.5	24.0	28.0	25.5	26.5	20.0	18.5	19.0
28	26.5	23.5	25.0	27.5	24.5	26.0	28.5	26.0	27.0	19.0	17.0	17.5
29	26.0	24.5	25.0	28.0	25.5	27.0	27.5	25.5	26.5	17.0	15.5	16.0
30	25.0	24.0	24.5	26.5	25.0	26.0	26.5	24.5	26.0	15.5	13.5	14.5
31	---	---	---	25.5	23.5	24.5	26.5	24.5	25.5	---	---	---
MONTH	26.5	15.5	21.5	30.0	20.5	25.5	28.5	20.0	24.5	28.5	13.5	20.5

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER				NOVEMBER			DECEMBER			JANUARY		
1	10.1	9.0	9.4	10.4	8.9	9.5	12.2	11.6	12.0	---	---	---
2	10.3	9.1	9.5	10.1	9.2	9.5				---	---	---
3	10.2	8.8	9.3	9.3	8.1	8.8				---	---	---
4	9.9	8.4	9.0	8.8	8.4	8.7				---	---	---
5	10.4	8.3	9.2	8.6	8.3	8.4				---	---	---
6	11.4	8.7	9.7	9.4	8.6	9.1	---	---	---	---	---	---
7	11.8	9.2	10.3	10.1	9.3	9.7	---	---	---	---	---	---
8	12.3	9.5	10.6	10.7	9.7	10.2	---	---	---	---	---	---
9	10.1	8.8	9.5	11.5	10.3	10.9	---	---	---	---	---	---
10	9.0	8.0	8.2	11.5	10.7	11.0	---	---	---	---	---	---
11	8.2	8.0	8.0	11.0	10.0	10.5	---	---	---	---	---	---
12	8.7	7.9	8.2	10.6	9.3	9.9	---	---	---	---	---	---
13	9.9	8.2	8.9	9.3	8.1	8.8	---	---	---	---	---	---
14	10.4	9.0	9.6	9.4	9.0	9.2	---	---	---	---	---	---
15	10.7	9.3	9.8	10.2	9.4	9.9	---	---	---	---	---	---
16	10.4	8.8	9.4	11.2	10.2	10.7	---	---	---	---	---	---
17	10.4	8.3	9.2	12.1	10.8	11.3	---	---	---	---	---	---
18	11.5	8.9	10.0	11.6	11.1	11.3	---	---	---	---	---	---
19	11.6	9.6	10.4	11.5	11.0	11.2	---	---	---	---	---	---
20	12.6	10.2	11.2	12.4	11.2	11.8	---	---	---	---	---	---
21	12.7	10.2	11.4	12.0	11.2	11.6	---	---	---	---	---	---
22	12.8	10.2	11.4	11.2	10.0	10.7	---	---	---	---	---	---
23	13.2	10.3	11.5	10.0	8.7	9.2	---	---	---	---	---	---
24	13.0	10.2	11.4	9.9	9.3	9.6	---	---	---	---	---	---
25	11.9	9.5	10.6	10.2	9.9	10.0	---	---	---	---	---	---
26	12.3	9.8	10.8	10.1	9.8	10.0	---	---	---	---	---	---
27	12.5	9.8	11.0	10.6	9.7	10.2	---	---	---	---	---	---
28	12.8	10.0	11.1	11.3	10.5	10.9	---	---	---	---	---	---
29	11.4	9.9	10.5	11.6	11.0	11.2	---	---	---	---	---	---
30	11.9	9.1	10.2	12.0	11.2	11.6	---	---	---	---	---	---
31	10.1	8.9	9.4	---	---	---	---	---	---	---	---	---
MONTH	13.2	7.9	10.0	12.4	8.1	10.2	12.2	11.6	12.0	---	---	---

CHRISTINA RIVER BASIN

01481000 BRANDYWINE CREEK AT CHADDS FORD, PA--Continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	---	---	---	14.5	12.6	13.5	10.7	10.4	10.5	12.2	9.3	10.4
2	---	---	---	14.2	12.3	13.2	11.0	10.6	10.8	12.2	8.9	10.2
3	---	---	---	13.7	11.7	12.6	---	---	---	12.0	8.7	10.1
4	---	---	---	---	---	---	---	---	---	11.2	8.8	9.9
5	---	---	---	---	---	---	12.2	11.5	12.0	10.7	8.5	9.5
6	---	---	---	---	---	---	---	---	---	11.2	8.6	9.7
7	---	---	---	---	---	---	---	---	---	11.3	8.5	9.6
8	---	---	---	---	---	---	12.4	10.7	11.4	11.5	8.7	9.8
9	---	---	---	11.7	11.4	11.6	12.5	10.3	11.2	11.3	8.5	9.7
10	---	---	---	11.9	11.4	11.7	10.8	8.9	9.6	11.1	8.4	9.6
11	---	---	---	12.5	11.6	11.9	10.4	9.0	10.0	11.1	8.0	9.4
12	---	---	---	12.4	11.7	12.0	11.0	10.3	10.7	10.7	8.1	9.1
13	---	---	---	12.5	11.6	12.0	11.4	10.2	10.8	10.2	8.2	9.1
14	---	---	---	13.1	12.4	12.8	11.5	9.7	10.5	11.7	9.3	10.3
15	---	---	---	13.5	13.0	13.3	10.7	9.6	10.2	11.6	8.9	10.2
16	---	---	---	13.4	12.6	13.1	---	---	---	11.1	8.7	9.6
17	---	---	---	12.6	11.8	12.2	---	---	---	11.1	8.5	9.7
18	---	---	---	13.1	12.4	12.9	---	---	---	9.7	8.3	9.0
19	---	---	---	13.2	12.5	12.8	---	---	---	10.1	9.0	9.5
20	---	---	---	12.8	12.1	12.5	11.7	9.9	10.8	10.3	9.0	9.6
21	---	---	---	12.3	11.5	12.0	11.2	9.1	10.0	11.0	9.2	10.0
22	---	---	---	12.4	11.6	12.0	10.4	9.4	9.8	11.0	9.0	9.9
23	---	---	---	12.1	11.5	11.8	11.6	10.4	11.0	11.1	8.8	9.8
24	---	---	---	12.2	11.3	11.9	12.1	10.3	11.2	10.5	8.2	9.3
25	14.8	13.5	14.3	11.5	10.8	11.1	11.4	9.5	10.4	10.2	8.0	9.0
26	14.4	13.0	13.7	11.2	10.3	10.9	9.9	8.7	9.2	---	---	---
27	14.4	12.7	13.5	10.9	9.9	10.5	10.4	9.0	9.9	10.6	8.2	9.4
28	14.4	12.6	13.4	10.7	10.2	10.5	11.4	9.9	10.5	10.3	8.2	9.1
29	---	---	---	10.7	10.2	10.4	11.7	9.8	10.5	9.8	7.7	8.8
30	---	---	---	11.0	10.3	10.7	11.7	9.1	10.3	10.2	8.0	8.9
31	---	---	---	11.5	10.7	11.2	---	---	---	9.6	7.9	8.8
MONTH	14.8	12.6	13.7	14.5	9.9	12.0	12.5	8.7	10.5	12.2	7.7	9.6

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	8.9	8.3	8.5	8.5	7.0	7.7	9.6	7.2	8.1	8.7	6.4	7.2
2	9.9	8.3	9.1	7.7	7.2	7.4	9.7	6.9	7.9	8.5	6.2	7.1
3	9.7	8.9	9.3	8.6	7.6	7.9	9.7	6.5	7.7	8.7	6.1	7.1
4	9.5	8.4	8.9	8.5	7.1	7.7	9.8	6.4	7.4	6.9	6.0	6.5
5	9.2	8.6	8.9	8.4	6.7	7.4	9.1	6.4	7.4	7.9	6.3	6.9
6	10.1	9.0	9.5	8.5	6.5	7.4	7.8	6.7	7.2	8.0	6.4	7.0
7	10.2	8.6	9.3	8.3	6.5	7.3	8.8	7.8	8.2	8.8	6.2	7.3
8	9.1	8.0	8.6	8.4	6.3	7.2	9.0	7.5	8.1	7.8	7.1	7.5
9	9.1	7.8	8.5	8.4	6.1	7.1	8.8	7.3	7.9	8.8	7.3	7.8
10	8.7	7.3	7.9	8.4	6.1	7.1	9.0	7.1	7.8	8.0	7.2	7.5
11	8.9	7.3	8.0	8.3	6.0	7.0	9.0	7.1	7.9	8.8	7.4	7.9
12	9.3	7.5	8.3	8.3	6.0	7.0	8.9	7.1	7.8	9.6	7.9	8.5
13	9.5	8.0	8.7	8.7	6.1	7.2	9.0	6.9	7.7	9.7	8.0	8.5
14	9.9	8.0	8.8	8.2	6.4	7.0	9.0	6.8	7.7	9.7	7.6	8.4
15	9.9	7.9	8.8	---	---	---	9.1	6.5	7.5	9.6	7.2	8.1
16	10.2	7.8	8.8	---	---	---	8.7	6.3	7.1	7.3	6.9	7.1
17	10.1	7.7	8.7	---	---	---	7.6	6.1	6.6	7.9	7.0	7.6
18	10.0	7.4	8.6	---	---	---	8.1	5.9	6.5	8.0	7.7	7.9
19	9.8	7.1	8.2	---	---	---	9.0	6.8	7.7	8.8	7.6	8.1
20	9.2	6.8	7.9	---	---	---	8.1	6.8	7.1	9.6	7.9	8.5
21	7.6	6.8	7.1	8.8	7.1	7.8	7.1	6.8	7.0	8.7	8.3	8.5
22	8.0	6.9	7.3	9.3	7.5	8.2	7.9	6.9	7.3	9.1	8.1	8.5
23	8.5	7.0	7.7	9.7	7.6	8.5	8.7	7.2	7.7	9.2	8.2	8.6
24	8.8	7.4	8.0	10.0	7.7	8.7	9.0	7.1	7.8	9.4	8.1	8.5
25	8.9	7.5	8.1	10.4	7.7	8.8	9.2	6.9	7.8	9.8	7.9	8.6
26	9.0	7.4	8.1	9.5	7.5	8.2	9.2	6.7	7.7	---	---	---
27	8.6	7.0	7.7	10.2	7.6	8.7	9.3	6.5	7.6	---	---	---
28	8.6	7.0	7.7	10.2	7.4	8.5	9.3	6.4	7.5	8.2	7.5	8.0
29	8.4	6.9	7.6	9.3	7.0	8.0	8.2	6.4	7.1	8.7	8.1	8.5
30	8.5	7.1	7.7	9.6	6.9	8.0	8.4	6.3	7.1	9.4	8.6	9.0
31	---	---	---	9.5	7.1	8.1	8.9	6.4	7.3	---	---	---
MONTH	10.2	6.8	8.3	10.4	6.0	7.8	9.8	5.9	7.5	9.8	6.0	7.9

DELAWARE RIVER BASIN

01482800 DELAWARE RIVER AT REEDY ISLAND JETTY, DE--Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	7.6	7.6	7.6	7.7	7.6	7.7	7.5	7.2	7.4	7.7	7.4	7.5
2	7.6	7.5	7.5	7.8	7.7	7.7	7.6	7.3	7.5	7.6	7.4	7.5
3	7.5	7.4	7.5	7.8	7.7	7.7	7.6	7.4	7.5	7.7	7.4	7.5
4	7.5	7.4	7.4	7.8	7.7	7.7	7.7	7.4	7.6	7.7	7.4	7.5
5	7.6	7.5	7.6	7.7	7.7	7.7	7.6	7.4	7.5	7.7	7.4	7.5
6	7.6	7.5	7.6	7.8	7.7	7.7	7.8	7.5	7.7	7.6	7.3	7.4
7	7.6	7.5	7.5	7.8	7.6	7.7	7.8	7.6	7.7	7.5	7.2	7.3
8	7.6	7.5	7.5	7.9	7.8	7.8	---	---	---	7.4	7.1	7.3
9	7.6	7.5	7.5	7.9	7.8	7.9	---	---	---	7.4	7.1	7.3
10	7.5	7.5	7.5	7.9	7.8	7.9	---	---	---	7.5	7.2	7.4
11	7.5	7.4	7.5	7.9	7.6	7.7	---	---	---	7.5	7.2	7.4
12	7.5	7.5	7.5	7.7	7.5	7.6	---	---	---	7.4	7.1	7.2
13	7.5	7.5	7.5	7.7	7.6	7.7	---	---	---	7.3	7.1	7.2
14	7.5	7.4	7.5	7.7	7.6	7.6	---	---	---	7.5	7.0	7.3
15	7.5	7.4	7.5	7.7	7.6	7.6	---	---	---	7.6	7.3	7.4
16	7.5	7.4	7.4	7.7	7.6	7.6	7.7	7.5	7.6	7.5	7.3	7.3
17	7.5	7.4	7.5	7.7	7.6	7.7	7.7	7.5	7.6	7.5	7.3	7.4
18	7.6	7.5	7.5	7.8	7.6	7.6	7.6	7.4	7.5	7.5	7.3	7.3
19	7.6	7.5	7.6	7.7	7.6	7.7	7.6	7.4	7.5	7.5	7.3	7.4
20	7.7	7.6	7.6	7.7	7.6	7.7	7.6	7.4	7.5	7.5	7.3	7.4
21	7.7	7.5	7.6	7.7	7.6	7.7	7.5	7.3	7.4	7.5	7.3	7.4
22	7.7	7.6	7.6	7.7	7.6	7.7	7.6	7.3	7.4	7.6	7.3	7.4
23	7.7	7.6	7.6	7.8	7.6	7.7	7.6	7.3	7.4	7.5	7.3	7.4
24	7.6	7.5	7.6	7.7	7.6	7.6	7.5	7.3	7.4	7.5	7.3	7.3
25	7.6	7.6	7.6	7.7	7.4	7.6	7.7	7.4	7.5	7.4	7.3	7.3
26	7.7	7.6	7.7	7.6	7.3	7.5	7.6	7.4	7.5	7.5	7.3	7.3
27	7.6	7.6	7.6	7.5	7.3	7.4	7.7	7.4	7.5	7.5	7.3	7.4
28	7.7	7.5	7.6	7.5	7.2	7.4	7.7	7.4	7.5	7.5	7.3	7.4
29	7.6	7.5	7.6	7.5	7.2	7.3	7.7	7.4	7.5	7.7	7.3	7.4
30	7.6	7.5	7.6	7.5	7.2	7.3	7.6	7.4	7.5	7.6	7.4	7.5
31	7.6	7.5	7.6	---	---	---	7.6	7.4	7.5	7.7	7.5	7.6
MONTH	7.7	7.4	7.5	7.9	7.2	7.6	7.8	7.2	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	7.8	7.6	7.7	---	---	---	6.9	6.8	6.9	6.8	6.7	6.8
2	7.8	7.6	7.7	7.9	7.8	7.9	6.9	6.8	6.8	6.8	6.7	6.7
3	7.9	7.7	7.8	7.9	7.7	7.8	6.9	6.7	6.8	6.8	6.7	6.7
4	7.9	7.7	7.8	7.9	7.7	7.8	6.9	6.7	6.8	6.8	6.7	6.7
5	7.9	7.7	7.8	7.8	7.7	7.8	6.8	6.7	6.8	6.8	6.7	6.8
6	7.8	7.7	7.8	7.8	7.6	7.7	6.8	6.7	6.8	6.8	6.7	6.8
7	7.9	7.7	7.8	7.6	7.5	7.6	7.0	6.7	6.7	6.8	6.7	6.8
8	7.8	7.7	7.8	7.6	7.4	7.5	6.7	6.6	6.7	6.8	6.7	6.8
9	7.8	7.7	7.8	7.6	7.4	7.5	6.7	6.6	6.6	6.8	6.8	6.8
10	7.8	7.6	7.7	7.5	7.3	7.4	6.7	6.6	6.6	6.8	6.8	6.8
11	7.7	7.6	7.6	7.5	7.3	7.3	6.7	6.6	6.7	7.0	6.8	6.8
12	7.7	7.6	7.7	7.5	7.3	7.4	6.7	6.6	6.7	6.9	6.8	6.9
13	7.8	7.6	7.7	7.6	7.4	7.5	6.8	6.6	6.7	7.1	6.8	6.9
14	7.7	7.6	7.6	7.7	7.5	7.6	6.8	6.6	6.7	7.2	6.8	7.0
15	7.7	7.5	7.6	7.6	7.5	7.5	6.9	6.6	6.7	7.3	7.0	7.2
16	7.7	7.6	7.7	7.7	7.5	7.6	6.9	6.7	6.8	7.3	7.1	7.2
17	7.7	7.6	7.6	7.6	7.5	7.6	6.8	6.7	6.8	7.4	7.1	7.3
18	7.7	7.6	7.6	7.6	7.5	7.6	7.0	6.8	6.9	7.4	7.2	7.3
19	7.8	7.6	7.7	7.7	7.5	7.6	7.0	6.9	7.0	7.4	7.2	7.3
20	7.8	7.6	7.7	7.7	7.5	7.6	7.0	6.9	6.9	7.4	7.2	7.3
21	7.8	7.7	7.7	7.6	7.4	7.5	7.0	6.8	6.9	7.4	7.2	7.2
22	7.8	7.6	7.7	7.6	7.4	7.5	7.0	6.9	6.9	7.3	7.2	7.2
23	7.7	7.6	7.7	7.5	7.3	7.4	7.0	6.9	7.0	7.4	7.1	7.3
24	7.7	7.6	7.6	7.5	7.2	7.3	7.2	6.9	7.0	7.4	7.2	7.3
25	7.7	7.6	7.6	7.3	7.1	7.2	7.2	6.9	7.0	7.4	7.2	7.3
26	8.1	7.7	7.7	7.3	7.0	7.1	7.0	6.9	6.9	7.4	7.2	7.3
27	7.8	7.7	7.7	7.2	7.0	7.0	7.1	6.9	7.0	7.4	7.3	7.3
28	---	---	---	7.1	7.0	7.0	7.3	6.9	7.0	7.5	7.3	7.4
29	---	---	---	7.1	6.9	7.0	7.0	6.8	6.9	7.6	7.4	7.5
30	---	---	---	7.0	6.9	6.9	6.8	6.8	6.8	7.7	7.4	7.6
31	---	---	---	7.0	6.8	6.9	---	---	---	7.8	7.5	7.6
MONTH	8.1	7.5	7.7	7.9	6.8	7.4	7.3	6.6	6.8	7.8	6.7	7.1

DELAWARE RIVER BASIN

01482800 DELAWARE RIVER AT REEDY ISLAND JETTY, DE--Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	7.8	7.5	7.6	7.4	7.3	7.3	---	---	---	8.0	7.9	7.9
2	7.8	7.5	7.7	7.3	7.3	7.3	---	---	---	8.0	7.8	7.9
3	7.8	7.5	7.7	7.3	7.2	7.3	---	---	---	8.0	7.8	7.9
4	7.9	7.5	7.7	7.3	7.2	7.3	---	---	---	8.0	7.9	7.9
5	7.9	7.6	7.7	7.3	7.2	7.2	---	---	---	8.0	7.9	7.9
6	7.9	7.6	7.7	7.3	7.2	7.3	---	---	---	8.1	7.9	7.9
7	7.9	7.6	7.7	7.3	7.2	7.3	---	---	---	8.0	7.9	7.9
8	7.8	7.6	7.7	7.3	7.2	7.2	7.6	7.5	7.5	8.0	7.9	7.9
9	7.8	7.6	7.6	7.3	7.2	7.2	7.6	7.5	7.5	8.1	7.9	8.0
10	7.7	7.5	7.6	7.3	7.2	7.3	7.6	7.5	7.5	8.1	8.0	8.0
11	7.6	7.4	7.5	7.5	7.2	7.3	7.6	7.5	7.6	8.2	8.0	8.1
12	7.7	7.4	7.5	7.3	7.2	7.3	7.6	7.5	7.6	8.1	7.5	7.8
13	7.7	7.5	7.6	7.5	7.3	7.3	---	---	---	7.7	7.6	7.6
14	7.7	7.5	7.6	7.4	7.3	7.4	---	---	---	7.6	7.5	7.6
15	7.7	7.5	7.6	7.4	7.3	7.3	7.8	7.6	7.7	7.6	7.5	7.6
16	7.7	7.5	7.6	7.4	7.3	7.3	7.8	7.6	7.7	7.6	7.5	7.6
17	7.9	7.5	7.6	7.5	7.3	7.4	7.8	7.7	7.7	7.6	7.5	7.6
18	7.9	7.5	7.7	7.5	7.3	7.4	7.7	7.7	7.7	7.6	7.5	7.5
19	7.7	7.5	7.6	7.4	7.3	7.4	7.8	7.6	7.7	7.6	7.5	7.5
20	7.8	7.5	7.6	7.4	7.3	7.3	7.7	7.6	7.7	7.6	7.5	7.6
21	7.7	7.4	7.5	7.4	7.3	7.3	7.7	7.6	7.7	7.6	7.5	7.6
22	7.5	7.4	7.5	7.4	7.3	7.3	7.7	7.5	7.6	7.6	7.5	7.5
23	7.6	7.4	7.5	7.4	7.3	7.3	7.5	7.4	7.5	7.6	7.5	7.5
24	7.8	7.4	7.5	7.4	7.3	7.3	7.5	7.4	7.5	7.6	7.4	7.5
25	7.6	7.4	7.5	7.3	7.2	7.3	---	---	---	7.5	7.4	7.5
26	7.6	7.4	7.5	7.4	7.3	7.3	---	---	---	7.4	7.3	7.4
27	7.6	7.4	7.4	7.4	7.3	7.3	---	---	---	7.4	7.3	7.3
28	7.6	7.4	7.4	7.4	7.3	7.3	---	---	---	7.3	7.3	7.3
29	7.5	7.3	7.4	7.4	7.3	7.3	---	---	---	7.3	7.2	7.3
30	7.4	7.3	7.3	7.4	7.3	7.3	---	---	---	7.3	7.2	7.3
31	---	---	---	7.4	7.3	7.3	---	---	---	---	---	---
MONTH	7.9	7.3	7.6	7.5	7.2	7.3	7.8	7.4	7.6	8.2	7.2	7.7
YEAR	8.2	6.6	7.4									

WATER TEMPERATURE, (DEG. C), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	19.0	18.0	18.5	13.5	12.5	13.0	10.5	9.5	10.0	5.5	4.5	5.0
2	18.5	18.0	18.5	13.0	12.5	12.5	10.5	10.0	10.0	5.0	4.5	4.5
3	19.0	18.0	18.5	14.0	13.0	13.5	10.0	9.0	10.0	5.0	4.0	4.5
4	19.0	18.5	18.5	14.0	13.0	13.5	9.5	8.5	9.0	6.0	4.5	5.5
5	18.5	17.5	18.5	14.0	13.5	13.5	9.5	7.0	8.5	6.5	5.5	6.0
6	18.5	17.5	18.0	13.5	13.0	13.5	8.0	6.5	7.5	6.0	5.0	5.5
7	19.0	17.5	18.0	13.0	12.5	13.0	8.0	7.0	7.5	6.0	5.5	6.0
8	19.0	18.0	18.5	13.0	12.0	12.5	---	---	---	6.0	5.5	6.0
9	19.0	18.5	18.5	12.5	11.5	12.0	---	---	---	6.0	5.0	5.5
10	19.5	18.5	19.0	12.5	11.5	12.0	---	---	---	5.5	4.5	5.0
11	19.0	18.5	19.0	12.5	12.0	12.0	---	---	---	5.0	4.5	5.0
12	19.0	18.0	18.5	13.0	12.0	12.5	---	---	---	5.0	4.5	5.0
13	19.0	18.0	18.5	13.0	12.0	12.5	---	---	---	5.5	4.5	5.0
14	18.5	18.0	18.5	12.5	11.5	12.0	---	---	---	5.5	4.5	5.0
15	19.0	18.0	18.5	12.0	10.5	11.5	---	---	---	5.0	4.5	5.0
16	19.0	18.5	18.5	11.0	10.0	10.5	6.5	6.0	6.0	5.0	4.5	5.0
17	18.5	17.0	18.0	11.0	10.0	10.5	7.0	6.0	6.5	5.0	4.5	5.0
18	17.5	16.5	17.0	10.5	10.0	10.5	6.5	6.0	6.5	5.0	4.5	4.5
19	17.0	15.0	16.5	10.0	9.5	10.0	7.0	6.0	6.5	5.0	4.0	4.5
20	15.5	14.5	15.0	10.0	9.5	9.5	7.0	6.0	6.5	5.0	4.0	4.5
21	15.5	14.5	15.0	10.0	9.5	10.0	6.5	5.5	6.0	5.0	4.0	4.5
22	15.0	14.0	14.5	10.5	10.0	10.0	6.5	5.5	6.0	5.0	4.5	5.0
23	15.0	14.0	14.5	11.0	10.5	10.5	6.5	5.5	6.0	5.0	4.5	5.0
24	15.0	14.0	14.5	11.0	10.5	10.5	6.0	5.0	5.5	5.5	4.5	5.0
25	14.5	13.5	14.0	11.0	10.5	10.5	5.5	4.5	5.0	5.0	4.5	5.0
26	14.0	13.0	13.5	11.0	10.5	11.0	5.0	3.5	4.5	5.0	4.0	4.5
27	14.0	13.0	13.5	11.0	10.5	11.0	4.5	3.0	3.5	5.0	4.5	4.5
28	13.5	13.0	13.5	11.0	10.5	10.5	4.5	3.5	4.0	5.0	4.5	4.5
29	13.5	13.5	13.5	11.0	10.0	10.5	4.5	4.0	4.5	5.0	3.5	4.5
30	14.0	13.5	13.5	10.5	9.5	10.0	5.0	4.0	4.5	4.5	3.5	4.0
31	13.5	13.0	13.0	---	---	---	5.5	4.5	5.0	4.5	3.5	4.0
MONTH	19.5	13.0	16.5	14.0	9.5	11.5	10.5	3.0	6.5	6.5	3.5	5.0

DELAWARE RIVER BASIN

01482800 DELAWARE RIVER AT REEDY ISLAND JETTY. DE--Continued

WATER TEMPERATURE. (DEG. C). WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY				MARCH			APRIL			MAY		
1	4.5	1.5	3.5	---	---	---	8.5	7.5	8.0	15.5	13.5	14.5
2	2.5	1.5	2.5	3.5	2.0	2.5	8.5	8.0	8.5	16.0	14.5	15.0
3	4.0	2.0	2.5	3.5	2.5	3.0	9.0	8.0	8.5	16.0	14.5	15.5
4	4.0	2.5	3.0	3.5	3.0	3.0	8.5	7.5	8.0	16.0	15.0	15.5
5	4.0	2.5	3.0	3.5	3.5	3.5	8.0	7.0	8.0	16.5	15.5	16.0
6	3.5	1.5	2.5	3.5	3.5	3.5	8.5	7.5	8.0	17.5	16.0	16.5
7	2.5	1.0	2.0	4.5	3.5	4.0	8.5	7.5	8.0	18.0	16.5	17.0
8	3.0	2.0	2.5	4.5	4.0	4.0	9.0	8.0	8.5	17.5	16.5	17.0
9	2.5	2.0	2.0	5.0	4.0	4.5	9.0	8.0	8.5	18.0	17.0	17.5
10	3.0	2.0	2.5	4.5	4.0	4.5	9.0	8.5	9.0	18.5	17.5	18.0
11	3.0	2.5	3.0	4.5	4.5	4.5	9.5	8.5	9.0	20.0	18.0	18.5
12	3.0	2.5	2.5	5.0	4.0	4.5	9.5	9.0	9.5	20.0	18.5	19.5
13	3.5	2.5	3.0	4.5	3.5	4.0	10.0	9.0	9.5	19.5	19.0	19.5
14	3.5	2.5	3.0	4.0	2.5	3.0	11.0	9.5	10.0	20.5	18.5	19.5
15	4.0	2.5	3.0	3.5	2.0	2.5	11.5	10.0	10.5	20.5	19.0	19.5
16	4.0	2.5	3.5	4.0	2.0	3.0	11.5	11.0	11.0	21.0	19.5	20.0
17	4.5	3.0	3.5	3.5	2.5	3.0	12.5	11.5	12.0	21.0	19.5	20.0
18	4.0	2.0	3.0	3.0	2.0	2.5	13.0	11.5	12.0	20.0	19.0	19.5
19	3.0	1.0	2.0	3.5	1.5	2.5	14.0	12.0	13.0	19.5	19.0	19.5
20	3.5	1.0	2.0	3.5	2.5	3.0	14.5	12.5	13.5	19.5	19.0	19.5
21	2.5	2.0	2.0	4.0	3.0	3.5	14.0	13.5	13.5	19.5	18.5	19.0
22	3.5	2.0	2.5	4.5	3.5	3.5	13.5	12.0	13.0	19.5	18.5	19.0
23	3.0	2.0	2.5	4.0	3.5	4.0	12.5	11.5	12.0	19.5	18.5	19.0
24	2.5	1.5	2.0	4.5	4.0	4.0	12.5	11.5	12.0	20.0	18.5	19.5
25	2.5	1.0	2.0	5.0	4.5	4.5	13.5	12.0	12.5	20.5	19.0	20.0
26	2.0	1.0	1.5	6.5	4.5	5.5	13.5	12.5	13.0	20.5	19.5	20.0
27	2.5	1.0	2.0	6.0	5.5	5.5	13.5	12.0	13.0	20.5	19.5	20.0
28	---	---	---	7.0	5.5	6.5	13.5	12.5	13.0	21.5	19.5	20.5
29	---	---	---	7.0	6.0	6.5	14.5	13.0	13.5	21.5	20.5	21.0
30	---	---	---	7.5	6.5	7.0	14.5	13.0	13.5	21.5	20.0	20.5
31	---	---	---	10.5	7.0	7.5	---	---	---	20.5	20.0	20.5
MONTH	4.5	1.0	2.5	10.5	1.5	4.0	14.5	7.0	10.5	21.5	13.5	18.5
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE				JULY			AUGUST			SEPTEMBER		
1	21.0	20.0	20.5	27.5	26.0	26.5	---	---	---	28.5	27.5	28.0
2	21.0	20.0	20.0	26.5	25.5	26.0	---	---	---	28.5	27.5	28.0
3	21.0	20.0	20.0	27.5	25.5	26.5	---	---	---	28.5	28.0	28.5

DELAWARE RIVER BASIN

01482800 DELAWARE RIVER AT REEDY ISLAND JETTY, DE--Continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	7.9	7.6	7.7	9.0	8.5	8.9	9.5	9.1	9.3	12.5	11.8	12.1
2	8.3	7.4	7.8	9.3	8.8	9.0	9.6	9.2	9.4	12.5	11.8	12.0
3	8.0	7.5	7.8	9.3	9.0	9.2	9.9	9.1	9.5	11.9	11.6	11.8
4	7.9	7.5	7.8	9.2	8.5	9.1	9.9	9.5	9.8	11.9	11.1	11.6
5	8.5	7.7	8.1	9.2	8.9	9.0	10.7	9.5	10.1	11.8	10.3	11.3
6	8.6	7.8	8.3	9.3	9.0	9.1	10.9	10.3	10.5	11.8	11.4	11.6
7	8.5	8.0	8.3	9.3	9.0	9.2	10.7	10.4	10.6	11.5	11.3	11.4
8	9.3	8.0	8.6	9.4	9.1	9.2	---	---	---	11.4	11.1	11.3
9	9.4	9.0	9.2	9.5	9.1	9.3	---	---	---	11.6	11.2	11.4
10	9.4	9.0	9.2	9.5	9.3	9.4	---	---	---	11.5	11.0	11.2
11	9.0	8.7	8.9	9.5	9.2	9.4	---	---	---	11.4	11.1	11.2
12	8.9	8.5	8.7	9.4	9.0	9.2	---	---	---	11.4	10.9	11.2
13	8.7	8.4	8.5	9.1	8.7	9.0	---	---	---	11.2	10.9	11.1
14	8.8	8.4	8.6	8.9	8.7	8.8	---	---	---	11.5	11.0	11.2
15	8.7	8.3	8.5	8.8	8.5	8.7	---	---	---	11.4	11.0	11.2
16	8.4	8.2	8.3	8.7	8.2	8.5	11.3	11.1	11.2	11.3	11.0	11.2
17	8.6	7.6	8.3	8.5	8.1	8.3	11.3	11.1	11.2	11.3	11.1	11.2
18	8.5	8.2	8.4	8.9	8.0	8.6	11.4	11.0	11.2	11.5	11.2	11.3
19	8.6	8.2	8.4	9.0	8.7	8.8	11.0	10.7	10.9	11.6	11.2	11.4
20	8.9	8.5	8.7	9.2	8.9	9.0	11.0	10.1	10.8	11.7	11.3	11.5
21	8.9	8.5	8.7	9.5	9.1	9.3	11.1	10.7	10.9	11.6	10.7	11.1
22	9.1	8.5	8.9	9.8	9.4	9.6	11.1	10.8	10.9	11.3	10.9	11.1
23	9.1	8.8	8.9	10.2	9.6	9.9	11.1	10.7	10.9	11.4	11.1	11.3
24	9.1	8.7	8.9	10.2	9.8	10.0	11.7	10.7	11.2	11.4	11.1	11.3
25	9.0	8.7	8.8	10.0	9.4	9.7	11.6	11.1	11.4	11.7	11.2	11.5
26	9.0	8.5	8.8	9.7	9.1	9.4	12.3	11.4	11.8	11.9	11.1	11.4
27	9.0	8.7	8.9	9.4	8.9	9.1	12.3	11.7	11.9	11.7	11.3	11.5
28	9.1	8.6	8.8	9.3	8.8	9.1	12.2	11.7	11.9	12.0	11.1	11.5
29	9.0	8.6	8.8	9.1	8.8	9.0	12.1	11.7	11.9	11.8	11.0	11.4
30	8.9	8.5	8.7	9.4	8.8	9.1	12.1	11.7	11.9	12.1	11.1	11.6
31	9.0	8.5	8.8	---	---	---	12.1	11.7	11.9	12.1	11.7	11.9
MONTH	9.4	7.4	8.6	10.2	8.0	9.1	12.3	9.1	10.9	12.5	10.3	11.4

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	12.3	11.6	11.9	---	---	---	11.8	11.3	11.5	9.7	9.3	9.6
2	12.6	11.8	12.2	14.0	13.4	13.7	11.6	11.0	11.3	9.6	9.3	9.4
3	12.8	11.9	12.4	13.4	13.0	13.2	11.5	11.0	11.2	9.5	9.1	9.3
4	12.7	12.2	12.5	13.2	12.9	13.0	11.7	11.3	11.5	9.3	8.8	9.1
5	13.0	12.4	12.7	13.0	12.6	12.8	11.6	11.3	11.5	9.0	8.6	8.8
6	13.0	12.3	12.7	12.9	12.5	12.7	11.5	10.9	11.3	9.1	8.7	8.9
7	13.2	12.4	12.9	12.8	12.1	12.5	11.4	11.1	11.2	8.9	8.5	8.7
8	13.2	12.6	12.9	12.5	11.8	12.2	11.3	10.9	11.1	8.7	8.4	8.5
9	13.3	12.5	12.9	12.3	11.8	12.1	11.4	10.9	11.2	8.4	8.1	8.3
10	13.3	11.9	12.7	12.2	11.8	12.1	11.4	10.9	11.1	8.7	8.2	8.4
11	13.0	12.1	12.6	12.1	11.6	11.9	11.6	11.0	11.3	9.4	8.2	8.8
12	13.3	12.5	12.9	12.3	11.9	12.0	11.7	11.2	11.4	9.0	8.2	8.7
13	13.4	12.3	12.9	12.3	11.8	12.0	11.6	11.1	11.4	8.5	7.8	8.1
14	13.1	12.5	12.8	12.7	12.1	12.4	11.5	11.1	11.3	8.4	7.5	7.9
15	13.7	12.7	13.1	12.6	12.1	12.4	11.3	10.8	11.2	9.3	7.2	8.3
16	13.5	12.7	13.1	12.5	12.1	12.3	11.1	10.7	11.0	9.3	8.1	8.7
17	13.2	12.4	12.8	12.5	12.2	12.4	10.9	10.4	10.6	9.3	8.3	8.8
18	13.4	12.2	12.7	13.1	12.4	12.8	10.6	10.0	10.4	9.1	8.3	8.7
19	13.3	12.2	12.7	13.4	12.9	13.2	10.6	9.9	10.3	8.7	8.1	8.4
20	13.4	12.4	12.9	13.2	12.7	12.9	10.4	9.9	10.2	8.3	7.8	8.1
21	13.3	12.4	12.9	12.8	12.4	12.6	10.4	9.9	10.2	8.3	7.7	8.0
22	13.3	12.0	12.8	12.8	12.2	12.4	10.2	9.7	9.9	8.2	7.7	7.9
23	13.1	11.8	12.5	12.7	12.0	12.4	10.7	10.0	10.4	8.0	7.7	7.9
24	12.8	11.4	12.1	13.0	12.5	12.7	10.6	10.0	10.2	8.2	7.8	8.0
25	13.3	11.9	12.5	12.7	11.9	12.4	10.7	9.8	10.4	8.2	7.9	8.0
26	13.6	12.2	12.9	12.5	11.5	12.0	10.5	10.0	10.3	8.3	7.9	8.1
27	13.2	11.8	12.6	12.1	11.5	11.7	10.4	9.7	10.0	8.2	7.7	8.0
28	---	---	---	11.9	11.3	11.7	9.9	9.2	9.4	8.1	7.7	8.0
29	---	---	---	11.5	11.0	11.3	9.7	9.1	9.4	8.4	7.9	8.2
30	---	---	---	11.5	11.1	11.2	9.8	9.5	9.6	8.6	8.1	8.3
31	---	---	---	12.2	10.9	11.5	---	---	---	8.6	8.1	8.3
MONTH	13.7	11.4	12.7	14.0	10.9	12.3	11.8	9.1	10.7	9.7	7.2	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 near-by 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 1993

Annual maximum discharge at crest stage partial record stations during water year 1993								
Station name and number	Location and drainage area	Period of Record	Water year 1993 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								
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 .	1975-93	4-01-93	9.85	2,430	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 .	1962-93	4-01-93	2.44	138	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 .	1961-93	4-01-93	7.36	376	7-28-69	12.65	1,650
LEHIGH RIVER BASIN								
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* 1982-93	4-11-93	44.09	30,200	9-09-87	46.89	43,200
SCHUYLKILL RIVER BASIN								
Schuylkill River at Pottsville, Pa. (01467500)	Lat 40°41'01", long 76°11'12", Schuylkill County, Hydro- logic Unit 02040203, at bridge on SR 61 at Potts- ville, and 1.7 mi down- stream from Mill Creek. Drainage area is 53.4 mi ² .	1944-69‡ 1975-93	4-11-93	6.84	1,600	4-16-83	9.52	3,650

‡ Operated as a continuous-record station.

* Operated as a low-flow partial-record station.

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 1993--Continued

Annual maximum discharge at crest stage partial record stations during water year 1993 continued								
Station name and number	Location and drainage area	Period of Record	Water year 1993 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								
SCHUYLKILL RIVER BASIN--Continued								
West Branch Schuylkill River near Cressona, Pa. (01467948)	Lat 40°38'30", long 76°11'43", Schuylkill County, Hydrologic Unit 02040203, at bridge on Gordon-Nagle Trail, 0.8 mi upstream from Panther Creek, and 1.0 mi north of Cressona. Drainage area is 52.5 mi ² .	1975-93	4-02-93	4.66	860	9-26-75	6.74	2,940
Little Schuylkill River at Port Clinton, Pa. (01470190)	Lat 40°35'24", long 76°01'43", Schuylkill County, Hydrologic Unit 02040203, 0.6 mi upstream from Rattling Run, and 0.7 mi north of Port Clinton. Drainage area is 132 mi ² .	1975-93	4-11-93	7.69	3,950	1-24-79	9.86	7,710
Schuylkill River at Temple, Pa. (01470766)	Lat 40°24'52", long 75°56'23", Berks County, Hydrologic Unit 02040203, at concrete bridge on SR 383, 0.7 mi downstream from mouth of Maiden Creek, and 0.6 mi west of Temple. Drainage area is 641 mi ² .	1978-93	4-11-93	14.36	16,600	4-16-83	20.36	29,700
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. Drainage area is 976 mi ² .	1981-93	4-11-93	152.52	16,300	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 downstream 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 .	1971-93	4-11-93	83.83	23,300	6-23-72	100.58	79,100
Schuylkill River at Norristown, Pa. (01473500)	Lat 40°06'40", long 75°20'50", Montgomery County, Hydrologic Unit 02040203, on right bank at Conrail bridge pier, and 600 ft upstream from bridge on Dekalb Street in Norristown. Drainage area is 1,760 mi ² .	1928-32 [‡] 1981-93	3-24-93	60.88	30,800	4-16-83	63.34	44,800
CHRISTINA RIVER BASIN								
Middle Branch White Clay Creek near Landenberg, Pa. (01478200)	Lat 39°46'54", long 75°48'03", Chester County, Hydrologic Unit 02040205, at bridge on L.R. 15017, 1.4 mi above mouth, and 1.7 mi east of Landenberg. Drainage area is 12.7 mi ² .	1960-93	3-04-93	12.80	a	3-04-93	12.80	a,b
Sucker Run near Coatesville, 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 .	1964-93	3-04-93	5.99	385	7-21-79	8.49	1,500

[‡] Operated as a continuous-record station.^a Discharge not determined.^b Previous maximum for period of record, 12.29 ft, June 22, 1972, discharge, 3,860 ft³/s.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Miscellaneous sites

Discharge measurements made at miscellaneous sites during water year 1993

Discharge measurements made at miscellaneous sites during water year 1993						
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 1989-92	3-29-93 8-25-93	838 11
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 1989-92	3-30-93	7580
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	---	9-16-93	3.0
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	---	9-15-93 9-16-93	6.0 3.6
NESHAMINY CREEK BASIN						
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	---	9-15-93	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‡	9-15-93	26
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* 1982-86 1991-92	2-24-93 3-05-93 7-21-93	5.1 19 1.5
SCHUYLKILL RIVER BASIN						
01470759 Maiden Creek	Schuylkill River	Lat 40°26'21", long 75°55'37", Berks County, Hydrologic Unit 02040203, at Wileys Bridge, 1.0 mi upstream of SR 61, and near Temple.	215	1979-80 1989-90 1992	3-03-93	2790
CHRISTINA RIVER BASIN						
01478230 Middle Branch White Clay Creek	Christina River	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	1989-92	11-09-92 1-05-93 2-19-93 3-24-93 3-30-93 5-18-93 7-01-93	16 103 58 321 164 39 19
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	1989-92	10-05-92 11-09-92 1-05-93 2-19-93 3-05-93 5-13-93 8-27-93	16 24 129 62 191 72 16

[‡] Operated as a continuous-record station.

* Operated as a low-flow partial-record station.

^a Prior to October 1988 at latitude 41°28'19", longitude 75°02'25".

ANALYSIS OF SURFACE-WATER 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 1992 TO SEPTEMBER 1993

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (μ S/CM) (00095)	PH WATER FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	TUR- BID- ITY (NTU) (00076)	OXYGEN, DIS- SOLVED (MG/L) (00300)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)
01472080 PIGEON CREEK NEAR PARKER FORD, PA. (LAT 40 12 03N LONG 075 37 10W)										
OCT 1992 13...	0920	5.5	182	6.8	13.0	12.0	1.2	9.9	58	15
01472109 STONY RUN NEAR SPRING CITY, PA. (LAT 40 10 11N LONG 075 34 45W)										
OCT 1992 08...	1145	0.25	259	7.0	20.5	10.0	3.2	11.3	89	23
01472138 FRENCH CREEK NEAR COVENTRYVILLE, PA. (LAT 40 10 14N LONG 075 41 50W)										
OCT 1992 15...	0900	9.8	145	7.4	12.0	11.5	0.90	10.5	54	14
01472140 SOUTH BRANCH FRENCH CREEK AT COVENTRYVILLE, PA. (LAT 40 09 18N LONG 075 42 52W)										
OCT 1992 15...	1215	5.6	208	7.2	26.0	13.0	0.90	12.4	71	19
01472154 FRENCH CREEK NEAR PUGHTOWN, PA. (LAT 40 09 17N LONG 075 38 25W)										
OCT 1992 14...	1045	20	159	7.2	13.5	11.0	3.3	11.0	61	16
014721612 FRENCH CREEK AT RAILROAD BRIDGE AT PHOENIXVILLE, PA. (LAT 40 08 10N LONG 075 30 41W)										
OCT 1992 13...	1200	45	202	7.1	15.0	12.5	1.5	11.3	71	19
01472170 PICKERING CREEK NEAR EAGLE, PA. (LAT 40 04 43N LONG 075 39 14W)										
OCT 1992 07...	0945	0.70	217	7.1	11.0	8.0	0.50	11.9	85	23
01472174 PICKERING CREEK NEAR CHESTER SPRINGS, PA. (LAT 40 05 22N LONG 075 37 50W)										
OCT 1992 08...	0830	1.6	215	7.1	15.5	8.5	0.60	11.5	84	24
014721854 PICKERING CREEK AT MERLIN, PA. (LAT 40 06 25N LONG 075 35 34W)										
OCT 1992 07...	1230	6.2	124	7.1	14.0	9.5	0.50	12.2	88	24
014721884 PICKERING CR AT CHARLESTOWN RD BRIDGE AT CHARLESTOWN, PA. (LAT 40 05 57N LONG 075 33 20W)										
OCT 1992 06...	1000	7.6	222	6.9	11.5	9.5	0.40	12.4	84	23
01472190 PICKERING CREEK NEAR PHOENIXVILLE, PA. (LAT 40 06 33N LONG 075 31 42W)										
OCT 1992 06...	0745	7.1	225	7.3	5.5	9.0	0.40	11.8	89	24
01473167 LITTLE VALLEY CREEK AT HOWELLVILLE, PA. (LAT 40 04 00N LONG 075 28 22W)										
OCT 1992 05...	0910	3.1	279	7.2	8.5	12.0	0.20	10.8	240	63
01473168 VALLEY CREEK NEAR VALLEY FORGE, PA. (LAT 40 04 11N LONG 075 28 25W)										
OCT 1992 05...	1215	9.3	308	7.2	9.5	12.5	0.30	11.6	250	47

ANALYSIS OF SURFACE-WATER SAMPLES COLLECTED AT PARTIAL-RECORD STATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RARIO (00931)	SODIUM PERCENT (00932)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- LINIT WAT WH TOT IT FIELD (MG/L AS CACO3) (00419)	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)
01472080	PIGEON CREEK NEAR PARKER FORD, PA. (LAT 40 12 03N LONG 075 37 10W)									
OCT 1992 13...	5.1	8.4	0.5	23	2.3	29	21	11	<0.10	16
01472109	STONY RUN NEAR SPRING CITY, PA. (LAT 40 10 11N LONG 075 34 45W)									
OCT 1992 08...	7.6	12	0.6	22	3.0	40	23	22	<0.10	18
01472138	FRENCH CREEK NEAR COVENTRYVILLE, PA. (LAT 40 10 14N LONG 075 41 50W)									
OCT 1992 15...	4.6	6.0	0.4	19	1.6	54	15	8.7	<0.10	17
01472140	SOUTH BRANCH FRENCH CREEK AT COVENTRYVILLE, PA. (LAT 40 09 18N LONG 075 42 52W)									
OCT 1992 15...	5.8	7.2	0.4	--	<0.10	60	18	13	0.10	18
01472154	FRENCH CREEK NEAR PUGHTOWN, PA. (LAT 40 09 17N LONG 075 38 25W)									
OCT 1992 14...	5.0	6.9	0.4	19	2.8	30	17	11	0.10	16
014721612	FRENCH CREEK AT RAILROAD BRIDGE AT PHOENIXVILLE, PA. (LAT 40 08 10N LONG 075 30 41W)									
OCT 1992 13...	5.8	8.2	0.4	19	3.0	35	20	13	0.10	16
01472170	PICKERING CREEK NEAR EAGLE, PA. (LAT 40 04 43N LONG 075 39 14W)									
OCT 1992 07...	6.7	7.6	0.4	16	1.7	38	14	21	0.10	21
01472174	PICKERING CREEK NEAR CHESTER SPRINGS, PA. (LAT 40 05 22N LONG 075 37 50W)									
OCT 1992 08...	5.9	7.1	0.3	15	1.8	55	15	15	0.10	20
014721854	PICKERING CREEK AT MERLIN, PA. (LAT 40 06 25N LONG 075 35 34W)									
OCT 1992 07...	6.9	8.1	0.4	16	1.9	44	17	22	0.10	19
014721884	PICKERING CR AT CHARLESTOWN RD BRIDGE AT CHARLESTOWN, PA. (LAT 40 05 57N LONG 075 33 20W)									
OCT 1992 06...	6.5	8.4	0.4	17	1.9	46	17	22	0.10	18
01472190	PICKERING CREEK NEAR PHOENIXVILLE, PA. (LAT 40 06 33N LONG 075 31 42W)									
OCT 1992 06...	7.0	8.6	0.4	17	2.0	43	18	21	0.10	18
01473167	LITTLE VALLEY CREEK AT HOWELLVILLE, PA. (LAT 40 04 00N LONG 075 28 22W)									
OCT 1992 05...	20	25	0.7	18	2.2	248	33	50	0.10	7.3
01473168	VALLEY CREEK NEAR VALLEY FORGE, PA. (LAT 40 04 11N LONG 075 28 25W)									
OCT 1992 05...	31	23	0.6	17	3.2	183	28	45	0.10	7.8

ANALYSIS OF SURFACE-WATER SAMPLES COLLECTED AT PARTIAL-RECORD STATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L) AS N) (00618)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L) AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L) AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L) AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L) AS N) (00623)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L) AS N) (00625)	PHOS- PHORUS TOTAL (MG/L) AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L) AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L) AS P) (00671)
01472080	PIGEON CREEK NEAR PARKER FORD, PA. (LAT 40 12 03N LONG 075 37 10W)									
OCT 1992 13...	105	--	<0.010	1.90	0.030	0.30	0.30	0.090	0.080	0.070
01472109	STONY RUN NEAR SPRING CITY, PA. (LAT 40 10 11N LONG 075 34 45W)									
OCT 1992 08...	151	3.99	0.010	4.00	0.050	0.40	0.50	0.100	0.070	0.070
01472138	FRENCH CREEK NEAR COVENTRYVILLE, PA. (LAT 40 10 14N LONG 075 41 50W)									
OCT 1992 15...	103	--	<0.010	0.710	0.020	<0.20	<0.20	0.030	0.020	0.020
01472140	SOUTH BRANCH FRENCH CREEK AT COVENTRYVILLE, PA. (LAT 40 09 18N LONG 075 42 52W)									
OCT 1992 15...	--	--	<0.010	2.60	0.010	0.20	0.20	0.040	0.020	0.020
01472154	FRENCH CREEK NEAR PUGHTOWN, PA. (LAT 40 09 17N LONG 075 38 25W)									
OCT 1992 14...	98	--	<0.010	1.10	0.030	0.50	0.40	0.060	0.030	0.020
014721612	FRENCH CREEK AT RAILROAD BRIDGE AT PHOENIXVILLE, PA. (LAT 40 08 10N LONG 075 30 41W)									
OCT 1992 13...	111	--	<0.010	1.00	0.020	0.30	0.30	0.040	0.040	0.030
01472170	PICKERING CREEK NEAR EAGLE, PA. (LAT 40 04 43N LONG 075 39 14W)									
OCT 1992 07...	127	--	<0.010	2.10	0.020	<0.20	<0.20	0.020	<0.010	<0.010
01472174	PICKERING CREEK NEAR CHESTER SPRINGS, PA. (LAT 40 05 22N LONG 075 37 50W)									
OCT 1992 08...	132	--	<0.010	2.20	0.020	<0.20	<0.20	0.030	<0.010	<0.010
014721854	PICKERING CREEK AT MERLIN, PA. (LAT 40 06 25N LONG 075 35 34W)									
OCT 1992 07...	132	--	<0.010	1.40	0.020	<0.20	<0.20	0.020	<0.010	<0.010
014721884	PICKERING CR AT CHARLESTOWN RD BRIDGE AT CHARLESTOWN, PA. (LAT 40 05 57N LONG 075 33 20W)									
OCT 1992 06...	130	--	<0.010	1.20	0.010	<0.20	<0.20	0.010	0.010	<0.010
01472190	PICKERING CREEK NEAR PHOENIXVILLE, PA. (LAT 40 06 33N LONG 075 31 42W)									
OCT 1992 06...	130	--	<0.010	1.20	<0.010	<0.20	<0.20	<0.010	0.020	<0.010
01473167	LITTLE VALLEY CREEK AT HOWELLVILLE, PA. (LAT 40 04 00N LONG 075 28 22W)									
OCT 1992 05...	359	--	<0.010	2.10	<0.010	<0.20	<0.20	<0.010	<0.010	<0.010
01473168	VALLEY CREEK NEAR VALLEY FORGE, PA. (LAT 40 04 11N LONG 075 28 25W)									
OCT 1992 05...	304	--	<0.010	2.00	0.010	<0.20	<0.20	<0.010	0.020	<0.010

ANALYSIS OF SURFACE-WATER SAMPLES COLLECTED AT PARTIAL-RECORD STATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	ALUM- INUM, DIS- SOLVED (μ G/L AS AL) (01106)	ARSENIC DIS- SOLVED (μ G/L AS AS) (01000)	BARIUM, DIS- SOLVED (μ G/L AS BA) (01005)	BERYL- LIUM, DIS- SOLVED (μ G/L AS BE) (01010)	CADMIUM DIS- SOLVED (μ G/L AS CD) (01025)	CHRO- MIUM, DIS- SOLVED (μ G/L AS CR) (01030)	COBALT, DIS- SOLVED (μ G/L AS CO) (01035)	COPPER, DIS- SOLVED (μ G/L AS CU) (01040)	IRON, DIS- SOLVED (μ G/L AS FE) (01046)	LEAD, DIS- SOLVED (μ G/L AS PB) (01049)
01472080	PIGEON CREEK NEAR PARKER FORD, PA. (LAT 40 12 03N LONG 075 37 10W)									
OCT 1992 13...	20	--	--	--	--	--	--	--	68	--
01472109	STONY RUN NEAR SPRING CITY, PA. (LAT 40 10 11N LONG 075 34 45W)									
OCT 1992 08...	<10	--	--	--	--	--	--	--	23	--
01472138	FRENCH CREEK NEAR COVENTRYVILLE, PA. (LAT 40 10 14N LONG 075 41 50W)									
OCT 1992 15...	10	--	--	--	--	--	--	--	110	--
01472140	SOUTH BRANCH FRENCH CREEK AT COVENTRYVILLE, PA. (LAT 40 09 18N LONG 075 42 52W)									
OCT 1992 15...	10	--	--	--	--	--	--	--	130	--
01472154	FRENCH CREEK NEAR PUGHTOWN, PA. (LAT 40 09 17N LONG 075 38 25W)									
OCT 1992 14...	30	--	--	--	--	--	--	--	140	--
014721612	FRENCH CREEK AT RAILROAD BRIDGE AT PHOENIXVILLE, PA. (LAT 40 08 10N LONG 075 30 41W)									
OCT 1992 13...	10	<1	45	0.8	<1.0	<5	<3	<10	120	<10
01472170	PICKERING CREEK NEAR EAGLE, PA. (LAT 40 04 43N LONG 075 39 14W)									
OCT 1992 07...	<10	--	--	--	--	--	--	--	110	--
01472174	PICKERING CREEK NEAR CHESTER SPRINGS, PA. (LAT 40 05 22N LONG 075 37 50W)									
OCT 1992 08...	<10	--	--	--	--	--	--	--	99	--
014721854	PICKERING CREEK AT MERLIN, PA. (LAT 40 06 25N LONG 075 35 34W)									
OCT 1992 07...	10	--	--	--	--	--	--	--	77	--
014721884	PICKERING CR AT CHARLESTOWN RD BRIDGE AT CHARLESTOWN, PA. (LAT 40 05 57N LONG 075 33 20W)									
OCT 1992 06...	20	--	--	--	--	--	--	--	82	--
01472190	PICKERING CREEK NEAR PHOENIXVILLE, PA. (LAT 40 06 33N LONG 075 31 42W)									
OCT 1992 06...	<10	--	--	--	--	--	--	--	55	--
01473167	LITTLE VALLEY CREEK AT HOWELLVILLE, PA. (LAT 40 04 00N LONG 075 28 22W)									
OCT 1992 05...	20	<1	24	<0.5	<1.0	<5	<3	<10	<3	<10
01473168	VALLEY CREEK NEAR VALLEY FORGE, PA. (LAT 40 04 11N LONG 075 28 25W)									
OCT 1992 05...	<10	<1	24	<0.5	<1.0	<5	<3	<10	5	<10

ANALYSIS OF SURFACE-WATER SAMPLES COLLECTED AT PARTIAL-RECORD STATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE		MANGA- NESE, DIS- SOLVED ($\mu\text{G/L}$ AS MN) (01056)	MOLYB- DENUM, DIS- SOLVED ($\mu\text{G/L}$ AS MO) (01060)	STRON- TIUM, DIS- SOLVED ($\mu\text{G/L}$ AS SR) (01080)	VANA- DIUM, DIS- SOLVED ($\mu\text{G/L}$ AS V) (01085)	LITHIUM DIS- SOLVED ($\mu\text{G/L}$ AS LI) (01130)	MERCURY DIS- SOLVED ($\mu\text{G/L}$ AS HG) (71890)	NICKEL, DIS- SOLVED ($\mu\text{G/L}$ AS NI) (01065)	SILVER, DIS- SOLVED ($\mu\text{G/L}$ AS AG) (01075)	ZINC, DIS- SOLVED ($\mu\text{G/L}$ AS ZN) (01090)
01472080	PIGEON CREEK NEAR PARKER FORD, PA. (LAT 40 12 03N LONG 075 37 10W)									
OCT 1992 13...	23	--	--	--	--	--	--	--	--	--
01472109	STONY RUN NEAR SPRING CITY, PA. (LAT 40 10 11N LONG 075 34 45W)									
OCT 1992 08...	31	--	--	--	--	--	--	--	--	--
01472138	FRENCH CREEK NEAR COVENTRYVILLE, PA. (LAT 40 10 14N LONG 075 41 50W)									
OCT 1992 15...	26	--	--	--	--	--	--	--	--	--
01472140	SOUTH BRANCH FRENCH CREEK AT COVENTRYVILLE, PA. (LAT 40 09 18N LONG 075 42 52W)									
OCT 1992 15...	15	--	--	--	--	--	--	--	--	--
01472154	FRENCH CREEK NEAR PUGTOWN, PA. (LAT 40 09 17N LONG 075 38 25W)									
OCT 1992 14...	18	--	--	--	--	--	--	--	--	--
014721612	FRENCH CREEK AT RR BRIDGE AT PHOENIXVILLE, PA. (LAT 40 08 10N LONG 075 30 41W)									
OCT 1992 13...	29	<10	94	<6	<4	<0.1	<10	<1.0	4	
01472170	PICKERING CREEK NEAR EAGLE, PA. (LAT 40 04 43N LONG 075 39 14W)									
OCT 1992 07...	36	--	--	--	--	--	--	--	--	--
01472174	PICKERING CREEK NEAR CHESTER SPRINGS, PA. (LAT 40 05 22N LONG 075 37 50W)									
OCT 1992 08...	20	--	--	--	--	--	--	--	--	--
014721854	PICKERING CREEK AT MERLIN, PA. (LAT 40 06 25N LONG 075 35 34W)									
OCT 1992 07...	17	--	--	--	--	--	--	--	--	--
014721884	PICKERING CR AT CHARLESTOWN RD BRIDGE AT CHARLESTOWN, PA. (LAT 40 05 57N LONG 075 33 20W)									
OCT 1992 06...	19	--	--	--	--	--	--	--	--	--
01472190	PICKERING CREEK NEAR PHOENIXVILLE, PA. (LAT 40 06 33N LONG 075 31 42W)									
OCT 1992 06...	7	--	--	--	--	--	--	--	--	--
01473167	LITTLE VALLEY CREEK AT HOWELLVILLE, PA. (LAT 40 04 00N LONG 075 28 22W)									
OCT 1992 05...	<1	<10	140	<6	4	<0.1	<10	<1.0	<3	
01473168	VALLEY CREEK NR VALLEY FORGE, PA. (LAT 40 04 11N LONG 075 28 25W)									
OCT 1992 05...	8	<10	57	<6	28	<0.1	<10	<1.0	<3	

ANALYSIS OF SURFACE-WATER SAMPLES COLLECTED AT PARTIAL-RECORD STATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	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 AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	TUR- BID- ITY (NTU) (00076)	OXYGEN, DIS- SOLVED (MG/L) (00300)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)
01475840 CRUM CREEK AT WHITEHORSE, PA. (LAT 39 59 54N LONG 075 27 38W)										
OCT 1992 21...	0915	3.5	180	7.3	12.0	8.0	0.70	11.8	68	14
01476430 RIDLEY CREEK AT GOSHENVILLE, PA. (LAT 39 59 28N LONG 075 32 40W)										
OCT 1992 20...	0845	2.2	250	6.6	5.5	7.5	2.0	10.4	84	17
01476435 RIDLEY CREEK AT DUTTON MILL NEAR WEST CHESTER, PA. (LAT 39 58 52N LONG 075 31 02W)										
OCT 1992 20...	1215	5.0	254	6.7	9.5	8.5	0.80	12.8	82	17
01476790 EAST BRANCH CHESTER CREEK AT GREEN HILL, PA. (LAT 39 59 49N LONG 075 35 40W)										
OCT 1992 22...	1345	0.59	330	7.0	12.5	11.5	0.70	10.4	130	28
01476830 EAST BRANCH CHESTER CREEK AT MILLTOWN, PA. (LAT 39 58 21N LONG 075 32 57W)										
OCT 1992 23...	0945	2.5	314	7.6	7.0	8.5	0.70	11.8	120	28
01476835 EAST BRANCH CHESTER CREEK AT WESTTOWN, PA. (LAT 39 56 26N LONG 075 32 30W)										
OCT 1992 22...	1130	3.8	330	7.2	11.0	9.5	5.1	10.8	110	25
01476840 GOOSE CREEK TRIB TO EAST BR CHESTER CR NR WEST CHESTER, PA. (LAT 39 56 04N LONG 075 33 31W)										
OCT 1992 23...	1145	10	625	7.8	11.0	13.0	3.5	10.7	160	42
01476848 EAST BRANCH CHESTER CR BELOW GOOSE CR NR WEST CHESTER, PA. (LAT 39 55 45N LONG 075 32 00W)										
OCT 1992 22...	0930	12	480	7.6	9.5	9.0	0.60	11.3	120	30
01478120 EAST BRANCH WHITE CLAY CREEK AT AVONDALE, PA. (LAT 39 49 42N LONG 075 46 52W)										
NOV 1992 16...	0930	7.5	355	7.9	1.5	4.0	0.80	13.5	150	34
01478190 MIDDLE BRANCH WHITE CLAY CREEK AT WICKERTON, PA. (LAT 39 47 44N LONG 075 49 27W)										
NOV 1992 12...	1000	5.5	236	7.5	17.0	10.5	0.40	11.3	82	19
01478220 WEST BRANCH WHITE CLAY CREEK NEAR CHESTERTOWN, PA. (LAT 39 45 56N LONG 075 47 47W)										
NOV 1992 16...	1235	6.3	175	7.2	5.5	4.5	0.40	13.7	55	13
01479680 WEST BRANCH RED CLAY CR AT KENNETT SQUARE, PA. (LAT 39 50 13N LONG 075 43 33W)										
OCT 1992 27...	1100	3.8	339	8.0	11.0	10.5	2.6	12.4	140	33
01479800 EAST BRANCH RED CLAY CREEK NEAR FIVE POINT, PA. (LAT 39 49 11N LONG 075 41 29W)										
OCT 1992 27...	0915	4.0	319	7.9	8.5	8.0	0.70	11.2	130	33

ANALYSIS OF SURFACE-WATER SAMPLES COLLECTED AT PARTIAL-RECORD STATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	SODIUM PERCENT (00932)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- LINITY WAT WH TOT IT FIELD (MG/L AS CACO3) (00419)	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)
01475840	CRUM CREEK AT WHITEHORSE, PA. (LAT 39 59 54N LONG 075 27 38W)									
OCT 1992 21...	8.1	7.0	0.4	18	1.9	47	10	15	0.10	17
01476430	RIDLEY CREEK AT GOSHENVILLE, PA. (LAT 39 59 28N LONG 075 32 40W)									
OCT 1992 20...	10	14	0.7	26	2.0	59	15	25	<0.10	9.7
01476435	RIDLEY CREEK AT DUTTON MILL NEAR WEST CHESTER, PA. (LAT 39 58 52N LONG 075 31 02W)									
OCT 1992 20...	9.7	16	0.8	29	2.6	61	15	24	<0.10	14
01476790	EAST BRANCH CHESTER CREEK AT GREEN HILL, PA. (LAT 39 59 49N LONG 075 35 40W)									
OCT 1992 22...	14	26	1	30	1.7	50	14	73	<0.10	7.6
01476830	EAST BRANCH CHESTER CREEK AT MILLTOWN, PA. (LAT 39 58 21N LONG 075 32 57W)									
OCT 1992 23...	13	13	0.5	18	2.3	68	21	36	0.10	14
01476835	EAST BRANCH CHESTER CREEK AT WESTTOWN, PA. (LAT 39 56 26N LONG 075 32 30W)									
OCT 1992 22...	12	13	0.5	20	3.0	64	22	35	0.10	15
01476840	GOOSE CREEK TRIB TO EAST BR CHESTER CR NR WEST CHESTER, PA. (LAT 39 56 04N LONG 075 33 31W)									
OCT 1992 23...	14	45	2	36	9.4	82	41	82	0.50	17
01476848	EAST BRANCH CHESTER CR BELOW GOOSE CR NEAR WEST CHESTER, PA. (LAT 39 55 45N LONG 075 32 00W)									
OCT 1992 22...	12	9.4	0.4	14	3.9	62	36	21	0.10	15
01478120	EAST BRANCH WHITE CLAY CREEK AT AVONDALE, PA. (LAT 39 49 42N LONG 075 46 52W)									
NOV 1992 16...	15	7.4	0.3	10	3.1	95	26	16	<0.10	15
01478190	MIDDLE BRANCH WHITE CLAY CREEK AT WICKERTON, PA. (LAT 39 47 44N LONG 075 49 27W)									
NOV 1992 12...	8.4	9.9	0.5	20	3.9	43	17	16	0.10	16
01478220	WEST BRANCH WHITE CLAY CREEK NEAR CHESTERTOWN, PA. (LAT 39 45 56N LONG 075 47 47W)									
NOV 1992 16...	5.4	7.5	0.4	22	3.4	19	17	14	<0.10	14
01479680	WEST BRANCH RED CLAY CREEK AT KENNETT SQUARE, PA. (LAT 39 50 13N LONG 075 43 33W)									
OCT 1992 27...	15	7.3	0.3	10	3.6	95	28	17	0.10	14
01479800	EAST BRANCH RED CLAY CREEK NEAR FIVE POINT, PA. (LAT 39 49 11N LONG 075 41 29W)									
OCT 1992 27...	12	35	1	35	6.7	66	34	61	0.30	16

ANALYSIS OF SURFACE-WATER SAMPLES COLLECTED AT PARTIAL-RECORD STATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N) (00618)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)
01475840	CRUM CREEK AT WHITEHORSE, PA. (LAT 39 59 54N LONG 075 27 38W)									
OCT 1992 21...	107	1.19	0.010	1.20	0.010	0.30	0.20	0.030	0.020	0.020
01476430	RIDLEY CREEK AT GOSHENVILLE, PA. (LAT 39 59 28N LONG 075 32 40W)									
OCT 1992 20...	139	2.28	0.020	2.30	0.010	0.20	0.20	0.080	0.110	0.060
01476435	RIDLEY CREEK AT DUTTON MILL NEAR WEST CHESTER, PA. (LAT 39 58 52N LONG 075 31 02W)									
OCT 1992 20...	153	3.79	0.010	3.80	<0.010	0.20	0.30	0.370	0.330	0.320
01476790	EAST BRANCH CHESTER CREEK AT GREEN HILL, PA. (LAT 39 59 49N LONG 075 35 40W)									
OCT 1992 22...	213	4.28	0.020	4.30	<0.010	<0.20	<0.20	0.030	0.020	0.010
01476830	EAST BRANCH CHESTER CREEK AT MILLTOWN, PA. (LAT 39 58 21N LONG 075 32 57W)									
OCT 1992 23...	178	2.08	0.020	2.10	<0.010	<0.20	0.30	0.020	0.020	<0.010
01476835	EAST BRANCH CHESTER CREEK AT WESTTOWN, PA. (LAT 39 56 26N LONG 075 32 30W)									
OCT 1992 22...	177	2.89	0.010	2.90	0.010	0.40	0.90	0.370	0.250	0.200
01476840	GOOSE CREEK TRIB TO EAST BR CHESTER CR NR WEST CHESTER, PA. (LAT 39 56 04N LONG 075 33 31W)									
OCT 1992 23...	365	13.0	0.040	13.0	0.040	0.70	0.80	2.60	2.40	2.20
01476848	EAST BRANCH CHESTER CR BELOW GOOSE CR NEAR WEST CHESTER, PA. (LAT 39 55 45N LONG 075 32 00W)									
OCT 1992 22...	210	9.37	0.030	9.40	<0.010	0.40	0.50	1.50	1.50	1.30
01478120	EAST BRANCH WHITE CLAY CREEK AT AVONDALE, PA. (LAT 39 49 42N LONG 075 46 52W)									
NOV 1992 16...	196	5.07	0.030	5.10	<0.010	0.20	0.30	0.040	0.030	0.020
01478190	MIDDLE BRANCH WHITE CLAY CREEK AT WICKERTON, PA. (LAT 39 47 44N LONG 075 49 27W)									
NOV 1992 12...	144	6.06	0.040	6.10	0.040	0.30	0.30	0.200	0.200	0.180
01478220	WEST BRANCH WHITE CLAY CREEK NEAR CHESTERVILLE, PA. (LAT 39 45 56N LONG 075 47 47W)									
NOV 1992 16...	103	3.87	0.030	3.90	<0.010	<0.20	<0.20	0.020	0.030	0.010
01479680	WEST BRANCH RED CLAY CREEK AT KENNETT SQUARE, PA. (LAT 39 50 13N LONG 075 43 33W)									
OCT 1992 27...	197	4.87	0.030	4.90	0.020	0.50	0.40	0.080	0.060	0.060
01479800	EAST BRANCH RED CLAY CREEK NEAR FIVE POINT, PA. (LAT 39 49 11N LONG 075 41 29W)									
OCT 1992 27...	252	3.19	0.010	3.20	<0.010	0.20	0.20	0.030	0.010	0.010

ANALYSIS OF SURFACE-WATER SAMPLES COLLECTED AT PARTIAL-RECORD STATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	ALUM- INUM, DIS- SOLVED (µG/L AS AL) (01106)	ARSENIC DIS- SOLVED (µG/L AS AS) (01000)	BARIUM, DIS- SOLVED (µG/L AS BA) (01005)	BERYL- LIUM, DIS- SOLVED (µG/L AS BE) (01010)	CADMIUM DIS- SOLVED (µG/L AS CD) (01025)	CHRO- MIUM, DIS- SOLVED (µG/L AS CR) (01030)	COBALT, DIS- SOLVED (µG/L AS CO) (01035)	COPPER, DIS- SOLVED (µG/L AS CU) (01040)	IRON, DIS- SOLVED (µG/L AS FE) (01046)	LEAD, DIS- SOLVED (µG/L AS PB) (01049)
01475840	CRUM CREEK AT WHITEHORSE, PA. (LAT 39 59 54N LONG 075 27 38W)									
OCT 1992 21...	<10	--	--	--	--	--	--	--	72	--
01476430	RIDLEY CREEK AT GOSHENVILLE, PA. (LAT 39 59 28N LONG 075 32 40W)									
OCT 1992 20...	20	--	--	--	--	--	--	--	66	--
01476435	RIDLEY CREEK AT DUTTON MILL NEAR WEST CHESTER, PA. (LAT 39 58 52N LONG 075 31 02W)									
OCT 1992 20...	<10	--	--	--	--	--	--	--	65	--
01476790	EAST BRANCH CHESTER CREEK AT GREEN HILL, PA. (LAT 39 59 49N LONG 075 35 40W)									
OCT 1992 22...	<10	--	--	--	--	--	--	--	6	--
01476830	EAST BRANCH CHESTER CREEK AT MILLTOWN, PA. (LAT 39 58 21N LONG 075 32 57W)									
OCT 1992 23...	<10	--	--	--	--	--	--	--	34	--
01476835	EAST BRANCH CHESTER CREEK AT WESTTOWN, PA. (LAT 39 56 26N LONG 075 32 30W)									
OCT 1992 22...	<10	--	53	<0.5	<1.0	<5	<3	<10	83	<10
01476840	GOOSE CREEK TRIB TO EAST BR CHESTER CR NR WEST CHESTER, PA. (LAT 39 56 04N LONG 075 33 31W)									
OCT 1992 23...	20	<1	38	<0.5	<1.0	<5	<3	10	31	<10
01476848	EAST BRANCH CHESTER CR BELOW GOOSE CR NEAR WEST CHESTER, PA. (LAT 39 55 45N LONG 075 32 00W)									
OCT 1992 22...	10	<1	59	<0.5	<1.0	<5	<3	<10	36	<10
01478120	EAST BRANCH WHITE CLAY CREEK AT AVONDALE, PA. (LAT 39 49 42N LONG 075 46 52W)									
NOV 1992 16...	<10	--	--	--	--	--	--	--	31	--
01478190	MIDDLE BRANCH WHITE CLAY CREEK AT WICKERTON, PA. (LAT 39 47 44N LONG 075 49 27W)									
NOV 1992 12...	<10	--	--	--	--	--	--	--	60	--
01478220	WEST BRANCH WHITE CLAY CREEK NEAR CHESTERTOWN, PA. (LAT 39 45 56N LONG 075 47 47W)									
NOV 1992 16...	<10	--	--	--	--	--	--	--	66	--
01479680	WEST BRANCH RED CLAY CREEK AT KENNETT SQUARE, PA. (LAT 39 50 13N LONG 075 43 33W)									
OCT 1992 27...	20	<1	41	<0.5	<1.0	<5	<3	<10	23	<10
01479800	EAST BRANCH RED CLAY CREEK NEAR FIVE POINT, PA. (LAT 39 49 11N LONG 075 41 29W)									
OCT 1992 27...	20	<1	51	<0.5	<1.0	<5	<3	10	49	<10

ANALYSIS OF SURFACE-WATER SAMPLES COLLECTED AT PARTIAL-RECORD STATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	MANGA- NESE, DIS- SOLVED (μ G/L AS MN) (01056)	MOLYB- DENUM, DIS- SOLVED (μ G/L AS MO) (01060)	STRON- TIUM, DIS- SOLVED (μ G/L AS SR) (01080)	VANA- DIUM, DIS- SOLVED (μ G/L AS V) (01085)	LITHIUM DIS- SOLVED (μ G/L AS LI) (01130)	MERCURY DIS- SOLVED (μ G/L AS HG) (71890)	NICKEL, DIS- SOLVED (μ G/L AS NI) (01065)	SILVER, DIS- SOLVED (μ G/L AS AG) (01075)	ZINC, DIS- SOLVED (μ G/L AS ZN) (01090)
01475840	CRUM CREEK AT WHITEHORSE, PA. (LAT 39 59 54N LONG 075 27 38W)								
OCT 1992 21...	6	--	--	--	--	--	--	--	--
01476430	RIDLEY CREEK AT GOSHENVILLE, PA. (LAT 39 59 28N LONG 075 32 40W)								
OCT 1992 20...	21	--	--	--	--	--	--	--	--
01476435	RIDLEY CREEK AT DUTTON MILL NEAR WEST CHESTER, PA. (LAT 39 58 52N LONG 075 31 02W)								
OCT 1992 20...	26	--	--	--	--	--	--	--	--
01476790	EAST BRANCH CHESTER CREEK AT GREEN HILL, PA. (LAT 39 59 49N LONG 075 35 40W)								
OCT 1992 22...	17	--	--	--	--	--	--	--	--
01476830	EAST BRANCH CHESTER CREEK AT MILLTOWN, PA. (LAT 39 58 21N LONG 075 32 57W)								
OCT 1992 23...	13	--	--	--	--	--	--	--	--
01476835	EAST BRANCH CHESTER CREEK AT WESTTOWN, PA. (LAT 39 56 26N LONG 075 32 30W)								
OCT 1992 22...	47	<10	150	<6	<4	<0.1	<10	<1.0	8
0147684	GOOSE CREEK TRIB TO EAST BR CHESTER CR NEAR WEST CHESTER, PA. (LAT 39 56 04N LONG 075 33 31W)								
OCT 1992 23...	26	<10	170	<6	41	<0.1	<10	<1.0	38
01476848	EAST BRANCH CHESTER CR BELOW GOOSE CR NEAR WEST CHESTER, PA. (LAT 39 55 45N LONG 075 32 00W)								
OCT 1992 22...	10	<10	130	<6	<4	<0.1	<10	<1.0	5
01478120	EAST BRANCH WHITE CLAY CREEK AT AVONDALE, PA. (LAT 39 49 42N LONG 075 46 52W)								
NOV 1992 16...	16	--	--	--	--	--	--	--	--
01478190	MIDDLE BRANCH WHITE CLAY CREEK AT WICKERTON, PA. (LAT 39 47 44N LONG 075 49 27W)								
NOV 1992 12...	20	--	--	--	--	--	--	--	--
01478220	WEST BRANCH WHITE CLAY CREEK NEAR CHESTERTOWN, PA. (LAT 39 45 56N LONG 075 47 47W)								
NOV 1992 16...	27	--	--	--	--	--	--	--	--
01479680	WEST BRANCH RED CLAY CREEK AT KENNETT SQUARE, PA. (LAT 39 50 13N LONG 075 43 33W)								
OCT 1992 27...	25	<10	99	<6	<4	<0.1	<10	<1.0	5
01479800	EAST BRANCH RED CLAY CREEK NEAR FIVE POINT, PA. (LAT 39 49 11N LONG 075 41 29W)								
OCT 1992 27...	17	<10	170	<6	24	<0.1	<10	<1.0	23

ANALYSIS OF SURFACE-WATER SAMPLES COLLECTED AT PARTIAL-RECORD STATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	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 AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	TUR- BID- ITY (NTU) (00076)	OXYGEN, DIS- SOLVED (MG/L) (00300)	HARD- NESS TOTAL (MG/L AS CACO ₃) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)
01480434 WEST BRANCH BRANDYWINE CREEK AT ROCK RUN, PA. (LAT 39 59 36N LONG 075 49 41W)										
OCT 1992 30...	1100	19	234	7.2	12.5	10.5	0.90	11.8	85	21
01480629 BUCK RUN AT DOE RUN, PA. (LAT 39 55 46N LONG 075 49 24W)										
OCT 1992 16...	1240	13	250	7.1	20.0	14.0	0.80	11.1	90	23
01480632 DOE RUN AT SPRINGDELL, PA. (LAT 39 54 25N LONG 075 49 42W)										
OCT 1992 16...	0900	6.4	159	7.2	13.5	13.0	0.70	10.8	53	13
01480640 WEST BRANCH BRANDYWINE CREEK AT WAWASET, PA. (LAT 39 55 34N LONG 075 39 47W)										
OCT 1992 29...	0915	56	270	7.8	13.0	9.0	0.90	11.3	89	22
01480648 EAST BRANCH BRANDYWINE CREEK NEAR CUPOLA, PA. (LAT 40 05 41N LONG 075 51 14W)										
OCT 1992 26...	1200	2.7	204	7.0	10.0	9.0	2.4	11.5	75	19
01480653 EAST BRANCH BRANDYWINE CREEK AT GLENMOORE, PA. (LAT 40 05 48N LONG 075 46 44W)										
NOV 1992 17...	1230	13	180	7.5	12.5	5.5	2.7	13.5	69	18
01480656 INDIAN RUN NEAR SPRINGTON, PA. (LAT 40 04 33N LONG 075 46 52W)										
OCT 1992 26...	0845	1.7	202	6.7	9.5	7.0	0.60	11.6	74	21
01480903 VALLEY CREEK AT MULLSTEINS MEADOWS NEAR DOWNINGTOWN, PA. (LAT 39 58 31N LONG 075 39 48W)										
NOV 1992 17...	0915	7.4	329	7.9	6.5	4.5	0.70	14.5	130	34
01480950 EAST BRANCH BRANDYWINE CREEK AT WAWASET, PA. (LAT 39 55 35N LONG 075 38 54W)										
OCT 1992 29...	1300	46	350	7.6	13.0	11.5	0.90	11.6	110	27
01481030 BRANDYWINE CREEK NEAR CHADDS FORD, PA. (LAT 39 51 15N LONG 075 35 58W)										
OCT 1992 27...	1345	135	290	8.4	15.5	10.5	0.80	13.9	98	24
01494900 EAST BRANCH BIG ELK CREEK AT ELKVIEW, PA. (LAT 39 48 45N LONG 075 54 04W)										
NOV 1992 10...	1200	5.7	170	7.6	11.5	7.0	1.7	12.8	51	11
01494950 WEST BRANCH BIG ELK CREEK NEAR OXFORD, PA. (LAT 39 46 45N LONG 075 55 27W)										
NOV 1992 10...	0945	5.7	210	7.4	9.0	6.5	0.60	13.2	60	13

ANALYSIS OF SURFACE-WATER SAMPLES COLLECTED AT PARTIAL-RECORD STATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	SODIUM PERCENT (00932)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- LINITY WAT WH TOT IT FIELD (MG/L AS CACO3) (00419)	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)
01480434	WEST BRANCH BRANDYWINE CREEK AT ROCK RUN, PA. (LAT 39 59 36N LONG 075 49 41W)									
OCT 1992 30...	7.8	9.5	0.4	19	3.4	58	19	17	<0.10	14
01480629	BUCK RUN AT DOE RUN, PA. (LAT 39 55 46N LONG 075 49 24W)									
OCT 1992 16...	7.8	9.1	0.4	17	3.1	47	19	17	0.10	9.1
01480632	DOE RUN AT SPRINGDELL, PA. (LAT 39 54 25N LONG 075 49 42W)									
OCT 1992 16...	5.0	5.4	0.3	17	2.2	71	8.7	11	<0.10	10
01480640	WEST BRANCH BRANDYWINE CREEK AT WAWASET, PA. (LAT 39 55 34N LONG 075 39 47W)									
OCT 1992 29...	8.3	12	0.6	22	3.6	59	22	21	0.30	8.4
01480648	EAST BRANCH BRANDYWINE CREEK NEAR CUPOLA, PA. (LAT 40 05 41N LONG 075 51 14W)									
OCT 1992 26...	6.6	7.6	0.4	17	3.0	47	16	14	0.10	15
01480653	EAST BRANCH BRANDYWINE CREEK AT GLENMOORE, PA. (LAT 40 05 48N LONG 075 46 44W)									
NOV 1992 17...	5.9	7.4	0.4	18	2.7	36	16	13	0.10	15
01480656	INDIAN RUN NEAR SPRINGTON, PA. (LAT 40 04 33N LONG 075 46 52W)									
OCT 1992 26...	5.2	10	0.5	22	1.9	60	8.8	12	0.10	26
01480903	VALLEY CREEK AT MULLSTEINS MEADOWS NEAR DOWNINGTOWN, PA. (LAT 39 58 31N LONG 075 39 48W)									
NOV 1992 17...	12	13	0.5	17	1.7	82	27	25	<0.10	6.6
01480950	EAST BRANCH BRANDYWINE CREEK AT WAWASET, PA. (LAT 39 55 35N LONG 075 38 54W)									
OCT 1992 29...	10	19	0.8	27	4.1	76	24	33	0.20	10
01481030	BRANDYWINE CREEK NEAR CHADDS FORD, PA. (LAT 39 51 15N LONG 075 35 58W)									
OCT 1992 27...	9.2	15	0.7	24	3.7	59	23	23	0.20	9.3
01494900	EAST BRANCH BIG ELK CREEK AT ELKVIEW, PA. (LAT 39 48 45N LONG 075 54 04W)									
NOV 1992 10...	5.7	8.2	0.5	25	3.0	22	7.8	14	<0.10	13
01494950	WEST BRANCH BIG ELK CREEK NEAR OXFORD, PA. (LAT 39 46 45N LONG 075 55 27W)									
NOV 1992 10...	6.7	12	0.7	29	3.6	18	12	22	0.10	12

ANALYSIS OF SURFACE-WATER SAMPLES COLLECTED AT PARTIAL-RECORD STATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L) AS N) (00618)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L) AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L) AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L) AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC DIS- SOLVED (MG/L) AS N) (00623)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L) AS N) (00625)	PHOS- PHORUS TOTAL (MG/L) AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L) AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L) AS P) (00671)
01480434	WEST BRANCH BRANDYWINE CREEK AT ROCK RUN, PA. (LAT 39 59 36N LONG 075 49 41W)									
OCT 1992 30...	141	3.29	0.010	3.30	0.020	0.20	<0.20	0.030	0.030	0.020
01480629	BUCK RUN AT DOE RUN, PA. (LAT 39 55 46N LONG 075 49 24W)									
OCT 1992 16...	139	5.09	0.010	5.10	0.020	0.30	0.30	0.060	0.050	0.040
01480632	DOE RUN AT SPRINGDELL, PA. (LAT 39 54 25N LONG 075 49 42W)									
OCT 1992 16...	118	--	<0.010	4.40	0.020	0.30	<0.20	0.030	0.030	0.020
01480640	WEST BRANCH BRANDYWINE CREEK AT WAWASET, PA. (LAT 39 55 34N LONG 075 39 47W)									
OCT 1992 29...	149	3.58	0.020	3.60	<0.010	0.20	0.20	0.110	0.090	0.070
01480648	EAST BRANCH BRANDYWINE CREEK NEAR CUPOLA, PA. (LAT 40 05 41N LONG 075 51 14W)									
OCT 1992 26...	124	3.18	0.020	3.20	0.020	0.60	0.60	0.050	0.020	0.010
01480653	EAST BRANCH BRANDYWINE CREEK AT GLENMOORE, PA. (LAT 40 05 48N LONG 075 46 44W)									
NOV 1992 17...	114	3.26	0.040	3.30	0.010	0.30	0.30	0.040	0.020	<0.010
01480656	INDIAN RUN NEAR SPRINGTON, PA. (LAT 40 04 33N LONG 075 46 52W)									
OCT 1992 26...	134	2.98	0.020	3.00	<0.010	<0.20	0.30	0.040	0.030	0.020
01480903	VALLEY CREEK AT MULLSTEINS MEADOWS NEAR DOWNINGTOWN, PA. (LAT 39 58 31N LONG 075 39 48W)									
NOV 1992 17...	179	2.36	0.040	2.40	0.040	<0.20	<0.20	0.020	<0.010	<0.010
01480950	EAST BRANCH BRANDYWINE CREEK AT WAWASET, PA. (LAT 39 55 35N LONG 075 38 54W)									
OCT 1992 29...	190	3.57	0.030	3.60	0.090	0.60	0.70	0.320	0.250	0.240
01481030	BRANDYWINE CREEK NEAR CHADDS FORD, PA. (LAT 39 51 15N LONG 075 35 58W)									
OCT 1992 27...	156	2.88	0.020	2.90	<0.010	0.20	0.30	0.110	0.090	0.080
01494900	EAST BRANCH BIG ELK CREEK AT ELKVIEW, PA. (LAT 39 48 45N LONG 075 54 04W)									
NOV 1992 10...	101	5.47	0.030	5.50	<0.010	0.30	0.20	0.100	0.080	0.080
01494950	WEST BRANCH BIG ELK CREEK NEAR OXFORD, PA. (LAT 39 46 45N LONG 075 55 27W)									
NOV 1992 10...	119	5.96	0.040	6.00	<0.010	0.30	0.20	0.140	0.130	0.130

ANALYSIS OF SURFACE-WATER SAMPLES COLLECTED AT PARTIAL-RECORD STATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	ALUM- INUM, DIS- SOLVED (μ G/L AS AL) (01106)	ARSENIC DIS- SOLVED (μ G/L AS AS) (01000)	BARIUM, DIS- SOLVED (μ G/L AS BA) (01005)	BERYL- LIUM, DIS- SOLVED (μ G/L AS BE) (01010)	CADMIUM DIS- SOLVED (μ G/L AS CD) (01025)	CHRO- MIUM, DIS- SOLVED (μ G/L AS CR) (01030)	COBALT, DIS- SOLVED (μ G/L AS CO) (01035)	COPPER, DIS- SOLVED (μ G/L AS CU) (01040)	IRON, DIS- SOLVED (μ G/L AS FE) (01046)	LEAD, DIS- SOLVED (μ G/L AS PB) (01049)
01480434	WEST BRANCH BRANDYWINE CREEK AT ROCK RUN, PA. (LAT 39 59 36N LONG 075 49 41W)									
OCT 1992 30...	10	--	--	--	--	--	--	--	64	--
01480629	BUCK RUN AT DOE RUN, PA. (LAT 39 55 46N LONG 075 49 24W)									
OCT 1992 16...	20	--	--	--	--	--	--	--	74	--
01480632	DOE RUN AT SPRINGDELL, PA. (LAT 39 54 25N LONG 075 49 42W)									
OCT 1992 16...	30	--	--	--	--	--	--	--	35	--
01480640	WEST BRANCH BRANDYWINE CREEK AT WAWASET, PA. (LAT 39 55 34N LONG 075 39 47W)									
OCT 1992 29...	20	<1	27	<0.5	<1.0	<5	<3	<10	57	<10
01480648	EAST BRANCH BRANDYWINE CREEK NEAR CUPOLA, PA. (LAT 40 05 41N LONG 075 51 14W)									
OCT 1992 26...	30	--	--	--	--	--	--	--	66	--
01480653	EAST BRANCH BRANDYWINE CREEK AT GLENMOORE, PA. (LAT 40 05 48N LONG 075 46 44W)									
NOV 1992 17...	<10	--	--	--	--	--	--	--	77	--
01480656	INDIAN RUN NEAR SPRINGTON, PA. (LAT 40 04 33N LONG 075 46 52W)									
OCT 1992 26...	20	--	--	--	--	--	--	--	36	--
01480903	VALLEY CREEK AT MULLSTEINS MEADOWS NEAR DOWNINGTOWN, PA. (LAT 39 58 31N LONG 075 39 48W)									
NOV 1992 17...	<10	--	18	<0.5	1.0	<5	<3	<10	20	<10
01480950	EAST BRANCH BRANDYWINE CREEK AT WAWASET, PA. (LAT 39 55 35N LONG 075 38 54W)									
OCT 1992 29...	20	<1	33	<0.5	<1.0	<5	<3	<10	50	<10
01481030	BRANDYWINE CREEK NEAR CHADDS FORD, PA. (LAT 39 51 15N LONG 075 35 58W)									
OCT 1992 27...	<10	--	--	--	--	--	--	--	66	--
01494900	EAST BRANCH BIG ELK CREEK AT ELKVIEW, PA. (LAT 39 48 45N LONG 075 54 04W)									
NOV 1992 10...	<10	<1	22	0.6	<1.0	<5	<3	<10	50	<10
01494950	WEST BRANCH BIG ELK CREEK NEAR OXFORD, PA. (LAT 39 46 45N LONG 075 55 27W)									
NOV 1992 10...	<10	<1	29	<0.5	<1.0	<5	<3	<10	60	<10

ANALYSIS OF SURFACE-WATER SAMPLES COLLECTED AT PARTIAL-RECORD STATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	MANGA- NESE, DIS- SOLVED (μ G/L AS MN) (01056)	MOLYB- DENUM, DIS- SOLVED (μ G/L AS MO) (01060)	STRON- TIUM, DIS- SOLVED (μ G/L AS SR) (01080)	VANA- DIUM, DIS- SOLVED (μ G/L AS V) (01085)	LITHIUM DIS- SOLVED (μ G/L AS LI) (01130)	MERCURY DIS- SOLVED (μ G/L AS HG) (71890)	NICKEL, DIS- SOLVED (μ G/L AS NI) (01065)	SILVER, DIS- SOLVED (μ G/L AS AG) (01075)	ZINC, DIS- SOLVED (μ G/L AS ZN) (01090)
01480434	WEST BRANCH BRANDYWINE CREEK AT ROCK RUN, PA. (LAT 39 59 36N LONG 075 49 41W)								
OCT 1992 30...	20	--	--	--	--	--	--	--	--
01480629	BUCK RUN AT DOE RUN, PA. (LAT 39 55 46N LONG 075 49 24W)								
OCT 1992 16...	30	--	--	--	--	--	--	--	--
01480632	DOE RUN AT SPRINGDELL, PA. (LAT 39 54 25N LONG 075 49 42W)								
OCT 1992 16...	10	--	--	--	--	--	--	--	--
01480640	WEST BRANCH BRANDYWINE CREEK AT WAWASET, PA. (LAT 39 55 34N LONG 075 39 47W)								
OCT 1992 29...	14	10	100	<6	<4	<0.1	<10	<1.0	7
01480648	EAST BRANCH BRANDYWINE CREEK NEAR CUPOLA, PA. (LAT 40 05 41N LONG 075 51 14W)								
OCT 1992 26...	26	--	--	--	--	--	--	--	--
01480653	EAST BRANCH BRANDYWINE CREEK AT GLENMOORE, PA. (LAT 40 05 48N LONG 075 46 44W)								
NOV 1992 17...	18	--	--	--	--	--	--	--	--
01480656	INDIAN RUN NEAR SPRINGTON, PA. (LAT 40 04 33N LONG 075 46 52W)								
OCT 1992 26...	3	--	--	--	--	--	--	--	--
01480903	VALLEY CREEK AT MULLSTEINS MEADOWS NEAR DOWNINGTOWN, PA. (LAT 39 58 31N LONG 075 39 48W)								
NOV 1992 17...	8	<10	110	<6	4	--	<10	1.0	<3
01480950	EAST BRANCH BRANDYWINE CREEK AT WAWASET, PA. (LAT 39 55 35N LONG 075 38 54W)								
OCT 1992 29...	20	<10	120	<6	4	<0.1	<10	<1.0	10
01481030	BRANDYWINE CREEK NEAR CHADDS FORD, PA. (LAT 39 51 15N LONG 075 35 58W)								
OCT 1992 27...	16	--	--	--	--	--	--	--	--
01494900	EAST BRANCH BIG ELK CREEK AT ELKVIEW, PA. (LAT 39 48 45N LONG 075 54 04W)								
NOV 1992 10...	25	<10	80	<6	<4	<0.1	<10	<1.0	5
01494950	WEST BRANCH BIG ELK CREEK NEAR OXFORD, PA. (LAT 39 46 45N LONG 075 55 27W)								
NOV 1992 10...	22	<10	110	<6	<4	<0.1	<10	<1.0	5

WATER RESOURCES DATA - PENNSYLVANIA, 1993

SPECIAL NOTES, REMARK CODES, AND SELECTED CONSTITUENT DEFINITIONS

NOTES--Historical and current dissolved trace-element concentrations are reported herein for water that was collected, processed, and analyzed by using either ultraclean or other than ultraclean techniques. If ultraclean techniques were used, then those concentrations are reported in nanograms per liter. If other than ultraclean techniques were used, then those concentrations are reported in micrograms per liter and could reflect contamination introduced during some phase of the procedure.

--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:

$$MBASCOR = M - 0.0088N - 0.00019C$$

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.

WATER RESOURCES DATA - PENNSYLVANIA, 1993

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

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

COL. PER 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/SQ M	Grams per square meter.
IT	Incremental titration.
μ G/L	Micrograms per liter.
μ S/CM	Microsiemens per centimeter.
MG/L	Milligrams per liter.
MG/M2	Milligrams per square meter.
PCI/L	Picocuries per liter.
REC	Recoverable.
TOT	Total
WH IT	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.
0.7 μ GF	Water filtered through a glass-fiber membrane filter with openings that are 0.7 microns in size.

GROUND-WATER-LEVEL STATION RECORDS

BERKS COUNTY

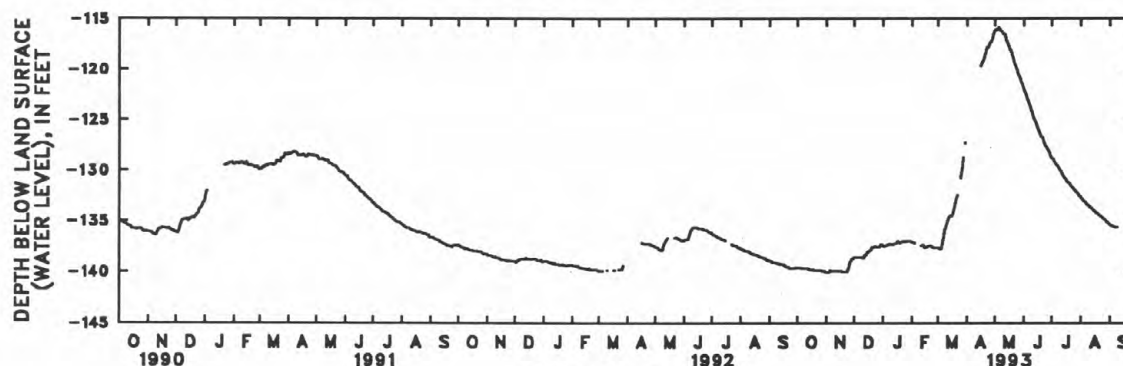
402615075530501. Local number, BE 623.

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.**DATUM.**--Elevation of land-surface datum is 430 ft above sea level. Measuring point: Top of plywood shelf, 1.71 ft above land-surface datum. Prior to Apr. 30, 1981, top of casing, 1.30 ft above land-surface datum.**PERIOD OF RECORD.**--January 1975 to current year.**EXTREMES FOR PERIOD OF RECORD.**--Highest water level, 113.55 ft below land-surface datum, June 6, 1984; lowest, 140.82 ft below land-surface datum, Dec. 23, 1981.DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	139.58	140.04	138.58	137.48	137.13	137.64	---	116.13	122.00	128.78	132.62	135.39
2	139.57	140.04	138.59	137.49	137.14	137.67	---	116.09	122.16	128.84	132.77	135.42
3	139.57	140.04	138.59	137.50	137.12	137.80	---	116.12	122.38	128.94	132.88	135.50
4	139.61	140.04	138.59	137.42	137.18	137.80	---	116.02	122.68	129.13	133.00	135.49
5	139.66	139.89	138.60	137.41	---	137.60	---	115.90	122.93	129.27	133.09	135.55
6	139.66	139.91	138.60	137.40	---	137.06	---	115.97	123.23	129.46	133.15	135.57
7	139.65	139.91	138.61	137.33	---	136.51	---	116.18	123.43	129.55	133.33	135.64
8	139.64	139.91	138.61	137.28	---	135.92	---	116.27	123.73	129.70	133.40	135.65
9	139.67	139.91	138.61	137.32	---	135.60	---	116.35	123.95	129.85	133.48	135.63
10	139.69	139.91	138.62	137.34	---	135.36	---	116.49	124.31	130.01	133.55	---
11	139.68	139.91	138.62	137.34	137.43	134.93	---	116.49	124.69	130.13	133.65	---
12	139.68	139.90	138.36	137.32	137.41	134.88	---	116.66	124.90	130.34	133.73	---
13	139.73	139.90	138.37	137.27	137.40	134.62	---	117.07	125.10	130.54	133.81	---
14	139.80	139.90	138.37	137.18	137.61	134.46	---	117.31	125.30	130.61	133.91	---
15	139.78	139.92	138.09	137.18	137.65	134.51	---	117.53	125.62	130.76	133.99	---
16	139.80	139.92	138.09	137.16	137.61	134.48	119.66	117.82	125.88	130.90	134.04	---
17	139.80	139.92	137.97	137.03	137.60	134.24	119.27	118.10	126.08	131.08	134.14	---
18	139.80	139.97	137.88	137.14	137.49	133.98	119.23	118.18	126.26	131.17	134.25	---
19	139.84	139.99	137.88	137.20	137.44	133.46	118.90	118.48	126.55	131.17	134.29	---
20	139.85	140.01	137.61	137.12	137.45	133.06	118.58	118.82	126.71	131.32	134.34	---
21	139.87	140.01	137.61	137.08	137.45	132.62	118.30	119.13	126.75	131.48	134.49	---
22	139.89	140.01	137.59	137.00	137.49	132.44	117.85	119.43	127.08	131.56	134.51	136.19
23	139.89	140.01	137.50	137.00	137.59	---	117.85	119.60	127.37	131.69	134.57	---
24	139.89	139.85	137.60	137.00	137.64	---	117.87	119.82	127.54	131.77	134.65	---
25	139.89	139.51	137.60	137.05	137.65	130.76	117.59	120.19	127.65	131.91	134.76	---
26	139.89	139.09	137.55	137.04	137.63	130.40	117.30	120.43	127.84	131.92	134.83	---
27	139.94	139.00	137.55	137.00	137.63	129.63	117.30	120.69	127.95	132.07	134.89	---
28	139.92	138.77	137.55	136.98	137.64	128.74	117.10	120.83	128.15	132.18	135.02	---
29	139.94	138.70	137.48	---	---	---	116.65	121.33	128.36	132.29	135.11	---
30	139.94	138.70	137.34	---	---	127.33	116.29	121.41	128.58	132.46	135.17	135.30
31	140.02	---	137.33	137.00	---	---	---	121.58	---	132.57	135.26	---
MEAN	139.78	139.75	138.06	137.21	137.47	134.20	117.98	118.14	125.51	130.76	134.02	135.58
MAX	140.02	140.04	138.62	137.50	137.65	137.80	119.66	121.58	128.58	132.57	135.26	136.19
MIN	139.57	138.70	137.33	136.98	137.12	127.33	116.29	115.90	122.00	128.78	132.62	135.30

WTR YR 1993: HIGHEST 115.90, MAY 5; LOWEST 140.04, NOVEMBER 1-4.

Gap indicates missing record.

3 YEAR HYDROGRAPH
OCTOBER 1, 1990 TO SEPTEMBER 30, 1993

BUCKS COUNTY

402643075150501. Local number, BK 929.

LOCATION.--Lat 40°26'43", long 75°15'05", Hydrologic Unit 02040105, at Nockamixon State Park.

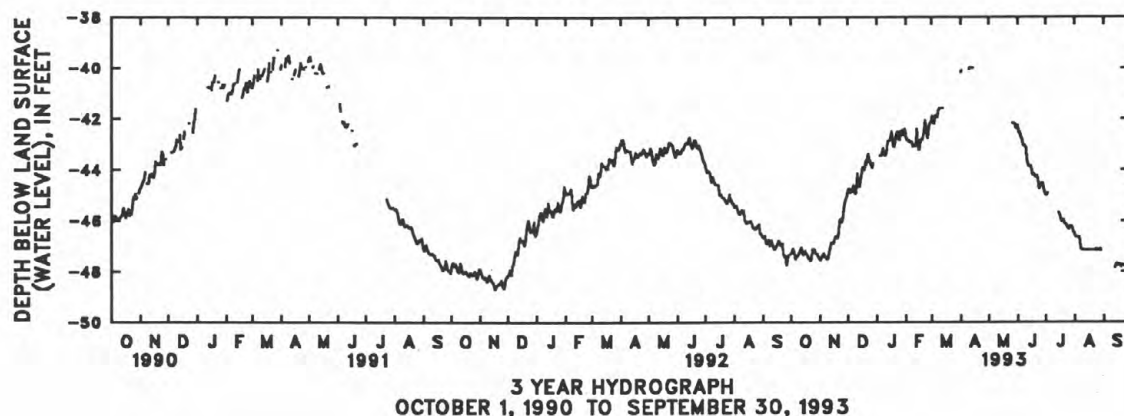
Owner: U.S. Geological Survey.

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, 3.00 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.**PERIOD OF RECORD.**--November 1967 to current year.**EXTREMES FOR PERIOD OF RECORD.**--Highest water level, 39.13 ft below land-surface datum, March 28, 1991; lowest, 59.75 ft below land-surface datum, Nov. 26, 1968.DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	47.27	47.55	44.81	---	42.62	42.04	40.17	---	42.26	44.98	46.47	---
2	47.18	47.55	44.72	---	42.83	41.88	40.10	---	42.52	44.98	46.62	---
3	47.09	47.39	44.90	---	42.77	42.21	---	---	42.52	44.90	46.63	---
4	47.19	47.37	44.91	---	42.88	42.19	---	---	42.64	---	46.63	---
5	47.39	47.26	44.75	43.44	42.83	41.86	---	---	42.71	---	46.63	---
6	47.50	47.39	44.82	43.45	42.93	41.94	---	---	42.84	---	46.63	---
7	47.42	47.44	44.61	43.36	42.93	41.94	---	---	43.03	---	47.01	---
8	47.38	47.45	44.85	43.16	42.90	41.70	---	---	43.06	---	47.12	---
9	47.30	47.51	44.93	43.41	43.10	41.59	---	---	43.07	---	47.13	---
10	47.21	47.45	44.87	43.45	43.03	41.59	40.04	---	43.17	---	---	---
11	47.12	47.22	44.16	43.41	43.08	41.59	39.97	---	43.61	---	---	---
12	47.02	47.03	44.46	43.19	43.06	41.60	39.97	---	43.80	---	---	---
13	47.21	46.84	44.64	42.88	42.41	41.60	39.98	---	43.87	---	---	47.83
14	47.33	46.89	44.63	42.86	42.99	---	39.98	---	43.84	---	---	47.77
15	47.24	46.84	44.37	42.86	43.22	---	---	---	43.84	45.67	---	47.66
16	47.15	46.88	44.11	42.68	43.20	---	---	---	44.04	45.75	---	47.74
17	47.27	46.68	43.90	42.50	42.85	---	---	---	44.20	45.86	---	47.74
18	47.32	46.61	44.01	42.96	42.81	---	---	---	44.14	46.03	---	47.68
19	47.39	46.64	44.00	43.10	42.82	---	---	---	44.20	46.03	---	47.73
20	47.49	46.67	43.64	43.10	42.65	---	---	---	44.27	45.94	47.13	47.81
21	47.45	46.48	43.78	42.91	42.53	---	---	---	44.26	46.04	47.14	47.71
22	47.56	46.02	43.48	42.61	42.07	---	---	---	44.23	46.11	47.14	47.73
23	47.48	45.91	43.39	42.49	42.27	---	---	---	44.52	46.12	47.13	47.73
24	47.11	46.04	43.69	42.49	42.62	---	---	---	44.73	46.22	47.09	47.79
25	47.14	45.96	43.65	42.82	42.74	---	---	---	44.67	46.28	47.13	47.80
26	47.12	45.73	43.79	42.82	42.31	---	---	---	44.57	46.32	47.13	47.69
27	47.26	45.34	43.91	42.51	42.19	---	---	42.18	44.51	46.19	47.12	47.59
28	47.27	45.24	43.74	42.44	42.14	---	---	42.18	44.53	46.24	47.07	47.58
29	47.27	45.13	---	42.66	---	---	---	42.23	44.67	46.19	47.15	47.58
30	47.42	45.00	---	42.66	---	---	---	42.37	44.84	46.33	---	47.56
31	47.46	---	---	42.39	---	---	---	42.28	---	46.46	---	---
MEAN	47.29	46.65	44.27	42.91	42.74	41.83	40.03	42.25	43.77	45.93	46.95	47.71
MAX	47.56	47.55	44.93	43.45	43.22	42.21	40.17	42.37	44.84	46.46	47.15	47.83
MIN	47.02	45.00	43.39	42.39	42.07	41.59	39.97	42.18	42.26	44.90	46.47	47.56

WTR YR 1993: HIGHEST 39.97, APRIL 11, 12; LOWEST 47.83, SEPTEMBER 13.

Gap Indicates missing record.



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.

DATUM.--Elevation of land-surface datum is 370 ft above sea level. Measuring point: Top of plywood shelf, 1.92 ft above land-surface datum.

REMARKS.--Operated by Bucks County Planning Commission September 1975 to March 1988.

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

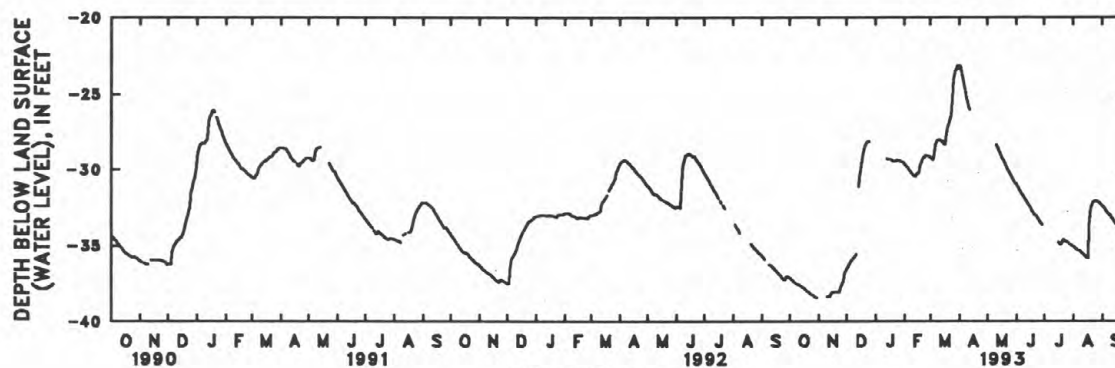
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 23.12 ft below land-surface datum, Mar. 30, Apr. 2, 1993; lowest, 41.36 ft below land-surface datum, September 26, 1985.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	37.14	---	36.49	---	29.60	29.18	23.34	---	30.98	---	35.07	32.38
2	37.18	---	36.38	---	29.68	29.22	23.12	---	31.07	---	35.11	32.44
3	37.24	---	36.27	---	29.74	29.32	23.36	---	31.18	---	35.15	32.52
4	37.30	---	36.20	---	29.83	29.34	23.66	---	31.28	---	35.21	32.58
5	37.36	---	36.08	---	29.88	29.00	23.98	---	31.38	---	35.26	32.68
6	37.40	---	36.00	---	29.98	28.49	24.34	---	31.50	---	35.29	32.76
7	37.46	---	35.90	---	30.06	28.22	24.68	---	31.60	---	35.29	32.86
8	37.52	---	35.82	---	30.14	28.09	25.02	---	31.70	---	35.35	32.92
9	37.54	---	35.76	---	30.23	28.01	25.30	---	31.80	---	35.40	32.98
10	37.54	38.32	35.69	---	30.34	27.99	25.52	---	31.90	---	35.47	33.02
11	37.58	38.34	35.56	---	30.42	28.02	25.80	28.36	32.02	---	35.51	33.12
12	37.61	38.34	---	---	30.45	28.08	26.00	28.50	32.12	---	35.57	33.20
13	37.66	38.34	---	---	30.45	28.08	---	28.64	32.22	---	35.63	33.29
14	37.72	38.14	31.12	29.30	30.25	28.12	---	28.80	32.32	---	35.69	33.39
15	37.76	38.10	30.52	29.31	30.28	28.26	---	28.96	32.42	---	35.75	33.48
16	37.80	38.07	30.04	29.31	30.28	28.32	---	29.10	32.54	34.76	35.81	33.58
17	37.86	38.06	29.69	29.31	30.08	28.32	---	29.26	32.64	34.84	35.81	33.64
18	37.90	38.06	29.20	29.34	29.74	27.89	---	29.38	32.74	34.92	33.70	33.71
19	37.96	38.06	28.84	29.40	29.53	27.38	---	29.50	32.84	34.94	32.93	33.79
20	38.00	38.06	28.57	29.43	29.41	27.14	---	29.64	32.95	34.75	32.53	33.87
21	38.06	38.06	28.38	29.45	29.33	26.95	---	29.76	32.98	34.58	32.31	33.89
22	38.10	38.06	28.25	29.45	29.14	26.68	---	29.90	33.02	34.60	32.17	33.91
23	38.16	38.06	28.16	29.39	29.19	26.46	---	30.02	33.06	34.66	32.09	33.95
24	38.20	37.76	28.12	29.34	29.04	25.96	---	30.13	33.16	34.70	32.05	34.03
25	38.24	37.62	28.14	29.39	29.08	24.67	---	30.26	33.26	34.74	32.04	34.11
26	38.28	37.51	---	29.41	29.08	23.98	---	30.37	33.38	34.78	32.04	34.11
27	38.34	37.33	---	29.41	29.10	23.56	---	30.50	33.48	34.80	32.08	33.95
28	38.39	36.94	---	29.42	29.12	23.40	---	30.60	33.52	34.87	32.12	33.69
29	38.44	36.76	---	29.49	---	23.40	---	30.74	33.62	34.91	32.18	33.47
30	38.45	36.62	---	29.50	---	23.12	---	30.84	---	34.97	32.24	33.43
31	---	---	---	29.51	---	23.30	---	30.92	---	35.01	32.30	---
MEAN	37.81	37.84	32.40	29.40	29.77	27.03	24.51	29.72	32.37	34.80	34.04	33.36
MAX	38.45	38.34	36.49	29.51	30.45	29.34	26.00	30.92	33.62	35.01	35.81	34.11
MIN	37.14	36.62	28.12	29.30	29.04	23.12	23.12	28.36	30.98	34.58	32.04	32.38

WTR YR 1993: HIGHEST 23.12, MARCH 30, APRIL 2; LOWEST 38.45, OCTOBER 30.

Gap Indicates missing record.



3 YEAR HYDROGRAPH
OCTOBER 1, 1990 TO SEPTEMBER 30, 1993

CARBON COUNTY

410123075425401. Local number, CB 104.

LOCATION.--Lat 41°01'23", long 75°42'54", Hydrologic Unit 02040106, at Hickory Run State Park.

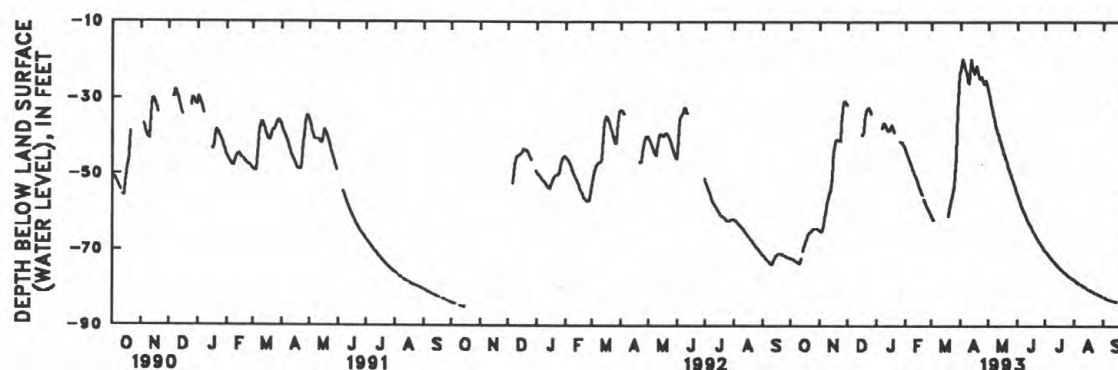
Owner: U.S. Geological Survey.

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.**DATUM.**--Elevation of land-surface datum is 1,305 ft above sea level. Measuring point: Top of plywood shelf, 3.12 ft above land-surface datum. Prior to May 28, 1980, top of casing, 3.00 ft above land-surface datum.**PERIOD OF RECORD.**--September 1969 to current year.**EXTREMES FOR PERIOD OF RECORD.**--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 1992 TO SEPTEMBER 1993
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	72.26	64.84	---	---	43.63	61.00	22.38	28.34	55.47	70.14	77.83	---
2	72.32	64.93	---	---	44.24	61.48	21.20	29.54	56.12	70.44	78.03	82.39
3	72.44	65.05	---	---	44.77	61.96	19.58	30.68	56.80	70.80	78.21	82.55
4	72.61	64.70	---	---	45.54	---	20.30	31.84	57.47	71.13	78.39	82.67
5	72.82	63.18	---	---	46.03	---	21.21	33.00	58.13	71.44	78.54	82.80
6	72.96	61.60	---	---	46.86	---	22.21	34.19	58.81	71.76	78.74	82.91
7	73.12	60.19	---	37.79	47.37	---	23.21	35.33	59.39	72.07	78.92	83.03
8	73.29	58.73	---	36.63	48.19	---	24.39	36.34	59.95	72.38	79.06	83.12
9	73.47	57.53	---	36.42	48.86	---	25.54	37.32	60.51	72.67	79.23	83.19
10	73.50	56.45	---	36.79	49.50	---	25.92	38.24	61.12	72.97	79.39	83.23
11	73.22	55.41	---	37.32	50.23	---	23.44	39.01	61.69	73.23	79.55	83.29
12	72.34	54.63	---	37.88	50.54	---	19.82	39.88	62.22	73.54	79.73	83.35
13	---	53.68	---	38.44	51.35	---	20.79	40.84	62.72	73.81	79.88	83.41
14	70.20	50.87	---	38.55	52.25	---	21.75	41.71	63.18	74.04	80.01	83.49
15	69.20	47.01	---	38.26	52.97	---	22.75	42.54	63.71	74.31	80.14	83.61
16	68.32	44.21	39.60	37.39	53.34	---	23.41	43.41	64.17	74.55	80.28	---
17	67.55	42.33	39.43	37.02	54.18	---	22.75	44.21	64.60	74.81	80.39	---
18	66.91	41.29	38.73	37.62	54.89	---	21.40	44.86	65.03	75.05	80.54	---
19	66.17	40.88	35.79	38.25	55.37	60.98	22.26	45.65	65.49	75.26	80.64	---
20	65.85	40.95	33.69	38.91	---	59.57	23.42	46.41	65.91	75.51	80.75	---
21	65.41	41.06	33.15	---	56.54	58.07	24.66	47.24	66.29	75.72	80.87	83.45
22	65.20	41.21	32.53	---	57.29	56.83	24.83	48.04	66.76	75.92	80.99	---
23	64.96	41.13	32.36	---	57.93	55.81	24.21	48.78	67.21	76.16	81.14	---
24	64.59	36.57	32.97	---	58.61	54.68	24.43	49.48	67.60	76.35	81.25	---
25	64.38	33.01	33.31	---	59.14	53.36	25.31	50.28	67.94	76.57	81.38	83.54
26	64.31	31.44	34.14	41.42	59.64	50.10	26.09	51.05	68.32	76.73	81.51	---
27	64.31	30.64	---	41.44	60.14	45.59	25.90	51.81	68.68	76.95	81.61	---
28	64.28	30.66	---	41.55	60.61	39.17	25.11	52.47	69.06	77.18	81.79	---
29	64.36	31.09	---	42.11	---	33.29	25.97	53.32	69.43	77.28	81.93	---
30	64.51	31.63	---	42.38	---	27.06	27.15	53.98	69.80	77.48	82.05	---
31	64.68	---	---	42.75	---	23.79	---	54.65	---	77.67	82.15	---
MEAN	68.65	47.90	35.06	38.95	52.22	50.17	23.38	42.72	63.45	74.32	80.16	83.13
MAX	73.50	65.05	39.60	42.75	60.61	61.96	27.15	54.65	69.80	77.67	82.15	83.61
MIN	64.28	30.64	32.36	36.42	43.63	23.79	19.58	28.34	55.47	70.14	77.83	82.39

WTR YR 1993: HIGHEST 19.58, APRIL 3; LOWEST 83.61, SEPTEMBER 15.

Gap Indicates missing record.

3 YEAR HYDROGRAPH
OCTOBER 1, 1990 TO SEPTEMBER 30, 1993

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.

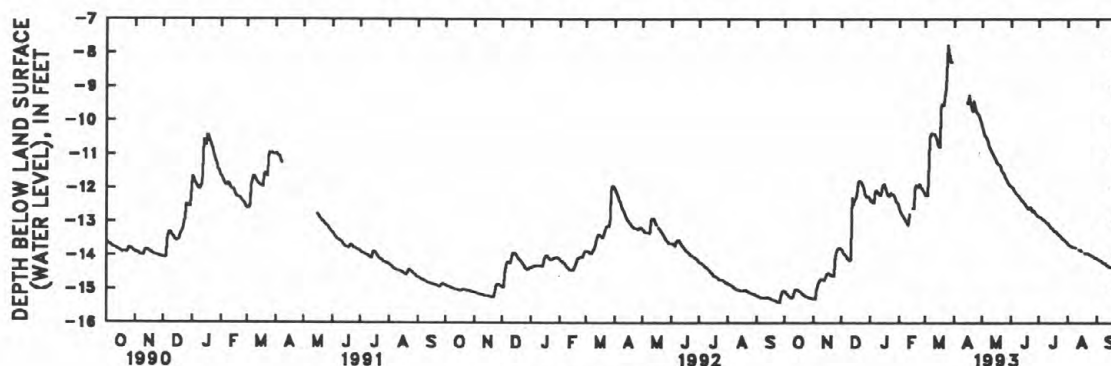
Owner: Robert J. Kieberg, Jr.

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.**DATUM.**--Elevation of land-surface datum is 300 ft above sea level. Measuring point: Top of plywood shelf, 5.23 ft above land-surface datum. Prior to June 24, 1981, top of casing, 1.00 ft above land-surface datum.**PERIOD OF RECORD.**--August 1951 to current year.**EXTREMES FOR PERIOD OF RECORD.**--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 1992 TO SEPTEMBER 1993
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15.07	15.29	13.81	12.33	12.58	12.18	---	10.17	11.95	12.85	13.64	14.10
2	15.09	15.30	13.85	12.38	12.66	12.22	---	10.27	11.97	12.86	13.68	14.12
3	15.12	15.30	13.93	12.41	12.70	12.22	---	10.36	11.99	12.86	13.70	14.14
4	15.15	15.09	13.95	12.43	12.76	12.22	---	10.43	12.03	12.88	13.72	14.14
5	15.18	14.93	13.99	12.43	12.80	11.20	---	10.46	12.08	12.92	13.73	14.16
6	15.21	14.86	14.01	12.24	12.87	10.50	---	10.51	12.13	12.94	13.75	14.18
7	15.23	14.79	14.05	12.09	12.90	10.41	---	10.60	12.16	12.96	13.75	14.20
8	15.25	14.74	14.09	12.06	12.95	10.37	---	10.69	12.19	12.98	13.76	14.22
9	15.26	14.71	14.13	12.11	13.00	10.38	---	10.76	12.21	13.01	13.77	14.23
10	15.23	14.71	14.15	12.16	13.05	10.39	---	10.83	12.25	13.03	---	14.24
11	15.11	14.73	14.11	12.20	13.10	10.40	---	10.88	12.29	13.06	---	14.26
12	15.05	14.74	12.85	12.21	12.77	10.49	---	10.94	12.33	13.09	---	14.28
13	15.01	14.73	12.29	12.17	---	10.49	---	10.98	12.37	13.14	13.84	14.30
14	15.01	14.65	12.48	11.96	---	10.64	---	11.05	12.39	13.17	13.82	14.32
15	15.01	14.57	12.37	11.91	---	10.74	9.47	11.12	12.42	13.18	13.85	14.34
16	15.04	14.53	12.32	11.88	12.60	10.77	9.50	11.18	12.46	13.20	13.87	14.34
17	15.07	14.51	12.30	11.95	12.60	10.77	9.26	11.25	12.50	13.24	---	14.34
18	15.09	14.53	12.05	12.06	12.06	9.64	9.42	11.29	12.54	13.28	---	14.34
19	15.11	14.56	11.84	12.14	11.92	9.53	9.54	11.29	12.57	13.29	13.92	14.33
20	15.13	14.59	11.78	12.19	11.93	9.56	9.65	11.33	12.61	13.30	13.94	14.34
21	15.15	14.60	11.80	12.24	11.95	9.54	9.73	11.39	12.61	13.33	13.94	---
22	15.18	14.61	11.82	12.24	11.97	9.32	9.42	11.47	12.56	13.36	13.93	---
23	15.20	14.61	11.85	12.15	11.88	9.06	9.57	11.52	12.61	13.39	13.95	14.36
24	15.21	14.17	11.97	12.16	11.92	8.62	9.66	11.56	12.69	13.42	13.96	---
25	15.21	13.95	11.99	12.18	11.98	7.77	9.75	11.62	12.66	13.46	13.98	---
26	15.23	13.85	12.14	12.20	12.02	7.96	9.80	11.69	12.68	13.49	14.00	---
27	15.25	13.80	12.21	12.22	12.08	8.10	9.80	11.74	12.72	13.50	14.02	---
28	15.26	13.79	12.25	12.29	12.14	8.23	9.88	11.78	12.76	13.53	14.03	---
29	15.27	13.77	12.28	12.40	---	8.27	9.96	11.85	12.79	13.55	14.04	14.07
30	15.28	13.79	12.28	12.43	---	---	10.07	11.89	12.82	13.58	14.07	14.07
31	15.29	---	12.26	12.45	---	---	---	11.92	---	13.61	14.08	---
MEAN	15.16	14.56	12.81	12.20	12.45	10.07	9.66	11.12	12.41	13.21	13.87	14.24
MAX	15.29	15.30	14.15	12.45	13.10	12.22	10.07	11.92	12.82	13.61	14.08	14.36
MIN	15.01	13.77	11.78	11.88	11.88	7.77	9.26	10.17	11.95	12.85	13.64	14.07

WTR YR 1993: HIGHEST 7.77, MARCH 25; LOWEST 15.30, NOVEMBER 2-3.

Gap indicates missing record.

3 YEAR HYDROGRAPH
OCTOBER 1, 1990 TO SEPTEMBER 30, 1993

DELAWARE COUNTY

395040075341801. Local number, DE 3.

LOCATION.--Lat 39°50'40", long 75°34'18", Hydrologic Unit 02040205, at Birmingham Township.

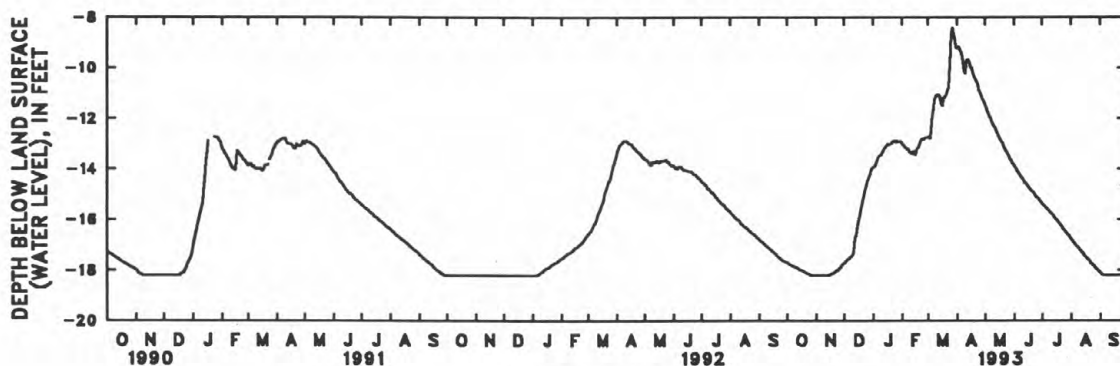
Owner: Mrs. Hope W. Ebert.

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, 1.80 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 1992 TO SEPTEMBER 1993
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17.70	18.20	17.72	13.94	12.98	12.74	9.24	11.46	13.84	15.35	16.75	18.09
2	17.72	18.20	17.68	13.92	13.07	12.73	9.16	11.55	13.93	15.38	16.80	18.13
3	17.76	18.20	17.65	13.90	13.03	12.77	9.19	11.67	13.97	15.43	16.85	18.17
4	17.77	18.20	17.62	13.82	13.10	12.78	9.25	11.74	14.03	15.46	16.90	18.20
5	17.79	18.20	17.56	13.70	13.15	12.15	9.37	11.81	14.09	15.50	16.95	18.20
6	17.81	18.20	17.54	13.62	13.18	11.89	9.42	11.93	14.16	15.54	17.00	18.20
7	17.84	18.20	17.50	13.55	13.24	11.58	9.72	11.98	14.22	15.58	17.06	18.20
8	17.85	18.20	17.47	13.48	13.22	11.28	9.92	12.09	14.27	15.62	17.09	18.20
9	17.87	18.20	17.44	13.47	13.33	11.14	10.11	12.17	14.32	15.67	17.14	18.20
10	17.89	18.20	17.40	13.43	13.35	11.09	10.22	12.25	14.37	15.71	17.18	18.20
11	17.90	18.20	17.28	13.37	13.38	11.05	9.73	12.32	14.42	15.76	17.22	18.20
12	17.92	18.20	16.96	13.29	13.41	11.11	9.66	12.38	14.50	15.80	17.25	18.20
13	17.93	18.20	16.74	13.20	13.30	11.05	9.66	12.46	14.55	15.85	17.30	18.20
14	17.97	18.20	16.60	13.16	13.31	11.15	9.72	12.55	14.59	15.91	17.34	18.20
15	17.99	18.20	16.42	13.12	13.43	11.39	9.83	12.64	14.63	15.93	17.40	18.20
16	18.00	18.18	16.12	13.05	13.43	11.47	9.98	12.73	14.69	15.98	17.43	18.20
17	18.03	18.16	16.00	13.00	13.24	11.49	9.98	12.81	14.74	16.03	17.48	18.20
18	18.04	18.13	15.81	13.05	13.18	11.18	10.17	12.89	14.78	16.08	17.52	18.20
19	18.05	18.12	15.62	13.04	13.14	11.19	10.29	12.94	14.83	16.12	17.56	18.20
20	18.07	18.11	15.38	13.00	13.04	11.11	10.39	13.00	14.88	16.17	17.60	18.20
21	18.09	18.08	15.27	12.98	12.96	11.02	10.48	13.10	14.91	16.22	17.64	18.20
22	18.11	18.05	15.06	12.90	12.82	10.91	10.52	13.17	14.94	16.26	17.69	18.20
23	18.13	18.00	14.88	12.91	12.80	10.80	10.62	13.26	15.00	16.32	17.73	18.20
24	18.15	18.01	14.74	12.88	12.80	10.35	10.81	13.31	15.06	16.36	17.77	18.20
25	18.16	17.98	14.62	12.93	12.82	9.32	10.90	13.38	15.10	16.41	17.81	18.20
26	18.20	17.91	14.50	12.96	12.76	8.61	10.97	13.47	15.13	16.46	17.85	18.20
27	18.20	17.89	14.41	12.89	12.76	8.42	11.09	13.54	15.17	16.50	17.89	18.20
28	18.20	17.85	14.29	12.94	12.75	8.49	11.20	13.64	15.20	16.55	17.95	18.20
29	18.20	17.80	14.18	12.92	---	8.69	11.26	13.68	15.25	16.59	17.98	18.20
30	18.20	17.73	14.07	12.91	---	8.89	11.35	13.76	15.29	16.63	18.01	18.20
31	18.20	---	13.98	12.90	---	9.18	---	13.80	---	16.70	18.05	---
MEAN	17.99	18.10	16.08	13.23	13.11	10.87	10.14	12.69	14.63	16.00	17.43	18.19
MAX	18.20	18.20	17.72	13.94	13.43	12.78	11.35	13.80	15.29	16.70	18.05	18.20
MIN	17.70	17.73	13.98	12.88	12.75	8.42	9.16	11.46	13.84	15.35	16.75	18.09

WTR YR 1993 HIGHEST 8.42, MAR 27; LOWEST 18.20 (dry), many days during year.

Gap indicates missing record.



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.

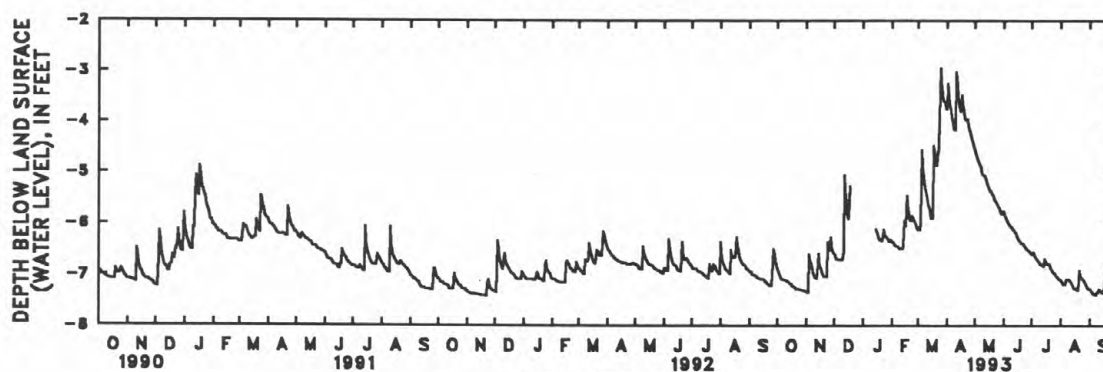
Owner: Glen Mills School.

AQUIFER.--Felsic Hornblende bearing Gneiss of Precambian 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, 2.66 ft above land-surface datum. Prior to May 11, 1984, top of plywood shelf, 1.20 ft above land-surface datum.**PERIOD OF RECORD.**--April 1983 to current year.**EXTREMES FOR PERIOD OF RECORD.**--Highest water level, 2.78 ft below land-surface datum, April 25, 1983; lowest, 9.95 ft below land-surface datum, Aug. 3, 1983.DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.89	7.33	6.59	---	6.36	6.13	3.76	4.56	5.75	6.60	7.10	7.28
2	6.93	7.34	6.62	---	6.37	6.13	3.25	4.65	5.82	6.60	7.12	7.28
3	6.99	7.34	6.69	---	6.37	6.12	3.49	4.69	5.87	6.57	7.16	7.33
4	7.04	6.61	6.69	---	6.43	6.00	3.66	4.74	5.91	6.61	7.19	7.34
5	7.08	6.76	6.71	---	6.43	4.57	3.78	4.81	5.93	6.67	7.19	7.37
6	7.09	6.76	6.71	---	6.45	4.91	3.92	4.84	5.98	6.68	7.19	7.38
7	7.09	6.84	6.71	---	6.45	5.09	4.01	4.89	6.03	6.71	7.08	7.39
8	7.10	6.92	6.71	---	6.47	5.22	4.12	4.94	6.05	6.73	7.08	7.39
9	7.10	7.00	6.71	---	6.49	5.37	4.16	5.03	6.07	6.76	7.08	7.34
10	7.11	7.03	6.71	---	6.49	5.42	4.16	5.06	6.07	6.79	7.09	7.34
11	7.12	7.06	6.55	---	6.49	5.56	3.02	5.07	6.13	6.81	7.11	7.28
12	7.12	7.07	5.06	---	6.49	5.67	3.29	5.09	6.14	6.81	7.14	7.29
13	7.14	6.97	5.37	---	6.45	5.67	3.49	5.13	6.17	6.83	7.18	7.31
14	7.16	6.59	5.59	---	5.95	5.80	3.63	5.22	6.19	6.83	7.21	7.33
15	7.17	6.74	5.78	6.12	6.05	5.89	3.75	5.26	6.25	6.69	7.26	7.35
16	7.17	6.82	5.91	6.17	6.05	5.89	3.81	5.32	6.29	6.74	7.26	7.35
17	7.22	6.88	5.86	6.24	5.46	5.88	3.48	5.37	6.32	6.78	7.26	7.25
18	7.23	6.95	5.28	6.31	5.66	4.48	3.67	5.37	6.34	6.80	7.27	6.75
19	7.24	7.00	---	6.33	5.80	4.68	3.81	5.41	6.37	6.80	7.30	6.88
20	7.24	7.03	---	6.33	5.90	4.83	3.92	5.45	6.39	6.80	7.30	6.97
21	7.27	7.03	---	6.34	5.95	4.87	3.97	5.47	6.39	6.86	6.92	6.98
22	7.27	7.03	---	6.34	5.95	4.71	3.96	5.54	6.39	6.88	7.02	6.77
23	7.27	7.03	---	6.12	5.84	4.56	3.96	5.57	6.44	6.92	7.06	6.86
24	7.27	6.36	---	6.17	5.90	3.95	4.09	5.58	6.46	6.95	7.06	6.94
25	7.29	6.50	---	6.24	5.95	2.95	4.15	5.63	6.48	6.97	7.08	7.00
26	7.29	6.53	---	6.26	5.98	3.24	4.21	5.67	6.51	6.97	7.11	7.00
27	7.30	6.28	---	6.28	6.05	3.45	4.29	5.70	6.51	7.01	7.14	6.06
28	7.30	6.44	---	6.31	6.11	3.58	4.37	5.73	6.54	7.04	7.19	5.83
29	7.30	6.52	---	6.35	---	3.61	4.41	5.81	6.55	7.05	7.22	6.07
30	7.31	6.57	---	6.35	---	3.60	4.52	5.81	6.57	7.08	7.26	6.26
31	7.32	---	---	6.31	---	3.76	---	5.81	---	7.09	7.28	---
MEAN	7.17	6.84	6.24	6.27	6.16	4.89	3.87	5.27	6.23	6.82	7.16	7.03
MAX	7.32	7.34	6.71	6.35	6.49	6.13	4.52	5.81	6.57	7.09	7.30	7.39
MIN	6.89	6.28	5.06	6.12	5.46	2.95	3.02	4.56	5.75	6.57	6.92	5.83

WTR YR 1993: HIGHEST 2.95, MARCH 25; LOWEST 7.39, SEPTEMBER 7, 8.

Gap Indicates missing record.

3 YEAR HYDROGRAPH
OCTOBER 1, 1990 TO SEPTEMBER 30, 1993

LERANOW COUNTY

402207076180801. Local number, LB 372.

LOCATION.--Lat 40°22'07", long 76°18'08", Hydrologic Unit 02040203, at Myerstown.

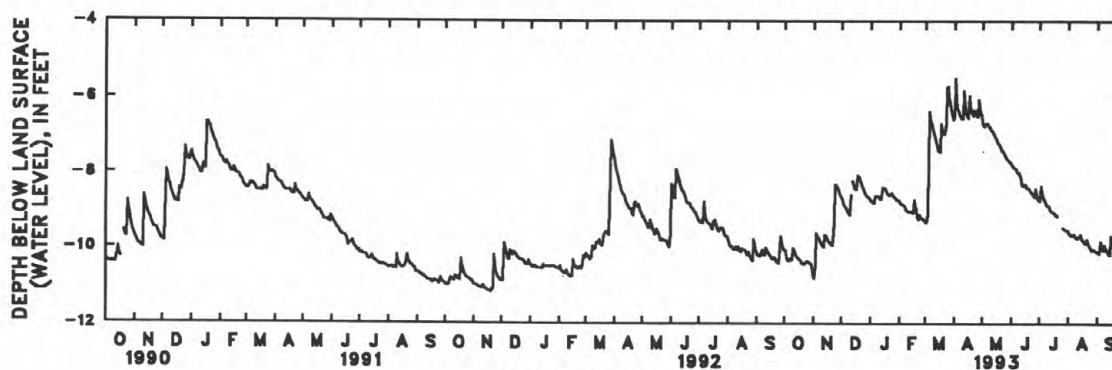
Owner: Kohl Brothers, Inc.

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.**DATUM.**--Elevation of land-surface datum is 444 ft above sea level. Measuring point: Top of plywood shelf, 2.70 ft above land-surface datum. Prior to Apr. 22, 1981, measuring point was 3.50 ft above land-surface datum.**PERIOD OF RECORD.**--July 1973 to current year.**EXTREMES FOR PERIOD OF RECORD.**--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 1992 TO SEPTEMBER 1993
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10.07	10.78	8.66	8.72	8.76	9.30	6.48	6.66	7.76	8.73	9.55	10.12
2	10.08	10.81	8.70	8.75	8.82	9.32	5.50	6.73	7.80	8.75	9.61	10.14
3	10.28	10.46	8.82	8.77	8.82	9.24	6.06	6.76	7.84	8.36	9.63	10.16
4	10.34	9.62	8.86	8.81	8.84	9.06	6.28	6.70	7.87	8.52	9.67	10.02
5	10.36	9.70	8.90	8.81	8.85	6.37	6.34	6.70	7.87	8.62	9.68	9.84
6	10.32	9.72	8.93	8.60	8.88	6.56	6.42	6.68	7.90	8.71	9.69	9.94
7	10.29	9.76	9.00	8.61	8.89	6.66	6.49	6.73	7.95	8.73	9.63	10.05
8	10.34	9.81	9.05	8.61	8.99	6.72	6.54	6.76	7.99	8.82	9.68	10.07
9	10.30	9.87	9.10	8.61	9.00	6.87	6.57	6.77	7.97	8.87	9.73	9.92
10	10.02	9.92	9.12	8.63	9.02	6.92	6.57	6.83	8.04	8.88	9.74	10.02
11	10.06	9.95	8.58	8.69	9.04	7.06	5.82	6.87	8.12	8.88	9.75	10.04
12	10.14	9.98	---	8.70	9.05	7.15	6.18	6.90	8.30	8.96	9.70	10.07
13	10.18	9.67	8.22	8.62	9.05	7.20	6.34	6.93	8.34	9.00	9.72	10.14
14	10.24	9.69	8.34	8.38	9.02	7.37	6.44	7.02	8.36	9.02	9.66	10.18
15	10.26	9.68	8.40	8.40	9.07	7.40	6.50	7.05	8.30	9.03	9.71	10.18
16	10.30	9.76	8.44	8.40	9.08	7.44	6.54	7.10	8.32	9.06	9.78	9.69
17	10.33	9.81	8.44	8.42	8.72	7.44	5.96	7.18	8.36	9.07	9.80	9.77
18	10.34	9.85	8.07	8.50	8.88	6.70	6.22	7.22	8.40	9.10	9.83	9.84
19	10.40	9.89	8.10	8.55	8.97	6.88	6.35	7.24	8.40	9.12	9.88	9.93
20	10.42	9.92	8.12	8.57	9.14	6.95	6.43	7.31	8.42	9.15	9.89	10.03
21	10.44	9.93	8.20	8.60	9.22	6.97	6.48	7.36	8.46	---	9.77	10.05
22	10.44	9.80	8.28	8.58	9.24	6.92	6.32	7.40	8.50	---	9.84	---
23	10.42	9.34	8.36	8.54	9.11	6.72	6.35	7.42	8.54	---	9.89	---
24	10.39	8.32	8.41	8.54	9.18	5.73	6.41	7.46	8.58	---	9.85	---
25	10.36	8.34	8.46	8.59	9.22	5.71	6.47	7.52	8.61	---	9.99	---
26	10.38	8.36	8.52	8.62	9.22	5.98	6.51	7.57	8.64	---	10.07	---
27	10.40	8.42	8.58	8.66	9.24	6.14	6.05	7.62	8.42	9.46	10.06	---
28	10.43	8.46	8.61	8.68	9.28	6.26	6.27	7.64	8.57	9.49	10.04	---
29	10.43	8.54	8.64	8.72	---	6.36	6.39	7.68	8.64	9.51	10.05	---
30	10.48	8.61	8.66	8.73	---	6.50	6.47	7.71	8.70	9.53	10.09	---
31	10.69	---	8.66	8.72	---	6.58	---	7.71	---	9.54	10.11	---
MEAN	10.32	9.56	8.57	8.62	9.02	7.05	6.33	7.14	8.27	9.00	9.81	10.01
MAX	10.69	10.81	9.12	8.81	9.28	9.32	6.57	7.71	8.70	9.54	10.11	10.18
MIN	10.02	8.32	8.07	8.38	8.72	5.71	5.50	6.66	7.76	8.36	9.55	9.69

WTR YR 1993: HIGHEST 5.50, APRIL 2; LOWEST 10.81, NOVEMBER 2.

Gap Indicates missing record.

3 YEAR HYDROGRAPH
OCTOBER 1, 1990 TO SEPTEMBER 30, 1993

LEHIGH COUNTY

403429075392401. Local number, LE 644.

LOCATION.--Lat 40°34'29", long 75°39'24", Hydrologic Unit 02040106, at Haafsville.

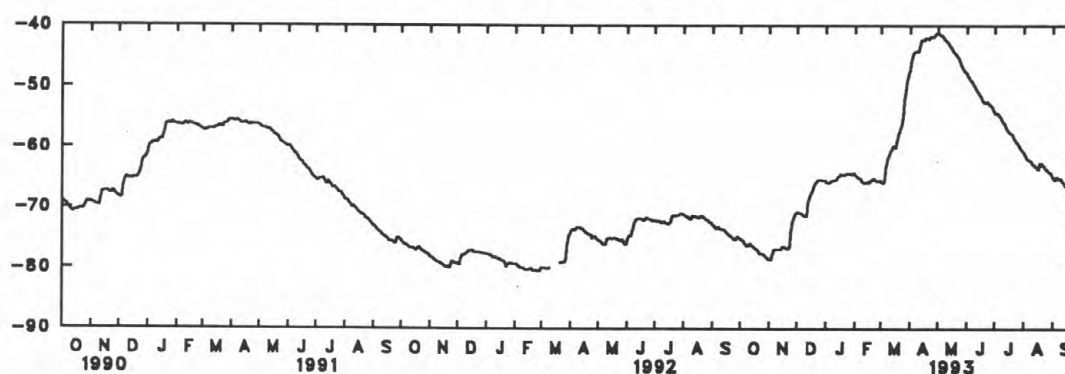
Owner: Charles J. Haaf.

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.**DATUM.**--Elevation of land-surface datum is 470 ft above sea level. Measuring point: Top of plywood shelf, 2.65 ft above land-surface datum. Prior to Mar. 18, 1981, top of casing, 1.45 ft above land-surface datum.**REMARKS.**--Water-quality records for 1973-75 are available in files of district office.**PERIOD OF RECORD.**--January 1971 to current year.**EXTREMES FOR PERIOD OF RECORD.**--Highest water level, 36.65 ft below land-surface datum, June 27, 1972; lowest, 93.42 ft below land-surface datum, Feb. 6, 1971.DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	75.25	78.54	70.80	65.64	64.55	65.70	47.41	41.19	47.84	54.20	60.83	64.97
2	75.33	78.59	70.77	65.78	64.70	65.80	46.14	41.33	48.16	54.43	61.22	65.17
3	75.47	78.59	70.90	65.86	64.73	65.95	45.19	41.41	48.38	54.29	61.50	65.37
4	75.56	77.97	70.90	65.87	64.98	65.92	44.69	41.53	48.60	54.32	61.77	65.37
5	75.77	77.43	70.96	65.83	65.11	65.16	44.38	41.59	48.78	54.58	61.98	64.99
6	75.93	77.02	70.96	65.73	65.22	63.55	44.31	41.80	48.99	54.75	62.08	64.98
7	76.14	76.84	71.16	65.58	65.22	62.79	44.24	42.01	49.26	55.01	62.10	65.16
8	76.31	76.84	71.29	65.53	65.46	62.04	44.26	42.16	49.61	55.31	62.20	65.31
9	76.32	76.84	71.45	65.53	65.68	61.50	44.27	42.30	49.80	55.62	62.48	65.18
10	76.19	76.85	71.45	65.49	65.84	61.23	44.20	42.53	50.04	55.86	62.66	65.32
11	75.96	76.85	71.39	65.38	65.91	60.69	43.62	42.58	50.44	55.96	62.88	65.55
12	75.96	76.84	70.35	65.35	65.93	60.54	42.72	42.81	50.66	56.35	62.90	65.74
13	76.26	76.84	69.12	65.31	65.83	60.26	42.38	43.17	50.87	56.73	63.18	65.95
14	76.34	76.83	68.68	64.92	65.71	59.85	42.29	43.37	51.19	56.91	63.27	66.21
15	76.44	76.47	68.13	64.75	65.94	60.12	42.32	43.59	51.41	57.12	63.36	66.41
16	76.66	76.44	67.73	64.63	65.94	60.09	42.37	43.84	51.70	57.36	63.60	66.41
17	76.80	76.50	67.51	64.43	65.68	59.96	42.15	44.20	51.97	57.60	63.58	66.12
18	76.84	76.63	66.98	64.52	65.49	59.34	42.02	44.43	52.29	57.75	62.65	65.72
19	76.95	76.71	66.58	64.60	65.47	58.47	42.10	44.52	52.52	57.76	62.63	65.60
20	77.10	76.79	66.11	64.60	65.38	57.83	42.11	44.70	52.61	58.04	62.70	65.64
21	77.35	76.78	65.90	64.60	65.23	57.28	42.18	44.87	52.60	58.31	62.94	65.75
22	77.58	76.76	65.70	64.50	65.25	56.79	41.92	45.09	52.41	58.57	63.00	65.94
23	77.65	76.33	65.52	64.29	65.34	56.43	41.79	45.26	52.51	58.83	63.20	66.14
24	77.64	74.20	65.38	64.29	65.58	55.76	41.91	45.61	52.68	59.10	63.51	66.34
25	77.65	73.07	65.36	64.42	65.61	53.83	41.87	46.11	52.80	59.27	63.63	66.47
26	77.78	72.32	65.34	64.42	65.62	52.19	41.93	46.46	53.00	59.42	63.72	66.41
27	77.92	71.74	65.38	64.37	65.60	50.95	41.72	46.83	53.10	59.70	63.91	65.59
28	78.02	71.39	65.48	64.43	65.55	49.95	41.41	47.05	53.31	59.98	64.09	65.08
29	78.23	71.07	65.49	64.59	---	49.12	41.28	47.41	53.58	60.19	64.15	64.52
30	78.38	70.84	65.53	64.54	---	48.32	41.16	47.54	53.94	60.43	64.37	64.27
31	78.54	---	65.54	64.23	---	47.81	---	47.54	---	60.69	64.69	---
MEAN	76.78	75.90	68.19	64.97	65.45	58.56	43.01	44.03	51.17	57.24	62.93	65.59
MAX	78.54	78.59	71.45	65.87	65.94	65.95	47.41	47.54	53.94	60.69	64.69	66.47
MIN	75.25	70.84	65.34	64.23	64.55	47.81	41.16	41.19	47.84	54.20	60.83	64.27

WTR YR 1993: HIGHEST 41.16, APRIL 30; LOWEST 78.59, NOVEMBER 2, 3.

Gap indicates missing record.

3 YEAR HYDROGRAPH
OCTOBER 1, 1990 TO SEPTEMBER 30, 1993

MONROE COUNTY

411223075234901. Local number, MO 190.

LOCATION.--Lat 41°12'23", long 75°23'49", Hydrologic Unit 02040106, at Tobyhanna State Park.

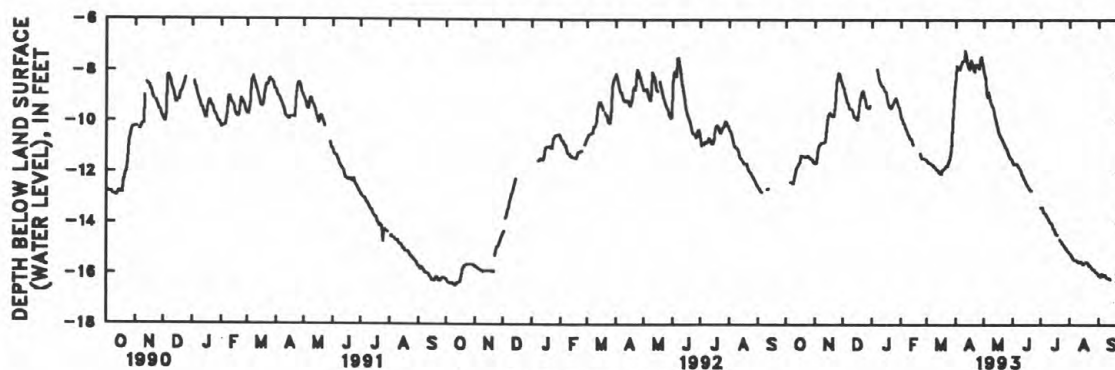
Owner: U.S. Geological Survey.

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.**DATUM.**--Elevation of land-surface datum is 1,990 ft above sea level. Measuring point: Top of plywood shelf, 2.96 ft above land-surface datum. Prior to Mar. 28, 1980, top of plywood cover, 2.57 ft above land-surface datum.**PERIOD OF RECORD.**--October 1967 to current year.**EXTREMES FOR PERIOD OF RECORD.**--Highest water level, 6.83 ft below land-surface datum, Apr. 5, 1984; lowest, 16.87 ft below land-surface datum, Oct. 24, 25, 1980.DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	11.65	8.63	---	9.76	11.49	8.24	8.02	11.58	13.37	15.16	16.03
2	---	11.65	8.69	---	9.89	11.54	7.80	8.24	11.68	13.38	15.18	16.06
3	---	11.58	8.93	---	9.89	11.60	7.84	8.30	11.68	13.37	15.25	16.09
4	---	11.21	8.94	---	10.08	11.60	7.89	8.89	11.64	13.49	15.31	16.08
5	---	10.98	9.16	---	10.08	11.63	7.92	9.02	11.65	13.60	15.38	15.98
6	12.38	10.90	9.21	---	10.24	11.68	7.80	8.80	11.68	13.62	15.43	16.08
7	12.39	10.88	9.33	7.92	10.27	11.69	7.68	9.00	11.75	13.65	15.43	16.03
8	12.43	10.83	9.48	8.20	10.43	11.70	7.60	9.15	11.82	13.73	15.43	16.03
9	12.42	10.83	9.49	8.36	10.50	11.78	7.58	9.27	11.85	13.80	15.46	16.05
10	12.21	10.83	9.49	8.44	10.54	11.78	7.58	9.37	11.94	13.85	15.50	16.15
11	11.99	10.80	9.56	8.55	10.66	11.86	7.20	9.42	12.10	13.96	15.55	16.14
12	11.83	10.77	9.63	8.61	10.67	11.89	7.44	9.59	12.13	13.97	15.55	16.14
13	11.81	10.52	9.82	8.60	10.71	11.89	7.63	9.79	12.25	14.03	15.49	16.17
14	11.72	10.03	9.85	8.76	10.91	11.97	7.77	9.94	12.31	14.14	15.54	16.19
15	11.64	9.82	9.85	8.78	---	12.02	7.86	10.12	12.38	14.19	15.57	---
16	11.59	9.72	9.91	8.82	---	12.05	7.92	10.27	12.46	14.25	15.62	---
17	11.34	9.64	9.91	9.03	---	12.05	7.56	10.42	12.49	14.38	15.60	---
18	11.34	9.69	9.51	9.27	---	11.90	7.64	10.50	12.58	14.43	15.53	---
19	11.34	9.76	9.22	9.36	---	11.88	7.78	10.59	12.62	14.46	15.52	---
20	11.37	9.79	8.98	9.42	---	11.84	7.93	10.66	12.71	---	15.53	---
21	11.38	9.79	8.86	9.47	---	11.78	8.01	10.72	12.70	---	15.56	16.26
22	11.39	9.64	8.79	9.47	11.23	11.74	7.71	10.78	---	14.64	15.66	16.26
23	11.39	9.09	8.84	9.31	11.35	11.74	7.71	10.89	---	14.71	15.65	16.25
24	11.34	8.48	9.12	9.31	11.43	11.62	7.76	10.97	---	14.72	15.72	16.26
25	11.35	8.28	9.12	9.16	11.45	11.53	7.78	11.03	---	14.83	15.74	16.26
26	11.38	8.07	9.39	9.11	11.44	11.40	7.89	11.11	---	14.84	15.82	16.26
27	11.44	8.12	9.44	9.06	11.46	11.14	7.55	11.25	---	14.88	15.82	16.16
28	11.46	8.25	9.47	9.18	11.48	10.74	7.45	11.31	---	14.97	15.85	16.06
29	11.49	8.37	9.47	9.31	---	10.09	7.60	11.40	---	14.99	15.88	16.00
30	11.57	8.48	9.38	9.41	---	9.25	7.83	11.45	---	15.07	15.94	15.98
31	11.60	---	---	9.48	---	8.72	---	11.47	---	15.12	15.94	---
MEAN	11.68	9.95	9.32	8.98	10.69	11.47	7.73	10.06	12.10	14.22	15.57	16.12
MAX	12.43	11.65	9.91	9.48	11.48	12.05	8.24	11.47	12.71	15.12	15.94	16.26
MIN	11.34	8.07	8.63	7.92	9.76	8.72	7.20	8.02	11.58	13.37	15.16	15.98

WTR YR 1993: HIGHEST 7.20, APRIL 11; LOWEST 16.26, SEPTEMBER 21, 22, 24-26.

Gap indicates missing record.

3 YEAR HYDROGRAPH
OCTOBER 1, 1990 TO SEPTEMBER 30, 1993

MONTGOMERY COUNTY

400808075210401. Local number, MG 225.

LOCATION.--Lat 40°08'08", long 75°21'04", Hydrologic Unit 02040203, at Willow and Locust Street, Norristown.

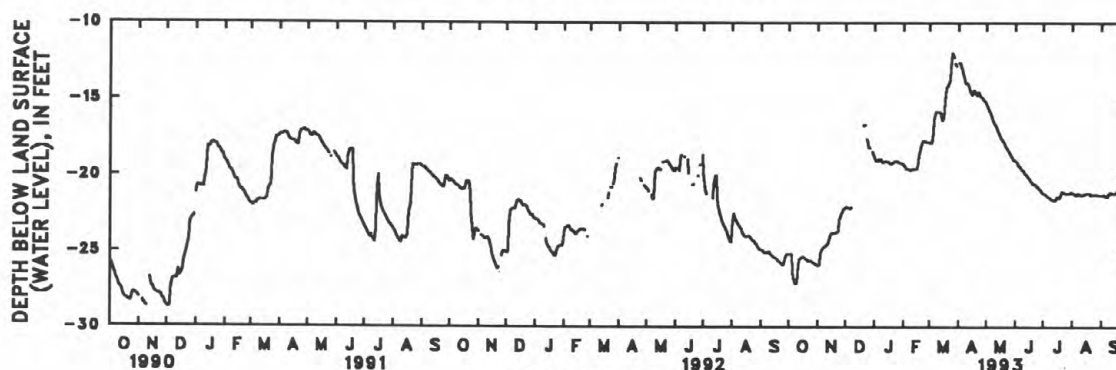
Owner: Norristown State Hospital.

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.**--Data collection platform.**DATUM.**--Elevation of land-surface datum is 165 ft above sea level. Measuring point: Top of plywood shelf, 2.35 ft above land-surface datum. Prior to Mar. 17, 1981, top of casing, 0.75 ft above land-surface datum.**PERIOD OF RECORD.**--September 1956 to current year.**EXTREMES FOR PERIOD OF RECORD.**--Highest water level, 11.00 ft below land-surface datum, May 31, 1984; lowest, 60.25 ft below land-surface datum, Nov. 5, 6, 1963.DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25.19	25.92	22.09	18.81	19.28	17.85	---	15.30	19.03	21.18	21.12	21.28
2	25.17	25.93	22.07	18.96	19.34	17.86	12.61	15.48	19.06	---	21.12	21.28
3	25.16	25.84	22.15	19.06	19.36	17.87	12.66	15.61	19.14	21.21	21.20	21.28
4	25.23	25.19	22.14	19.07	19.57	17.86	12.86	15.74	19.26	21.27	21.22	21.25
5	26.26	24.92	22.15	19.07	19.57	17.15	13.07	15.85	19.35	21.33	21.28	21.33
6	26.75	24.85	22.17	18.93	19.56	16.36	13.32	16.00	19.41	21.38	21.30	21.34
7	26.95	24.75	22.11	18.92	19.61	15.96	13.58	16.22	19.49	21.42	21.16	21.37
8	27.11	24.69	---	18.95	19.62	15.84	13.81	16.36	19.58	21.47	21.19	21.38
9	27.11	24.67	---	19.05	19.63	15.87	13.96	16.50	19.65	21.53	21.24	21.23
10	27.05	24.63	---	19.14	19.59	15.87	14.00	16.63	19.69	21.59	21.26	21.19
11	25.90	24.56	---	19.16	19.59	15.84	13.96	16.69	19.81	21.61	21.28	21.09
12	25.61	24.49	---	---	19.61	15.85	14.14	16.81	19.90	21.63	21.28	21.11
13	25.46	24.29	---	19.07	19.59	15.85	14.33	16.99	19.97	21.63	21.26	21.16
14	25.43	24.02	---	19.11	19.56	16.28	14.50	17.16	20.03	21.64	21.23	21.16
15	25.38	23.87	---	19.11	19.56	16.38	14.65	17.31	20.11	21.53	21.22	21.19
16	25.35	23.85	---	19.11	19.54	16.21	14.73	17.47	20.20	21.40	21.17	21.19
17	25.39	23.77	---	19.18	19.10	15.87	14.44	17.64	20.31	21.39	21.15	21.13
18	25.43	23.77	---	19.23	18.64	15.10	14.42	17.68	20.39	21.46	21.17	21.07
19	25.45	23.79	---	19.23	18.35	14.32	14.54	17.74	20.46	21.42	21.15	20.97
20	25.53	23.80	16.70	19.21	18.09	14.18	14.66	17.86	20.56	21.19	21.19	20.94
21	25.57	23.77	16.71	19.16	17.95	14.12	14.76	18.00	20.54	21.05	21.28	20.93
22	25.63	23.70	16.70	19.14	17.76	13.94	14.54	18.15	20.60	21.08	21.27	20.89
23	25.62	23.65	---	19.07	17.78	13.80	14.60	18.23	20.62	21.07	21.26	20.85
24	25.59	22.93	17.65	19.07	17.77	12.91	14.72	18.34	20.71	21.13	21.26	20.77
25	25.64	22.71	17.84	19.08	17.78	11.98	14.80	18.45	20.76	21.15	21.25	20.72
26	25.67	22.61	18.17	19.07	17.83	11.99	14.88	18.55	20.80	21.19	21.24	20.68
27	25.74	22.44	18.24	19.13	17.83	12.27	14.94	18.68	20.87	21.17	21.27	20.44
28	25.77	22.30	---	19.17	17.85	---	15.03	18.77	20.93	21.19	21.27	19.86
29	25.81	22.21	---	19.19	---	12.67	15.11	18.90	21.01	21.16	21.30	19.90
30	25.87	22.16	18.48	19.25	---	12.84	15.20	18.97	21.07	21.14	21.31	19.73
31	25.90	---	18.58	19.22	---	---	---	19.00	---	21.10	21.28	---
MEAN	25.80	24.00	19.62	19.10	18.90	15.20	14.24	17.33	20.11	21.32	21.23	20.96
MAX	27.11	25.93	22.17	19.25	19.63	17.87	15.20	19.00	21.07	21.64	21.31	21.38
MIN	25.16	22.16	16.70	18.81	17.76	11.98	12.61	15.30	19.03	21.05	21.12	19.73

WTR YR 1993: HIGHEST 11.98, MARCH 25; LOWEST 27.11, OCTOBER 8, 9.

Gap Indicates missing record.



MONTGOMERY COUNTY

401310075181702. Local number, MG 884

LOCATION.--Lat 40°13'10", long 75°18'17", Hydrologic Unit 02040203, at Upper Gwyned Township, near West Point.

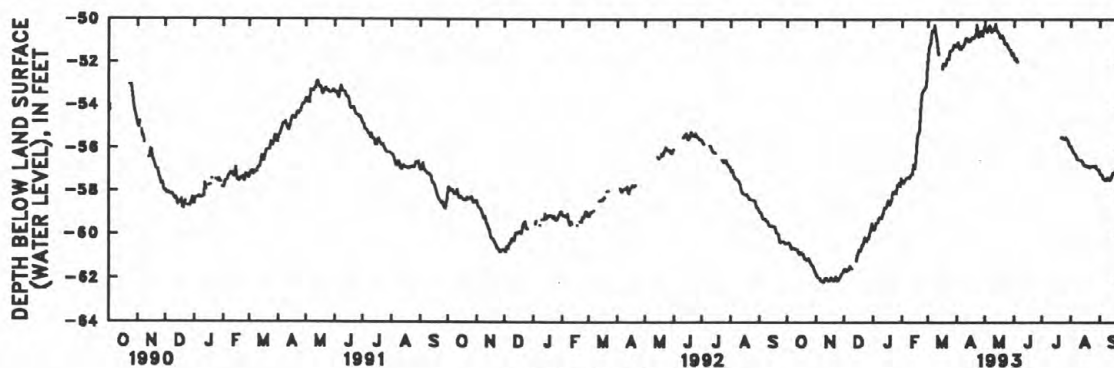
Owner: Merck, Sharp, and Dohme, Inc.

AQUIFER.--Shale of Brunswick Formation of Late Triassic age.**WELL CHARACTERISTICS.**--Drilled unused artesian well, diameter 12 in. to 10 in., depth 600 ft, casing information not available.**INSTRUMENTATION.**--Data collection platform.**DATUM.**--Elevation of land-surface datum is 351 ft above sea level. Measuring point: Top of plywood shelf, 2.55 ft above land-surface datum. Prior to May 1, 1981, top of casing, 1.30 ft above land-surface datum.**REMARKS.**--Well originally drilled to 300 ft. Water-level data for August 1956 to December 1965 published in U.S. Geological Survey Water-Supply Papers under local number MG-127. Well deepened to 600 ft in December 1965 and assigned local number MG-884.**PERIOD OF RECORD.**--March 1966 to September 1993 (discontinued).**EXTREMES FOR PERIOD OF RECORD.**--Highest water level, 38.03 ft below land-surface datum, Apr. 29, 1987; lowest, 93.17 ft below land-surface datum, Oct. 20, 1966.DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	60.40	61.84	61.58	59.77	57.57	51.82	51.16	50.36	51.80	---	55.90	57.18
2	60.35	61.84	61.54	59.81	57.65	51.35	51.06	50.48	51.87	---	56.00	57.24
3	60.38	61.94	61.65	59.73	57.65	51.16	51.33	50.57	51.83	---	56.12	57.22
4	60.48	61.94	61.65	59.49	57.50	51.09	51.37	50.48	51.86	---	56.18	57.32
5	60.59	61.98	61.59	59.48	57.46	50.49	51.37	50.34	---	---	56.26	57.44
6	60.66	62.09	61.59	59.48	57.38	50.53	51.22	50.25	---	---	56.28	57.47
7	60.60	62.12	61.43	59.33	57.38	50.53	51.26	50.48	---	---	56.45	57.50
8	60.63	62.12	61.52	59.20	57.35	50.27	51.21	50.57	---	---	56.52	57.50
9	60.62	62.15	61.55	59.25	57.42	50.73	51.12	50.51	---	---	56.56	57.37
10	60.70	62.08	---	59.27	57.28	50.88	50.87	50.49	---	---	56.54	57.40
11	60.65	61.95	---	59.12	57.22	51.43	50.86	50.47	---	---	56.54	57.48
12	60.69	61.94	---	58.97	57.20	51.60	50.94	50.21	---	---	56.56	57.49
13	60.81	62.07	---	58.75	56.77	---	51.02	50.43	---	---	56.62	57.39
14	60.89	62.10	61.20	58.80	56.96	---	51.04	50.54	---	---	56.69	57.31
15	60.79	62.08	60.98	58.76	56.92	---	51.01	50.60	---	---	56.78	57.14
16	60.79	62.10	60.82	58.57	56.49	52.29	50.87	50.69	---	---	56.82	57.19
17	60.91	61.92	60.70	58.43	55.61	52.07	50.82	50.84	---	---	56.79	57.16
18	60.90	62.00	60.74	58.64	55.39	52.06	50.88	50.81	---	---	56.86	56.99
19	61.02	62.06	60.70	58.60	55.29	52.15	50.84	50.72	---	---	56.87	56.92
20	61.09	62.10	60.45	58.52	55.16	52.11	50.76	50.86	---	---	56.80	56.94
21	61.09	62.05	60.51	58.33	54.35	51.84	50.64	50.98	---	---	56.90	56.75
22	61.16	61.89	60.23	58.03	53.53	51.86	50.22	51.13	---	55.52	56.92	56.68
23	61.10	62.06	60.11	58.12	53.43	51.85	50.69	51.19	---	55.50	56.84	56.60
24	61.06	62.11	60.30	58.00	53.28	51.50	50.83	51.11	---	55.53	56.82	56.49
25	61.23	62.01	60.30	58.13	53.28	51.45	50.72	51.24	---	55.57	56.84	56.43
26	61.25	61.95	60.17	58.10	53.12	51.44	50.54	51.34	---	55.58	56.88	56.23
27	61.41	61.87	60.18	57.72	53.12	51.39	50.70	51.42	---	55.49	56.81	56.07
28	61.41	61.80	59.97	57.70	52.08	51.24	50.75	51.42	---	55.61	56.84	55.93
29	61.49	61.76	59.84	57.61	---	51.18	50.56	51.64	---	55.64	56.95	55.89
30	61.63	61.69	59.64	57.78	---	51.18	50.32	51.68	---	55.82	57.00	55.80
31	61.72	---	59.51	57.39	---	51.25	---	51.56	---	55.90	57.00	---
MEAN	60.92	61.99	60.76	58.67	55.85	51.38	50.90	50.82	51.87	55.62	56.64	56.95
MAX	61.72	62.15	61.65	59.81	57.65	52.29	51.37	51.68	51.96	55.90	57.00	57.50
MIN	60.35	61.69	59.51	57.39	52.08	50.27	50.22	50.21	51.80	55.49	55.90	55.80

WTR YR 1993: HIGHEST 50.21, MAY 12; LOWEST 62.15, NOVEMBER 9.

Gap Indicates missing record.



NORTHAMPTON COUNTY

403511075210001. Local number, NP 83.

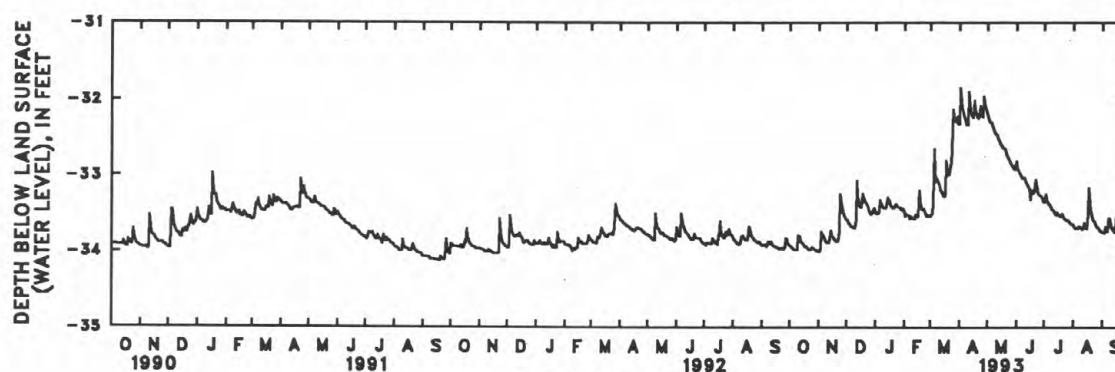
LOCATION.--Lat 40°35'11", long 75°21'00", Hydrologic Unit 02040106, at Bethlehem.

Owner: Lehigh University.

AQUIFER.--Dolomite of Leithsville Formation of Early and Middle Cambrian age.**WELL CHARACTERISTICS.**--Drilled observation artesian well, diameter 8 in., depth 106 ft.**INSTRUMENTATION.**--Digital recorder with 60-minute recording interval.**DATUM.**--Elevation of land-surface datum is 288 ft above sea level. Measuring point: Top of casing, 4.55 ft above land-surface datum.**PERIOD OF RECORD.**--November 1988 to current year.**EXTREMES FOR PERIOD OF RECORD.**--Highest water level, 30.43 ft below land-surface datum, May 30, 1989; lowest, 34.13 ft below land-surface datum, Sept. 19, 1991.DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33.92	34.00	33.58	33.48	33.48	33.54	32.32	32.19	32.81	33.35	33.64	33.75
2	33.93	34.00	33.59	33.50	33.54	33.52	31.84	32.25	32.90	33.35	33.67	33.75
3	33.94	33.97	33.63	33.50	33.50	33.50	32.02	32.28	32.93	33.25	33.69	33.76
4	33.96	33.74	33.63	33.50	33.52	33.39	32.11	32.30	32.95	33.32	33.70	33.73
5	33.97	33.79	33.65	33.48	33.52	32.65	32.17	32.30	32.97	33.35	33.70	33.67
6	33.98	33.78	33.67	33.33	33.53	32.98	32.22	32.32	33.00	33.38	33.70	33.71
7	33.98	33.82	33.67	33.36	33.57	33.08	32.27	32.37	33.01	33.39	33.66	33.73
8	33.98	33.85	33.68	33.38	33.54	33.04	32.31	32.40	33.04	33.41	33.67	33.56
9	33.98	33.87	33.69	33.41	33.56	33.09	32.33	32.42	33.04	33.44	33.69	33.56
10	33.79	33.88	33.69	33.43	33.56	33.10	32.33	32.46	33.03	33.45	33.70	33.62
11	33.83	33.88	33.59	33.43	33.57	33.18	31.89	32.46	33.07	33.46	33.71	33.67
12	33.80	33.88	33.07	33.43	33.57	33.21	32.06	32.48	33.10	33.48	33.69	33.69
13	33.86	33.83	33.28	33.40	33.51	33.21	32.15	32.52	33.12	33.51	33.62	33.72
14	33.88	33.72	33.35	33.29	33.52	33.24	32.20	32.55	33.15	33.52	33.67	33.73
15	33.89	33.78	33.40	33.33	33.55	33.28	32.22	32.58	33.17	33.49	33.69	33.75
16	33.91	33.80	33.42	33.34	33.54	33.28	32.24	32.60	33.32	33.51	33.70	33.60
17	33.93	33.82	33.42	33.38	33.20	33.25	32.01	32.63	33.19	33.52	33.51	33.53
18	33.93	33.84	33.24	33.41	33.34	32.80	32.13	32.64	33.21	33.54	33.17	33.55
19	33.93	33.86	33.29	33.42	33.42	32.95	32.19	32.64	33.23	33.54	33.37	33.60
20	33.95	33.87	33.32	33.43	33.44	33.00	32.23	32.66	33.23	33.50	33.45	33.62
21	33.97	33.87	33.35	33.43	33.45	32.99	32.25	32.71	33.14	33.53	33.52	33.63
22	33.98	33.86	33.37	33.41	33.44	32.93	32.22	32.74	33.06	33.55	33.57	33.66
23	33.98	33.74	33.39	33.38	33.47	32.84	32.08	32.76	33.16	33.57	33.60	33.67
24	33.97	33.25	33.43	33.39	33.51	32.66	32.17	32.78	33.20	33.58	33.61	33.68
25	33.94	33.37	33.46	33.40	33.54	32.13	32.21	32.82	33.24	33.59	33.63	33.70
26	33.96	33.40	33.48	33.42	33.52	32.21	32.23	32.84	33.26	33.60	33.66	33.66
27	33.97	33.47	33.51	33.42	33.54	32.27	31.96	32.87	33.26	33.59	33.68	33.36
28	33.98	33.52	33.50	33.42	33.54	32.29	32.06	32.88	33.28	33.61	33.69	33.15
29	33.98	33.54	33.48	33.45	---	32.30	32.10	32.91	33.29	33.62	33.71	33.32
30	33.99	33.56	33.46	33.46	---	32.22	32.15	32.92	33.32	33.64	33.73	33.40
31	33.99	---	33.43	33.44	---	32.32	---	32.92	---	33.64	33.73	---
MEAN	33.94	33.75	33.47	33.41	33.50	32.92	32.16	32.59	33.12	33.49	33.63	33.62
MAX	33.99	34.00	33.69	33.50	33.57	33.54	32.33	32.92	33.32	33.64	33.73	33.76
MIN	33.79	33.25	33.07	33.29	33.20	32.13	31.84	32.19	32.81	33.25	33.17	33.15

WTR YR 1993: HIGHEST 31.84, APRIL 2; LOWEST 34.00, NOVEMBER 1, 2.

3 YEAR HYDROGRAPH
OCTOBER 1, 1990 TO SEPTEMBER 30, 1993

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 94 ft.

INSTRUMENTATION.--Digital recorder with 60-minute recording interval.

DATUM.--Elevation of land-surface datum is 8.64 ft above sea level. Measuring point: Top of casing, 1.80 ft above land-surface datum.

REMARKS.--Mean daily fluctuation caused by tidal loading, 0.20 ft.

PERIOD OF RECORD.--January 1952 to current year.

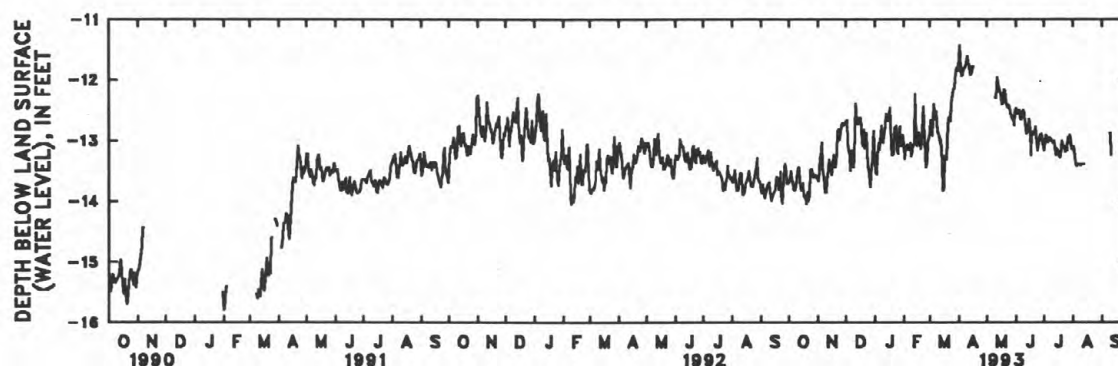
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 11.43 ft below land-surface datum, Apr. 2, 1993; lowest, 39.60 ft below land-surface datum, July 20, 1955.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13.69	13.64	12.68	13.33	13.07	12.86	11.68	---	12.47	13.16	13.14	---
2	13.63	13.67	12.66	13.51	13.30	12.66	11.43	---	12.56	13.12	13.10	---
3	13.50	13.28	13.03	13.55	13.19	12.84	11.81	---	12.50	12.91	13.26	---
4	13.65	13.29	13.14	13.23	13.11	12.92	11.93	---	12.49	12.92	13.37	---
5	13.67	13.03	13.24	13.03	13.07	12.40	11.92	---	12.49	13.02	13.41	---
6	13.80	13.45	13.49	13.15	13.13	12.51	11.81	---	12.65	13.02	13.38	---
7	13.82	13.60	13.16	13.02	13.15	12.64	11.81	---	12.65	12.95	13.38	---
8	13.80	13.72	13.35	12.76	13.03	12.52	11.77	---	12.54	12.96	13.38	---
9	13.66	13.86	13.44	12.95	13.26	12.86	11.74	---	12.50	12.99	13.40	---
10	13.51	13.84	13.28	13.03	13.17	12.86	11.61	12.29	12.56	13.01	13.38	12.87
11	13.43	13.64	12.39	12.91	13.07	12.96	11.73	12.29	12.72	13.04	13.38	13.24
12	13.46	13.48	12.49	12.76	13.07	13.03	11.75	11.96	12.89	13.00	13.38	---
13	13.68	13.31	12.72	12.56	12.23	12.98	11.89	12.04	12.86	13.20	13.38	---
14	13.83	13.45	12.73	12.63	12.93	13.34	11.92	12.15	12.80	13.23	---	---
15	13.78	13.43	12.63	12.68	13.09	13.83	11.87	12.18	12.64	13.13	---	---
16	13.70	13.56	12.62	12.58	13.07	13.77	11.78	12.27	12.80	13.18	---	---
17	13.91	13.40	12.63	12.45	12.86	13.25	---	12.40	13.23	13.22	---	---
18	13.94	13.24	13.00	13.03	12.93	13.30	---	12.38	12.85	13.28	---	---
19	13.91	13.34	13.09	13.24	13.14	13.31	---	12.16	12.86	13.25	---	---
20	14.05	13.43	12.82	13.23	13.02	12.96	---	12.18	12.90	13.00	---	---
21	13.85	13.21	13.13	13.20	12.84	12.62	---	12.28	12.88	13.05	---	---
22	14.00	12.84	12.99	12.80	12.44	12.66	---	12.39	12.77	13.11	---	---
23	13.91	12.81	12.88	12.77	12.71	12.68	---	12.45	13.04	13.09	---	---
24	13.49	12.99	13.43	12.76	13.22	12.37	---	12.41	13.16	13.18	---	---
25	13.46	12.88	13.43	13.13	13.43	12.25	---	12.44	13.11	13.15	---	---
26	13.51	12.76	13.54	13.21	13.33	12.16	---	12.54	12.96	13.16	---	---
27	13.60	12.71	13.76	12.89	13.03	12.14	---	12.58	12.91	12.95	---	---
28	13.60	12.76	13.54	12.77	12.94	11.99	---	12.64	12.89	12.96	---	---
29	13.56	12.73	13.31	13.09	---	11.87	---	12.60	12.96	12.91	---	---
30	13.59	12.73	13.02	13.09	---	11.79	---	12.75	13.02	13.01	---	---
31	13.61	---	12.84	12.91	---	11.85	---	12.55	---	13.14	---	---
MEAN	13.70	13.27	13.05	12.98	13.03	12.72	11.78	12.36	12.79	13.07	13.33	13.06
MAX	14.05	13.86	13.76	13.55	13.43	13.83	11.93	12.75	13.23	13.28	13.41	13.24
MIN	13.43	12.71	12.39	12.45	12.23	11.79	11.43	11.96	12.47	12.91	13.10	12.87

WTR YR 1993: HIGHEST 11.43, APRIL 2; LOWEST 14.05, OCTOBER 20.

Gap indicates missing record.



3 YEAR HYDROGRAPH
OCTOBER 1, 1990 TO SEPTEMBER 30, 1993

PIKE COUNTY

410940074583401. Local number, PI 200.

LOCATION.--Lat 41°09'40", long 74°58'34", Hydrologic Unit 02040104, at Pocono Mountain Lake Estates.

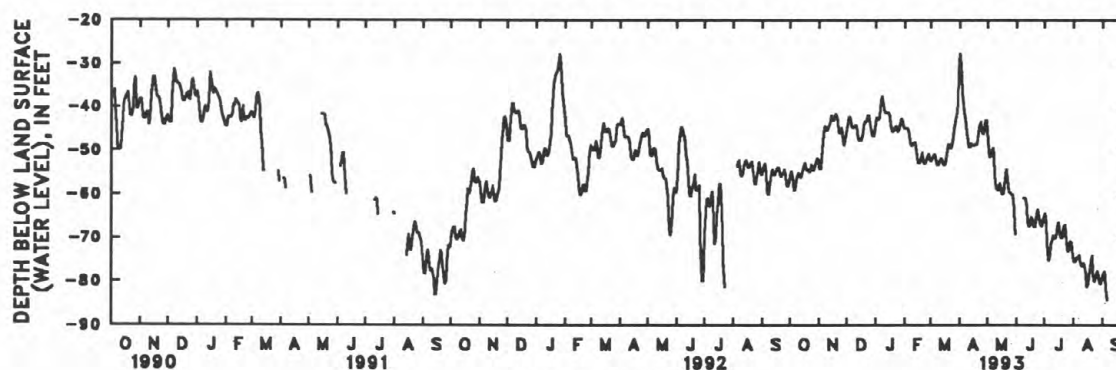
Owner: Pocono Mountain Lake Estates.

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.**--Digital recorder with 60-minute recording interval.**DATUM.**--Elevation of land-surface datum is 1,180 ft above sea level. Measuring point: Top of plywood shelf, 3.27 ft above land-surface datum. Prior to October 1983, published as 1.40 ft above land-surface datum.**PERIOD OF RECORD.**--July 1981 to current year.**EXTREMES FOR PERIOD OF RECORD.**--Highest water level, 24.88 ft below land-surface datum, Apr. 18, 1983; lowest, 84.36 ft below land-surface datum, Sept. 6, 1993.DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	55.70	53.62	45.03	43.75	44.94	52.43	27.67	45.69	---	64.78	75.26	78.92
2	54.84	54.18	43.51	42.35	44.99	52.43	28.59	49.83	---	64.39	75.51	78.46
3	55.20	54.15	42.37	42.81	44.91	51.89	32.73	51.50	---	66.52	75.47	77.83
4	57.40	51.64	42.26	42.91	44.92	51.40	36.97	51.56	---	71.18	74.84	78.87
5	59.08	48.24	42.85	42.35	45.10	50.90	39.59	51.12	---	74.83	74.48	81.68
6	59.09	46.03	44.34	40.40	46.31	51.14	41.38	50.31	---	75.19	74.42	84.36
7	58.03	44.39	44.80	38.50	47.99	52.76	42.87	49.54	---	73.70	74.00	---
8	56.47	44.92	44.83	37.59	48.91	53.35	44.25	51.44	---	71.52	75.17	---
9	55.64	45.38	44.53	38.61	48.93	53.36	45.93	55.61	60.92	70.57	76.44	---
10	55.08	45.41	44.18	40.49	48.65	52.86	47.75	58.60	60.90	69.52	76.49	---
11	55.99	44.83	44.27	41.31	48.34	52.11	49.17	58.68	60.98	69.92	76.09	---
12	56.20	44.17	45.54	41.40	48.13	51.87	49.18	59.11	62.82	70.19	75.79	---
13	56.08	43.65	46.92	41.44	49.19	51.94	49.03	59.17	66.34	69.82	76.45	---
14	55.06	41.93	47.66	41.44	51.43	52.87	48.51	57.54	67.44	68.59	78.34	---
15	54.19	42.51	47.74	41.43	52.75	53.28	48.76	57.99	67.45	67.58	80.93	---
16	53.31	43.00	47.67	42.26	52.87	53.31	48.86	59.86	66.31	66.50	81.20	---
17	52.91	42.96	47.12	44.09	52.86	53.02	48.77	59.93	65.14	67.94	80.69	---
18	54.27	42.18	46.13	45.49	52.26	51.89	48.67	59.67	65.50	69.71	78.58	---
19	54.54	41.64	44.17	45.62	51.34	50.03	48.80	58.03	67.00	70.06	77.01	---
20	54.39	41.95	43.25	45.54	50.60	48.56	48.43	55.75	67.49	69.83	75.45	---
21	54.70	43.11	43.38	45.04	52.16	48.71	46.28	54.39	67.48	68.42	74.18	---
22	54.93	45.73	42.98	44.79	53.00	49.48	44.85	55.27	65.70	67.42	78.07	---
23	54.57	46.15	41.98	44.27	53.03	49.49	43.85	58.08	63.92	67.04	79.97	---
24	53.23	45.59	42.04	45.26	52.59	48.97	43.43	59.42	63.52	69.05	80.02	---
25	54.31	44.79	42.87	45.62	51.83	47.18	45.35	59.68	64.36	72.43	78.91	---
26	54.45	46.21	43.75	45.42	51.24	45.20	46.25	59.92	66.13	73.12	78.12	---
27	54.16	48.81	45.53	44.34	50.81	43.79	46.25	60.11	67.13	73.12	77.77	---
28	53.26	48.85	46.59	43.23	52.14	42.91	44.48	60.15	67.30	71.67	78.83	---
29	52.39	47.63	46.69	42.66	---	42.25	43.17	63.15	67.14	70.80	80.42	---
30	51.86	46.29	46.74	43.36	---	39.47	43.18	67.26	66.23	71.25	80.67	---
31	52.21	---	46.11	44.55	---	31.99	---	69.18	---	72.79	80.26	---
MEAN	54.95	46.00	44.77	42.85	49.72	49.38	44.10	57.02	65.33	69.98	77.41	80.02
MAX	59.09	54.18	47.74	45.62	53.03	53.36	49.18	69.18	67.49	75.19	81.20	84.36
MIN	51.86	41.64	41.98	37.59	44.91	31.99	27.67	45.69	60.90	64.39	74.00	77.83

WTR YR 1993: HIGHEST 27.67, APRIL 1; LOWEST 84.36, SEPTEMBER 6.

Gap Indicates missing record.

3 YEAR HYDROGRAPH
OCTOBER 1, 1990 TO SEPTEMBER 30, 1993

SCHUYLKILL COUNTY

404708076070701. Local number, SC 296.

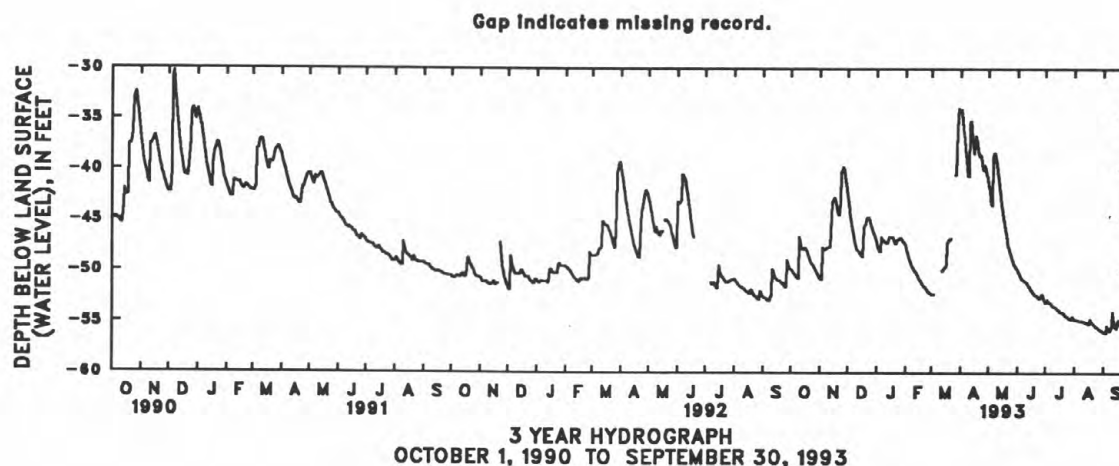
LOCATION.--Lat 40°47'08", long 76°07'07", Hydrologic Unit 02040203, at Locust Lake State Park.

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.**DATUM.**--Elevation of land-surface datum is 1,290 ft above sea level. Measuring point: Top of plywood shelf, 2.78 ft above land-surface datum. Prior to June 26, 1980, top of casing, 2.30 ft above land-surface datum.**PERIOD OF RECORD.**--July 1975 to current year.**EXTREMES FOR PERIOD OF RECORD.**--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 1992 TO SEPTEMBER 1993
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	49.88	50.74	42.58	47.21	47.52	52.24	34.18	41.42	49.89	53.08	54.70	55.91
2	49.94	50.83	43.28	47.58	47.84	52.26	34.04	42.01	50.08	53.09	54.66	55.95
3	50.11	50.80	44.06	47.91	48.08	52.29	34.98	42.68	50.26	52.78	54.73	56.00
4	50.23	47.69	44.65	48.08	48.44	---	35.94	43.32	50.47	52.90	54.74	56.00
5	50.33	47.93	45.28	48.08	48.75	---	36.90	43.51	50.58	53.11	54.78	55.32
6	50.46	47.93	45.79	46.70	49.05	---	37.90	38.82	50.81	53.10	54.79	55.59
7	50.60	47.87	46.36	46.83	49.29	---	38.88	38.33	50.85	53.15	54.80	55.79
8	50.68	47.83	46.93	46.96	49.54	---	39.71	38.37	50.91	53.29	54.84	55.82
9	50.73	47.74	47.39	47.11	49.68	---	40.56	38.80	51.01	53.43	54.80	55.62
10	46.69	47.67	47.71	47.15	49.85	---	40.59	39.43	51.06	53.47	54.85	55.32
11	47.25	47.66	47.94	47.23	50.04	---	35.35	40.13	51.15	53.48	54.89	54.00
12	47.53	47.66	---	47.28	50.13	50.01	35.17	40.91	51.33	53.56	54.93	54.69
13	47.79	46.25	48.09	47.29	50.30	49.96	35.90	41.78	51.48	53.67	54.97	55.11
14	47.91	43.17	48.28	46.69	50.51	49.72	36.92	42.62	51.56	53.73	55.00	55.40
15	47.92	43.17	48.41	46.67	50.71	49.64	37.99	43.46	51.84	53.78	55.07	55.56
16	47.71	42.99	48.54	46.67	50.79	49.55	38.40	44.14	51.91	53.84	55.14	55.22
17	47.86	42.80	48.56	46.67	50.93	49.43	36.65	44.81	52.05	53.94	55.10	54.74
18	48.01	43.09	45.82	46.67	51.06	47.33	36.80	45.35	52.08	53.96	54.66	54.74
19	48.22	43.55	45.53	46.82	51.30	47.04	37.31	45.96	52.26	54.00	54.85	55.01
20	48.49	44.08	45.43	47.08	51.40	46.89	38.11	46.46	52.33	54.12	55.00	55.27
21	48.77	44.48	44.94	47.30	51.49	46.91	38.67	47.00	52.41	54.13	55.11	55.32
22	49.06	44.47	44.74	47.30	51.58	46.84	38.45	47.50	52.39	54.28	55.18	55.41
23	49.26	43.27	44.71	46.87	51.70	---	38.74	47.82	52.52	54.37	55.26	55.57
24	49.38	40.24	44.96	46.94	51.83	---	39.28	48.18	52.62	54.42	55.38	55.63
25	49.48	40.11	45.13	46.94	52.00	---	39.78	48.49	52.66	54.48	55.44	55.76
26	49.64	39.76	45.51	46.76	52.04	---	40.08	48.77	52.51	54.52	55.50	55.83
27	49.86	39.97	45.82	46.75	52.12	40.43	39.56	49.10	52.26	54.57	55.58	53.83
28	50.06	40.50	46.14	46.88	52.20	38.49	39.94	49.32	52.34	54.65	55.65	53.83
29	50.25	41.10	46.38	47.08	---	35.85	40.41	49.49	52.68	54.65	55.69	53.83
30	50.40	41.84	46.56	47.18	---	33.90	40.77	49.67	52.80	54.45	55.82	54.09
31	50.58	---	46.79	47.21	---	34.17	---	49.76	---	54.60	55.83	---
MEAN	49.20	44.91	46.08	47.09	50.36	45.94	37.93	44.43	51.64	53.83	55.09	55.21
MAX	50.73	50.83	48.56	48.08	52.20	52.29	40.77	49.76	52.80	54.65	55.83	56.00
MIN	46.69	39.76	42.58	46.67	47.52	33.90	34.04	38.33	49.89	52.78	54.66	53.83

WTR YR 1993: HIGHEST 33.90, MARCH 30; LOWEST 56.00, SEPTEMBER 3, 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.

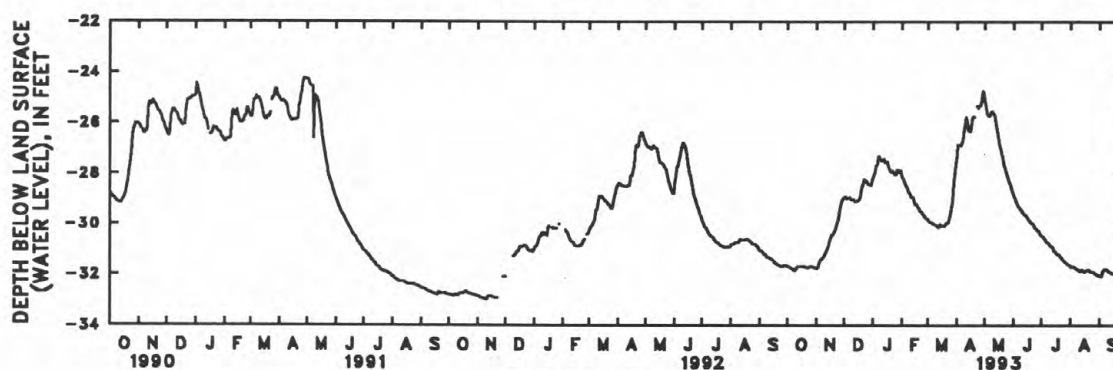
Owner: U.S. Geological Survey.

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.**DATUM.**--Elevation of land-surface datum is 1,350 ft above sea level. Measuring point: Top of plywood shelf, 2.63 ft above land-surface datum. Prior to Apr. 30, 1980, top of plywood cover, 2.57 ft above land-surface datum.**PERIOD OF RECORD.**--October 1967 to current year.**EXTREMES FOR PERIOD OF RECORD.**--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 1992 TO SEPTEMBER 1993
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31.69	31.76	28.93	28.14	28.12	29.82	27.27	25.10	28.82	30.46	31.66	32.04
2	31.69	31.76	28.91	28.08	28.18	29.86	26.85	25.36	28.92	30.48	31.72	32.06
3	31.71	31.72	28.99	27.96	28.20	29.92	26.89	25.56	29.00	30.51	31.70	32.06
4	31.75	31.56	28.98	27.73	28.36	29.92	26.89	25.66	29.10	30.54	31.70	31.96
5	31.77	31.45	28.96	27.63	28.40	29.92	26.87	25.70	29.16	30.60	31.72	31.86
6	31.78	31.40	28.96	27.61	28.52	29.96	26.81	25.70	29.26	30.68	31.74	31.82
7	31.80	31.38	28.94	27.31	28.52	30.00	26.69	25.64	29.30	30.73	31.76	31.80
8	31.84	31.34	29.02	27.33	28.72	30.00	26.44	25.56	29.36	30.74	31.80	31.80
9	31.84	31.30	29.04	27.43	28.76	30.06	26.25	25.54	29.44	30.78	31.82	31.82
10	31.79	31.24	29.04	27.49	28.82	30.06	25.98	25.62	29.44	30.86	31.84	31.84
11	31.72	31.14	29.00	27.45	28.94	30.10	25.78	25.64	29.54	30.88	31.86	31.86
12	31.70	31.08	---	27.49	28.94	30.12	25.96	25.78	29.58	30.92	31.85	31.88
13	31.68	30.98	29.10	27.41	28.94	30.12	26.24	26.02	29.62	30.94	31.82	31.91
14	31.70	30.84	29.11	27.56	29.10	29.98	26.30	26.28	29.64	31.04	31.84	31.93
15	31.69	30.70	29.09	27.54	29.20	30.07	26.32	26.46	29.70	31.08	31.86	31.97
16	31.68	30.62	29.05	27.52	29.20	30.07	26.32	26.70	29.76	31.12	31.88	31.97
17	31.68	30.47	29.04	27.64	29.24	30.07	25.96	26.90	29.80	31.16	31.86	31.97
18	31.68	30.42	28.97	27.80	29.32	30.07	25.78	27.02	29.86	31.20	31.84	31.97
19	31.70	30.40	28.79	27.86	29.36	30.07	25.74	27.20	29.90	31.22	31.82	31.97
20	31.72	30.34	28.47	27.92	29.44	30.03	25.78	27.34	29.94	31.24	31.82	31.97
21	31.72	30.26	28.47	27.94	29.48	29.95	---	27.52	29.96	31.28	31.84	31.97
22	31.74	30.16	28.23	27.88	29.48	29.93	---	27.66	29.98	31.32	31.86	31.98
23	31.73	29.93	28.21	27.98	29.56	29.91	25.34	27.80	30.08	31.36	31.88	31.96
24	31.72	29.92	28.30	27.97	29.62	29.77	25.40	27.90	30.12	31.42	31.88	31.93
25	31.70	29.65	28.28	28.04	29.68	29.59	25.30	28.08	30.16	31.46	31.90	31.93
26	31.70	29.43	28.38	28.02	29.72	29.35	25.34	28.16	30.20	31.48	31.92	31.93
27	31.70	29.21	28.42	27.84	29.76	29.11	25.26	28.32	30.26	31.50	31.94	31.84
28	31.72	29.11	28.42	27.84	29.80	28.73	24.92	28.36	30.28	31.56	31.96	31.74
29	31.72	29.05	28.44	27.94	---	28.33	24.72	28.50	30.32	31.60	32.00	31.72
30	31.74	28.97	28.44	27.92	---	27.87	24.86	28.62	30.40	31.62	32.00	31.70
31	31.74	---	28.33	27.86	---	27.64	---	28.71	---	31.64	32.04	---
MEAN	31.73	30.59	28.74	27.75	29.05	29.69	26.01	26.79	29.70	31.08	31.84	31.91
MAX	31.84	31.76	29.11	28.14	29.80	30.12	27.27	28.71	30.40	31.64	32.04	32.06
MIN	31.68	28.97	28.21	27.31	28.12	27.64	24.72	25.10	28.82	30.46	31.66	31.70

WTR YR 1993: HIGHEST 24.72, MAY 29; LOWEST 32.06, SEPTEMBER 2, 3.

Gap Indicates missing record.

3 YEAR HYDROGRAPH
OCTOBER 1, 1990 TO SEPTEMBER 30, 1993

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CONVERSION FACTORS AND VERTICAL DATUM

Multiply	By	To obtain
<i>Length</i>		
inch (in.)	2.54×10^1	millimeter
	2.54×10^{-2}	meter
foot (ft)	3.048×10^{-1}	meter
mile (mi)	1.609×10^0	kilometer
<i>Area</i>		
acre	4.047×10^3	square meter
	4.047×10^{-1}	square hectometer
	4.047×10^{-3}	square kilometer
square mile (mi ²)	2.590×10^0	square kilometer
<i>Volume</i>		
gallon (gal)	3.785×10^0	liter
	3.785×10^0	cubic decimeter
	3.785×10^{-3}	cubic meter
million gallons (Mgal)	3.785×10^3	cubic meter
	3.785×10^{-3}	cubic hectometer
cubic foot (ft ³)	2.832×10^1	cubic decimeter
	2.832×10^{-2}	cubic meter
cubic-foot-per-second day [(ft ³ /s) d]	2.447×10^3	cubic meter
	2.447×10^{-3}	cubic hectometer
acre-foot (acre-ft)	1.233×10^3	cubic meter
	1.233×10^{-3}	cubic hectometer
	1.233×10^{-6}	cubic kilometer
<i>Flow</i>		
cubic foot per second (ft ³ /s)	2.832×10^1	liter per second
	2.832×10^1	cubic decimeter per second
	2.832×10^{-2}	cubic meter per second
gallon per minute (gal/min)	6.309×10^{-2}	liter per second
	6.309×10^{-2}	cubic decimeter per second
	6.309×10^{-5}	cubic meter per second
million gallons per day (Mgal/d)	4.381×10^1	cubic decimeter per second
	4.381×10^{-2}	cubic meter per second
<i>Mass</i>		
ton (short)	9.072×10^{-1}	megagram or metric ton

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

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